The reasons behind the establishment of this Series on Arabic linguistics are manifold.

First: Arabic linguistics is developing into an increasingly interesting and important subject within the broad field of modern linguistic studies. The subject is now fully recognised in the Universities of the Arabic speaking world and in international linguistic circles, as a subject of great theoretical and descriptive interest and importance.

Second: Arabic linguistics is reaching a mature stage in its development benefiting both from early Arabic linguistic scholarship and modern techniques of general linguistics and related disciplines.

Third: The scope of this discipline is wide and varied, covering diverse areas such as Arabic phonetics, phonology and grammar, Arabic psycholinguistics, Arabic dialectology, Arabic lexicography and lexicology, Arabic sociolinguistics, the teaching and learning of Arabic as a first, second, or foreign language, communications, semiotics, terminology, translation, machine translation, Arabic computational linguistics, history of Arabic linguistics, etc.

Viewed against this background, Arabic linguists may be defined as: the scientific investigation and study of the Arabic language in all its aspects. This embraces the descriptive, comparative and historical aspects of the language. It also concerns itself with the classical form as well as the Modern and contemporary standard forms and their dialects. Moreover, it attempts to study the language in the appropriate regional, social and cultural settings.

It is hoped that the Series will devote itself to all issues of Arabic linguistics in all its manifestations on both the theoretical and applied levels. The results of these studies will also be of use in the field of linguistics in general, as well as related subjects.

Although a number of works have appeared independently or within series, yet there is no platform designed specifically for this subject. This Series is being started to fill this gap in the linguistic field. It will be devoted to Monographs written in either English or Arabic, or both, for the benefit of wider circles of readership.
All these reasons justify the establishment of a new forum which is devoted to all areas of Arabic linguistic studies. It is also hoped that this Series will be of interest not only to students and researchers in Arabic linguistics but also to students and scholars of other disciplines who are looking for information of theoretical, practical or pragmatic interest.

The Series Editors
A TRANSFORMATIONAL GRAMMAR OF MODERN LITERARY ARABIC

This transformational analysis will greatly enrich the field of Arabic linguistics. While the majority of works on the Arabic language have concentrated on regional dialects, the present work fulfils a long-felt need by focusing on modern written or literary Arabic. Although literary Arabic is not used in casual conversation in any of the Arab countries, it is the formal and official form of the language and has great influence on the colloquial dialects, particularly those spoken by educated Arabs. Arranged in five chapters, the work gives particular emphasis to three major types of Arabic sentences - the co-ordinate, the negative and the interrogative - and gives a generative account of them. The work is largely based on transformational theory as formulated by Chomsky, but reference is made to subsequent development in linguistic theory.

Mohammed Ziad Kebbe is Professor of Linguistics at King Saud University, Riyadh, Kingdom of Saudi Arabia.
M. Z. Kebbe

Monograph No. 14

A TRANSFORMATIONAL GRAMMAR OF MODERN LITERARY ARABIC
Editor's Note

The field of Transformational-Generative Grammar has developed extensively since the publication of Chomsky's *Syntactic Structures* in 1965 and *Aspects of the Theory of Syntax* in 1965. A number of comprehensive studies of varieties of Arabic have appeared since then using this framework from Gamal-Eldin's early *A Syntactic Study of Egyption Colloquial Arabic* in 1961 to Wise's insightful look at transitivity and passivization in *A Transformational Study of Egyptian Spoken Arabic* in 1975 and Bakir 1980 *Aspects of Clause Structure in Arabic*. Other studies have concentrated on specific aspects of syntax in depth and in particular the process of topicalization and underlying sentences such as the work of Kennedy Lewcowicz 1971 'Topic Comment and relative clause in Arabic', Bubenik 1974 'Thematization and passivization in Arabic', Anshen and Schreiber 1968 'A focus transformation in Modern Standard Arabic'. Quite apart from these published works, numerous unpublished theses have been produced within this field.

Recent studies of Arabic have been enriched by a wider corpus of comparative data taking in theories of Universal Grammar and particularly in the realm of Syntax, being able to bring to bear on Arabic data theories derived from languages far from the Semitic and European language areas. A further dimension to these studies was associated with the incorporation of the concepts of Topic and Comment associated particularly with Li and Thompson in the 1970's and the concepts of Theme and Rheme associated initially with Halliday, although the latter took a long time to filter into treatments of word order in Arabic. However the former in particular did a lot to add elegance to treatments of Arabic syntax and word order although the Arabic *mubtada* and *khahar* construction does not fulfill all the requirements of what is called Topic and comment in the Li and Thompson scheme, since in a 'correctly formed' Classical sentence, the Topic must be formally linked grammatically to some NP in the Comment.

A major difference between Classical Arab grammarians and many modern especially post-Chomskyan linguists is that the former consider a sentence with no verb as essentially different from one with a verb and present an entirely different constituent structure for it, while the latter consider that both are essentially sentences with verbs in the deep structure, while a nominal sentence is one where the verb to be has been deleted by an obligatory generative rule. Kebbe follows this classical post-Chomskyan framework. His formulation of Phrase Structure and Transformational rules lead him to the conclusion that Classical Arabic is a VSO language and that the traditionally labelled nominal sentences are in fact the outcome of some verbal deletion which entails that all Arabic sentences have a deep structure verbal element.

A major area which still remains to be explored in the treatment of Classical Arabic is the actual psychological reality of statements made about Classical Arabic syntax and usage. Although a great deal of work on Classical is done from written texts of which there is no shortage, some of the more technically involved work is done by elicitation. The difficulty here is that it is not possible to find anyone with a native speakers competence in Classical Arabic since no one learns it as their first language. Although in general educated Arabs agree on the broad lines of the grammar, there is a surprising degree of disagreement on points of detail, far more than one finds for instance with English. In the words of Kennedy Lewcowicz (1971:810) "Note that, since the language under study is almost exclusively a written language, not spoken natively by anybody, the term 'informant' has a special meaning". This perhaps stems from the fact that the corpus of Arabic has been constantly enriched at different stages of historical development and therefore quite a wide range of alternative structures exists which can be pointed to as a precedent for almost any structure. Kebbe recognizes the issue of the vagueness of the definition of Classical as linguistic entity, but has nevertheless chosen to rely on his own
competence. In his own words (p.1) “I have largely relied on my own judgement to provide the data analysed in this book; in other words I have acted as my own informant”. He takes the view that since Classical Arabic is the formal and official form of the language in the Arab world and the language of instruction in schools, to which children are exposed from an early age, learners can be expected to acquire what might be loosely called “competence” (p.2), which will enable them to use it effectively at a later stage. Perhaps later researches will lead to some further definition of the status of the speaker’s competence in Classical Arabic.

Bruce Ingham
London
# Contents

<table>
<thead>
<tr>
<th>Acknowledgment</th>
<th>xi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biographical note</td>
<td>xii</td>
</tr>
<tr>
<td>Preface</td>
<td>xiii</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Phonological and Morphological Hints</td>
<td>6</td>
</tr>
<tr>
<td>Inflections</td>
<td>8</td>
</tr>
<tr>
<td>Transliteration</td>
<td>8</td>
</tr>
<tr>
<td>Notation</td>
<td>8</td>
</tr>
<tr>
<td>Chapter One: Phrase Structure Rules</td>
<td>10</td>
</tr>
<tr>
<td>List of Arabic PS Rules</td>
<td>10</td>
</tr>
<tr>
<td>General Notes</td>
<td>10</td>
</tr>
<tr>
<td>VERB</td>
<td>19</td>
</tr>
<tr>
<td>Time and Aspect</td>
<td>20</td>
</tr>
<tr>
<td>NP (Noun Phrase)</td>
<td>23</td>
</tr>
<tr>
<td>Adj P (Adjective Phrase)</td>
<td>27</td>
</tr>
<tr>
<td>PP (Prepositional Phrase)</td>
<td>28</td>
</tr>
<tr>
<td>INTENS (Intensifier)</td>
<td>29</td>
</tr>
<tr>
<td>ADV (Adverbials)</td>
<td>30</td>
</tr>
<tr>
<td>REASON</td>
<td>32</td>
</tr>
<tr>
<td>Chapter Two: Major Transformations</td>
<td>34</td>
</tr>
<tr>
<td>I- Pronominalization</td>
<td>34</td>
</tr>
<tr>
<td>II- Clitic Movement</td>
<td>37</td>
</tr>
<tr>
<td>III- Dative Movement</td>
<td>39</td>
</tr>
<tr>
<td>IV- Focus Transformation</td>
<td>41</td>
</tr>
<tr>
<td>Chapter Three: Coordination</td>
<td>48</td>
</tr>
<tr>
<td>The Conjunction Schemata</td>
<td>53</td>
</tr>
<tr>
<td>A - The transformational schema</td>
<td>53</td>
</tr>
<tr>
<td>B - The phrasal schema</td>
<td>54</td>
</tr>
<tr>
<td>Reciprocal Verbs and Adverbs</td>
<td>55</td>
</tr>
</tbody>
</table>
I should like to express my deep gratitude to the late Dr. J. E. Buse for reading and commenting upon the original manuscript of this book. His constant help and advice were invaluable for presenting the work in its final version. I would like to thank both Dr. D. Wilson of University College London, and Dr. B. Ingham of the School of Oriental and African Studies, who kindly spent a great deal of time criticizing and commenting on earlier versions. My thanks also go to Dr. Y. Ahmad of Kuwait University who made many constructive suggestions which I have incorporated into the text. I have also benefited greatly from discussions with my colleagues, and would like to take this opportunity of thanking them for their help and assistance.
The author was born in Aleppo, Syria, on August 5, 1951. Having completed his school education, he went to Aleppo University (1969-1973) where he studied English language and literature. In 1975 he was appointed teaching assistant, and was subsequently given a scholarship to read for higher degrees in phonetics and linguistics. Having earned his Ph.D. from London University in 1979, Dr. Kebbe spent five years teaching at Aleppo University. He also taught at Teshrin University, Lattakia, Syria as Visiting Professor. Dr. Kebbe is now Professor of Linguistics at King Saud University, Riyadh, Saudi Arabia. He is the author of An Introduction to English Phonetics, Simple Phonetics, and Lectures in General Linguistics; he has also published many articles and translated a number of books including Chomsky, by John Lyons, and Schools of Linguistics by G. Sampson. Dr. Kebbe is married and has three children.
The main aim of this book is to present a transformational analysis of Modern Literary Arabic with particular emphasis on coordinate, negative, and interrogative clauses. In pursuance of this aim, I have dwelled on the widely-held, but controvertible transformational generative theory as formulated by Chomsky (1965). However, shunning exegetical polemics, I have tried to keep abreast of subsequent developments in linguistic theory and considered alternative views in many parts of the book particularly in dealing with interrogative clauses.

The principal motive for writing this book is the fact that the majority of works on the Arabic language have concentrated more on regional dialects rather than on written (or literary) Arabic. Hence the importance of this book. It is an attempt to write a grammar of coordinate, negative and interrogative clauses of the written rather than the spoken type of Arabic.

The first two chapters represent the framework within which the analysis is set. Chapter one opens with the set of phrase structure rules to be used throughout the book, whereas chapter two acquaints the reader with some major transformations that are most frequently used in the language, e.g. pronominalization, focus, clitic movement, dative movement, etc. The remaining three chapters, however, deal with coordinate, negative and interrogative clauses respectively. In dealing with coordination, a comparison is made between the transformational and the relatively older phrasal schema in order to prove that neither is sufficiently adequate in itself to account for the available data. The range of data presented in this chapter points to the shortcomings of both models, and leads to the conclusion that a descriptively adequate grammar of Arabic should incorporate both models.

Deletion rules pertaining to coordinate structures, together with some conditions on Arabic coordination, are included in chapter three. Two rules are recognized in this connection: conjunction reduction and gapping. The rules in
question are thoroughly defined, examined and rendered in terms of various Arabic conjunctions.

Insofar as Arabic negation is concerned, this is treated in terms of a number of negative items (e.g. \textit{la:kin}, \textit{la:}, \textit{laisa}, etc.) which I claim to be the surface realization of a certain category label \textsc{NEG} - itself an optional presentential element in the base component. I have also argued in chapter four that the actual realization of \textsc{NEG} is determined by the class of the adjacent grammatical category.

In chapter five, which is allocated to interrogative clauses, I have adopted an analysis based on introducing a presentential category \textsc{Q} in the base rules, and discussed the various types of Arabic question formation accordingly. The rule of WH movement as formulated by Chomsky has been thoroughly discussed, in addition to related conditions and remarks. Each transformational rule discussed in this book is assigned a structural description (SD) and a structural change (SC). Reference is also made to phrase markers (i.e. tree diagrams) when necessary to explain grammatical rules and show the effects of various transformations.
The chief objective of the present work is to give a syntactic analysis of the Arabic language based on the transformational generative model. For this purpose, I have selected data from three major types of Arabic sentences: the coordinate, the negative, and the interrogative, and tried to give a generative account of them. The subject of investigation is in essence modern Literary Arabic as opposed to classical or colloquial Arabic. However, the boundaries between these varieties of the language are often difficult to draw, since there is no specific point in history denoting the cessation of the classical and the start of the modern form of the language. To avoid this rather controversial issue, I have chosen data from the language that is likely to be used by modern writers, journalists, and in radio broadcasts rather than the language of the Holy Quran or classical poetry.

Although literary Arabic is not used in casual conversation in any of the Arab countries, it has great influence on the colloquial dialects, particularly those spoken by educated Arabs. Several suggestions have been made with regard to the different varieties of Arabic. For instance, Ferguson (1959) speaks of diglossia - two varieties of Arabic which he calls the High Variety (the classical), and the Low variety (the colloquial) (1), whereas Blanc (1960) considers literary Arabic and its different dialects as two extremes of the same register; in other words, the two varieties represent both ends of the same spectrum (2).

Having been brought up in an Arabic speaking country, I have largely relied on my own judgment to provide the data analysed in this book; in other words, I have acted as my own informant. However, I must hasten to add that whenever I felt in doubt about a certain problem or controversial issue, I always consulted my Arab colleagues who were kind enough to give their own point of view concerning the issue at hand. Despite the fact that some linguists deny literary Arabic the status of native language arguing that it is not a spoken language per se, one must bear in mind that it is the formal and official form of the language in the Arab world. Furthermore, literary Arabic is the language of instruction at schools, which means that Arab children are exposed to it at a relatively early age. This will undoubtedly enable them
to acquire what might be loosely called "competence" of the language, and at the same time enable them to use it effectively at a later stage.

The works which have been done on the regional dialects of Arabic outnumber those done on the literary language by far. Colloquial Egyptian in particular has been the subject of many recent studies. H. Wise's Syntax of the Verb Phrase of Colloquial Egyptian Arabic (1975) for instance is an attempt to write a comprehensive transformational grammar of Egyptian Arabic with special reference to the verb phrase. Wise also bases her grammar on the standard theory of generative grammar as formulated in Chomsky's Aspects.

J. E. S. Atiya (1976) did a rather similar study, but limited her analysis of spoken Egyptian to negative, conjoined, and relative clauses of the language. However, among the few works done on literary Arabic is Lewkowicz's thesis A Transformational Approach to the Syntax of Arabic Participle. As suggested by the title, her aim is to provide a study of Arabic participles and their derivations, but she also dedicated part of her work to discuss what she refers to as topic-comment sentences. In her thesis she concludes that although the derivation of participles from verbs is plausible, there are no grounds for preferring this method of derivation to that conducted in the base component. She argues that the relation between the meaning of participles and the time meaning of related verbs is far from being clear. Lewkowicz argues that participles do not seem derivable from a single source, and that although some forms which are morphologically participles may also be considered verbals, others seem best derived as ordinary nouns.

Unlike Lewckowicz, J. Snow bases his Transformational Approach to the Syntax of Arabic Participle on the transformational model coupled with modified tagmemic slot-and-filler notation. Another related work is Killean's thesis Deep Structure of the Noun Phrase in Modern Literary Arabic (1966). In her work, Killean presents phrase structure rules of Arabic as well as some transformations related to the noun phrase. She also presents a lexical sample. Her grammar incorporates an analysis of the determiner system, the number system, the partitive system, and the subcategorization of the noun as a complex symbol (CS) of syntactic features.

As stated above, the present work falls within the framework of the transformational generative model as formulated by Chomsky (1965) in what came to be known as Standard Theory (ST). However, as a result of subsequent researches, both by Chomsky himself and others, ST has undergone substantial modifications since Aspects, and has been relabelled Extended Standard Theory (EST). ST divides the grammar of any language into three major components: the semantic, the syntactic, and the phonological. The semantic and the phonological components have only an interpretive function. However, since we are not directly concerned with semantic or phonological problems in the present work, I will sidestep the issue and concentrate mainly on the syntactic component.

ST assigns to each sentence a surface structure and a more abstract deep or underlying structure. The deep structure is mapped at a later stage into a surface structure by a set of transformational rules. It follows that the deep structure is actually composed of a set of rewrite (or base) rules, plus the lexicon. Thus we can represent the grammatical model by the following simplified diagram:
The rewrite rules expand a set of major grammatical categories (i.e. node-labels) such as VERB, NP (Noun Phrase), PP (Prepositional Phrase), etc. Lexical insertions are carried out also in the base to fill the empty slots with which the constituents terminate in the P-(Phrase) marker (i.e. the tree diagram) as can be seen in the following configurations (10):

1-

\[
S \\
| \downarrow \\
V E R B \\
| \downarrow \\
V \\
\Delta
\]

\[
| \downarrow \\
N P \\
| \downarrow \\
D e t \\
\Delta
\]

\[
| \downarrow \\
N \\
\Delta
\]

\[
| \downarrow \\
P \\
\Delta
\]

\[
| \downarrow \\
N P \\
| \downarrow \\
D e t \\
\Delta
\]

\[
| \downarrow \\
N \\
\Delta
\]

\[
| \downarrow \\
P P \\
| \downarrow \\
N P \\
| \downarrow \\
D e t \\
\Delta
\]

\[
| \downarrow \\
N \\
\Delta
\]
A Transformational Grammar of Modern Literary Arabic

The lexical insertion rules will replace the empty slots with which the constituents of configuration (1) terminate in adequate lexical items, so we may generate (3) which is represented by (2) above:

   went the teacher to the meeting
   (The teacher went to the meeting)

In the ST model, semantic relations are specified in deep structure, i.e. before any transformational rules have applied. Therefore, the job of the semantic component is to convert deep structures into semantic representations which will produce the relevant semantic information for each of the sentences of the language (11). The base (i.e. deep structure) functions as input to transformational rules which convert the sentence to its surface structure.

Following Wise's example, I have permitted category labels similar to those used in case grammar in the base. These are mainly adverbials such as Locative, Manner, Time, Purpose, etc. Case grammar (CG), originally introduced by Fillmore, is a modification to Chomsky's Aspects (12). Although CG adopts the transformational model, it departs from Chomsky's view concerning the function of the base component. Fillmore's case grammar aims at defining the functional relations of the constituents of a sentence by a set of primitives that dominate Nps. These primitives or cases specify functions such as Dative, Instrumental, Locative, Agentive, etc. My grammar, however, departs from Chomsky's model in having the node-label VERB instead of VP (verb phrase) (13). My aim is to account for the Arabic unmarked order for constituents (i.e. VSO) directly in the base rather than by transformations, and I will return to this point in due course.

Insofar as lexical items are concerned, these are assigned a triple of features in the lexicon; these include syntactic, phonological, and semantic features. The syntactic features of a lexical item include inherent as well as contextual features. The inherent features of a lexical noun specify the sort of information such as [+Human], [+Common], [+Count], etc., whereas contextual features define the environment in which the lexical item is likely to occur. Thus we generate 4 and 5, and exclude 6 and 7:

4- na:ma lwalad
   slept the boy
   (The boy slept)

5- ra?at salwa: su:rah
   saw (she) Salwa a picture
   (Salwa saw a picture)
The above examples demonstrate that the contextual features allow us to generate the grammatical sentences (4-5) and exclude the ungrammatical ones (6-7). This is done by specifying the syntactic environments in which each verb may occur—a process generally referred to as strict subcategorization. Thus a verb like *na:ma* (slept) will be allowed to take only one NP, that is the subject, but prevented from taking an object NP. By contrast, verbs like *ra?a:* (saw) need an object NP in addition to the subject NP.

Apart from the rules of strict subcategorization, the lexicon includes a set of selectional restrictions which either allow or disallow the cooccurrence of certain lexical items since strict subcategorization rules cannot block sentences like 8 or 9:

8-? qatala ifalla:~u jabalain
killed the farmer (two) mountains

9-? kasartu Ikadiba l?azraqa fi Imadrasah
broke (I) lying the blue in the school

Selectional restrictions will specify the type of noun that may function as object of the verb *qatala* (killed) as [+Animate], and that of *kasara* as [+Breakable], etc. in such a way that deviant strings like 8-9 may be excluded from the language.

Furthermore, the lexicon provides a set of redundancy rules in accordance with the principle of economy. If we want to list all the syntactic features assigned to every individual lexical item in the language, then we shall face an impossible task due to the large number of these features. Redundancy rules have the power to omit any features that are predictable through those already specified. In other words, they obviate features dominated by higher ones in the hierarchy. Therefore, if the feature [+Human] is assigned to a given noun, it will automatically predict the feature [+Animate] eliminating the need to specify this feature again, and so on.

As for transformational rules, these fall into two categories: Obligatory and optional. The former are triggered by the syntactic features assigned to grammatical categories, whereas the latter are introduced for emphatic or stylistic reasons. The obligatory rule of clitic movement, for example, is triggered by the features [+Pro, +Clitic] which may be attached to an NP (14); dative movement, by contrast, is an optional rule that is applied for stylistic variation (15).

It is worth remembering at this stage that each rule is assigned a structural description (SD) and a structural change (SC); the former serves as input to transformations, whereas the latter is their output exhibiting the changes in the derived structure. Note that SD and SC include a number of variables such as W, X, Y, Z, etc. which can be anything including null since they are irrelevant to the transformation in question.

In my analysis of the language, I will assume that nouns are introduced directly in the base by lexical insertions rather than derived from verbs. In this, I will adopt the lexicalist hypothesis first developed by Chomsky in his Remarks on Nominalization (16); for in the Aspects model, nouns like refusal, laughter, destruction etc. were derived from their respective verbs (i.e. refuse, laugh, destroy, etc.) by a rule of nominalization. However, Chomsky drew attention to a number of problems which arose as a result of the former approach. First, the derived nominals have an internal structure similar to noun phrases; they are modified by adjectives not adverbs, and they can be preceded by determiners. Second, these nominals are idiosyncratic in their phonological shape when they refer to a single event, but
regularly formed in -ing when they refer to continuous repetitive aspects, e.g. refusing, laughing, destroying, etc. Third, these nominals exhibit specialized meaning, i.e. nominals like laughter, refusal, revolution, etc. have a specific scope of meaning and varied semantic relation to the base form. This would violate the rigid principle that transformations do not change meaning. These problems led Chomsky to formulate his lexicalist hypothesis in which nominals are not derived from verbs; instead, they are treated as nouns in the base. Furthermore, the base component will also include a rule that explains the noun-like behaviour of a sentence by means of the X-bar convention.

It should be mentioned that as a result of recent works two distinct approaches have been developed within generative theory: one is advocated by the interpretive semanticists including Chomsky, Jackendoff, Dougherty, and others; the other is advocated by the generative semanticists such as G. and R. Lakoff, McCawley, Postal, and Ross. The debate between these two views is focused on what must be taken to be the correct specification of the abstract syntactic structure of the sentence. Deep structure, the interpretive semanticists argue, is insufficient for the semantic interpretation of the sentence; that is why they have introduced a set of interpretive rules which can apply to deep as well as surface structures, or indeed to any structure. This view, known as Extended Standard Theory (EST), argues that the deep structure of the sentence is distinct from its semantic representation. In his On WH-Movement (17), Chomsky writes:

"I assume that thematic relations in the sense of Jakendoff (1972) and related works are determined by interaction of lexical properties and configurations of deep structure. The transformational component of the grammar generates derived D=(K1), where K1 is a base-generated deep structure, Ki+1 is formed from Ki by a transformation, and no obligatory transformation is applicable to Kn. "...As for LF (logical form), I assume that it is determined by interpretive rules applying to Kn. Under this assumption, it must be that thematic relations are properly expressed in Kn, though determined at K1."

Conversely, the most abstract syntactic structure of the sentence, according to generative semanticists, will contain all the information needed for semantic interpretation. In their view, the most abstract syntactic structure of the sentence is its semantic representation. Both sides have proposed a number of additions to generative theory. The interpretive semanticists have introduced special rules of surface interpretation (of relatively unrestricted form), whereas the generative semanticists have introduced a special kind of abstract underlying structures and ad hoc transformations. The debate between interpretive and generative semanticists is worth considering in more depth, but since it falls outside the scope of the present work, I will not pursue the issue any further.

Phonological and Morphological Hints

The Arabic phonological system consists mainly of twenty eight consonants and six vowels. The following phonological transcription will be used in the present work:

A- Consonants

/b/ Voiced bilabial plosive
/m/ Voiced bilabial nasal
/w/ Voiced bilabial semivowel
/l/ Voiceless labiodental fricative
/θ/ Voiceless dental fricative
/ð/ Voiced dental fricative
/ɡ/ Voiced velarized dental fricative
/ʒ/ Voiced alveolar fricative
/ʃ/ Voiceless alveolar fricative
/ʒ/ Voiceless velarized alveolar fricative
/t/ Voiceless alveolar plosive
/t/ Voiceless velarized alveolar plosive
/d/ Voiced alveolar plosive
/d/ Voiced velarized alveolar plosive
/n/ Voiced alveolar nasal
/r/ Voiced alveolar flap
/l/ Voiced alveolar lateral
/y/ Voiced palatal semivowel
/ɻ/ Voiced palatoalveolar affricate
/ʃ/ Voiceless palatoalveolar fricative
/k/ Voiceless velar plosive
/g/ Voiced uvular fricative
/x/ Voiceless velar fricative
/q/ Voiceless uvular plosive
/ɻ/ Voiceless pharyngeal fricative
/c/ Voice pharyngeal fricative
/?/ Glottal stop
/h/ Voiced glottal fricative

B- Vowels:

Short  Long
/i/  /iy:/
/a/  /aː/  
/u/  /uː/  

Note that vowel length is phonemic in Arabic in the sense that it distinguishes minimal pairs; consider: maraːsiːm (ceremonies) vs maraːsiːm (decrees), nadaː (dew) vs naːdaː (he shouted, called), yaksiruː (he breaks it) vs yaksiruː (they break it). The actual realization of these phonemes, however, is determined by the phonetic environment, which means that every phoneme has various allophones. If, for instance, the phoneme /i/ is followed by /d/ (voiced velarized alveolar plosive), it will be realized as voiced labiodental fricative through assimilation, e.g. [ʔafdal] vs [ʔawdːal] (better). The phoneme /j/ may be realized as [ʒ] (voiced palatoalveolar affricate) or even /s/ (voiceless palatoalveolar affricate) when followed by a voiceless plosive, e.g. [ʔiːtimaːc], [ʔiːtimaːc], [ʔiːtimaːcf] (meeting). Long vowels are marked by two dots (ː); long consonants by doubling the symbol, e.g. najaha (he succeeded) vs najjaːha (he made someone succeed).

Given more space, I would have discussed phonological processes which affect the actual realization of phonemes, e.g. assimilation, elision, etc. But for the time being I will commit myself to those distinctions that directly influence the grammar and sidestep the phonetic and extralinguistic (i.e. prosodic) elements which operate within the language.
Inflections

Arabic is a heavily inflected language; both nouns and adjectives are marked for case, gender and number. The following table represents the various inflected forms of the noun *muhandis* (engineer)

<table>
<thead>
<tr>
<th>number</th>
<th>Gender</th>
<th>Nominative</th>
<th>Accusative</th>
<th>Genitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing</td>
<td>M</td>
<td>muhandisun</td>
<td>muhandisan</td>
<td>muhandisin</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>muhandisatun</td>
<td>muhandisatan</td>
<td>muhandisatin</td>
</tr>
<tr>
<td>Dual</td>
<td>M</td>
<td>muhandisa:n</td>
<td>muhandisain</td>
<td>muhandisain</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>muhandisata:n</td>
<td>muhandisatain</td>
<td>muhandisatain</td>
</tr>
<tr>
<td>Plural</td>
<td>M</td>
<td>muhandisu:n</td>
<td>muhandisi:n</td>
<td>muhandisi:n</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>muhandisatun</td>
<td>muhandisatin</td>
<td>muhandisatin</td>
</tr>
</tbody>
</table>

(Table 1)

Plurals with suffixes /-uː:n/ and /-iː:n/ formed from nouns like *muhandis* above are known as sound plurals; other nouns like *calam* (flag) may not take these plural suffixes, and are idiosyncratic in their plural forms, e.g. *?aculaː:mun, ?aculaː:man, ?aculaː:min* as nominative, accusative and genitive forms respectively. It is important to note that such nouns with broken plurals take the same suffixes in dual as sound plurals, so we have *calamaː:n, calamain, calamain* as nominative, accusative and genitive respectively.

As indicated by table 1 above, sound plurals are formed by adding suffixes to the root which remains unchanged. However, this is not the case with broken plurals, since the vowels may change in the root of their respective singular forms, e.g. *qalam vs ?aqlaː:m, madrasah vs madaː:ris* (pen, pens and school, schools) respectively.

Transliteration

The examples presented in this book are written in the phonemic transcription mentioned above with subtransliteration (the proper English translation is entered in round brackets). However, ungrammatical strings, though left without English translation, are assigned adequate transliteration.

Notation

The following notation will be adopted:

- An arrow means rewrite the left-hand side as on the right-hand side
- {} Braces indicate an exclusive choice between the vertically listed symbols
- () Round brackets mean that the items included are optional in the phrase structure rules
- [] Square brackets are used to index inherent syntactic features on lexical items or grammatical categories
+ , -  Plus or minus symbols are used to indicate the presence or absence of a certain syntactic feature

*  The asterisk means that the following string is ungrammatical or unacceptable

?  A query means that the following string is doubtful

##  Crossed bars denote sentence boundaries

\[ \emptyset \]  A naught denotes a zero or a deleted element

\[ \Longrightarrow \]  A double arrow means rewrite the phrase marker on the left as that on the right

\[ \neq \]  Slashed equation means that items on both sides are not equal

A node \( x \) immediately dominates \( B \) if there is no intervening symbol between \( X \) and \( B \). A node \( A \) is left/right sister of \( B \) if both \( A \) and \( B \) are immediately dominated by the same node and if \( A \) is to the left/right of \( B \) with no other element intervening between them.

a) Left sister  

\[ X \]

\[ \ X \\ A \ X \ B \ Z \]

right sister  

\[ X \]

\[ \ X \\ Y \ B \ A \ Z \]

Modern Literary Arabic will be referred to as Arabic throughout the book.
1 Phrase Structure Rules

List of Arabic PS rules

1- S → (Pre S) VERB NP (NP) (ADJ P) (PP) (INTENS) (ADV)
2- Pre S → \{IMP\} (NEG)
3- VERB → (Pre V) V
4- Pre V → \{sa-
    sa'fa\} qad
5- Verb → ±Active, ±Perfective

6- NP → \{S Det N
    S\} {NP + NP
    (Adj P)}
7- S → COMP S
8- Adj P → (Det) Adj
9- PP → P NP
10- ADV → Time, Manner, Reason, Locative, ....
11- Time, Locative → \{PP
    Adv\}

General notes

Any adequate grammar of Arabic has to account for a vast array of linguistic facts exhibited by the language. In this book these facts will be handled in two different ways: some will be accounted for in a straightforward method (i.e. by base rules) (1). Others will be handled by transformations (2). It should be noted, however, that the PS rules that I am suggesting for Arabic make two major predictions: first, that Arabic is a VSO language (3), and second, that the traditionally labelled nominal sentences are in fact the outcome of some verbal deletion, which entails that all Arabic sentences have a deep structure verbal element. In this section, I will
Phrase Structure Rules

demonstrate that what is commonly referred to as nominal equative sentences have the copula *ka:na* (1) (roughly equivalent to English be) in deep structure, and that the copula is dominated by VERB and should be treated as other main verbs (5). Such assumptions are corroborated by several arguments. In the following discussion I intend to show that *ka:na* behaves as a main verb (6), and explain the reasons why it should be introduced as a compulsory element in the base. Consider the following examples:

1- almaṭaru ģazi:ra
   the rain heavy
   (It is raining heavily)
2- ka:na lmaṭaru ģazi:ra:
   was the rain heavy
   (It rained heavily)

The copula *ka:na* (was) in 2 clearly serves as tense exponent which makes it comparable to main verbs as can be seen in 2a:

2a- S

   VERB
      +Copula
      +Past

   ka:na

   lmaṭaru

   ģazi:ra:

   was

   the rain

   heavy

The absence of *ka:na*, however, may denote the imperfective or the present tense. Compare the following (7):

3- alwuru:du jami:lah
   the flowers beautiful
   (The flowers are beautiful)
4- ka:nati lwuru:du jami:lah
   were the flowers beautiful
   (The flowers were beautiful)
5- azzawa:riqu sari:cah
   the boats fast
   (The boats are fast)
6- ka:nati azzawa:riqu sari:cah
   were the boats fast
   (The boats were fast)

The absence of the copula from 1, 3, 5 above denotes the present tense, and this means that the imperfective form of the copula (i.e. *yaku:n* (is, are) is not needed to mark the present tense. Thus sentences like 7 and 8 are deviant:

7-* taku:nu lwuru:du jami:lah
   are the flowers beautiful
8-* yaku:nu zzawraqu sari:ca:
   is the boat fast

This is in contrast with examples 2,4,6 where the sentences are marked for the past tense.

By the same token, certain preverbal elements which usually precede verbs can also precede *ka:na* in the same context (8). For instance, the preverbal *sa-* and *sawfa* that denote futurity may also occur with *ka:na* in equative sentences in the same way as they precede other verbs. *qad* is another preverbal element that may provide...
evidence for treating *ka:na* as a verb since the former exclusively precedes verbs and not any other grammatical category. The following examples are illustrative:

9- tušriqu ššamsu ḏa:nyah
rise the sun again
(The sun rises again)

10- {sa-} tušriqu ššamsu ḏa:nyah
sawfa
will rise the sun again
(The sun rises again)

11- aššamsu mušriqah
the sun rising
(The sun is rising)

12- {sa} taku:nu ššamsu mušriqah
sawfa
will be the sun rising
(The sun will be rising)

13-* {sa} aššamsu mušriqah
sawfa
will the sun rising

14- qad tušriqu ššams
may the sun rise
(The sun may rise)

15- qad ššamsu mušriqah
ika:nati
taku:nu
had been the sun rising
may be the sun is rising
(The sun had been rising)
(The sun may be rising)

16- *qad aššamsu mušriqah
may the sun rising
had the sun rising

Examples 9-16 above illustrate how *ka:na* may follow the preverbal element *sa-* in a manner identical to that of verb *tušriqu* (rise). At the same time, the ungrammaticality of 13 and 16 indicates that these elements cannot occur isolated from verbs, but must occupy a preverbal position.

Further evidence in favour of treating *ka:na* as a main verb is provided by imperative constructions. *ka:na* exhibits a behaviour similar to that of other verbs in imperative sentences, consequently, it is assigned the feature [+Jussive] (9). Consider the following examples:

17- ?idhab ?illa: lbaiti masa: ?a:
go to the home the evening
(Go home in the evening)

18- ?anta fi lbaiti masa: ?a:
you in the home evening
(You are at home in the evening)

19- kun (?anta) fi lbaiti masa: ?a:
be you in the home evening
(Be home in the evening)

Assuming that 19 is derived from 18, one may wonder about the origin of *kun* (be) in 19. However, the verb can be easily accounted for by maintaining that *ka:na* has been deleted from 18, but obligatorily retained in 19. The presence of *ka:na* in 19 is due to
the presentential IMP\(^{(10)}\). This is syntactically identical to the imperative sentence 17 with the verb \(?	ext{idhab} \) (go).

The claim that \(ka:na\) should be treated as an obligatory element is corroborated by the fact that it always appears in complement clauses or in those dominated by ADV. Put differently, sentences traditionally referred to as verbless or nominal equative are best described by assuming that they have an initial \(ka:na\) when they occur as complement or adverbial clauses. This is illustrated in the following examples:

\begin{align*}
20- & ?\text{?anta \sa:hidun fi lqa\text{"a}liyyah} \\
& \text{(You are a witness in the case)} \\
21- & ?uri:du ?\text{?an taku:na \sa:hidan fi lqa\text{"a}liyyah} \\
& \text{I want to you be witness in the case} \\
22- & * ?uri:du ?\text{?an \sa:hidun fi lqa\text{"a}liyyah} \\
& \text{I want to witness in the case} \\
23- & \text{aljawwu la\text{"a}ti:f} \\
& \text{the weather fine} \\
& \text{(The weather is fine)} \\
24- & \text{sa?at\text{"a}tu liziyaratika cindama: yaku\text{"u}nu ljawwu la\text{"a}ti:fa:} \\
& \text{will I come visit you when the weather fine} \\
& \text{(I will come to visit you when the weather is fine)} \\
25- & * \text{sa?at\text{"a}tu liziyaratika cindama: ljawwu la\text{"a}ti:f} \\
& \text{I will come visit you when the weather fine}
\end{align*}

Close examination of 20-25 above reveals that sentences 20 and 23 lack a surface verb. However, when embedded in 21 and 24 as a complement clause and adverbial clause respectively, the verb \(ka:na\) immediately appears on the surface. This is a strong indication that the ungrammaticality of 22 and 25 is due to the absence of the verb \(ka:na\). The following diagram is illustrative:

\begin{align*}
25a- & \\
\text{S} & \\
\text{VERB N P NP} & \\
\text{?uri:du ?ana: \S} & \\
\text{want I} & \\
\text{COMP S} & \\
\text{?an VERB N P PP} & \\
\text{taku:na ?anta \text{fi lmuqaddimah}} & \text{to be you in the front}
\end{align*}

Another argument in favour of treating \(ka:na\) as a main verb comes from the fact that, like ordinary verbs, it shows subject-verb agreement\(^{(11)}\). For example:

\begin{align*}
26- \text{almucallima:tu ma\text{"a}saina fi: ba:\text{"ha}ti Imandrasah}
\end{align*}

\begin{align*}
[+ \text{Fem}] & [+ \text{Fem}] \\
[+ \text{Plural}] & [+ \text{Plural}] \\
[+ 3rd] & [+ 3rd]
\end{align*}
A Transformational Grammar of Modern Literary Arabic

The teachers walked in playground the school
(The women teachers walked in the playground of the school)

27-almucallima:tu kunna fi ba:ḥati Imadrasah

+ Fem  
[+ Plural ] + Fem  
+ 3rd  + 3rd

the teachers were in playground the schools
(The women teachers were in the playground of the school)

28-alha:risa:ni na:ma: fi llail

+Mas  
[+Dual ] +Mas  
+3rd  +rd

The guards slept at night
(The two guards slept at night)

29-alha:risa:ni ka:na: na:?!maini fi llail

+Mas  
[+Dual ] +Mas  
+3rd  +rd

The guards were asleep in the night
(The two guards were asleep at night)

Note that the features exhibited by the verb ka:na in 27 and 29 are identical to those of the subject NP of the sentence. In this respect ka:na is identical to the verb na:ma (slept) in 2 and the verb Inasu: (walked) in 26 where both verbs show agreement with their respective subjects.

In summary, the above arguments bear out two basic claims: first, that the Arabic copula ka:na should be introduced as an obligatory element in the underlying structure of what appears to be on the surface as nominal equative sentences. Second, that the copula should be treated as a main verb by the grammar. It follows that a deletion rule should be postulated to obliterate the copula under specific conditions, i.e. when the sentence is not preceded by IMP, not embedded within a larger sentence, or does not contain a preverbal element. It is therefore possible to maintain the assumption that all Arabic sentences are actually verbal (at least in underlying structure).

Shehadi (1969) (12) has made two claims concerning the Arabic copula ka:na: first, "that it can indicate tense, but it is not necessary that it does so," second, that "one of the most definite ways in which ka:na acquires tense, or rather helps to determine it, is when it functions as an auxiliary verb in verbal sentences. In that role, it has no copulative functions." He goes on to say that the presence of ka:na in the nominative sentence does not affect the latter's imperfective aspect. I, however, find these claims interesting but inaccurate, and in the remainder of this chapter I intend to show why his claims fall by the way side.

To start with, it seems that Shehadi confuses two different types of ka:na: the perfective, and the imperfective. He fails to take into account that ka:na (the infinitive) is strikingly similar in behaviour to other verbs as far as inflections are concerned. That is to say, ka:na vs yaku:n is morphologically identical to na:ma vs yana:mu (he slept, he sleeps) respectively, and so forth. The main difference between ka:na and other verbs is that it deletes in surface structure when marked for the present (imperfective). This means that the perfective form ka:na is the only one to be realized if preceded by a sentence boundary (#). Compare the following:

30-## ka:na alwaqtu muta?axxira: ##
was the time late
(It was late)
Phrase Structure Rules

31- ## qad { yaku:nu } alwaqtu muta?axxira: ##
               { ka:na may be } the time late
               { had been } late
               (It may be late)
32- ## alwaqtu muta?axxira ##
            the time late
            (It is late)
33- * ## yaku:nu lwaqtu muta?axxira: ##
            is the time late

A comparison between 30-33 above clearly shows that these sentences are different with regard to the form of ka:na which they have. In 30 the perfective form is used, whereas in 31, both imperfective and perfective are equally possible since the imperfective yaku:nu does not occur initially. It is interesting though that, contrary to 30, 33 is ungrammatical simply because the imperfective yaku:nu occurs in initial position. The ungrammaticality of 33 can be resolved by deleting yaku:nu obligatorily, to generate the well-formed 32.

That ka:na and yaku:nu fulfil two distinct syntactic functions is further emphasized by the fact that they may occur in embedded sentences with different tenses. In other words, adverbial clauses with perfective ka:na can be embedded within a clause with a past tense, whereas the imperfective yaku:nu may occur within clauses with a present tense. Consider for example:

34- tarakna: Ima!naca cindama ka:na lwaqtu muta?axxira:   left we the factory when was the time late
            (We left the factory late)
35- natruku Ima!naca cindama: yaku:nu lwaqtu muta?axxira:   we leave the factory when is the time late
            (We leave the factory late)
36-* tarakna: ima?naca cindama: yaku:nu lwaqtu muta?axxira:   left we the factory when is the time late
37* - natruku lma~naca cindama: ka:na lwaqtu muta?axxira:   we leave the factory when was the time late

The conclusion that one can reach, having examined 34-37 above, is that grammatical cases 34 and 35 display correct sequence of tenses in the embedding as well as embedded sentences. The matrix and the embedded clauses in 34 and 35 have the same tense (past in 34, and present in 35). On the other hand, the incompatibility of tense in 37 and 36 has led to the deviance of these sentences. In 36, for example, the matrix is marked for the present (imperfective), whereas the embedded clause is marked for the past (perfective).

In brief, T-copula deletion does not apply arbitrarily; but the deletion is subject to certain conditions that must be met by the structural description: first, ka:na should have the imperfective form yaku:nu; second, it should occupy the initial position in the deep structure (13). The rule of copula deletion may therefore be formulated as follows (14):

38- SD # - COP - NP -X - #
       [- Per]

Obligatory ⇒

1 2 3 4 5
SC 1 Ø 3 4 5

15
where # # are sentence boundaries, and X is a variable element. The rule as it stands will be sufficient to derive sentences like 32 from 31 above, as can be seen in the configurations 32a and 33a:

32a-

\[
\text{S} ~ \rightarrow ~ \text{VERB} \text{ NP} \text{ Adj P}
\]

\[
yaku:nu ~ lwaqtu ~ muta?axxira:
\]

is the time late

33a-

\[
\text{S} ~ \rightarrow ~ \text{NP} \text{ Adj P}
\]

\[
alwaqtu ~ muta?axxir
\]

the time late

The set of PS rules that will be used in this book expand S (sentence) into two obligatory nodes: VERB and NP (noun phrase), plus a number of optional nodes such as Adj P (adjective phrase), PP (prepositional phrase), INTENS (intensifier), etc. There are, however, some crucial points that ought to be taken into consideration. First, these rewrite rules are context-free rather than context-sensitive (15), and this entails that the grammar must include a number of selectional restrictions as well as strict subcategorization rules in order to specify the lexical items viz. the environment in, or with, which they may or may not occur. The rule, for instance, specifies the context for the verb ?akala (he ate) as:

VERB/ + — NP, or VERB/ + — #.

The rule reads as follows: the verb ?akala may, or may not, be followed by an object NP (16). Second, since it is not clear in Arabic which categories form constituents and which do not, it seems more profitable to arrange the major grammatical categories in positions where they may be immediately dominated by S in such a way that sentences are generated with the unmarked order of VSO (17). Thus, the basic phrase structure rule will look as follows:

39- \[ \text{S} \rightarrow \text{(pre S)} \text{ VERB NP (NP) (Adj P) (PP) (INTENS) (ADV)} \]

Together with strict subcategorization, the basic PS rule 39 makes correct predictions for surface nominal equative sentences, nominal initial sentences, as well as verbal sentences (16), and the following sentences may be properly generated:

40- ## yarku:du rami: ## VERB + NP
   runs Rami
   (Rami runs/is running)
41- ## ka:na lmufattisu dakyya: ## VERB + NP + Adj
   was the inspector clever
   (The inspector was clever)
42- ## at?iflu fi: ?\text{\=i}urfah ## VERB + NP + Adv
   the child in the room
   (The child is in the room)
43- ## majdi: muxlisun li?axi:h ## VERB + NP + Adj + PP
   Majdi faithful to brother his
   (Majdi is faithful to his brother)
Phrase Structure Rules

Note that in 40-43 the verb *ka:na* shows up only in 41 where the sentence is marked for the past, whereas in 42 and 43 it has been deleted by T-copula deletion since these two sentences meet the necessary structural description for the rule to apply.

In addition to 39, there are a number of rules that expand the various categories it incorporates. These include the following:

44- Pre $S \rightarrow \left( \left\{ \begin{array}{c} \text{IMP} \\ \text{Q} \end{array} \right\} \right) \text{NEG}$

Rule 44 is particularly designed to account for imperative, negative and interrogative clauses. It predicts that NEG (negative node label) can occur with either IMP (imperative) or Q (question), and that IMP and Q are in complementary distribution. Presentential IMP is motivated by several syntactic arguments which, I believe, are universal. One such argument is the fact that imperative sentences take only second person subject NPs (19); any other subject would render the sentence ungrammatical. Thus we can generate 45 and 46 but not 47 or 48:

45- ?idhab (?anta) ?ila: ssu:q
   go you to the market
   (You, go to the market)

46- ?uktubu: (?antum) annaṣṣa lcarabi:
   write you the text the Arabic
   (You, write the Arabic text)

47- ?idhab \{ huwa \\ hiya \} ?ila: ssu:q
   go \{ he \\ she \} to the market

48- ?uktubu: hum annaṣṣa lcarabi:
   write they the text the Arabic

A comparison of 45, and 46 with 47 and 48 reveals that the only possible subject which may occur with imperative sentences are those marked for the second person (singular, dual or plural). Obviously, this explains the ungrammaticality of 47 and 48 whose subjects are marked for different persons. Syntactic evidence corroborating the assumption that only second person subjects can occur with imperatives may be furnished by reflexivization (20) - a process that obligatorily applies to the object NP and assigns to it the features [+Pro] and [+Ref], if and when it happens to be identical with the subject NP of the sentence (21). Consider these examples:

49- la:ma Imujrimu:na ?anfusahum
   blamed the criminals themselves

\[
\begin{bmatrix}
+ \text{NP} \\
+ \text{Masc} \\
+ 3rd \\
+ \text{Pl}
\end{bmatrix}
\begin{bmatrix}
+ \text{NP} \\
+ \text{Pl} \\
+ \text{Masc} \\
+ 3rd \\
+ \text{Pro} \\
+ \text{Ref}
\end{bmatrix}
\]

(The criminals blamed themselves)

50- wajada lmudi:ru nafsahu fi: warṣah
   found the director himself in trouble
   (The director found himself in trouble)

The origin of the reflexive pronouns *?anfusahum, nafsahu* (themselves) and (himself) respectively, which appear in 49 and 50 is the reoccurrence of the subject NP in both cases; that is why sentences like 51 or 52, where reflexive pronouns have different features from the subject NPs, do not exist:
Insofar as imperative clauses are concerned, we notice that the only reflexive pronouns that are likely to occur in the object position are those marked for the second person (22):

53-* ?ihtarim nafsak
(Respect yourself/ Have self respect)
54-* ?ihtarima: nafsaikuma:
(Respect -You two- yourselves)
55-* ?ihtarimu: ?anfusakum
(Respect You -Plural- yourselves)
56-* ?ihtarim nafsah
Respect himself
57-* ?ihtarim nafsaihima:
Respect themselves
58-* ?ihtarimu: ?anfusahum
Respect themselves

The oddity of 56-58 is attributed to the fact that, though the sentences are marked for the imperative, the reflexive object NPs are not marked for the second person (23). The well-formedness of 53-55 above, however, is achieved by observing the condition stipulated on reflexives in imperative clauses, namely the presence of two coreferential NPs (24). The most important argument for incorporating a presentential IMP in Arabic PS rules suggests itself by the fact that verbs take specific forms when marked for the imperative. These forms are morphologically derivable, and are sensitive to the original verb root. The clitics that mark imperative verbs may be written as follows (25):

59-

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gender</th>
<th>Case</th>
<th>Clitic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing</td>
<td>Mas</td>
<td>-Ø#</td>
<td></td>
</tr>
<tr>
<td>Sin</td>
<td>Fem</td>
<td>-i:#</td>
<td></td>
</tr>
<tr>
<td>Dual</td>
<td>Mas/Fem</td>
<td>-a:#</td>
<td></td>
</tr>
<tr>
<td>Pl</td>
<td>Mas</td>
<td>-u:#</td>
<td></td>
</tr>
</tbody>
</table>

# = word boundary

(Table 59)

Table 60 shows a comparison between the perfective, the imperfective and the imperative forms of some Arabic verbs with various roots:
Phrase Structure Rules

<table>
<thead>
<tr>
<th>2nd person</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing</td>
<td>Mas</td>
<td>dahabta</td>
<td>tadhabu</td>
</tr>
<tr>
<td>Sing</td>
<td>Fem</td>
<td>dhabti</td>
<td>tadhabini:</td>
</tr>
<tr>
<td>Dual</td>
<td>Mas/Fem</td>
<td>dahabtuma:</td>
<td>tadhaba:ni</td>
</tr>
<tr>
<td>Pl</td>
<td>Mas</td>
<td>dahabtum</td>
<td>tadhabu:na</td>
</tr>
<tr>
<td>PL</td>
<td>Fem</td>
<td>dahabtunna</td>
<td>tadhabna</td>
</tr>
<tr>
<td>Sing</td>
<td>Mas</td>
<td>?axadta</td>
<td>ta?xudu</td>
</tr>
<tr>
<td>Sing</td>
<td>Fem</td>
<td>?axadti</td>
<td>ta?xudi:na</td>
</tr>
<tr>
<td>Dual</td>
<td>Mas/Fem</td>
<td>?axadtuma:</td>
<td>ta?xuda:ni</td>
</tr>
<tr>
<td>Pl</td>
<td>Mas</td>
<td>?axadtum</td>
<td>ta?xudu:na</td>
</tr>
<tr>
<td>Pl</td>
<td>Fem</td>
<td>?axadtunna</td>
<td>ta?xudna</td>
</tr>
</tbody>
</table>

(Table 60)

Table 59 shows the set of clitics with which the verbs marked for the imperative may end. It also shows the difference between these clitics and those marked for the perfective and imperfective. On the other hand, IMP is needed to give the verbs their imperative forms in the sentence, and thus it can distinguish them from other verb forms (i.e. perfective and imperfective) found with non-imperative sentences.

Now, having motivated the presence of the presentential IMP as a deep structure optional element, the justification for having optional presentential NEG and Q will be discussed in more detail later in chapters four and five respectively. However, for the time being, suffice to say that in my analysis both NEG and Q are node-labels under which lexical items can be inserted. This is necessitated by the fact that Arabic has actual surface realization for NEG and Q, as will be explained in due course.

VERB

The node label VERB will be expanded into an optional Pre V preverbal element plus an obligatory Aspect and V (verb). Pre V may be realized as qad, sa or sawafa. Note that the semantic value of qad is determined by the adjacent Aspect which is represented by the form of the actual verb. With the perfective aspect, for instance, it should be interpreted as English perfective have. If, on the other hand, qad is followed by an imperfective aspect, then it should be interpreted as perhaps or may. Compare the following two examples:

61- qad wašala lqita:ru muta?axxira:
    has arrived the train late
    (The train has been late)

62- qad yašulu lqita:ru muta?axxira:
    may arrive the train late
    (The train may be late)

The perfective in 61, which is represented by the form wasala (arrived), interprets qad as perfective have, whereas in 62 it interprets it as may because the aspect in that sentence is imperfective. We can therefore specify the environment in which
A Transformational Grammar of Modern Literary Arabic

Verb
\[ qad + \rightarrow + \text{Perf} = \text{perfective have} \]
\[ qad \] is likely to occur as follows:

Verb
\[ qad + \rightarrow + \text{Imperf} = \text{imperfective may} \]

Time and Aspect

The association of time and aspect in Arabic is not always regular (27). The imperfective aspect implies present time when the sentence does not contain any clear indication of time, i.e. time adverbials. Similarly, the perfective aspect may refer to the past. The concept of aspect and time, however, may sometimes be quite contradictory. For instance, one of the uses of the imperfective is to indicate the future as in 63:

63- \text{yuṣṣāhhihum l'ustaː du l'awraː qaː aːxira lcaː m}
mark the teacher the papers end the year
(The teacher marks the papers at the end of the year)

Clearly, the verb \text{yuṣṣāhhihum} (mark, correct) in the example above has a future implication emphasized by the adverbial \text{aːxira lcaː m} (at the end of the year) although the verb is marked for the imperfective. Furthermore, the perfective may also be used to denote the future. Consider for example:

64- \text{saʔuzuːruka ?ida: zurtaniː}
will I visit you if visited you me
(I will visit you if you visit me first)

Again, the verb \text{zurtaniː} (you visited me) is marked for the perfective, yet it clearly refers to the future. It seems to be the case that what is essential here is the point of reference which should be of relative and absolute nature. Thus, it becomes evident that the difference between the perfective and the imperfective is one of a relative sense (28). Note that the imperfective, when considered in isolation, refers to the present although it can be interpreted as referring to the future if the context so indicates (e.g. 63). At the same time, it can make reference to past time. For example:

65- \text{ṣaddaːqa maː yaquːlu bnu siːnaː}
believed what says Avicenna
(He believes what Avicenna says)

The fact that Avicenna is dead means that he cannot be saying things at the present time. Therefore, the imperfective aspect manifested as a feature (prefix) on the verb \text{yaquːlu} (says) should be regarded as referring to the past rather than the present.

In summary, we may conclude that the perfective indicates both perfective and relative past time (or reference), whereas the imperfective indicates everything else (i.e. either imperfective meaning or relative non-past time). Hence the slogan that aspect and relative tense are incorporated within the perfective / imperfective distinction. Another point particularly germane to this issue is that verbs exhibiting the imperfective are distinguished from those exhibiting the perfective by a set of prefixes and bound clitics. These vary according to person, number, and gender as illustrated in table 66. The prefixes and bound clitics (pertaining to the imperfective) are listed in tables 67 and 68 respectively, and those associated with the perfective are listed in table 69. It should be noted, however, that the preverbal elements \text{sa-} and \text{sawfa}, naturally precede imperfective and never perfective forms.
### Phrase Structure Rules

<table>
<thead>
<tr>
<th>Person</th>
<th>Gender</th>
<th>Aspect</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Singular</td>
</tr>
<tr>
<td>First</td>
<td>Mas</td>
<td>Perf</td>
<td>nimtu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>?ana:mu</td>
</tr>
<tr>
<td></td>
<td>Fem</td>
<td>Perf</td>
<td>nimtu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>?ana:mu</td>
</tr>
<tr>
<td>Second</td>
<td>Masc</td>
<td>Perf</td>
<td>nima:ta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>tana:mu</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>tana:mina</td>
</tr>
<tr>
<td>Third</td>
<td>Masc</td>
<td>Perf</td>
<td>na:ma:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>yana:mu</td>
</tr>
<tr>
<td></td>
<td>Fem</td>
<td>Perf</td>
<td>na:mat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Imperf</td>
<td>tana:mu</td>
</tr>
</tbody>
</table>

(66 Perfective vs imperfective forms of the verb *na:ma*)

<table>
<thead>
<tr>
<th>Numbe</th>
<th>Gender</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Singular</td>
<td>?a-</td>
<td>ta-</td>
<td>ta-</td>
<td>ya-</td>
</tr>
<tr>
<td>Dual</td>
<td>na-</td>
<td>ta-</td>
<td>ta-</td>
<td>ya-</td>
</tr>
<tr>
<td>Plural</td>
<td>na-</td>
<td>ta-</td>
<td>ta-</td>
<td>ya-</td>
</tr>
</tbody>
</table>

(67 Imperfective prefixes)
In short, the rewrite rule for VERB can be formulated as follows:

V

70- VERB $\longrightarrow$ (Pre V) [+Perfective]

The problem of transitive vs intransitive verbs can be elegantly handled by the process of strict subcategorization - a process that predicts whether a certain verb can take an object NP (the second in the linear order in the base rule 39) or a prepositional phrase (that may be the source of the indirect object NP or the prepositional phrase which occurs with phrasal verbs). It also accounts for intransitive verbs by preventing them from having an object. The process of strict subcategorization may be formulated as follows (39):

71- V [+ -- NP]  
V [+ -- NP PP] $\longrightarrow$ [Active]  
V [+ -- PP]  
V [+ -- #] $\longrightarrow$ [+Active]

If we assign the symbol F to the syntactic features exemplified in 71, we can write the following:

72- + V [+Active] //F= -- #  
+ F [±Active] Elsewhere
Examples 73-77 show the different verbs regarding transitivity:

73- qara? a ?ahmadu ddarsa
   read Ahmad the lesson
   (Ahmad read the lesson)

   awarded the management the prize to the worker
   (The management awarded the prize to the worker)

   spoke the candidate to the voters
   (The candidate spoke to the voters)

76- ?akala lwaladu wa na:m
   ate the boy and slept
   (The boy ate and slept)

77- ?akala lwaladu lcinab
   ate the boy the grapes
   (The boy ate the grapes)

Transitive verbs are exemplified in 73 and 74 where in the former the verb qara?a (read) takes an object NP addars (the lesson) and, in the latter, the verb manah (awarded) also takes an object NP alja: ?izah (the prize) plus a prepositional phrase lilca: mil (to the worker) which may the source of the indirect object. In 75, however, the prepositional phrase ?ila: ximabi:n (to the voters) should be regarded as part of the phrasal verb taha?ada?a (spoke) since it (i.e. the PP) cannot be the source of indirect object in this case. Sentence 75 exemplifies intransitive verbs, as is the case with the verb na:n (slept). Moreover, verbs like ?akala (ate) can be either transitive or intransitive, as illustrated by a comparison between 76 and 77; it is transitive in the former, but intransitive in the latter.

NP (Noun Phrase)

NPs can be expanded according to the following rewrite rule:

\[
\text{NP} \rightarrow \begin{cases} 
\begin{cases} 
\text{(Quant)} \
\text{S} \
\text{N} \
\text{Det} \
\text{Adj P}
\end{cases}
\end{cases}
\]

Note that the above rule allows for NP to be rewritten as a construct phrase of the form [NP + NP]; this is important since we want the grammar to account for cases like ba: bu ?afi (the door of the classroom) and so on. Alternatively, NP can be expanded into a Det (determiner) + N (noun) as in any noun with the definite article al. A base-generated Adj P may optionally follow the NP in both cases; hence:

78-
The noun itself may be rewritten as CS (complex symbol) which consists of a set of inherent features representing the lexical item designated as a noun. These features can be assigned to the noun in the lexicon which in turn is part of the underlying structure. The inherent features may be represented as follows:

\[ \text{N [±Animate, ±Common]} \]
\[ \text{±Count} \]
\[ \text{±Abstract} \]
\[ +\text{Animate} \]
\[ +\text{Human} \]

It should be mentioned in this context that proverbs must be allowed to have the feature [+Pro] so as to account for proforms that occupy a noun position. Consider 80-82:

\[ \begin{align*}
80- & \text{ ha:da: kita:b} \\
& \text{(This is a book)}
\end{align*} \]
\[ \begin{align*}
81- & \text{ huwa mujtahid} \\
& \text{(He is hardworking)}
\end{align*} \]
\[ \begin{align*}
82- & \text{ alfa:?izu ?ana:} \\
& \text{(The winner I)}
\end{align*} \]

Evidently, the pronouns ha:da:, huwa and ?ana: (this, he, and I) respectively in 80-82 are realizations of NPs with different syntactic functions. ha:da: and huwa are the subjects of 80 and 81 respectively, whereas ?ana: in 82 occupies the predicate position. Furthermore, it is crucial to see that the rewrite rule of NP accounts for recursion simply by allowing NP to expand into S. Thus we can generate 83 which is represented by configuration 84:

\[ \begin{align*}
83- & \text{ qa:la Imuhaqqiqu almujrimu haraba mina ssijn} \\
& \text{(The investigator said the criminal escaped from prison)}
\end{align*} \]
On the other hand, the NP rewrite rule should give an account of complement clauses. The assumption that sentences are actually constituents of NP type can be supported by several syntactic arguments. One argument is derived from the fact that sentences may occur in direct object position, the same as other proper NPs. Compare the following sentences and their respective tree diagrams 87 and 88:

85- ?akrahu ?kadiba calaik
   I hate lying to you
   (I hate lying to you)
86- ?akrahu ?an ?akdiba calaik
   (I hate to lie to you)

Configuration 88 illustrates how S occupies the same position under object NP that is filled in 87 by the noun *kadiba* (lying); consequently, we can justifies treating the sentence as a constituent of NP in comparable positions as both NP and S exhibit similar syntactic behaviour. Moreover, S can also function as a subject NP when *ka*:na is the selected as a verb, e.g.:

89- ka:na calaika ?an tuqa:wima llusu:sis
   was on you to resist the thieves
   (You should have resisted the thieves)
90- ka:na calaika muqa:wamatu llusu:sis
   was on you resistance the thieves
   (You should have resisted the thieves)

The deep structures of 89 and 90 resemble 91 and 92 respectively:
Again, 91 and 92 above clearly demonstrate that S can occupy the same position under the subject NP of the sentence, and this is a sufficient motivation for treating it as an actual constituent of NP.

Further evidence in favour of treating S as a constituent of NP is the fact that the behaviour of the former under transformations is identical to that of NPs, in the sense that S acts like an NP in passivization and pronominalization (32). For instance, embedded sentences can function as surface subjects of passive constructions. Consider the following 93 and its deep structure 94 (33):

93- yufaṭṭalulu ?an tantazirahu fi lxa:riji
   It is preferred that you wait him in the outside
   (You'd better wait for him outside)
The S which is dominated by the object NP in 94 will be moved by T-passiveization to replace the dummy symbol \( \lambda \) under the subject NP, and the same rule will change the vowel in the penultimate syllable into /a/ to give the structure 93 above.

By the same token, the rule of pronominalization assigns the NPs the feature [+Pro] when the structural description is met for this rule,\(^{(34)}\), for instance:

95- \( \text{sahada muhsinun alisticra:da wa ?ana: sa:hadtuhu ?ai\(\text{\textquoteright}d\)a:} \)

saw Muhsin the parade and saw I it too

(Muhsin saw the parade, and I saw it too)

The clitic form -\( \text{hu} \) in \( \text{sahadu} \) (saw I it) is a pronominal that refers to the NP \( \text{alisticra:da} \) (the parade) in the preceding clause. The example demonstrates how pronominalization applies to NPs and assigns to them the feature [+Pro]. Note that the rule does not apply to NPs only, but equally applies to full sentences reducing them to pronominal forms. The following example is illustrative:


I think that he will come and brother my think so.

(I think that he will come, and so does my brother)

Close examination of 96 reveals that the pronoun \( \text{da:lik} \) refers to the embedded sentence \( \text{?anna?hu saya?ti:} \) in the bigger sentence \( \{\text{?actaqidu} \; ?\text{anna?hu saya?ti:}\} \).

The pronoun in question is the result of T-pronominalization that operates on the second occurrence of NPs in the same sentence and even across sentence boundaries. (T-pronominalization will be discussed in more detail in the next chapter.) This is comparable to the relationship between the clitic -\( \text{hu} \) and the NP \( \text{alisticra:da} \) in 95 above. Thus it becomes clear how the sentence can be reduced to a proform dominated by NP.

In summary, the above arguments leave little doubt that embedded sentences are in fact constituents of NP type since they fulfil similar syntactic functions (e.g. they can occupy the subject and object positions) and, at the same time, they show similar behaviour under transformations.

**Adj P (Adjective Phrase)**

This constituent can be rewritten as

\[
\text{Adj P} \rightarrow (\text{Det}) \; \text{Adj}
\]

Adj P, whether immediately dominated by S or NP, must show complete agreement with the NP it qualifies. This includes number, gender as well as case. However, it should be mentioned that, contrary to attributive adjectives that form constituents of NP, predicative adjectives (i.e. those dominated by S) should be marked [-Definite].

Consider the following examples:

97- \( \text{al?abwa:bu maftu:ha} \)

\( [+\text{PI}] \; [+\text{PI}] \; [-\text{Def}] \; [-\text{Def}] \)

the doors open

(The doors are open)

98- \( \text{alqa:?ida:ni suja:ca:ni} \)

\( [+\text{Dual}] \; [+\text{Dual}] \; [-\text{Def}] \; [-\text{Def}] \)

the two leaders are brave

(The two leaders are brave)

99- \( \text{assayyaratu jadi:dah} \)

\( [+\text{NP}] \; [+\text{Adj}] \; [+\text{Sing}] \; [+\text{Sing}] \; [+\text{Fem}] \; [+\text{Fem}] \)

the car new

(The car is new)
The adjectives in 97-99 are all constituents of S rather than NP since they are predicatively used. The configuration 100 represents 97-99:

```
100- S
   /\  \\
  NP  Adj
   /\  \\
  [x]  X
```

where X represents the bundle of features related to number and gender. Furthermore, 97-99 explicitly exhibit number and gender agreement between the adjectives and the NPs they qualify as indicated by the features attached under NP and Adj. Note that Adjectives marked [-Definite] readily suggest that they are constituents of NP rather than of S. This seems to be the reason for the ungrammaticality of 101-103 where an obligatory constituent is missing from the surface structure:

```
    the doors the open
102- ? alqa:?ida:ni ssuja:ca:ni
    the two leaders the brave
103- ? assayyartu ljadi:dah
    the car the new
```

Obviously 101-103 cannot be regarded as full sentences; instead, they seem to be fragments, headings or titles which can be represented by configuration 104:

```
104- NP
   /\  \\
  NP  Adj
   /\  \\

In brief, the uses of the adjective can be accounted for in deep structure. When an adjective forms a constituent of S, it should always be marked [-Definite]; alternatively, it may be marked [+Definite] when it is a constituent of NP. However, adjectives should observe number, gender and case agreement with the NP they modify.

PP (Prepositional Phrase)

The prepositional phrase that appears in the base rule 39 is the source of the indirect object when the verb of the sentence takes two surface objects (35). At the same time, it may account for what Fillmore calls directional, benefactive and instrumental (but not locative) (36). The actual realization of the benefactive is usually PP, using the preposition li- or min ?ajli (for), e.g. (37):

```
105-?îstara: ssayyarata li?axi:h
    bought he the car for brother his
   (He bought the car for his brother)
106-?îstara: ssayyarata min ?ajli ?axi:h
    bought he the car for the sake of brother his
   (He bought the car for his brother)
```

Halliday(38) distinguishes between two kinds of benefactors: the process-oriented benefactive (e.g.105-106), and the goal-oriented benefactive which is actually the prepositional phrase related to what is traditionally referred to as phrasal verbs. An example of the second type of benefactive may be seen in 107 which contains the verb ?îstarakat (she participated) and the prepositional phrase bi lmusa:baqah (in the contest):

```
107- ?îstarakat fi lmusa:baqah kai tafu:za bi lja:?izah
    participated she in the contest to win with the prize
   (She participated in the contest to win the prize)
```
If, however, both kinds of benefactives are realized within the same sentence, and neither of the nouns dominated by the PP has the feature [+Pro], then the preposition min ?ajli (for the sake of) is more likely to occur (39):

108- ?ištara: ssayya:rata li?axi:h min ?ajli lḥaflah bought a car for brother his for the sake of the party
      (He bought a car for his brother for the party)
109- ?? ?ištara: sayya:rata li?axi:h lilḥaflah bought a car for brother his for the party

The oddity of 109 is due to the fact that both benefactives use the same preposition li. This is obviously not the case in 108 where the second benefactive uses the preposition min ?ajli thus boosting the acceptability of the sentence.

As I have stated earlier, PP may be the realization of the instrumental, and the preposition used in this case is usually bi- (with):

110- kasara zzuja:ja biyadih broke he the glass with hand his
      (He broke the glass with his hand)
111- ?akala t̵taca:ma bi Imilcaqah ate he the food with the spoon
      (He ate the food with a/the spoon)

The prepositional phrases bi yadih (with his hand) and bi Imilcaqah (with a/the spoon) obviously refer to the instrument used in doing the action. The instrument, however, may sometimes occupy the subject position if the latter is deleted. This process is similar to that of passivization where the deep structure object becomes the surface subject. Compare the following pair of sentences:

112- qạdạt cala: lmudi:ri bi taqri:rin basi:t ruined she on the director with report simple
      (She ruined the director with a simple report)
113- taqri:run basi:t qạdạt cala: lmudi:r report simple ruined on the director
      (A simple report ruined the director)

In spite of the fact that the deep structure subject is the pronoun she in both 112 and 113, we notice that the instrument bi taqri:rin basi:t has been preposed in the latter to replace the deep structure subject. However, this case cannot be generalized to incorporate all similar structures since there are many examples that do not allow such a process. This is why we cannot generate sentences like:

114- * almilcaqah ?akalati ttaca:m the spoon ate the food

The above example 114 is rejected on the grounds that the noun almilcaqah (spoon) cannot be used in the subject position. Using nouns marked [+Instrumental] in subject positions seems to be governed by semantic as well as pragmatic factors. However, this particular issue deserves more investigation, but I do not intend to consider it any further since it falls outside the scope of this book.

INTENS (Intensifier)

The category INTENS (intensifier) is introduced as an optional element in deep structure (41); its semantic implication is primarily emphatic in the sentence, and it is often morphologically derived from and bears phonological affinity to the verb it modifies (42). As suggested by its name, intensifier should be loosely interpreted as adverb of degree (such as to a great extent) or (greatly, immensely) etc.

29
A Transformational Grammar of Modern Literary Arabic

**VERB** | **INTENS**
---|---
Daraba (hit) | Darban (hitting)
Qa:tala (fought) | Qita:lan (fighting)
Da:fa:ca (defend) | Difa:can (defending)
Saba:ha (swim) | Siba:hatan (swimming)

The following example shows how the intensifier *darban* (hitting) is used:

115- *darabati ssurtatu lmuta:ha:hiri:na darban sadi:da:*  
hit the police the demonstrators hitting brutal  
(The police hit the demonstrators brutally)

The presence of an intensifier in the sentence gives a more exaggerated picture of the action expressed by the verb than the mere use of a manner adverbial, e.g. *bi siddah, bi cunf* (violently). This stresses the fact that its role is basically emphatic.

**ADV (Adverbials)**

This node may be expanded into various types of adverbials such as time, locative, manner, reason, etc. It accounts for the occurrence of adverbials in the following sentences:

116- sa:fa:ra ?axi: masa:?a:  
travelled brother my evening  
(My brother left in the evening)

117- tabaxat salwa: fi šyaba:  
cooked Salwa in the morning  
(Salwa cooked in the morning)

118- ka:nati ssiki:nu fi lxiza:nah  
was the knife in the cupboard  
(The knife was in the cupboard)

119- ja:?a rrajulu da:hi:ka:  
came the man laughing  
(The man came laughing)

120- intalaqa lmutasa: biqu: na bisurcah  
set off the contestants with speed  
(The contestants set off fast)

Sentence 117 suggests that the PP *fi lmasa:*? (in the evening) is the source of the time adverbial *masa:*?an (in the evening). Other adverbs, e.g. *zuhran, yawma lxami:s* (at noon, on Thursday) respectively, may be derived from prepositional phrases in deep structure (43). However, it is crucial to note that manner adverbials cannot be derived from PP since this would involve a change in their semantic interpretation. Consider:

121- ta:harra:ka liqita:ru musrica:  
moved the train fast  
(The train moved fast)

122- ta:harra:ka liqita:ru bisurcah  
moved the train with speed  
(The train moved quickly, or was quick to move)

The semantic difference between the two realizations of manner adverbials in 121 and 122 is that the adverbial *musrica:* means that the actual movement of the train was fast, whereas the adverbial *bi surcah* is rather ambiguous. It may be interpreted in a way similar to that of 121, but on the other hand, it may be interpreted as (the train was quick to move from the station). However, care must be taken to note that adverbials like *faj?ah* (suddenly) certainly cannot be derived from a prepositional phrase:
123- waqaca lḥaːdiθu fajʔaḥ  
 happened the accident suddenly  
(The accident happened suddenly)

124-* waqaca lḥaːdiθu bi fajʔaḥ  
 happened the accident with a sudden

Having examined 121-124, we may conclude that we have to account for both realizations of manner adverbials in the base rather than in derived structures. Thus we can generate the well-formed sentences and, at the same time, account for ambiguous cases (e.g. 122). The issue is further complicated by manner adverbials such as ɗaːhiba (laughing) which appears in 119 above. Compare 119 with the following three sentences:

125- jaːʔa rrajulu wa huwa yaḍḥak  
came the man and he laughing  
(The man came laughing)

126- jaːʔa rrajulu wa huwa ɗaːhiba  
came the man and he laughing (Adj)  
(The man came and he was laughing)

127- jaːʔa rrajulu yaḍḥak  
came the man laughing (Verb)  
(The man came laughing)

Most scholars of Arabic would agree that 119 and 125-127 are related by synonymy; nonetheless, the manner adverbial represented by the notion of (laughing) is realized differently in each case. In 125 and 126 it is realized as an S preceded by the preposition wa. Note that the structure of the sentence is different in each case, i.e. 125 is of the form [PP [NP [S [Pro + V]]]], whereas 126 is of the form [PP NP [S [Pro + Adj P]]] (44). In 127, however, the manner adverbial surfaces as a verb only. The relationship between 125 and 127 can be captured by assigning to both of them a single deep structure and allowing transformations to generate the various surface structures. Therefore, I assume that 125 and 127 can be represented by 128:

```
128-   
| VERB | NP | ADV | 
| jàːʔa rrajulu | came the man |  
| PP | wa and |  
   | S2 | VERB | NP | NP |  
   | kaːna rrajulu | was the man |  
   | S3 | VERB | NP |  
   | yàḍḥak rrajulu | laughing the man |  
```
Two distinct rules may apply to the deep structure 128 so as to generate the surface structures 125 and 127: pronominalization and deletion. For instance, we can apply deletion rules to the identical subject NPs in both S2 and S3; this will give us the acceptable 129:

129- ja:?a rrajulu wa ka:na ya?ahak

came the man and was laughing

(The man came, and he was laughing)

The verb *ka:na* and the preposition *wa* in 128 and 129 will delete to yield 127 as surface structure (where only the verb of S3 is retained) (45). However, to generate 125, we have to delete the identical subject NP and the verb *ka:na* from S3 and S2 respectively. At the same time we have to apply the pronominalization rule to the subject NP in S2 under identity with that in S1.

Insofar as 126 is concerned, its relationship to 125 and 127 can be captured by the same deep structure 128 only if we allow morphological rules to change the verb *ya?ahaku* (laughing) into adjective (or participle). Alternatively, we can generate the adverbial clause in an independent deep structure, in which case we shall be missing a generalization. I intend therefore to support the former view, i.e. to derive the related Adj from the same lexical root by morphological rules. Based on generative semantics, this approach allows projection rules to derive one lexical item from another. However, we need not go into more details of generative semantics in a book of this nature.

Similarly, time may also be realized as S. This means having an embedded clause to denote the time the action takes place. Consider for instance 130 and its deep structure 131:


left the guest and the rain falling heavily

(The guest left as it was pouring down with rain )

131- 

S

VERB NP ADV

dahaba d?a?ifu Time

left the guest

PP

P NP

wa S2

alma?at?aru yanhamiru bi?gaza:rah

the rain falling heavily

In 131 time is realized as an S introduced by the preposition *wa*. Thus the whole sentence which is dominated by the node S2 acts as an adverb clause of time modifying the verb in the matrix sentence.

**REASON**

This adverbial can be rewritten as PP or NP + PP (46) and accounts for the following data:

---

A Transformational Grammar of Modern Literary Arabic
Phrase Structure Rules

132- ?axadathu ššurtatu littaḥqi:q
took him the police for the questioning
(The police took him for questioning)
133- ja:?a baḥtan canha:
came searching for her
(He came searching for her)
134- ?ištarakat fi Imusa:baqati kai tafu:za bilja:?izah
participated in the contest to win with the prize
(Shē participated in the contest to win the prize)

That reason can be realized as PP is exemplified in 132 where it dominates the
prepositional phrase littaḥqi:q (for questioning). Similarly, 133 explains that reason
may be realized as a noun plus a prepositional phrase baḥtan canha: (searching for
her). However, reason is expanded into an S in 134 in the same way that we have seen
with manner and time. Compare 135 - the deep structure of 134 - with both 128 and
131 above:

135-

```
\[
\begin{array}{c}
\text{VERB} \\
?ištarakat \\
\text{participated} \\
\text{she} \\
\text{fi Imusa:baqati} \\
in the contest \\
P \\
\text{PP} \\
\text{Reason} \\
P \\
P NP \\
kai \\
S \\
\text{to} \\
tafu:za bilja:?izah \\
she wins with the prize
\end{array}
\]
```

In 135 Reason is realized as PP which dominates S2 tafu:za bilja:?izah (she wins the
prize), like English adverb clauses of reason introduced by (so that, in order that, etc.)
2 Major Transformations

I- Pronominalization

Pronominal forms may be introduced in Arabic in deep structure by allowing NP to have the feature [+Pro]. This process seems necessary for generating pronouns with no coreferential NPs; that is to say, pronouns that cannot replace other lexical NPs. Consider the following:

1-nahnu tuallabun fi ljumicah
we students in the university
(We are university students)

It seems to be the case that the first person pronouns ?ana:, nahnu (I, we) respectively, are all base-generated, since the speaker does not refer to himself by the name or title, but by using the relevant pronoun whether singular or plural (1). The same argument applies to the second person which should also be base-generated rather than the result of transformations. On the other hand, transformational rules are needed to introduce pronouns that do refer to second occurrences of full NPs so as to avoid repetition and tautology. This can be achieved by adopting a pronominalization rule that assigns the feature [+Pro] to the second occurrence of an NP. The rule in question may be formulated as follows (2):

2- SD X \(-\) NPi \(-\) Y \(-\) NPii \(-\) z \(\Rightarrow\)
   SC 1 2 3 4 5
   i- NPi = NPii
   ii- The rule is obligatory (3)

Note that the structural description for the rule as it stands will be met even if the second NP is in another sentence; in other words, the rule is allowed to work across sentence boundaries, as the element Y in SD may include boundaries. It is possible therefore to pronominalize a full NP that refers to another in a preceding sentence regardless of the hierarchy of the sentence in question. Consider for instance:
Major Transformations

3-* ##alqa:di: ḥaki:mun ## wa ##lqa:di: ca:di##
the judge wise and the judge fair
(The judge is wise and the judge is fair)

4- ##alqa:di: ḥaki:mun ## wa ## huwa ca:di##
the judge wise and he fair
(The judge is wise and he is fair)

said the teacher to the students COMP they lazy
(The teacher told the students they were lazy)

Clearly, sentence 3 consists of two conjoined sentences with identical subject NPs alqa:di: (the judge.) Since the structural description of 2 is met, the rule applies to generate the well-formed sentence 4. Note that in example 3, where pronominalization has operated, the two sentences occur at the same level of the hierarchy. However, the case is not so in 5 which contains a complement clause. This is illustrated in the configuration below:

6-

\[
\begin{array}{c}
\text{S} \\
\text{qa:la l?usta:du liṭṭulla:bi} \\
\text{S} \\
\text{?ınnahum kusa:la:} \\
\text{that they lazy}
\end{array}
\]

The rule (obligatory in this example) will change the noun atṭulla:b (the students) in the embedded sentence into a pronominal form -hum (them) and the pronoun - itself a clitic - will be attached to the complementizer ?ınna to generate ?ınnahum (see clitic movement above). It must be emphasized that the rule as formulated in 2 above is unidirectional in the sense that it applies from left to right and not the other way round (4). It is the NP on the right-hand side only that is pronominalized. Thus backward pronominalization is not permitted in Arabic as it would produce unaccepteable strings. The following examples are illustrative:

7- ḥuwa ḥaki:mun wa lqa:di: ca:di
he wise and the judge fair

said the teacher to him COMP the student lazy

The driver who brought him gave the man the change

The underlined nouns and pronouns in 7-9 are coreferential, and the unacceptability of these sentences is due to the fact that pronominalization has been applied in reverse order, i.e. from right to left, violating the principle of unidirectionality. This principle also governs construct NPs of the form:

10-

\[
\begin{array}{c}
\text{NP} \\
\text{NP1} \\
\text{NP2}
\end{array}
\]

Any NP which refers back to NP2 in figure 10, gets pronominalized, but not NP2. Examples 11-12 explain the point:

11- ḥubbuhu likurati lqadam jaqala sadi:qi: yarsub
his love for football made my friend fail (the exam)

12- ḥubbu sadi:qi: likurati lqadam jaqalahar yarsub
love friend my for football made him fail (the exam)

(My friend's love for football made him fail the exam)

35
The reason for the ungrammaticality of 11 is that, like 7-9 above, it violates the principle of unidirectionality. By contrast, 12 is grammatical since the second coreferential NP has been pronominalized rather than the first, as in 12a.

In the above configuration the second NP (my friend) has been pronominalized, and the resultant clitic pronoun -hu is attached to the verb (made) to generate (made him). Furthermore, it should be noted that where pronominal forms are introduced transformationally, say, when they replace full NPs, morphophonemic rules determine the actual realization of the surface pronoun. This entails, of course, choosing between two major sets of pronouns, namely the free (strong) set, and the bound (clitic) set. Free pronouns may occur independently as exemplified in 1 and 4 above, whereas bound pronouns may not; the latter can only be found attached to other lexical items, be they verbs, prepositions or nouns. Tables 13 and 14 exhibit the two sets of Arabic pronouns:

### Table 13: Free Pronouns

<table>
<thead>
<tr>
<th>Person</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Gender</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Singular</td>
<td>?ana:</td>
<td>?anta</td>
<td>?anti</td>
</tr>
<tr>
<td>Dual</td>
<td>nahnu</td>
<td>?antuma:</td>
<td>?antuma:</td>
</tr>
<tr>
<td>Plural</td>
<td>nahnu</td>
<td>?antum</td>
<td>?antunna</td>
</tr>
</tbody>
</table>

### Table 14: Clitic Pronouns

<table>
<thead>
<tr>
<th>Person</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Gender</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Singular</td>
<td>-i:</td>
<td>-ka</td>
<td>-ki</td>
</tr>
<tr>
<td>Dual</td>
<td>-na</td>
<td>-kuma:</td>
<td>-huma:</td>
</tr>
<tr>
<td>Plural</td>
<td>-na</td>
<td>-kum</td>
<td>-kunna</td>
</tr>
</tbody>
</table>

(Table 13 free pronouns)

(Table 14 clitic pronouns)
II- Clitic Movement

The clitic pronoun, when introduced by transformations, i.e. as a result of pronominalization, hops to the nearest preposition or verb available on the left-hand side. Thus the clitic and the item it is attached to form one phonological unit which may look as follows (8):

15- # {V} + [ +pro + Clitic ] 

This is probably achieved by an obligatory rule that can be formulated as 16 below (9).

16- 
SD X - {V} Y - [ +pro + Clitic ] Z 

SC X - {V} [ +pro + Clitic ] ## - Y - Z 

Conditions:

i- The rule is obligatory
ii- Y: t, V, S, P
iii- ## = Chomsky adjunction

It is worth mentioning that the rule as formulated in 16 is applied by the process of Chomsky adjunction which attaches the clitic under V (10). The derivation looks as follows:

V
 NP
 [ +Clitic ]

The above configuration predicts that we have only a single node V which dominates the verb and the attached clitic.

The rule, furthermore, is designed to account for sentences like 18, but not 17 below:

17- ?axadtuhu mina Imaktabah
   took I it from the library
   (I took it from the library)
18- ?axadtu lkita:ba mina lmaktabati wa wadactusuhu fi lğurfah
   took I the book from the library and put I it in the room
   (I took the book from the library and put it in the room)

The clitic -hu which appears adjacent to the verb ?axadtu in 17 is automatically accounted for by the transformational rule 16. We probably need a phonological rule that incorporates the clitic and the adjacent element into one phonological unit (cf. 15 above). Similarly, the conjoined sentence 18 is derived from the underlying structure 19:

19- * ?axadtu lkita:ba mina lmaktabati wa wadactusu lkita:ba fi lğurfah
   took I the book from the library and put I the book in the room

Clearly, the NP alkita:ba is identical in both occurrences in 19; that is why the string as a whole meets the structural description for T-pronominalization as outlined in 2 above. The resultant clitic pronoun will be attached to the verb wadactusu (11) (cf. table 14 above.) The clitic has to be moved from its original place under the object NP and attached under V as a right sister of the verb. Configurations 20-22 help explain the process:
Configuration 20 represents only the second conjunct of 19, whereas 21 shows the derivation after T-pronominalization has applied to it resulting in the clitic-hu which is still dominated by the original object NP node. The clitic is then shifted to the lefthand side by Chomsky adjunction (cf. 22) At this stage the phonological rule operates to produce the surface realization of [V + Clitic] as one phonological unit. It is important to observe that the rule of clitic movement as it stands predicts that the clitic and its verb form one entity, in fact one word, and at the same time, it predicts that clitics must not be left stranded in the derivation since stranded clitics will lead to deviance:
Major Transformations

23- ?axada Imuwazzafu Imu rasai: na liimuqa: balah
(the official took the candidates for the interview)

24-* almurassa:nu :na ?axada Imuwazzafu -hum liimuqa: balah
the candidates took the official them for the interview

25- almurassa: nu :na ?axadahum Imuwazzafu liimuqa: balah
the candidates the official took them for the interview

(The candidates - the official took them for interview)

The object NP almuras Sa:i:n (the candidates) which appears in 23 is accounted for in the base by phrase structure rules. However, when the NP, having been pronominalized in its original position, is reproduced in the initial position of 24, the output is a starred sentence. In this case, the resultant clitic is left stranded under the object NP node (cf. 21). The ungrammaticality of 24, however, is resolved in 25, where the clitic pronoun is shifted and properly attached next to the verb under the VERB node. Chomsky adjunction of clitics may be shored up by several arguments. Apart from the fact that the clitic and the constituent it is attached to form one phonological unit (cf. 15), it is crucial to remember the following facts: first, there is nothing that can intervene between a clitic and the verb it is attached to; second, no clitic may occur in isolation from verbs, nouns or prepositions. The most striking difference between clitics and full NPs is that no other elements can separate clitics from the major grammatical categories to which they are attached. In 23 for example, the object NP almufattiSa: (the inspector) is separated from the verb sa?alatu (I asked) by the adverb of frequency ?a:ya:nan (sometimes). This separation, however, becomes impossible when the NP is transformed into clitic, and the output is the ungrammatical 27. In like fashion, the object NP alx:da:ma (the servant) in 28 is separated from the verb by the adverb of time alyawm (today); again this separation leads ungrammaticality when the NP is changed into a clitic pronoun in 29. The relationship between clitics and verbs seems to be strong enough to justify having the clitic dominated by the same node V that dominates the verb at the same time. Furthermore, the fact that clitics may not occur isolated from other major grammatical categories corroborates the claim that these clitics are actually constituents of VP, NP, or PP types. The relationship between clitics on the one hand and nouns and prepositions on the other deserves more investigation, but I will say no more about this issue now since it falls outside the scope of the present book.

III- Dative Movement

The rule of dative movement in Arabic is similar to that in English in more ways than one. The rule can do two main jobs: first, it can move an indirect object with
A Transformational Grammar of Modern Literary Arabic

its preposition and place it before the direct object; second, it can delete the preposition. It is noteworthy that a slight difference arises between modern Arabic and Classical Arabic insofar as dative movement is concerned. Arabic, for instance, allows the deletion of the preposition preceding the indirect object without shifting the latter. However, it is almost certain that a deletion such as this would be highly marked and disfavoured by modern writers; besides, it can rapidly move down the scale of acceptability by items intervening between the two objects. Consider the following:

30- manaḥtu lja: ?izata lica: mir
awarded I the prize to Amer
(I awarded the prize to Amer)
31- manaḥtu lja: ?izata ca: mira:
awarded I the prize to Amer
(I awarded Amer the prize)
awarded I the prize which donated with it the council to Amer
(I awarded the prize which was donated by the council to Amer)
33- * manaḥtu lja: ?izata llati: tabarraca biha: lmajlisu ca: mira:
awarded I the prize which donated with it the council Amer
34- sallamna: jamic: ca I ?awra: qi lmuwazzaf
handed we all the papers to the official
(We handed all the papers to the official)
35- * sallamna: jamic: ca I ?awra: qi lmuwazzaf
handed we all the papers the official
Sentences 30-35 explicitly show that it is permissible, in some cases only, to delete the preposition preceding the indirect object as in example 31 where the preposition -li (to) has been deleted without affecting the grammaticality of the sentence. The relative clause allati tabarraca biha: lmajlisu (which the council donated) intervenes between the direct and the indirect objects in 32. Because of this intervening clause, 33 is notably deviant in comparison with the well-formed 31. Example 34 differs from 30 in having the quantifier jamic: c (all) preceding the direct object al?awra: q (the papers). At first sight, it seems that this is the reason for the ungrammaticality of 35, but close examination of the sentence reveals that this is not the case. Leaving the quantifier out does not help overcome the sentence deviance, and consequently, 36 is equally deviant:

36- * sallamna: ?awra: qi lmuwazzaf
handed we the papers the official
The reason why 35 and 36 are problematic is not immediately clear. The conditions governing the deletion of the preposition preceding an indirect object are not clearly defined either and certainly call for more investigation. But for the lack of space, I will side-step the issue here. Care should be taken that, it is possible, though not common, to retain the preposition after moving the indirect object by T-dative movement (13). Therefore, the following examples are all grammatical:

37a- manaḥtu lica: mirin lja: ?izah
awarded I to Amer the prize
(I awarded the prize to Amer)
37b- manaḥtu ca: miran lja: ?izah
awarded I Amer the prize
(I awarded Amer the prize)
38a- sallamna: lmuwazzafı jamic: ca I ?awra: q
handed we to the official all the papers
(We handed all the papers to the official)
38b- sallamna: lmuwazzafa jamic: ca I ?awra: q
handed we the official all the papers
(We handed the official all the papers)
One can realize at a glance that sentences 37 and 38 are related to 30 and 34 respectively, and relationship between the two groups is captured by T-dative movement which shifts the indirect object NP and places it before the direct Object. However, sentences "a" of 37 and 38 above differ from "b" in that the preposition has been retained in the former but deleted from the latter. English, of course, does not seem to allow the retention of the preposition in such a position as this will give rise to total deviance. Consider for examples:

39- He gave to the child a bar of chocolate
40- He gave the child a bar of chocolate.

The rule of dative movement may be formulated as follows:

41- \[ SD \ X - V - Y - NPi - P + NPii - z \Rightarrow \]

1234567
SC 1 2 3 (5) 6 4 7

Conditions:
1- The rule is obligatory
2- NPi and NPii are the direct and indirect objects respectively. It is equally important to note that the benefactive \( li- \) (for) cannot be deleted by rule 41 above. The deletion of the preposition in such positions gives rise to ungrammaticality, as exemplified in the following:

42- ?istaraitu mictafan liwa:lidati: bought I a coat for mother my (I bought a coat for my mother)
43- ?istaraitu liwa:lidati mictafa: bought I for mother my a coat (I bought my mother a coat)
44- ?istaraitu wa:lidati mictafa: bought I mother my a coat

In 42-44 above, the rule of dative movement applies only in part; i.e. it only moves the prepositional phrase and places it before the direct object without deleting the preposition. Therefore, while 42 and 43 are grammatical, 44 is not, and the reason for the ungrammaticality in this case is the absence of the benefactive preposition \( li- \) which appears in both 42 and 43.

IV- Focus Transformation

Base rules as formulated in chapter one account for the unmarked word order in Arabic which is VSO. However, the grammar should somehow account for the derived word order SVO which is also very common in the language (14). In other words, the grammar has to account for the relationship between the following pairs of sentences:

45- ?istalama ṭṭa:libu ššaha: dah received the student the diploma (The student received the diploma)
46- ṭṭa:libu stalama ššaha: dah (the student received the diploma)
47- waqafati lmucallimah stood the woman teacher (The woman teacher stood up)
48- almucallimatu waqafat (The woman teacher stood up)
49- nazzafa lćumma:lu lqa: cah cleaned the workers the hall (The workers cleaned the hall)
50- lćumma:lu nazzafu: lqa: cah (The workers cleaned the hall)
Scholars of Arabic would readily agree that the above pairs of sentences are related by synonymy. Having assumed earlier that the unmarked order (which is roughly identical to deep structure in this case) is VSO, we can derive 46 and 48 from 45 and 47 respectively by a simple rule of permutation. The rule in question may look as follows:

\[
\begin{align*}
51: & \quad SD \ X - V - NP - Y \\
& \quad 1 \ 2 \ 3 \ 4 \\
SC & \quad 1 \ 3 \ 2 \ 4
\end{align*}
\]

The rule states that the subject NP can be fronted and placed before the verb as explained in the following configuration:

\[
\begin{align*}
52: & \quad S \\
& \quad \big\uparrow\quad \big\uparrow\quad \big\uparrow \\
& \quad \big\downarrow\quad \big\downarrow\quad \big\downarrow \\
& \quad \text{VERB} \quad \text{NP} \quad \text{NP} \\
& \quad \text{?istalam} \quad \text{ṭṭa:lišu} \quad \text{ššaha:daḥ} \\
& \quad \text{received the student the diploma}
\end{align*}
\]

The problem is that in spite of the fact that T-permutation can handle structures like 46 and 48 quite neatly, it is unable to handle 50 since the clitic -u: in naẓẓafu: (they cleaned) is left unaccounted for. Note also that clitics of this type are not seen in 46 and 48 where the subject NPs are singular rather than plural; that is why the problem does not arise in them.

The above listed data indicate that subject-verb agreement is observed only when the subject precedes its verb and when it is marked [- singular]. The problem is made even worse by cases like 55 which is derived from 54:

\[
\begin{align*}
54: & \quad \text{kataba} \quad \text{ṣādi:qi:} \quad \text{ṛrisa:laḥ} \\
& \quad \text{wrote friend my the letter} \\
& \quad (\text{My friend wrote the letter}) \\
55: & \quad \text{arrisa:laṭu katabaha:} \quad \text{ṣādi:qi:} \\
& \quad \text{the letter wrote it friend my} \\
& \quad (\text{The letter was written by my friend})
\end{align*}
\]

Example 55 differs from 46, 48 and 50 in that the fronted NP in 55 is the object rather than the subject of the sentence. Yet, the verb kataba (wrote) has a clitic -ha: attached to it, and clearly refers to the object arrisa:laḥ (the letter). Examples like 55 make the problem wider than that of subject-verb agreement, and at the same time, renders the simple rule of permutation inadequate. The problem therefore call for an alternative solution in order to account for clitics in positions similar to those of 50 and 55.

In an attempt to solve the problem, Anshen and Schreiber (1968) have suggested a focus transformation which, in its simple form, may look as follows:

\[
\begin{align*}
56: & \quad SD \ X - NP - Y \\
& \quad 1 \ 2 \ 3 \\
SC & \quad \text{NP} \quad 1 \ 2 \ 3 \\
\text{Condition: NP} & \quad \text{NP}
\end{align*}
\]
As stated in 56 above, focus transformation allows for any noun in the sentence to be optionally reproduced in initial position (16), in which case pronominalization transformation has to apply obligatorily to the original noun (17). The following diagrams 57-60 illustrate the derivation of 50. The same process will apply in generating 55 where the focused NP is the object of the sentence. In this case, the type of clitic generated by the pronominalization rule will be different. The actual selection of the clitic will be handled by morphophonemic rules (18).

Consider 61-64 which represent the different stages of generating 55:

43
Focus transformation as stated in 56 above predicts that there are zero forms of clitic pronouns that attach to verbs. For instance, the third person singular verbs have no manifest forms of pronoun: that is why, I assume, they have a zero form of clitic (19). T-focus then seems to account quite elegantly for number agreement between initial subjects and their verbs as well as the second occurrence of NPs in the sentence.

It is noteworthy that focus transformation may apply simultaneously to both the subject and object NPs in the same sentence, in which case the verb will dominate two clitic pronouns each of which corresponds to a focused NP. The first clitic will normally refer to the subject, the second to the object. Consider 65 and 66:
Major Transformations

66-\textit{alxiza}:natu \textit{allu$\check{s}$u: su saraqu:ha:}
the safe the thieves robbed they it
(The safe - the thieves robbed it)

However, it is crucial to note that T-focus must apply to the subject and object NPs successively so that ungrammatical structures like 67 may be avoided:

67- \textit{allu$\check{s}$u: su lxiza}:natu saraqu:ha:
the thieves the safe robbed they it

Ungrammaticalities like that of 67 can be avoided by placing a condition to block the rule if it has already applied to the object. Alternatively, we can avoid generating deviant outputs by ordering the actual application in such a way that the subject becomes the first NP to be focused followed by the object. It will be obvious that, since item X in the structural description for T-focus (cf. 51) can be null, initial NPs in verbless surface structures can also be focused. In cases like this, the original NP will be converted into pronoun by T-pronominalization (21), and the resultant pronoun is usually referred to as copula pronoun. In this way we can account for 69 and 71 which are derived from 68 and 70 respectively:

68- \textit{a$t$:ri:qu tawi:lah}
the road/way long
(\textit{It} is a long way)
69- \textit{a$t$:ri:qu hia tawi:lah}
the road/way it long
(\textit{The way, it is long})
70- \textit{al?awla:du mujiddu:n}
the boys hardworking
(The boys are hard working)
71- \textit{al?awla:du hum mujiddu:n}
the boys they hardworking
(The boys, they are hardworking)

The pronouns \textit{hia, hum} (she, they) refer to \textit{attari:qu, al?awla: du} (the road/way, the boys) in 69 and 71 respectively. The pronouns are both part of the output of T-focus that has applied to the deep structure NPs to which the pronouns refer.

It should be mentioned that, in certain cases, T-focus should be made obligatory. The complementizer \textit{\textit{?inna}} in embedded sentences will be inserted under COMP (22). This is necessary to avoid ungrammatical output as can be seen in 73 and 75 below:

72- \textit{qa:la tt$q$ri:ru \textit{?inna lmura$\check{s}$a:h} naja$h}
said the report that the candidate won
(The report said that the candidate won)
73- \textit{qa:la tt$q$ri:ru \textit{?inna naja$h lmura$\check{s}$a:h}}
said the report that won the candidate
74- \textit{?iddaca: ssaji:nu ?anna rafi:quh harab}
claimed the prisoner that inmate his escaped
(The prisoner claimed that his inmate escaped)
75- \textit{?iddaca: ssaji:nu ?anna haraba rafi:quh}
claimed the prisoner that escaped inmate his

Close examination of 72-75 reveals that the ungrammaticality of 73 and 75 is due to the fact that they both violate the constraint imposed on the complementizer \textit{?inna} preventing it from occurring adjacent to verbs. This explains the well-formedness of their counterparts 72 and 74 where T-focus has applied to the subject NPs \textit{almura$\check{s}$a:h, rafi:quh} (the candidate, his inmate) respectively.

It is worth mentioning at this point that focus transformation applies to a construct noun phrase as a single unit (23). Consider the following examples:

76- \textit{?istarat laila: kita:ba lqwa:cid}
bought Laila book the grammar
(Laila bought the grammar book)
A Transformational Grammar of Modern Literary Arabic

77- kita: bu lqawa: cidi štarathu laila:
book the grammar bought it Laila
(Laila bought the grammar book)
The construct NP kita: bu lqawa: cid (the grammar book) behaves as one entity under focus transformation, and is reproduced initially in 77 as such. Configurations 78-81 illustrate this point:

78-

79-

80-

81-
Major Transformations

So far we have seen how focus transformation can account for clitic and independent pronouns in what might seem rather marked positions. However, it is important to realize that not only does focus transformation account for pronouns that refer to fronted objects, but also for copula pronouns (cf. 69, 71). An equally viable way of accounting for these pronouns suggests itself from trace theory. Chomsky (1976) and Lightfoot have made the claim that NPs leave a trace behind when moved by transformations. Traces of this kind have two major characteristics: they are either properly bound or deleted. A trace is properly bound by an NP if that NP precedes and commands it. It follows that any right movement of NP cannot possibly leave a bound trace; in this case the trace has to be somehow obliterated. An example of right movement is passivization in Arabic where the subject NP is moved to the right by some agent post-posing rule if not obliterated altogether. It is crucial therefore to allow the trace to have all the features of the moved NP, and in this case the feature will be indexed under a clitic (or independent) pronoun that possesses them. Put differently, the trace will be given a surface realization by morphophonemic rules. Using example 54 again, we can write the following:

82- kataba ṣadi:qi: rrissa:lah
wrote friend my the letter
(My friend wrote the letter)

83- arrisa:latu kataba  ṣadi:qi: T
the letter wrote T friend my

By the same process, example 50 can also be derived from 49 which we repeat here as 84 and 85 respectively:

84- naẓẓafa alcumma:lu lqa:cah
cleaned the workers the hall
(The workers cleaned the hall)

85- alcumm~ T ra~~:cah

Morphophonemic rules will spell the index under T in 83 as ha: and the one under T in 85 as -a:. The resultant clitics will attach themselves to the verb by the rule of clitic movement (cf. 15-16) above.

The foregoing arguments indicate that both accounts presented by focus transformation and trace theory of pronominal forms in the above listed examples are equally valid. Consequently, there is no reason in principle why we should select one over the other at this point. The issue, however, deserves more thorough investigation than we can afford in a book of this nature, so I will not pursue it any further, and will proceed to discuss coordination in the next chapter.
3 Coordination

It is a common practice of languages to repeat some elements in contrasts (1). According to Chomsky (1957) (2), "If S1 and S2 are grammatical sentences, and S1 differs from S2 in any given corpus; this would lead to redundancy if coordination were not used to reduce repetition and highlight that X appears in S1 where Y appears in S2, i.e. S1 = .... X ...., and S2 = .... Y ...., and X and Y are constituents of the same type, then S3 can be derived as a result of replacing X by X and Y in S1, (i.e. S3 = .... X + and Y ....)" Chomsky’s statement can be interpreted as follows: in conjoined structures repeated elements which appear in deep structure can be deleted or pronominalized either optionally or obligatorily (3). It becomes clear, therefore, that the conjunction process is centred around repeated vs unrepeated elements in the conjoined structure. In this chapter I am going to show how coordination operates both within the phrasal and the transformational hypotheses, some conditions that affect it, and two important Arabic conjunctions: *wa* and *la:kin* (and, but respectively.)

Before broaching the subject of coordination, we have to make one point clear namely, that the conjunction schemata are applicable to full sentences, phrases, and in some cases, to particles. (For reasons of simplicity I will refer to the conjoined elements as C1, C2, ... Cn.) Thus the conjoined elements (the conjuncts), C1 and C2 can be both nominal-initial or verbal-initial (4); alternatively, C1 can be nominal-initial and C2 verbal-initial or vice versa. Consider the following examples:

1- 朕 útilu:bu mujiddu:na wa l?asa:tidatu muxli~u:n
   the students hardworking and the teachers dutiful
   (The students are hardworking and the teachers are dutiful)
2- tasqutu l?awra:qu wa tuha:jiru ttuyu:ru fi lxari:f
   fall the leaves and migrate the birds in the autumn
   (Leaves fall and birds migrate in the autumn)
3- 朕 útilu:bu mujiddu:na wa yusajjicuhum ?usta:duhum da:?ima:
   the students hardworking and teacher their encourage them always
   (The students are hardworking, and their teacher always encourages them)
Coordination

4- yabdulu ṭulla:bu ljuhda wa l?usta:du muxliṣun naḥwahum exert the students the effort and the teacher dutiful to them
(The students exert their effort, and the teacher is dutiful to them)

In example 1 both C1 and C2 are nominal-initial sentences (5), whereas in 2 the two conjuncts are verbal-initial. In 3, however, C1 is nominal initial and C2 is verbal-initial, but in 4 the two conjuncts are in reverse order. Note that if the same NP is found in both conjuncts C1 and C2, then it is very likely to be pronominalized since the structural description for T-pronominalization is met (6). In 3, for example, where C1 is a nominal-initial sentence, the bound clitic -hum (them) is found attached to the verb yuṣṣajjicu (encourage). The clitic in question clearly refers to ṣalullah (the students) in C1. Similarly, in 4, C2 contains the bound clitic -hum attached to the preposition nahwa (to). Again, this clitic refers to ṣalullah in C1.

At this stage I should draw attention to the fact that although coordination is generally associated with coreferential elements in both conjuncts, this does not seem to be absolutely necessary. In other words, a number of factors govern the possibility of coordination in the absence of coreference. These factors are by-and-large pragmatic rather than syntactic, and the grammar need not be concerned with them (7). Consider for instance:

5- ṣaṭasuí laḥi:fun fi ṭam:qa wa ṭeḥaba ṣaxi ṣila:ssu:q the weather fine in the spring and went my brother to the market
(The weather is fine and my brother went to the market)

6- qa?ara?ati ṭ hántu ddarsa wa maci mifta:hu ṭixza:nah the girl read the lesson and with me key the cupboard
(The girl read the lesson and I have the key to the cupboard)

Taken out of context, 5-6 are doubtful - though not ungrammatical - since they are ruled out on pragmatic rather than syntactic grounds. The point becomes much clearer in 7-8 which are both acceptable as well as grammatical, though their conjuncts contain no coreferential elements:

7- ṣallama:ʔu ᵭaḥwatun lyawm wa qad ᵭatala lmara bil?ams the sky clear today and had fallen the rain in yesterday
(the sky is clear today, and it rained yesterday)

8- ṭabī:cazza:mmuq ᵭiqta:ra wa sa:faartu ᵭana: bissayyarah boarded Azzam the train and I travelled by car
(Azzam boarded the train, and I travelled by car)

Apparently, insofar as pragmatics is concerned, there is no reason in principle why we should not generate 7-8 in Arabic, and this clearly leaves one in no doubt that conjuncts need not always contain coreferential elements.

Another case in point is that X and Y in the conjoined structure $S = \ldots$ X and \ldots Y represent various grammatical categories such as adverbials and prepositional phrases. The idea may be explained by the following examples:

9- intazara?athu fi ᵭṣab̄a:hi wa lmara: ṭ weted she him in the morning and in the evening
(She waited for him in the morning and in the evening)

10- ṣa?ala: mina ᵭiqta:hirati wa dina? inrolled they from Cairo and Damascus
(They arrived from Cairo and Damascus)

11- ṭa?atā: ᵭkutuba cah: ᵭṭa:wilati wa raf put she the books on the table and the shelf
(She put the books on the table and the shelf)
A Transformational Grammar of Modern Literary Arabic

12- sayantāširu bissila:ṭi wa ḫi:ṭi:lah
will he win by arms and the intrigue
(He will win by arms and intrigue)
The conjoined elements (X and Y) in 9 are both time adverbials, whereas in 10 and 12 they are prepositional phrases denoting the directional and instrumental respectively (9). In 11, however, X and Y are both locative adverbials. Furthermore, construct noun phrases of the form NP + NP can also be conjoined by the conjunction schema (9). Note that if the second NP of the construct phrase is identical in both conjoined phrases, then T-pronominalization has to apply obligatorily to the second NP of the second construct phrase. Consider the following:

13- naːfidatu ʂʂaf
window the classroom
(The window of the classroom)
14- baːbu ʂʂaf
door the classroom
(The door of the classroom)
15- naː fidatu ʂʂaf fi wa baːbuːh
window the classroom and door its
(The window and the door of the classroom)
16- * naːfidatu wa baːbu ʂʂaf
window and door the classroom

It is worth remembering that 16 is traditionally ungrammatical, despite the fact that there is tendency to consider it acceptable in recent writings. The ungrammaticality of 16 comes as a result of applying T-conjunction reduction to the second NP of the construct phrase(10). It looks as though there is a constraint on the conjunction reduction rule which prevents generating deviant strings like 16 above, and at the same time makes T-pronominalization obligatory for the second NP in the second construct phrase under identity. This may be illustrated by the following structural description and structural change:

17- SD X - NP - NPi - Y - Conj - W - NP + NPi - Z ⇒
1 2 3 4 5 6 7 8 [9]
SC 1 2 3 4 5 6 7 +Pro [9]

Conditions
I- NPi = NPi
II- The rule is obligatory

As specified by the above structural description and structural change, rule 17 will enable us to generate coordinate phrases of the type represented by 15 and, at the same time, exclude ungrammatical derivations such as 16.

Although the conjunction schema in Arabic with a view to generating conjoined noun phrases has not received satisfactory treatment, the schema appears to be largely determined by the syntactic feature [+Definite] which it has. However, the schema is blocked if the resultant derivation is of the form:

18- NP
   # NP
   Conj
   NP #
   [-Def]
   [+Def]

If we allow derivations such as 18, we are likely to end up with doubtful sentences such as 19, and 25:

50
19- ʾiṣtaraitu ʾl bütuqa: lata wa tuffaḥa
bought I the orange and apple
(I bought the orange and an apple)
20- ʾiṣtaraitu bütuqa: latan wa tuffaḥaḥ
bought I orange and the apple
(I bought an orange and the apple)
21- ʾiṣtaraitu bütuqa: lata wa tuffaḥaḥ
bought I the orange and the apple
(I bought the orange and the apple)
22- ʾiṣtaraitu bütuqa: latan wa tuffaḥaḥ
bought I orange and apple
(I bought an orange and an apple)
23- ʾiṣtaraitu bütuqa: lata wa tuffaḥaḥ ladiː dah
bought I the orange and apple delicious
(I bought the orange and a delicious apple)
24- ʾsaː hadnaː lmaktabata wa ṣuwarːa:
saw we the library and pictures
(We saw the library and pictures)
25- ʾsaː hadnaː lmaktabata wa ṣuwar
saw we the library and the pictures
(We saw the library and the pictures)
26- ʾsaː hadnaː lmaktabata wa ṣuwaran mucallaqatan fi lmanzil
saw we the library and pictures hanging in the house
(We saw the library and pictures hanging in the house)
27- ʾsaː hadnaː lmaktabata wa ṣuwar
saw we the library and the pictures
(We saw the library and the pictures)
28- ʾwaḍacnaː ikutuba wa ṣawraːqan fi lxaːnaː
put we the books and papers in the cupboard
(We put the books and the examination papers in the cupboard)

It is not difficult to realize that 21 and 25 - both of which contain [+Definite] NPs - are grammatical and acceptable. However, while 24, which contains two conjoined NPs marked [+Definite] and [-Definite] respectively, is ungrammatical, 23 is acceptable because the indefinite NP tuffaḥaḥ (apple) is modified by the adjective ladiː dah (delicious). By the same token, the adjective phrase mucallaqatan fi lmanzil (hanging in the house) which modifies the indefinite conjoined NP suwaran (pictures) considerably boosts the sentence grammaticality. Moreover, 27 demonstrates that NPs functioning as the first element of construct phrases are treated as [+Definite], hence the grammaticality of 27 and the deviance of 28 (11).

Close scrutiny of 19-28 above leads to the conclusion that the conjunction schema becomes applicable when the resultant conjoined NPs are either marked for the same feature ([+Definite] or [-Definite]) or, if one of them is [+Definite], the other should be either part of a construct phrase or sister-adjoined to an adjective phrase (12). Failure to observe these conditions is likely to give rise to deviant structures as seen in 19-28 above.

At this point, it seems important to bring into play what Fillmore has noted earlier that the conjunction schema cannot apply to items with different underlying cases. This observation seems to be the reason for the ungrammaticality of 32 which has both 29 and 30 as underlying structure:
As Fillmore points out, NPs such as assummu and alwazi:ru (the poison and the minister respectively), have two different underlying cases: instrumental and agentive respectively. This claim will be true of course if we agree that the semantic relations between the grammatical and categories of 31 are specified in both 29 and 30. This explains the peculiarity of 32 where the derived conjoined structure contains the two NPs with different underlying cases. However, some grammatical categories that belong to different underlying cases may still be conjoinable. Consider the following examples:

33- bahahat canhu tawa:la nnaha:ri wa fi kulli maka:n
looked she for him all the day and in every place
(She looked for him all day long and everywhere)

34- bahahat canhu tawa:la nnaha:ri
looked she for him all the day
(She looked for him all day long)

35- bahahat canhu fi kulli maka:n
looked she for him in every place
(She looked for him everywhere)

Assuming that 33 has both 34 and 35 as deep structure, the result of applying the conjunction schema to the underlying structure will be the following simplified configuration which displays the case difference in the conjoined adverbials:

The above configuration suggests that it is sometimes possible to conjoin adverbials with different underlying cases. However, NPs with different cases appear to be conjoinable only if they form parts of conjoined sentences. Therefore, the following derivation is likely:

36a-

where X and Y are two different cases. In this way we can give 33 the surface representation 33a below, which shows that the node ADV dominates two conjoined adverbials: Adv1 and Adv2 though the conjuncts belong to two distinct cases: time and locative. Such examples suggest that there are less restrictions imposed on conjoining different adverbials than on conjoining other cases.
The Conjunction Schemata

There have been a host of different schemata proposed for conjoined structures in some languages other than Arabic. In spite of their universal value, these schemata show some hitches insofar as the Arabic language is concerned. In the following part, I will deal with these differences in terms of the generative transformational model (the reductionist hypothesis), then I will show its limitations, and why we have to hedge our bets between the phrasal and the transformational models.\(^{(13)}\)

A- The Transformational Schema

According to the transformational schema, conjoined structures like 38 below involve the deletion of a constituent of VERB type. This can be readily proved by 39 and 40:

38- mašaitu fi ššawaː:rici wa lḥadaː?iq
   walked I in the streets and the parks
   (I walked in the streets and the parks)
39- mašaitu fi ššawaː:ric
   walked I in the streets
   (I walked in the streets)
40- mašaitu fi lḥadaː?iq
   walked I in the parks
   (I walked in the parks)

From 38-40 one can clearly see that 38 is derived from 39 and 40 by applying the transformational schema to the latter pair of sentences. The deep structure then may be represented by the following configuration 41:

The verb + pronoun mašaitu (I walked), which is repeated in both 39 and 40, does not appear in the final derivation 38. Bearing in mind that 39 and 40 paraphrase 38, we may conclude that the identical deep-structure verb in S2 has been deleted.
transformationally. The transformational schema therefore accounts quite neatly for the synonymy exhibited by 39-40 above. The transformational account of coordinate structures brings us squarely against a problem that is all the more important namely, that of rule ordering. In cases where the conjoined sentences generated in the base dominate other conjoined sentences, the transformational conjunction schema applies cyclically, i.e. it first applies to the most deeply embedded sentence, then to the less deeply embedded one, as explained in 42 and 43 below:

42- wašala majdi: bisurca fa fataḥa lba:ba wa jalas 8umma sa:cada ?aba:hu
arrived Majdi quickly and opened the door and sat then helped father his
(Majdi arrived quickly, he opened the door sat down then helped his father.)

The conjunction schema in 43 will apply to S6 and S7 first, deleting the repeated subject NP majdi: from S6, and conjoining S6 and S7. In S4, T-pronominalization will apply first and change the object NP majdi: into the bound clitic pronoun -hu. In S3 the same object NP will be assigned a pronominal form too by T-pronominalization, then the conjunction schema will delete the repeated subject NP from S3 and conjoin it to S4. Finally, the conjunction schema will conjoin both S2 and S5 to generate the surface structure 42.

43-

S1

S5

Conj

S7

Conj

S6

S4

Conj

S3

wašala majdi: bisurca fa fataḥa lba:ba wa jalas 8umma sa:cada ?aba:hu
arrived Majdi quickly and opened the door and sat then helped father his

So far the transformational schema seems to work neatly in conjoining sentences which have undergone some kind of deletion while getting from deep to surface structure. However, every attempt that has been made to extend the transformational schema so that it may account for all conjoined structures was proved inadequate one way or another. The reason for this inadequacy is that there are some recalcitrant cases where the schema does not seem to work, and the best alternative available that may solve these problems is the rather atavistic phrasal schema. (14)

B- The Phrasal Schema

As suggested earlier, the aim of the phrasal schema is to account for conjoined structures which the transformational schema is unable to handle. In pursuance of this aim, the schema attempts to account for conjoined structures in the base by phrase structure rules, rather than derive them by transformations. This means, naturally, that a more restricted role is assigned to the transformational rules and, at the same time, greater reliance on the base component. The phrasal schema is based on a universal convention that associates a schema with every grammatical category in the base. In its simplified form, the rule may look as follows:

44- X ——> X (n)

where X is a major syntactic category (i.e. S, NP, V, etc.) and (n) is the number of times X is repeated. If we allow rule 44 to expand grammatical categories as such, then we can directly generate conjoined structures in the base without the help of
transformations. So according to the phrasal schema 38 may be represented by the following configuration:

The above diagram shows that both conjoined NPs are base-generated by the recursive rule specified in 44. In this example, the rule takes the form:

NP \rightarrow NP1 and NP2. Naturally, the phrasal schema is simpler and more economical than the transformational since the former does not involve deletion rules (cf. 41 above) but allows repeated elements to be directly generated in the base. The most formidable argument in favour of the phrasal schema is that it accounts for conjoined structures with verbs or adverbs marked [+Reciprocal]. These categories have always been the stumbling stone for the transformational schema. In order to understand this argument, it is necessary that we first discuss reciprocity - an important feature generally associated with Arabic verbs and adverbs.

Reciprocal Verbs and Adverbs

Arabic, among other languages, contains a certain class of verbs and adverbs that may exclusively take NPs marked [-Singular] and [+Reciprocal]. When the verbs in this class are assigned the features +Perf, +Masc, +3rd, their phonological structure will be of the form \( /\text{la}\ Ca: Ca\ Ca/ \) where \( C \) means consonant. It is clear that we can derive the reciprocal form by adding the prefix \( ta- \) to the verb root, and by lengthening its first vowel which is normally \( /a/ \). To observe the conditions placed by these verbs and adverbs on their respective NPs, it is necessary, where the subject, for instance, is neither plural nor dual to generate these subjects by some conjunction schema at some level of the derivation. Consider for example:

46-\( \text{taxa:}\text{šama }\text{lmudi:ru wa l?usta:d} \)

the headmaster and the teacher

(\text{The headmaster and the teacher quarrelled})

47-\( \text{taxa:}\text{šam }\text{lmudi:}\text{r} \)

the headmaster quarrelled

48-\( \text{taxa:}\text{šama l?usta:d} \)

the teacher quarrelled
Example 46 contains the verb *taxa:šama* (quarrelled) which is marked [+Reciprocal], and the two subject NPs *almudi:r u* and *alʔusta:du* (the headmaster) and (the teacher) respectively. Obviously, we cannot claim that 46 is derived from 47 and 48, since neither can stand by itself as a grammatical sentence. This is precisely why the transformational schema fails to describe structures such as 46 adequately. Similarly, neither 49 can be derived from 50 and 51, nor 52 from 53 and 54 for the same reason. Therefore, conjoined structures like 46, 47 and 52 should be captured in deep structure by means of the phrasal schema as seen in 56 and 57 respectively.

49- 
*taba:dalat ru:šia wa ?amīrika: littiha:ma:t*

exchanged Russia and America the accusations

(= Russia and America exchanged accusations)

50-* 
*taba:dalat ru:šia littiha:ma:t*

exchanged Russia accusations

51-* 
*taba:dalat amirika: littiha:ma:t*

exchanged America accusations

52- 
*sa:ra lkašša:fatu baina ljabali wa nnahr*

walked the boy scouts between the mountain and the river

(The boy scouts walked between the mountain and the river)

53-* 
*sa:ra lkašša:fatu littiha:ma:t*

walked Russia accusations

54-* 
*J1l sa:ra lkašša:fatu baina nnahr*

walked America accusations

55- 
*sa:ra lkašša:fatu baina ljabali wa baina nnahr*

walked the boy scouts between the mountain and between the river

(The boy scouts walked between the mountain and the river)

56-

\[
S \rightarrow \text{VERB} \rightarrow \text{NP} \rightarrow \text{NP} \rightarrow \text{Conj} \rightarrow \text{NP}
\]

*taxa:šama lμudi:ru wa lʔusta:du*

quarrelled the headmaster and the teacher

57-

\[
S \rightarrow \text{VERB} \rightarrow \text{NP} \rightarrow \text{ADV} \rightarrow \text{PP}
\]

*sa:ra lkašša:fatu*

walked the boy scouts

\[
P \rightarrow \text{NP} \rightarrow \text{Conj} \rightarrow \text{NP}
\]

*baina ljabali wa nnahr*

between the mountain and the river
Note that the second occurrence of the preposition *baina* (between) in 55 is the result of an optional insertion transformation the effect of which is purely emphatic, and 55 and 52 remain essentially synonymous. The second occurrence of the preposition could not have possibly been generated in the base since this would lead to ungrammaticality as shown in sentences 53 and 54 above.

Another apposite argument in favour of a phrasal schema is furnished by conjoined adverbials of the type illustrated in configuration 36 above. Consider for example:

58- incaqada lmu?'tamara fl jla:micati wa fl: yawmi lxami:s

convened the conference in the university and in day Thursday

(The conference was convened in the university on Thursday)

The locative adverbial *fl jla:micati* and the time adverbial *fl: yawmi lxami:s* (on Thursday) should be base-generated simply because the transformational schema will make the wrong predictions about 58. So while the sentence implies one conference only, the transformational schema would wrongly suggest that there were two conferences: one was convened in the university, and the other on Thursday. The derivational process of 58 is illustrated by configuration 59:

59- S

VERB | NP

?incaqada lmu?'tamara

convened the conference

ADV

L | Conj | T

PP | wa | PP

P | NP | P | NP

fi: jla:micati | fi: yawmi lxami:s

in the university in day Thursday

Having established the validity of the phrasal schema, there are still some clear cases where it would be necessary to maintain the transformational as well as the phrasal schema. Ambiguous conjoined structures cannot be resolved except by adopting both techniques. Consider the following:

60- za:ru: li?ama:kina lqadi:mata wa lmuzdahimah

visited they the places old and crowded

(They visited the old and crowded places)

As base-dependent, the phrasal schema gives a single representation for any conjoined structure, thus it fails to explain the scope ambiguity of 60. The kind of configuration that the phrasal schema yields is represented by 61.

There remains another equally possible interpretation of 60 that cannot be captured without the transformational schema. Sentence 61 may be interpreted as "the places that they visited were both old and crowded" on the other hand the same sentence may be interpreted as "some of the places that they visited were old, others were crowded." The latter interpretation is represented by 62. In order to get from 62, which represents only one stage of the derivation, to the surface representation
A Transformational Grammar of Modern Literary Arabic

60, T-conjunction reduction has to apply; it deletes the repeated element *al?ama:kina* (the places) from the second conjunct to generate the final surface structure 60.

---

Close examination of the above elucidatory data (41-62) enables us to reach the conclusion that the phrasal schema seems to work quite elegantly insofar as unambiguous sentences are concerned (i.e. sentences with a single semantic interpretation.) On the other hand, the transformational schema is required to account for ambiguous cases. In fact, this is one of the justifications for adopting a transformational schema for our grammatical description. The former is certainly a more powerful model since it can assign more than one structure to ambiguous sentences like 60 above.

Furthermore, the transformational process asserts its important role in deriving conjoined structures in characteristically different ways. For instance, it is the interplay between the phrasal and the transformational rules that generates conjoined structures such as 63, where S2 has been independently generated in the base, then has cyclically undergone the passive transformation before the application of the conjunction schema:

---

63- *alqa:di: wašala wa stuqbila fl lma:ta:r*  
(The judge arrived and was received at the airport)

According to the phrasal schema, 63 may undergo the following stages while getting from deep to surface structure:
waşala wa alqaːdiː ?istaqbalasaxṣun alqaːdiː fi lmaṭaːr
arrived and the judge received someone the judge in the airport

alqaːdiː waṣala wa ?istaqbalasaxṣun alqaːdiː fi lmaṭaːr
the judge arrived and received someone the judge in the airport

alqaːdiː waṣal wa ?istaqbilalqaːdiː fi lmaṭaːr
the judge arrived and was received the judge in the airport
Dougherty (1969) introduces the dummy symbol \( \Delta \) in configurations like 64-66 to serve the purpose of occupying the V2 slot in S1 - the second conjunct of the conjoined structure (18). As soon as S2 has undergone passivization and had its original subject NP \( \text{āṣṣṣu} \) (someone) deleted, the dummy symbol in S1 will be replaced by the remaining V of S2, yielding the final configuration 66.

The foregoing arguments bear out the claim that neither the phrasal nor the transformational schema is sufficient by itself for an adequate description of Arabic coordination. In fact any attempt to rely exclusively on one rather than the other will almost certainly meet with ignominious failure. In the remainder of this chapter, I will discuss the syntactic behaviour of some Arabic conjunctions and explain the semantic differences implied by each one of them.

The Conjunction \( \text{la:kin} \)

The conjunction \( \text{la:kin} \) resembles \( \text{wa} \) in the sense that its conjuncts should be semantically related (19). Since this relationship verges more on semantic than syntactic aspects, it is notoriously difficult to capture in purely syntactic terms. In the following examples, we notice that sentence 1 is acceptable while 2 is not.

1. \( \text{cinda ạdīqi: qāicatun jami:latun la:kin ?axu:hu faqi:r} \)
   has friend my village nice but brother his poor
   (My friend has a nice village, but his brother is poor)

2. \( \text{cinda ạdīqi: qāicatun jami:latun la:kin lam ?azur mīr} \)
   has friend my village nice but did not I visit Egypt
   (My friend has a nice village, but I did not visit Cairo)

The absence of semantic relation between the conjuncts of 2 is the source of its deviance. In 1, however, the two conjuncts share some sort of a common topic though the relation is implicit rather than explicit (having a nice village on the one hand, and being poor on the other.) This is probably why the use of the conjunction \( \text{la:kin} \) is more appropriate in this context than \( \text{wa} \). The \( \text{la:kin} \) conjunction highlights the semantic contrast implied in both conjuncts of the sentence.

From the examples above, we notice two important elements in a \( \text{la:kin} \) - conjoined sentence: similarity and dissimilarity. It seems that both of these elements constitute conditions to be met for the \( \text{la:kin} \) conjunction to take place. Close
examination of 2 reveals that only one of these conditions is met - dissimilarity - while the other is not; that is why 2 is deviant.

Attempts to give a comprehensive account of the conjunction *la:kin* have proved to be unsuccessful because of the wide range of data that has to be analysed. However, one can distinguish two major uses of the conjunction *la:kin* in Arabic: the semantic contrast *la:kin* and the contrary-to-anticipation *la:kin*. It should be noticed that the differentiation between these two uses is based purely on semantic or pragmatic rather than syntactic grounds. Consider the following examples:

3- *aljisa: bu ma:ddatun șacbatun la:kin lki:mya:?u sahla*  
   arithmetic subject hard but chemistry easy  
   (Arithmetic is a hard subject, but chemistry is easy)

4- *alha:risu qawiyu lbyunati la:kin jaba:nun ñi: nafsi lwaqt*  
   the guard strong build but coward in same the time  
   (The guard has a strong build, but is cowardly at the same time)

It is difficult to specify the semantic opposition in sentence 3 where we have a comparison between separate adjectives: *șacbaš* and *sahlah* (hard and easy respectively.) This example suggests that we are interested in one aspect of the comparison (the subjects being "hard" or "easy"), and at the same time interprets the semantic contrast *la:kin* in terms of the explicit contrastive relation between the two conjuncts. The second use of *la:kin* is represented in 4, where we encounter the contrary-to-anticipation conjunction. (If someone has a strong build, he is expected to be brave. But this is not the case in 4 where the guard has a strong build, yet he is cowardly.) It seems that the contradiction here is of pragmatic implications which in this particular context necessitate the use of the conjunction *la:kin*. The use of *wa* in this context would almost certainly yield unacceptable output. Furthermore, in spite of the fact that these uses of *la:kin* should be kept distinct, it is not always easy to draw a clear-cut line between them. In some sentences *la:kin* might be interpreted either way, as in 5 below:

5- *ațta:libu nasi:țun la:kin waqitun șai4a:*  
   the student hardworking but impolite too  
   (The student is hardworking but impolite too)

Bellert (1966) gives two conditions on the *la:kin*-conjoined sentences: first, both of the conjoined sentences should be different in terms of the value of a variable; second, one of the conjoined sentences should contain a NEG while the other should not. The first condition implies that identical nodes occurring in identical phrase markers in both conjoined sentences dominate different lexical items, e.g.:

6- *dahaba rrajulu ?ila: ssu:qi la:kin lam yaçoaur cala: šay?*  
   went the man to the market but did not find anything  
   (The man went to the market but did not find anything)

7- *cudtu ?ila: imadrasati la:kin şadi:qi: lam yacud*  
   returned I to school but my friend did not return  
   (I returned to school but my friend did not)
A Transformational Grammar of Modern Literary Arabic

8- assa:ʔiqu masru:run la:kin raʔi:suħu laiςa masru:ra;
the driver happy but boss his not happy
(The driver is happy but his boss is not)

9- assa:ʔiqu masru:run la:kin raʔi:ga:ʤib
the driver happy but boss his angry
(The driver is happy but his boss is angry)

Examples 6-9 may be assigned the configurations 10-12 respectively:

10-

Identical nodes can be seen in both constituents (S1 and S2), but the lexical items they dominate, except for the subject NPs, are different. The NEG element can also be seen in S2; therefore, 6 meets Billert's conditions. By the same token, 7 and 8 are derived from underlying structures similar to that of 6 as illustrated in 11 and 12 below. Note that NEG forms part of both 7 and 8, and that it is realized as lam and laiςa respectively. The case, however, is not so with 9 where the NEG is implicit rather than explicit, i.e. it is implied in the contrast between the two adjectives masru:run and ga:ʤib (pleases and angry respectively.) However, if the contrast element were absent altogether, the output would be extremely odd, as exemplified by 13 and 14. The oddity of 13 and 14 below is attributed to the lack of contrast between the two conjuncts. The adjective muxlisun (sincere) appears in C1 as well as in C2 - the two conjuncts of 13. The use of the same conjuncts has eliminated contrast; consequently, the sentence violates one of the condition imposed on the la:kin conjoined structure. The same reason is behind the oddity of 14 where the object NP assiba:ʤah (swimming) appears in both C1 and C2 of the conjoined structure.

11-

Identical nodes can be seen in both constituents (S1 and S2), but the lexical items they dominate, except for the subject NPs, are different. The NEG element can also be seen in S2; therefore, 6 meets Billert's conditions. By the same token, 7 and 8 are derived from underlying structures similar to that of 6 as illustrated in 11 and 12 below. Note that NEG forms part of both 7 and 8, and that it is realized as lam and laiςa respectively. The case, however, is not so with 9 where the NEG is implicit rather than explicit, i.e. it is implied in the contrast between the two adjectives masru:run and ga:ʤib (pleases and angry respectively.) However, if the contrast element were absent altogether, the output would be extremely odd, as exemplified by 13 and 14. The oddity of 13 and 14 below is attributed to the lack of contrast between the two conjuncts. The adjective muxlisun (sincere) appears in C1 as well as in C2 - the two conjuncts of 13. The use of the same conjuncts has eliminated contrast; consequently, the sentence violates one of the condition imposed on the la:kin conjoined structure. The same reason is behind the oddity of 14 where the object NP assiba:ʤah (swimming) appears in both C1 and C2 of the conjoined structure.

12-
Coordination

12-

\[
\begin{array}{ccc}
S & \text{Conj} & S2 \\
\text{VERB} & \text{NP} & \text{Adj P} \\
\Delta & \text{NEG} & \text{VERB} \\
\Delta & \text{NP} & \text{Adj P} \\
\end{array}
\]

\[
\begin{array}{ll}
++\text{Cop} & \quad \text{++\text{Cop}} \\
\end{array}
\]

\[
\begin{array}{ll}
\text{the driver happy} & \quad \text{the boss happy} \\
\end{array}
\]

13.- alca:limu muklu:šun la:kin almuhandisu muklu:šun
the scientist sincere but the engineer sincere

14.- nuhi:bbu ssiba:šata la:kin sami:r yuhi:bbu ssiba:šah
we like swimming but Samir likes swimming

It is not difficult to see that, contrary to conjunction wa, la:kin can conjoin only two deep structure sentences rather than constituents of sentences such as NPs, VERBs, etc. If la:kin appears with such grammatical categories, the coordinate structure then must have undergone the conjunction reduction transformation. Thus, while 15-17 are grammatical, 18 is not:

15.- [almudunu wa:sicatun wa šaxiba [la:kini [lqura: šagi:raḥ wa ha:di?ah]]]
the cities big and noisy but the villages small and quiet
(Cities are big and noisy, but villages are small and quiet)

not saw I the headmaster but the assistant
(I did not see the headmaster, but the assistant)

the cities big but the villages small, however, the houses similar
(The cities are big, but the villages are small; however, the houses are similar.)

C1 the cities big, but C2 the villages small, but C3 the houses similar

In 15 there are only two conjuncts: C1 and C2; they are conjoined by la:kin to render the desired effect of semantic contrast between "cities" and "villages" with respect to noise and size. In 16, however, T-conjunction reduction has applied to C2, leaving the object NP almuc:wa:ına (the assistant) to be contrasted with that of C1 - almud:ir:ra. (the director) (21). Now, looking at 18, we discover that the repetition of the conjunction la:kin more than once in the same conjoined sentences has given rise to ungrammaticality. This is in fact the main difference between 18 and 17 in which the repetition of la:kin has been avoided to resolve the deviance of the former, and make the latter grammatical. In this case a substitution transformation obligatorily replaces la:kin with the semantically equivalent ?illa: ?anna. (22). It should be mentioned here that there are other equally possible substitutes for la:kin; these
include: ˝gaira ˝anna, ˝amma: ..., ˝a-, ˝ainama:, etc. If we follow the generative semantics hypothesis and allow the derivation of one lexical item from another, we may be able to claim that these items are all derived from a common "deep" or abstract underlying form of conjunction which has the characteristics of \( \text{la:kin} \), and meets the conditions imposed on it. Given more space, I would have dealt with the issue of generative semantics in more detail, but for the present I will leave it at this point and proceed to deal with \( \text{la:kin} \) substitutes in more detail. (For more discussion, cf. Kempson 1977.) In spite of the fact that these substitutes may be semantically related to \( \text{la:kin} \), they exhibit different syntactic behaviour from one another. Consider the following examples:

19- ˝aššudqu quwatun \( \text{la:kin} \) ˘kadibu ˘dacf
   the truth strength but the lying is weakness
   (Telling the truth is strength, but telling lies is weakness)
20- ˝aššudqu quwatun ˝ainama: ˘kadibu ˘dacf
   the truth strength whereas the lying is weakness
   (Telling the truth is strength, whereas telling lies is weakness)
21- ˝aššudqu quwatun ˝illa: ˝anna ˘kadiba ˘dacf
   the truth strength but the lying is weakness
   (Telling the truth is strength, but telling lies is weakness)
22- ˝aššudqu quwatun ˝amma: ˘kadibu ˘fa˘dacf
   the truth strength as for the lying it is weakness
   (Telling the truth is strength, but telling lies is weakness)
23- lam ya?ti ˝a˘hmadu \( \text{la:kin} \) cumar
   did not come Ahmad but Omar
   (Ahmad did not come, but Omar did)
24-* lam ya?ti ˝a˘hmadu bainama: cumar
   did not come Ahmad whereas Omar
   did not come Ahmad whereas came Omar
   (Ahmad did not come, whereas Omar came)
26-* lam ya?ti ˝a˘hmadu ˝illa: ?anna cumar
   did not come Ahmad but Omar
   (Ahmad did not come, but Omar came)
27- lam ya?ti ˝a˘hmadu ˝illa: ?anna cumar ?ata:
   did not come Ahmad but Omar came
   (Ahmad did not come, but Omar came)
28- lam ya?ti ˝a˘hmadu ˝amma: cumar ˘fa?ata:
   did not come Ahmad but Omar came
   (Ahmad did not come but Omar came)
29- ˝aššudqu jami:lun \( \text{la:kin} \) ˝a˘c
   the truth good but difficult
   (Telling the truth is good but difficult)
30-* ˝aššudqu jami:lun ˝illa: ?anna ˝a˘c
   the truth good but it difficult
31- ˝aššudqu jami:lun ˝illa: ?annahu ˝a˘c
   the truth good but it difficult
   (Telling the truth is good but difficult)
32-* ˝aššudqu jami:lun bainama: ˝a˘c
   the truth good whereas difficult
   (Telling the truth is good but difficult)

The above examples show the different syntactic behaviour which each of the \( \text{la:kin} \) substitutes displays. For instance, \( \text{la:kin} \) has been replaced by \( \text{bainama:}, \tilde{\text{illa:}}, \tilde{\text{anna}}, \)
and *amma:...fa- (whereas) in 20-22 respectively, with negligible semantic difference. Note that 23-24 exhibit another aspect of syntactic difference between *la:kin and *bainama: As suggested by 23, conjoined verbal-initial sentences with *la:kin allow the deletion of initial verbs, whereas the *bainama: does not. This seems to be the reason for the ungrammaticality of 24 which is resolved in 25. In this particular example, the verb *ata: (came) has been retained in the second conjunct, enhancing the grammaticality of the whole structure. The same observation applies to the conjunction *illa: *anna, i.e. this conjunction does not allow the deletion of repeated elements either (be they verbs or nouns.)

Examples 26-27, on the other hand, show that the rule of conjunction reduction is blocked if the conjunction *illa: *anna is used instead of *la:kin; while sentence 27 is grammatical, 26 is not. Further still, the conjunction *amma:....fa- means in principle that the subject and the predicate should be present in the sentence so as to attach *amma:to the former and fa- to the latter (23). It follows that we cannot delete either the subject NP or the predicate phrase when this particular conjunction occurs. Deletion of the predicate leaves fa- stranded, rendering the derivation ungrammatical. To carry the argument a step further, let us consider 29-32 which have identical subject NPs aššudqu (the truth) in their deep structure. As manifested in 30, the result of this deletion would be ungrammatical if the conjunction *la:kin were transformed into *illa: *anna. This example clearly indicates that, as a conjunction, *illa: *anna does not allow deletion of identical NPs either; instead, it makes the application of T-pronominalization obligatory in these cases, as can be seen in 31 (24). Similarly, the second occurrence of the NP has been deleted from C2 in 29 under identity, as illustrated in configuration 33 below:

There are still more recalcitrant problems like that encountered in 32, which cannot be easily worked out. The reason for the ungrammaticality of 32 may well be defined if we stipulate a condition on the syntactic environment of *bainama: stating that the subject NPs of the two conjuncts should be different from each other. This may look as follows:

X - NP1 W - *bainama: - Y - NP2 - Z
Condition:
NP1 ≠ NP2

Examples 19-32 exhibit some of the subtle syntactic idiosyncrasies of the *la:kin substitutes and underscore the differences that should be observed in generating any well-formed sentence with these conjunctions.
Deletion Rules

Deletion of deep-structure repeated elements in Arabic, as well as in other languages, is subject to recoverability condition. Mapping between deep and surface structure of conjoined sentences often involves such deletions. In Arabic two main rules are normally recognized: gapping and conjunction reduction (henceforth Gap and Conj Red respectively.) Ross states that Gapping operates in conjoined sentences and deletes indefinitely many occurrences of a repeated main verb. Accordingly, we may derive 2 and 4 from 1 and 3 respectively:

1.
\[\text{C1 Conj C2} \]
\[\text{[?a-hmadu qara?a Imajallata [wa [ma:hirun qara?a rriwa:yah]]]} \]
Ahmad read the magazine and Maher read the novel
(Ahmad read the magazine and Maher read the novel)

2.
\[\text{C1 Conj C2} \]
\[\text{[?a-hmadu qara?a Imajallata [wa [ma:hirun rriwa:yah]]]} \]
(Ahmad read the magazine and Maher the novel)

3.
\[\text{Cl Conj C2} \]
travelled the president to Beirut and travelled the minister to Cairo
(The president left for Beirut and the minister left for Cairo)

4.
\[\text{Cl Conj C2} \]
travelled the president to Beirut and the minister to Cairo
(The president left for Beirut and the minister for Cairo)

It is not difficult to see that 1 and 3 contain identical verbs qara?a and sa:fara (read and travelled respectively), in both of their conjuncts. The recursions of these verbs in the second conjuncts of 2 and 4 have been deleted or, to use the technical term, gapped. Although the rules of gapping and conjunction reduction both delete elements from conjoined structures, there is one crucial difference between them. What gapping does is look for identical elements in distinct sentences and delete them; conjunction reduction, on the other hand, does the opposite: it looks for distinct elements in identical sentences and conjoins them. Thus in sentences 2 and 4 above, the identical elements that have been deleted by T-gap are the verbs qara?a and sa:fara (read and travelled respectively), whereas the distinct elements that have been conjoined in 6 and 8 are ?a-hmad and camma:n (Ahmad and Amman respectively.)

Another deletion rule - conjunction reduction - is also required to generate 6 and 8 from deep structures 5 and 7 which are represented by 5a and 7a respectively:

5.
\[\text{Ga:dara lmu?a:diru lqa:cata wa ga:dara lhuqu:ru lqa:cah} \]
left the lecturer the hall and left the audience the hall
(The lecturer left the hall, and the audience left the hall)

6.
\[\text{Ga:dara lmu?a:diru wa lhuqu:ru lqa:cah} \]
left the lecturer and the audience the hall
(The lecturer and the audience left the hall)

7.
\[\text{zurtu lqa:hirata wa zurtu camma:n} \]
visited I Cairo and visited I Amman
(I visited Cairo and I visited Amman)

8.
\[\text{zurtu lqa:hirata wa camma:n} \]
visited I Cairo and Amman
(I visited Cairo and Amman)
Attention should be drawn to the fact that there is a correlation between the verb-reduced and the object-reduced coordination for Arabic; i.e. the two reductions should apply concurrently. This is why 9 is excluded from the language:

9-\* \(\text{ga:dara lmu\text{\textregistered}a:}\text{diru lqa:cata}\ \text{wa}\ \text{ga:dara}\ \text{\textregistered}u:ru lqa:cah}\)
left the lecturer the hall and the audience the hall

The retention of the object NP \(\text{alqa:cah}\) in the first conjunct causes the ungrammaticality of the sentence where the verb has been deleted from the second conjunct. To capture the generalization, it seems necessary to give up the idea that gapping and conjunction reduction are two distinct rules of the grammar and consider them as part of conjunction reduction. Therefore, the assumption that there is only one deletion rule - conjunction reduction - that may apply to conjoined structures seems to be well-motivated. For instance, when the object NP and the verb in C1 are identical to those in C2, conjunction reduction will delete the object NP from C1 and the verb from C2. In 6, we notice that the object \(\text{alqa:cata}\) and the verb \(\text{\textregistered}a:dara}\) have been deleted from C1 and C2 respectively. However, when the object NPs are distinct, the verb is always deleted from the second conjunct; hence the ungrammaticality of 10 and 11:

10-\* \(\text{\textregistered}ahmadu lmajallata wa ma:hirun qara?\text{a rriwa:ya}\)
Ahmad the magazine and Maher read the novel

11-\* \(\text{arra?:i:}\text{su ?illa: bairuta wa lwazi:ru sa:fara ?illa: lqa:hirah}\)
the president to Beirut and the minister left for Cairo

It is instructive to mention at this point that T-conjunction reduction is not structure-dependent in the sense that the rule is not affected by the fact that the sentence is nominal or verbal-initial. The rule can affect identical elements regardless of their surface structure order. It follows that T-focus and T-conjunction reduction operate independently in conjoined structures. For instance, the conjoined
sentence 3 may undergo T-focus before T-conjunction reduction, thus we may generate 12 and 13 respectively:

the president travelled to Beirut and the minister travelled to Cairo
(The president left for Beirut and the minister left for Cairo)

the president travelled to Beirut and the minister to Cairo.

The claim that T-conjunction reduction operates independently from the surface order of the sentence is further corroborated by the above cited examples where 12 and 13 have two distinct surface orders (28).

Apart from the relationship between conjunction reduction and surface word order, there are some restrictions that should be placed on the application of the rule. Negative conjoined clauses are one problem in this respect. Consider for example:

14- lam ?a$h{d}uri I?ajtima:ca wa ma:hirun lam yal}'.4uri l$aflah
I did not attend the meeting and Maher did not attend the party

15- lam ?a$h{d}uri I?ajtima:ca wa ma:hirun l$aflah
I did not attend the meeting and Maher the party

16- laisati lqi$\{\{atu macqu:latan wa ma:hirun muqnicah
is not the story reasonable and not the excuse convincing
(The story is not reasonable and the excuse is not convincing)

17- laisati lqi$\{\{atu macqu:latan wa $u$ujjatu muqnicah
is not the story reasonable and the excuse convincing

From 14-17 we discover that negative conjoined structures do not seem to allow T-conjunction reduction since the result would be ungrammatical, e.g. 15 and 17. There are, however, cases other than negative structures where the rule is also blocked. Consider:

18- laciba majdi: lucbatan jayidatan wa laciba calyiun lucbatan mumillah
played Majdi game good and played Ali game boring
(Majdi played a good game and Ali played a boring game)

19- laciba majdi: lucbatan jayidatan wa calyiun mumilla
played Majdi a good game and Ali boring game
(Majdi played a good game and Ali a boring game)

The noun lucbatan and the adjective mumilla (game and boring respectively), form one constituent in 18-29 namely, NP (29). The difference between the grammatical 20 and the ungrammatical 19 is that while the whole constituent (i.e. NP+Adj) has been retained in the latter, only part of it has been deleted from the former. Hence the generalization that T-conjunction reduction applies to constituents rather than individual items. Put differently, if the NP to be deleted dominates more than one element, all the dominated elements should be simultaneously deleted by the rule. I will return to this problem later when I discuss Ross Constraint. The rule of conjunction reduction may sometimes be obligatory particularly when the subject NPs in both C1 and C2 are identical. In such cases, the subject NP in C2 will be deleted under identity. This will probably explain the unacceptability of 23 where one of the identical subjects alcumma:lu (the workers) has been retained in C2. Sentences 21-22 represent C1 and C2 respectively:
Coordination

21- alcumma:lu yaknisu:na ššawa:ric
the workers sweep the streets
(The workers sweep the streets)

22- alcumma:lu yaknisu:na l?aršifah
The workers sweep the pavements
C1

23-* [alcumma:lu yaknisu:na ššawa:rica [wa [lcumma:lu yaknisu:na l?aršifah]]]
the workers sweep the streets and the workers sweep the pavements
The ungrammaticality of 23 can be remedied simply by deleting the subject NP from C2. Note also that the identical verb yaknisu:n (they sweep) can be optionally deleted from C2 once T-conjunction reduction has obliterated the subject of the second conjunct as can be seen in 24-25:
C1

24- [alcumma:lu yaknisu:na ššawa:rica [wa [yaknisu:na l?aršifah]]]
the workers sweep the streets and sweep the pavements

A quick glance at 24 reveals that only one of the identical elements - alcumma:l (the workers) - has been deleted, while the second - yaknisu:n (sweep) - is retained without debilitating the sentence grammaticality. It should be mentioned that T-conjunction reduction cannot delete a second occurrence of a verb unless both verbs have the same Aspect, i.e. either plus or minus perfective. This entails that the two conjoined sentences that contain these verbs must be of the same tense. For instance:

the manager travelled yesterday and assistant his travel tomorrow
(The manager left yesterday and his assistant leaves tomorrow)

27-* almudi:ru sa:fara bil?amsi [wa [musa:ciduhu ġada:]]
the manager travelled yesterday and assistant his tomorrow

The two adverbials bil?amsi and ġada: (yesterday and tomorrow respectively), denote two different tenses: past and future. The difference in tense makes it impossible for T-conjunction reduction to delete the verb from C2. One can also argue that the identity of the verbs involved is eliminated by their tense difference [30]. On the other hand, the verb sa:fara (travelled) in C1 of 26 has [+Perf] aspect, whereas yusa:firu (travel) in C2 has [-Perf]; this is precisely why the deletion of the latter produces ungrammatical structures like 27 above.

What is particularly a germane point to the subject of coordination has to do with numeral quantifiers. Like other categories in coordinate structures, quantifiers can also be deleted by T-conjunction reduction. Thus 30-31 can be correctly derived from 28-29 respectively:

28- ša:hadna: 0a:ala:0a firaqin mina lmidfaciyaty wa ōala:0a firaqin mina lmusāa:h
saw we three regiments of the artillery and three regiments of the infantry
(We saw three artillery regiments and three infantry regiments)

29- ħamala biɖecata ?akya:sin mina ddaqi:q wa biɖecata ?akya:sin mina ssukkar
carried he a few sacks of the flour and a few sacks of the sugar
(He carried a few sacks of flour and a few sacks of sugar)
30- ša:hadna: ẓala: ẓa firaqin mina lmudfaciyyati wa ẓala: ẓan mina lmūsa: h
saw we three regiments of the artillery and three of the infantry
(We saw three artillery regiments and three infantry ones)

31- ẓamala biḍcata ṣakya: sin mina ddaqi: q wa biḍcata mina ssukkar
 carried he a few sacks of the flour and a few of the sugar
(He carried a few sacks of flour and a few of sugar)

The NP fiqraqin (regiments) in 28 which follows the numeral quantifier ẓala: ẓa
(three) is deleted from 29, and so is ṣakya: sin (sacks) from 31. The structural
description and the structural change for this deletion is illustrated in 32 below:

32- SD X - Quant - NP - Y - Conj - W - Quant - NP - Z ⇒
1 2 3 4 5 6 7 8 9
SC 1 2 3 4 5 6 7 0 9

Conditions:
i- NP3 = NP8
ii- Y, Z ≠ Ø
iii- Quant = Numeral quantifier

Furthermore, it is important to note that although conjunction reduction in
Arabic operates progressively, i.e. from left to right, there are clear cases where the
opposite is true as well. In some conjoined structures the coreferential element may
be deleted from C1 but retained in C2, violating the direction of the deletion rule.
Traditionally, Arab grammarians refer to this kind of deletion as attāna: zuc
(literally: contention) where, for instance two conjoined verbs precede a single
subject surface NP. The following examples help elucidate the idea:

33- ṣakala wa šariba ḏyu: f
 ate and drank the guests
(The guests ate and drank)

34- ṣakala ḏyu: fu wa šaribu:
 ate the guests and drank they
(The guests ate and drank)

35- * ṣakala wa šaribu: ḏyu: f
 ate and drank they the guests

36-

Deep structures such as 36 have to undergo one of two transformations in order to
generate the surface structure namely, pronominalization and conjunction reduction.
In 33 two verbs ṣakala and šariba (ate and drank respectively) are conjoined by wa,
and followed by the subject NP ḏyu: fu (the guests.) Obviously, derivations like 33
start off in deep structure with the configuration 36 above.

T-pronominalization assigns the feature [+Pro] to the coreferential NP in S2, and
thus yields derivations like 34 where the clitic -u: is the pronominal form correspon-
ding to NPs adjacent to verbs. This will derive šaribu: (drank+they) from šariba ḏyu: fu (drank the guests.) On the other hand, conjunction reduction deletes the
Coordination

coreferential subject NP from S1, as seen in 33 above. In this case conjunction reduction operates regressively rather than progressively. Although structures like 33 are permissible in Arabic, most modern scholars of Arabic noticeably refrain from using them since these structures tend to characterize a rather atavistic style. Consequently this type of coordination is frowned upon by modern writers, as they would on pronominalizations that generate strings like 37 below:

\[ 37^* \text{?akalu: wa šaribu: dđuyuf} \]
ate they and drank the guests

where the clitic pronoun -u: is attached to the first conjoined verb ?akala, causing ungrammaticality. (As stated earlier, Arabic verbs do not show number agreement when they precede their subjects, and this rule remains valid in conjoined structures such as 37 above.) Furthermore, regressive conjunction reduction may equally apply to object NPs when the latter are coreferential in both conjuncts. For instance:

\[ 38^* \text{ra?aitu wa kallamtu lmufattiš} \]
saw I and addressed I the inspector

(I saw and addressed the inspector)

Originally, 38 seems to be derivable from deep structure 39, which may be assigned configuration 41 below:

\[ 39^* \text{ra?aitu ?ana: lmufattiša wa kallamtu ?ana: lmufattiš} \]
saw I the inspector and addressed I the inspector

\[ 40^* \text{ra?aitu lmufattiša wa kallamtu} \]
saw I the inspector and addressed I him

(I saw the inspector and addressed him)

Deletion rules will delete the object NP almufattis (the inspector) from S1 as well as the first person singular pronoun ?ana: (I) from both S1 and S2. Ultimately, the surface structure 38 will be generated by conjoining the two verbs ra?aitu and kallamtu (I saw and I addressed respectively.) Alternatively, instead of deleting the identical object NP from S1, T-pronominalization may apply to that in S2 and, with the help of morphophonemic rule, change the NP into a clitic form -hu. Consequently, we generate 40 as the surface realization of 39. In this case the rules of pronominalization and conjunction reduction, appear to be mutually exclusive. However, it is important to note that modern Arabic does not allow any permutation between the object NP almufattiša and the following VERB kallamtu (I addressed him.) It is unacceptable, therefore, to generate strings like 42 from 40:\n
\[ 42^* \text{ra?aitu wa kalamtuhiu lmufattiš} \]
saw I and addressed I him the inspector

The rule of conjunction reduction remains operative even if the identical NPs fulfil different syntactic functions in S1 and S2. For example, the coreferential NP may be
A Transformational Grammar of Modern Literary Arabic

the subject in S1, but the object in S2, in which case the former NP will be deleted and the latter retained. Thus we can generate the grammatical 44 from the deep structure 43 to which configuration 45 may be assigned:  

43- * sa:cadani: ra:mi: wa sa:cadtu ra:mi:  
helped me Rami and helped I Rami  
44- sa:cadani wa sa:cadtu ra:mi:  
helped me and helped I Rami  
(Rami helped me and I helped him)

However, it is crucial to note that in conjoined structures, regressive deletion cannot take place unless both S1 and S2 have identical verbs; hence the ungrammaticality of 46 which is the result of the earlier derivation 47. Therefore, if the verbs in S1 and S2 were not identical, the subject NP would be preserved in S1 and at the same time T-pronominalization would be obligatorily applied to the object NP in S2:  

helped me and rewarded I the worker  
helped me the worker and rewarded I the worker  
helped me the worker and rewarded I him  
(The worker helped me and I rewarded him)

The foregoing discussion of deletion rules and how they operate in Arabic leaves one in no doubt that Arabic squarely fits within the general pattern of language universals insofar as conjunction rules are concerned. Yet, there are obvious cases where certain differences do arise as we have seen in backward or regressive conjunction reduction. Affected and highly marked, regressive conjunction reduction is increasingly moving down the scale of acceptability, and quickly losing ground to progressive conjunction reduction.

Some Conditions Governing Conjoined Structures  

It has been noted earlier by Chomsky and others that an NP cannot be moved out of a larger NP which dominates it. A rather similar, but more general, observation was made later by Ross. In what has come to be known as coordinate
structure constraint, Ross rightfully states that no element can be moved out of a conjoined structure of the form:

To illustrate how Ross constraint works, let us consider the rule of question formation - a transformational movement rule that shifts an NP from its deep structure position to the leftmost side of the tree diagram to replace the presentential Q. The moved NP in this case will be assigned the features [+Pro], [+Q]. For example:

1- ?aćṭaytahu kita:ban wa daftara:
   gave you him a book and a copy book
   (You gave him a book and a copy book)
2- * ma:da: ?aćṭaytahu wa daftara: ?
   what gave you him and the copy book?
Sentence 1 has two conjoined object NPs kiitá:ba and daftara: (a book and a copy book respectively), the first of which has been moved to replace the Q node in 2. By applying T-question formation, the object NP is left stranded in sentence 2, branding it ungrammatical.

Although Ross constraint seems to be universally valid, there are certain cases that glaringly violate it. Sentences which display such violation, though admittedly lower on the scale of acceptability, are nonetheless grammatical. However, it is incessantly hard in this respect to draw the line between acceptability and grammaticality, or to define the point at which they merge. For example:

3- ?aćṭaytahu likita:ba wa ddaftara:
   gave you him the book and the copy book
   (You gave him the book and the copy book)
4- * ma:da: ?aćṭaytahu wa ddaftara: ?
   what gave you him and the copy book?
5- ja:?a jundiyyn wa da:bit
   came a soldier and an officer
   (A soldier and an officer came)
6- * ma:ja: ?a wa da:bit ?
   who came and an officer ?
7- ja: ?a ljudindyyu wa ḍa:bit
   came the soldier and the officer
   (The soldier and the officer came)
8- man ja: ?a wa ḍa:bit ?
   who came and the officer ?
   (Who came with the officer?)
9- qa:la ttaqri:ru ṭtaqsu ba:ridun wa lmaṭaru minhamir
   the report said the weather cold and the rain falling
   (The report said the weather was cold and the rain was falling)
10- * ma:da: qa:la ttaqri:ru wa lmaṭaru munhamir ?
    what did the report say and the rain was falling?

Looking closely at 3-10 above, we realize that T-question formation is blocked in 1 because both conjuncts are NPs marked [-Definite]. Even if the NP is fronted to replace the presentential node Q, the result will still be ungrammatical as indicated by 2. The same applies to sentence 5 where the conjuncts are two [-Definite] NPs: jundiyyn and ḍa:bit (a soldier and an officer respectively); this is why 6 is again
deviant. By the same token, question formation, or indeed any movement rule, does not seem to work if the conjuncts are two sentences dominated by an NP as in 9. However, the syntactic feature [-Definite] seems to influence the movability of conjoined NPs in Arabic, as we can discover from both 3 and 7 above. Note that sentences 4 and 8 are grammatical in spite of the fact that one of the conjoined NPs has been fronted by question formation (35).

The illusive problem of finding out how far Ross constraint applies to Arabic deserves thorough investigation. Although the grammaticality of 4 and 8 seems to be the outcome of the fact that the conjuncts in both 3 and 7, to which T-question formation has applied, are [+Definite], this does not constitute sufficient evidence to warrant any sweeping generalization. There are exceptions that still need to be accounted for, and even definite nouns which have been found to allow movement rules such as question formation behave quite differently in other examples:

11- ca:ša fi: dimašqa wa bağda:d
lived he in Damascus and Baghdad
(He lived in Damascus and Baghdad)
12- * ?aina ca:ša wa bağda:d ?
where lived he and Baghdad?

Obviously, sentence 11 has two [+Definite] NPs as its conjuncts, yet the result of fronting one of them is totally rejected on account of ungrammaticality. However, although in both cases we are dealing with [+Definite] conjoined NPs, there is a striking difference between 4 and 8 on the one hand, and between 8 and 11 on the other. It is quite possibly correct therefore to argue that the elements Conj+C2 in 3 and 7 (and also in 4 and 8) have been derived from a prepositional phrase with a specific preposition ma-da (with.) If this is the case, then we are dealing with a pseudo conjunction and not a genuine one. Consider the following examples:

13- ja:ša ljudunyyu ma-da dža:bit
came the soldier with the officer
(The soldier came with the officer)
14- ja:ša ljudunyyu wa dža:bit
came the soldier and the officer
(The soldier and the officer came)
15- ca:ša fi: dimašqa wa bağda:d
lived he in Damascus and Baghdad
(He lived in Damascus and Baghdad)
16-* ca:ša fi: dimašqa wa bağda:d
lived he in Damascus with Baghdad
17- sayusa:šifu ?ila: lubna:na wa mišr
will travel he to Lebanon and Egypt
(He will go to Lebanon and Egypt)
18-* sayusa:šifu ?ila: lubna:na maça mišr
will travel he to Lebanon with Egypt
19-* ?ila: ?aina sayusa:šifu wa mišr ?
to where will travel he and Egypt?

Close examination of the above listed data reveals that question formation, as a movement rule, is possible only with the conjunction wa since other conjunctions would yield deviant outputs. Since wa is the only conjunction that is interchangeable with preposition ma-da (with), then we have sufficient evidence that the sequence wa+NP can indeed be derived from ma-da+NP. There seems to be a transformational rule that relates prepositional phrases to the conjunction schema as presented by 20 (36):
According to 20 above, we can delete preposition maca and replace it with conjunction wa on condition that the NP in the second conjunct is not a pronoun. This rule will generate sentences like 14 from 13. Again, the actual application of rule 20 seems to be determined by semantic rather than syntactic considerations, as both input and output should be semantically related.

To sum up, Arabic seems to be very much in line with the overall universal principle of coordination outlined by Chomsky and others. However, Arabic conjunctions, as a matter of fact, exhibit idiosyncratic differences in terms of syntactic behaviour, and this warrants separate treatment for each of them. Less common, but still permissible conjoined structures are language-specific, and should be treated as such. As highly marked forms, these are accounted for on grounds of stylistic variations that can be derived by transformations. With regard to the question of adopting the transformationalist or the structuralist approach to Arabic coordination, this is still undecided; there is no a priori reason to prefer one over the other. Any attempt to exclude either of two schemata will be doomed from the start.
4 NEGATION

Arabic negative clauses are characterized by a deep structure NEG - a presentential element that is treated as a node-label and realized in terms of various lexical items later in the derivation (3). The presence of NEG is motivated not only by the fact that it serves to dominate negative lexical items, but also by the function it fulfills in deep structure constraints. The occurrence of negative items such as *wa la: ḥatta:* (not even), as well as a number of similar idiomatic phrases which include *qaida sacrah,* *qaida ?unmulah,* etc. (a hair’s breadth, one iota, etc.) all seem to motivate the postulation of a deep structure presentential NEG. Here are a few examples:

1- lam yarsub ?aḥadun wa la: ḥatta: ramzi
   did not fail one and not even Ramzi
   (Nobody failed, not even Ramzi)
2- rasaba baḥduhum wa la: ḥatta: ramzi:
   failed some them and not even Ramzi
3- lan nataːra:jacu qaida ʿadrah
   will not we retreat a breadth a hair
   (We will not retreat a hair’s breadth)
4- sanataːra:jacu qida ʿadrah
   will we retreat a hair’s breadth
5- lan nataːra:jacu qida ʿunmulah
   will not we retreat an inch
   (We will not retreat an inch)
6- sanataːra:jacu qida ʿunmulah
   will we retreat an inch

Sentence 2 is excluded from the language on the grounds that the phrase *wa la: ḥatta:* (not even) may occur only in sentences preceded by a negative item such as *lam* (did not) which appears in the well-formed sentence 1. Examples 3-4 also suggest that the occurrence of the idiomatic phrases *qaida sacrah* and *qaida ?unmulah* (a hair’s breadth and an inch respectively) is conditioned by the sentence being negative. This explains why 4 and 6 are doubtful sentences - probably unacceptable - and at the same time, explains the grammaticality of their counterparts 3 and 5.
In dealing with negation in Arabic, it is more convenient to treat nominal-initial and verbal-initial sentences separately since the actual realization of the deep structure presentential NEG is largely determined by the nature of the adjacent grammatical category, i.e. whether it is a noun or a verb. This entails that the actual insertion of the negative lexical item under NEG should be delayed until all transformational rules involving the adjacent element have been applied, e.g. copula deletion, focus, etc. The interdependence between the negative items and the grammatical categories that follow bears out the claim that the subcategorization of lexical items (or morphs) representing NEG should be carried out in surface rather than in deep structure. The items listed under NEG can be given the following subcategorization:

\[
\begin{align*}
& [+ - verbal] \\
& [+ - nominal] \\
& [+ verbal] \\
& [+ nominal] \\
\end{align*}
\]

In addition to the interdependence between negative items and adjacent grammatical categories, it is crucial that [+ -verbal] negative items be made sensitive to syntactic features, particularly aspect. The following schemata specify the context of each of the negative items listed:

\[
\begin{align*}
& \text{lam} + - \begin{cases} + \text{Perf} \\
& - \text{nominal} \end{cases} \\
& \text{laisa} + - \begin{cases} + \text{Perf} \\
& - \text{nominal} \end{cases} \\
& \text{la:} + - \begin{cases} + \text{Perf} \\
& - \text{nominal} \end{cases} \\
& \text{lan} + - \begin{cases} + \text{Perf} \\
& - \text{nominal} \end{cases} \\
& \text{ma:} + - \begin{cases} + \text{Perf} \\
& - \text{nominal} \end{cases} \\
\end{align*}
\]

According to the negative item they take, nominal-initial sentences can be classified into two groups: those containing no surface verb (with a deleted deep-structure ka:na (be) \(^{(3)}\), and those which have non-initial verb of the form \(^{(6)}\):

\[
S \quad [NP - V - X].
\]

The above classification is motivated by the fact that the latter group shows only negligible difference from verbal-initial sentences insofar as negation is concerned. This claim, however, is further corroborated by the fact that we can derive the nominal-initial versions of these verbal-initial sentences simply by focusing their NPs. In this chapter I intend to discuss each of these two classes: first as simple sentences, then as conjoined structures. This kind of subcategorization of the negative items allows us to write the following:

\[
\text{NEG} \rightarrow \begin{cases}
\text{laisa} \\
\text{la:} \\
\text{ma:}
\end{cases} + \begin{cases}
\text{NP} \\
\text{Adj} \\
\text{ADV}
\end{cases} \rightarrow \text{NP}
\]

The fact that \text{laisa}, \text{ma:} and \text{la:} characteristically exhibit syntactic idiosyncrasies motivates a separate treatment for each of them. In the remainder of this chapter, I will show the various syntactic behaviours that each negative item displays in
different contexts, then explore the possibility of deriving one item from another by projection rules.

I- Negation with laïsa

laïsa comports only pure negative modification; it is traditionally referred to as a sister (i.e. cognate) of ka:na. However, it differs from ka:na and its other cognates in that it does not inflect for tense. Therefore, if a change in tense is required, it is done by using the copula ka:na, in which case laïsa is transformed into ma: or lam; for instance:

1- laïsa lmataru ãazi: ra
   not the rain heavy
   (It is not raining heavily)
2- ma: ka:na lmataru ãazi: ra: not was the rain heavy
   (It was not raining heavily)
3- lam yakuni lmataru ãazi: ra: not was the rain heavy
   (It was not raining heavily)

Examples 1-3 display a range of data where the negative items ma: and lam are likely to replace laïsa. Sentence 1 represents the present tense or the imperfective, but when a change in tense has taken place in 2 and 3, laïsa was transformed into ma: in the former and into lam in the latter so as to mark the tense for the past. However, although laïsa is basically a negative item, it exhibits at least one aspect of similarity to verbs namely, inflection for person. Consider the following examples:

4- xarajna: mina lma:nac
   left we the factory
   (We left the factory)
5- lasna: masru:ri: na min camalik
   not we happy with work your
   (We are not happy with your work)
6- ?antum muxli: su: na fi: camalikum
   you dedicated in job your
   (You are dedicated to your work)
7- lastum muxli: si: na fi: camalikum
   not you dedicated to work your
   (You are not dedicated to your work)
8- laisu: na: jihi: na fi: ãaya: thim
   not they successful in life their
   (They are not successful in their life)
   not you dedicated to work your and not you successful in life your
   (You are not dedicated to your work and not successful in your life)

A quick look at the data in 4-9 shows that the intransitive verb xaraja (went out) in 4, and laïsa in 5 share the same inflectional clitic pronoun -na:. Examples 6-9 also show how laïsa shares other forms of inflections tum, -u:, etc. with ordinary verbs.

Attention should be drawn to the fact that sharing the same inflections is the only similarity between laïsa and ordinary verbs, which is hardly a sufficient motivation for classifying laïsa as a verb. In fact this rather traditional view of laïsa seems to be quite erroneous; one may present several arguments against treating laïsa as a verb.
For instance, it is often possible to derive various verbs from a single root in the greater majority of Arabic verbs. The following is one example:

- **dafaca** (pay, push)
- **daːːfaca** (defend)
- **daffaca** (cause someone else to pay/push)
- **indafaca** (rush)
- **tadaːːfaca** (push - reciprocal)

Derivations such as these are not possible with **laisa** - a fact that emphasizes its distinct morphological behaviour from other verb groups. Furthermore, derivation is not possible with **laisa** in the sense that no other grammatical categories may be derived from it. For instance, from the stem **dafaca** we may derive:

- **midfac** (cannon)
- **mudaːːfic** (defender)
- **daːːfic** (payer)
- **dafc** (payment, propulsion)
- **difaːːc** (defence)
- **mudaːːfacah** (pushing)
- **?indifaːːc** (haste, enthusiasm)

However, comparable forms are impossible to derive from **laisa**; one may also quite rightfully argue that, from a morphological point of view, **laisa** does not fit with any of the verbal patterns; instead, it has a pattern of its own. Compare the following patterns:

- **taxaːːsama** (quarrel) CVCVCVCVC
- **tabac8ara** (disperse) CVCVCCVCV
- **?irtadda** (recoil) ?VCCVCCV
- **?inkasara** (break by itself) ?VCCVCVCV
- **tabac8ara** (scatter) CVCVCCVCV

With the foregoing arguments in mind, we have fairly convincing evidence that **laisa** should be excluded from the verb class and classified as a negative morph (7), as I intend to treat it throughout the present work.

As indicated by 9 above, when **laisa** precedes two conjoined sentences S1 and S2, it is either retained in both conjuncts, or replaced in S2 with the negative item **wa Laːː** (and not) to avoid repetition. The following example is illustrative:

10- **lastum muxliːːna fiːː camalikum wa laːː naːː jihːːna fiːː ḥayːːaː tikum**

(You are not dedicated to your work and not successful in your life)

The optional transformation of **laisa** into **laːː** in conjoined structures such as 10 seems to be very common in Arabic; in fact the form used in 9 sounds rather marked in comparison with 10. The transformational rule that changes **laisa** into **laːː** may be formulated as follows:

11- SD # **laisa** - S - Conj - **laisa** - S # ⇒

<table>
<thead>
<tr>
<th>SC</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td><strong>laːː</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

Condition: The rule is optional

The structural change clearly indicates that the second occurrence of **laisa** is optionally transformed into **laːː** in conjoined structures. The fact that **laisa** and **laːː** can substitute for each other further corroborates the assumption that **laisa** is a negative morph rather than a verb.

Another form of the idiosyncratic behaviour of **laisa** is manifested by the fact that it triggers phonological transformation in the predicative adjective or noun, assigning to them the feature [+Accusative](9). However, this type of transformation
A Transformational Grammar of Modern Literary Arabic

has only minor importance since it is more phonological than syntactic, and presumably takes place at a later stage of the derivation (after the delta which terminates NEG has been replaced by \textit{laisa}). Consider the following:

12- \textit{almaradu xa\text{"i}:run jidda}:
the disease is dangerous very
(The disease is very dangerous)
13-\textasteriskcentered \textit{laisa lmara\text{"u} \textit{xa\text{"i}:run jidda}:
not the disease dangerous very
14- \textit{laisa lmara\text{"u} \textit{xa\text{"i}:ran jidda}:
not the disease dangerous very
(The disease is not very dangerous)

A quick look at 12 above reveals that it consists of NP - Adj - INTENS, and that both the noun \textit{almaradu} (the disease) and the adjective \textit{xa\text{"i}:run} (dangerous) terminate in the nominative suffix \textit{-un}. However, 13 - supposedly the negative form of 12 - is starred simply because the predicate case marking transformation triggered by \textit{laisa} has not been effected. Consequently, while 13 is excluded, 14 is properly generated where the case marking transformation has been applied to \textit{xa\text{"i}:r} and the feature [+Accusative] represented by the suffix \textit{-an} has been duly assigned to it. In addition to the properties displayed above, \textit{laisa} also allows derivations in which it follows the NP in surface structure, as illustrated in 15 and 16 below:

15- \textit{NP - X - laisa} - \begin{array}{c}
\text{NP} \\
\text{Adj} \\
\end{array} - Y
16- \textit{alqa:dil: laisa ca:dila}:
the judge not fair
(The judge is not fair)

The easiest way to account for surface structures like 16 above is to adopt the T-focus discussed in chapter two. Recall that this transformation focuses on any NP in the sentence and reproduces it in initial position; at the same time it either deletes or pronominalizes the original NP. The behaviour of \textit{laisa} in this case is notably identical to that of ordinary verbs, as can be seen in the following examples:

17- \textit{laisa lqa:dil: ca:dilan}
not the judge fair
(The judge is not fair)
18-
\begin{align*}
S & \\
\text{VERB} & \text{NP} & \text{Adj P} \\
\text{laisa} & \text{lqa:dil} & \text{ca:dila} \\
& \text{not the judge fair}
\end{align*}
19-
\begin{align*}
S & \\
\text{NP} & \text{VERB} & \text{NP} & \text{Adj P} \\
\text{alqa:dil} & \text{laisa} & \text{lqa:dil} & \text{ca:dila} \\
\text{the judge not the judge fair}
\end{align*}
Negation

Furthermore, it is important to note that in negating derived conjoined structures with identical underlying subject NPs, it is necessary to retain a negative morph in both conjuncts. Arabic does not allow the deletion of any negative item from either conjunct. Consider:

21- атьақصع با:ريد عن و را:ثب
   the weather cold and humid
   (The weather is cold and humid)
22- َатьاқصع با:ريد عن و ُةا:قبث را:ثب
   the weather cold and the weather humid
23- لاياسا َةا:قبث با:ريد عن لاياسا / ل:ة را:ثب:
   not the weather cold and not the weather humid
   (The weather is not cold and not humid)
24- لاياسا َةا:قبث با:ريد عن و را:ثب:
   not the weather cold and humid
   (The weather is not cold and humid)

Note that 22 which is the underlying structure of 21 represents the two conjoined sentences َатьاқصع با:ريد عن and َатьاқصع را:ثب (the weather is cold and the weather is humid respectively). However, careful scrutiny of 21-24 indicates that, whereas 23 is perfectly grammatical, 24 is not. The ungrammaticality of 24 is attributed to the fact that the negative element has been deleted from the second conjunct S2. It is quite interesting to mention in this connection that the phonological transformation applied to predicative nouns and adjectives in sentences preceded by لاياسا becomes optional when لاياسا precedes the second of two conjoined sentences. This entails that the accusative case marking transformation applies optionally to the predicative noun or adjective in S2. The following examples are illustrative:

25- َالكلبُ صدي:قعن و لاياسا كادى:وان ل:يئان ل:يئان
   the dog friend and not enemy of man
   (The dog is a friend and not an enemy of man)
26- َالكلبُ صدي:قعن و لاياسا كادى:وان ل:يئان ل:يئان
   the dog friend and not enemy of man
   (The dog is a friend and not an enemy of man)
   the dog friend not enemy of man
   (The dog is a friend; not an enemy of man)
28-
A Transformational Grammar of Modern Literary Arabic

Clearly, 25-27 are represented by 28 in which only S2 is preceded by NEG, and if we examine 25-28, we notice that the NEG in 28 has been given two different surface realizations: laisa and la: in 25 and 26 respectively. It is worth mentioning that laisa has triggered the case marking transformation in the predicative adjective caduwan in 25, but not in 26. Obviously, like the negative morph la: in 27, laisa did not trigger the same transformation although the sentence is equally grammatical. The following structural description and structural change indicate the optional case marking transformation triggered by laisa in this particular environment:

29- SD NP - X - (Conj) laisa - NP \( \Rightarrow \)

\[
\begin{array}{cccc}
1 & 2 & 3 & 4 \\
2 & 3 & 4 & 5 \\
& & & 6 \\
\end{array}
\]

Condition: The rule is optional.

II- Negation with la:

As is well known, the negative forms of some nominal sentences can be generated by inserting the negative item la: under the presentential deep structure NEG. However, in certain syntactic contexts, la: may trigger phonological transformation comparable to that triggered by laisa; but, unlike laisa, la: may assign the feature [+Accusative] to the subject rather than the predicate noun or adjective in the nominal-initial sentence. The phonological transformation that la: triggers is similar to that triggered by the complementizer ?inna and its cognates. Here are a few examples:

1- * baitun qadi:mun fi: ša:ricina:
   house old in street our
2-la: baita qadi:mun fi: ša:ricina:
   no house old in street our
(There is no old house in our street)
3- albaitu qadi:mun
   the house old
(The house is old)
4- * la: [lbaita]
   not the house old in street our
5-la: lbaitu qadi:mun wa la: lmaktabu wasix
   not the house old and not the office dirty
(There is not old house and not the office dirty)
   not garden beautiful but two gardens
7-la: ḥadi?qatun jami:latun la:kin ḥadi?qata:n
   not garden beautiful but two gardens
(There is not only one but two beautiful gardens)
8- * la: [xa:lidan]
   not Khalid in the classroom

82
Negation

9-la: xa:lidun fi: šṣaffi wa la: marwa:n

not Khalid in the classroom and not Marwan

(Neither Khalid nor Marwan is in the classroom)

10- fi: lḥadi:qati šajaran ?aḍar

in the garden trees green

(There are green trees in the garden)

11-la: fi: lḥadi:qati šajaran

(There are green trees in the garden)

12-la: šajaran ?aḍaru fi: lḥadi:qah

no trees green in the garden

(There are no green trees in the garden)


no trees green in the garden and no flowers red


no trees green in the garden and no flowers red

(There are neither green trees nor red flowers in the garden)

Examples 1-14 above exhibit some syntactic environments where la: may occur as a negative item. Having stated earlier that the subject NP of any verbless sentence must be marked [+Definite], the reason for the ungrammaticality of 1 in comparison with 2 becomes immediately recognizable. Evidently, both constituents of 1 are marked [-Definite]; at the same time, the subject NP of 3 is marked [+Definite] by virtue of the preceding determiner al-. It is curious, however, that 2 is grammatical in spite of the fact that it is not different from 1 except in that it is preceded by the negative item la: - hardly a defining element in itself. In this section, I am going to propose an analysis that, with the help of phrase structure rules, may help account for the above listed data.

Insofar as 1 is concerned, scholars of Arabic would take it for granted that its two grammatical categories are dominated by one specific node that cannot be of the type S. It seems that we have two branches of an unidentified node which looks like configuration 15. Now, if we go back to our PS rules, we may find some clue that may help solve the problem; it lies in the rule:

NP → NP + Adj P

By allowing the above rule to be bidirectional, we can reconstruct the output into the input once again. In other words, the rule will look exactly the opposite:

NP + Adj P → NP

The above argument therefore helps establish the proof that the unidentified node in 15 is in fact a higher NP which dominates a lower NP and an Adj P at the same time. Having stated that, and bearing in mind that 2 above is grammatical, we
may reach the conclusion that the higher NP in question is the subject NP of some sentence which probably looks like 16 below:

16-

```
S
  /\  \\
/\  |
|  |
\-\ |
     | "la: Δ baitun qadi: mun fi: ša:ricina:"
      no house old in street our
```

The VERB node in 16 terminates in a dummy symbol which is to be replaced later by a verb marked [+Existential]. Deep structure existential verbs are usually deleted from surface structures, and are derived from *yu:jadu* (exist); hence 17 as a possible deep structure of 2 above (I):

17- la: *yu:jadu* baitun qadi: mun fi: ša:ricina: does not exist house old in street our

(There is no old house in our street)

The assumption just made will be further reinforced if a locative adverbial such as *fi: ša:ricina:* (in our street) is allowed into the sentence; e.g.

18- fi: ša:ricina: *baitun qadi: m* in street our house old

(There is an old house in our street)

On the other hand, locative adverbials such as *fi: ša:ricina:* (in our street) presumably imply some sort of semantic existence of the item to which they are related. For example, the notion of existence implied in the verb *yu:jadu* makes the following semantically equivalent:

19- *calat: tta:wilati kita:* on the table book

(There is a book on the table)


(There exists a book on the table)

It seems to be the case that locative adverbials exclusively imply the notion of existence. Bearing in mind that sentences 2, 5, 7, and 17 above can take locative adverbials only, it becomes possible to maintain that the missing verb from the surface structure of the sentence in question is actually the existential verb *yu:jadu* rather than any other verb. Thus we can assign 17 configuration 21 as schematic representation:

21-

```
S
  /\  \\
/\  |
|  |
\-\ |
     | "γου:jadu Δ baιtun qadi: mun fi: ša:ricina:"
     exist house old in street our
```
It is important to note that NEG terminates in a dummy symbol that serves as a place-holder pending the lexical insertion of the negative item. In order to reach the surface structure, we have to allow an optional deletion rule which obliterates the existential verb *yu:jadu*. A rule like this will be similar to that of copula deletion which I have discussed earlier. Once the existential verb has been deleted, *la:* insertion can take place. This ordering of rules is crucial to distinguish between negative items which display syntactic dissimilarities or the power to trigger phonological transformation in adjacent elements (12). Finally, the case marking transformation will assign the feature [+Accusative] to the subject NP (13).

Configurations 22-24 represent the different stages of the derivation:

22-

```
S
 /\  
NEG VERB NP PP
  /\  
N Adj P N
```

Δ ⊘  

*baitun qadi:mun fi: ša:ricina:*  
*house old in street our*

23-

```
S
 /\  
NEG NP PP
  /\  
N Adj P N
```

*la:*  

*baitun qadi:mun fi: ša:ricina:*  
*no house old in street our*

24-

```
S
 /\  
NEG NP PP
  /\  
N Adj P N
```

*la:*  

*baita qadi:mun fi: ša:ricina:*  
*no house old in street our*

Note that *la:* insertion in this context is conditioned by the feature [-Definite] which should be assigned to the subject NP of the sentence. Another condition in this respect is that the sentence in which *la:* is to trigger the phonological change should be a simple sentence. These two conditions explain why 4 and 8 are excluded, whereas 5, 7, and 9 are not. Remember that 4 is ungrammatical because its subject
NP is marked [+Definite], so is the case in 8, where the subject NP is marked [+Proper]. On the other hand, the reason for the ungrammaticality of 6 is that it comprises two conjoined sentences, and this too blocks the phonological transformation which would otherwise have been applied to the subject nouns. Thus we reach the conclusion that *la: can only be inserted before indefinite NPs if the latter are parts of conjoined structures of the form represented by 25. A word of warning should be mentioned here against the temptation of allowing *la: in configurations like 25 above to trigger phonological transformation in the adjacent subject NP; that is when it precedes conjoined structures. Thus we find that the case marker -un of both subject NPs of 9 -xa:lidun and marwa:n - is [+Nom]. This is also true of 5 and 7 which are conjoined structures too.

Furthermore, sentences 12-14 exemplify another property of *la:, and this has to do with a restriction that Arabic places on surface structures with no overt verb (or with deleted copula) and when the subject NP of these constructions is marked [-Definite]. In this case, the subject NP should be postposed leaving the initial position to what is traditionally known as predicate phrase. Hence the grammaticality of 26 and 28, and the ungrammaticality of 27 and 29:

26- cala: ẓa:wilati kita:b
   (There is a book on the table)
27-* kita:bun cala: ẓa:wilah
   book on the table
28- lida:rina: ḥadi:qah
   to house our garden
   (Our house has a garden)
29-* ḥadi:qatun libaitina: garden to house our

The position of the indefinite NPs kita:bun and ḥadi:qatun (a book and a garden respectively) causes 27 and 29 to be deviant, whereas in 26 and 28 such deviance does not arise simply because both NPs have been postposed. Coming back to examples 11 and 12, we realize that the subject NP, though marked [-Definite] in 12, has been retained in its original position. This is clearly due to the presence of *la: which has prevented the postposing rule from applying to the NP sajara ḥaxḍara (trees green). However, it is interesting to know that this property of *la: becomes necessary when conjoined structures like 13 are considered. A comparison between the deviant 13 and the well-formed 14 leaves little doubt that indefinite subject NPs in conjoined structures with no surface verb should be postposed despite the presence of *la:. It follows that *la: should be inserted in its surface position before postposing the subject NP (when the conditions for this rule are met.) However, if *la: is inserted in a conjoined structure, this rule has to apply so that deviant outputs such as 13 can be avoided.
So far we have been looking at *la:* in pre-nominal positions, i.e. when it occurs before nouns; however, *la:* can also occur pre-adjectivally in conjoined structures like 30 below where it precedes two adjectives:

30- \[ \text{alqišatu la: } ʃacb\text{a}tun \text{ wa la: sahlah} \]

The story is not difficult and not easy

(The story is neither difficult nor easy)

The negation of the two contrastive adjectives such as *ʃacb\text{a}tun* and *sahlah* (difficult and easy respectively) denotes that the actual beauty of the “story” is “average” in terms of difficulty; that seems to suggest that the coordinate structure we are dealing with in 30 is the outcome of the phrasal rather than the transformational schema. (14)

It follows that 30 is derived from deep structure 31 and not 32:

31-  
\[
\text{NEG} \quad \text{VERB} \quad \text{NP} \quad \text{Adj P} \quad \text{Adj P} \quad \text{Conj} \quad \text{Adj P}
\]

\[ \text{la: } \text{taku:nu alqišatu } ʃacb\text{a}tun \text{ wa sahlah} \]

not be the story difficult and easy

32-  
\[
\text{NEG} \text{ S} \quad \text{Conj} \quad \text{wa} \quad \text{NEG} \text{ S}
\]

\[ \text{taku:nu alqišatu } ʃacb\text{a}tun \]

not be the story difficult

\[ \text{taku:nu } \text{alqišatu sahlah} \]

be the story easy

It follows that the deep structure 31 will undergo two transformations in addition to copula deletion: first, it has to undergo NEG shift which will generate configuration 33; second, it has to undergo negative spreading, and this will yield the surface structure 34.

33-  
\[
\text{NP} \quad \text{NEG} \quad \text{Adj P} \quad \text{Adj P} \quad \text{Conj} \quad \text{Adj P}
\]

\[ \text{alqišatu la: } ʃacb\text{a}tun \text{ wa sahlah} \]

the story not difficult and easy
In 33 the NEG shift will attach NEG to Adj P by means of Chomsky adjunction; later, in 34 the NEG will be spread to both conjoined adjectives and deleted from the higher Adj P node, leaving us with the surface structure 30. It is also possible to replace \( \text{la:} \) in 30 with \( \text{laisat} \) so we can generate 35:

\[
35- \quad \text{alq̱issatu la: šacbatun wa la: sahlah}
\]

\[
\text{the story not difficult and not easy}
\]

(The story is neither difficult nor easy)

By the same token, it is equally possible to replace \( \text{la:} \) by \( \text{laisat} \) in the first conjunct, and retain it in the second, but the opposite is not possible. So while 36 is well-formed, 37 is deviant:

\[
36- \quad \text{alq̱issatu laisat šacbatun wa la: sahlah}
\]

\[
\text{the story is not difficult and not easy}
\]

(The story is neither difficult nor easy)

A comparison between 36 and 37 will immediately reveal that the deviance of the latter is due to the occurrence of \( \text{la:} \) and \( \text{laisat} \) in reverse order in relation to the conjuncts. In this case an ad hoc rule seems to be necessary to prevent \( \text{la:} \) from occurring before \( \text{laisat} \) in these contexts. In this way we can generate the well-formed sentences and exclude deviant ones.

Idiomatic Phrases with \( \text{la:} \):

The foregoing analysis of \( \text{la:} \) has been concerned with various types of sentences. However, this analysis has the additional merit of allowing us to account for a number of well-known phrases or idioms in which \( \text{la:} \) functions as a negative item. These phrases can be accounted for by deriving them from full sentences that have lost their VERB through the course of time. Therefore, the following 38-42 have 38a-42a as deep structure:

\[
38- \quad \text{la: raiba}
\]

(No doubt)

\[
38a- \quad \text{la: yu:jadu raibun}
\]

(Not exist doubt)

\[
39- \quad \text{la: ġarwa}
\]

(No wonder)

\[
39a- \quad \text{la: yu:jadu ġarwun}
\]

(Not exist wonder)
Examples 38-42 represent straightforward cases of optional verb deletion. Moreover, in some less frequent cases one may have the subject NP deleted together with the verb, provided that a repositional phrase is retained in surface structure. An example of such a case is exhibited in 43 with 44 as its deep structure:

43- la: calaik
   not on you
   (Don't worry, cheer up)

The deep structure 44 may be given three different surface representations. For example, we can delete the verb *yu:jadu* (exist) to generate 45:

45- la: ba'lsa calaik
   no harm on you
   (Don't worry, cheer up)

Alternatively, we can delete the subject NP and the verb at the same time; this will produce 43. Similarly, we may delete the verb and the prepositional phrase, but keep NEG and NP, in which case we may generate 46:

46- la: ba's
   no harm
   (It's all right)

The relationship between *la:* and the quantifiers *?ahad* (one) and *bace* (some) is worth mentioning in this connection (16). Recall that these quantifiers are optional base-generated elements dominated by NP (17). It follows that they cannot occur isolated from NP (at least in deep structure), but they take the form 47 (18).

Consider the following:
Examples 48-55 shed light on some differences between the quantifiers \( \text{\textit{\textasciitilde a\textasciitilde had}} \) and \( \text{\textit{\textasciitilde ba\textasciitilde c\textasciitilde d}} \) (one and some respectively). For although they are both constituents of NP, the two quantifiers sometimes behave differently. A comparison between 48-49, on the one hand, and between 50-51 on the other reveals that deleting the NP which is adjacent to the quantifiers produces ungrammaticality as can be seen in 50 and 52. What is interesting, however, is that when \( \text{\textit{\textasciitilde la\textasciitilde}} \) is introduced in the sentence (e.g. 52) the adjacent NP (which is in this case \( \text{\textit{\textasciitilde t\textasciitilde u\textasciitilde l\textasciitilde l\textasciitilde a\textasciitilde \textit{b}}} \)) should be deleted. Thus the ungrammaticality of 52 is accounted for in comparison with 54 above. By contrast, \( \text{\textit{\textasciitilde ba\textasciitilde c\textasciitilde d}} \) does not allow \( \text{\textit{\textasciitilde la\textasciitilde}} \) insertion in this particular context, whether or not the adjacent NP has been deleted (e.g. 55 and 53). So assuming that 54 is derived from the deep structure 56 below, we can illustrate the process by configurations 57-58 where 57 represents the deep structure 56:

\[
\text{\textit{\textasciitilde la\textasciitilde: yu\textasciitilde :j\textasciitilde ad\textasciitilde u\textasciitilde ?a\textasciitilde had\textasciitilde u\textasciitilde t\textasciitilde u\textasciitilde l\textasciitilde a\textasciitilde \textit{b}}} \quad \text{\textit{\textasciitilde fi\textasciitilde: \textit{\textasciitilde s\textasciitilde s\textasciitilde a\textasciitilde f}}} \\
\text{not exist one of the students in the classroom}
\]

\[
56-\text{\textit{\textasciitilde la\textasciitilde: yu\textasciitilde :j\textasciitilde ad\textasciitilde u\textasciitilde ?a\textasciitilde had\textasciitilde u\textasciitilde t\textasciitilde u\textasciitilde l\textasciitilde a\textasciitilde \textit{b}}} \quad \text{\textit{\textasciitilde fi\textasciitilde: \textit{\textasciitilde s\textasciitilde s\textasciitilde a\textasciitilde f}}} \\
\text{not exist one of the students in the classroom}
\]

\[
57-\text{\textit{\textasciitilde la\textasciitilde: yu\textasciitilde :j\textasciitilde ad\textasciitilde u\textasciitilde ?a\textasciitilde had\textasciitilde u\textasciitilde t\textasciitilde u\textasciitilde l\textasciitilde a\textasciitilde \textit{b}}} \quad \text{\textit{\textasciitilde fi\textasciitilde: \textit{\textasciitilde s\textasciitilde s\textasciitilde a\textasciitilde f}}} \\
\text{not exist one of the students in the classroom}
\]
Negation

58-

\[
S \\
\text{NEG} \rightarrow \text{VERB} \rightarrow \text{NP} \rightarrow \text{Loc} \\
\text{PP} \\
\text{Quant} \rightarrow \text{P} \rightarrow \text{NP} \\
\text{la: yu:jadu} \rightarrow \text{ʔaḥadun} \rightarrow \text{fi: ŋaʃaf} \\
\text{not exist one in the classroom}
\]

The deep structure 56 contains the negative item 
\( \text{la:} \), the existential verb \( \text{yu:jadu} \) (exist) as well as the Quant + NP \( \text{ʔaḥadun ŋu:l} \) (one of the students) and the locative adverbial \( \text{fi: ŋaʃaf} \) (in the classroom). This will meet the structural description: for the rule of NP deletion which obliterates the NP adjacent to the quantifier. The application of this rule will generate 58 which represents 59 below:

59-\( \text{la: yu:jadu} \rightarrow \text{ʔaḥadun} \rightarrow \text{fi: ŋaʃaf} \)
\(\text{not exist one in the classroom} \)
\(\text{(There is no one in the classroom)}\)

Furthermore, the derivation 58 will also meet the structural description for the rule of verb deletion which deletes the existential verb \( \text{yu:jadu} \) and generates 54 above.

Configuration 60 represents the derived structure 54:

60-

\[
S \\
\text{NEG} \rightarrow \text{NP} \rightarrow \text{Loc} \\
\text{PP} \\
\text{Quant} \rightarrow \text{P} \rightarrow \text{NP} \\
\text{la:} \rightarrow \text{ʔaḥad} \rightarrow \text{fi: ŋaʃaf} \\
\text{not one in the classroom}
\]

We have to bear in mind that no quantifier other than \( \text{ʔaḥad} \) may occur with \( \text{la:} \) in this context since all the others will generate deviant outputs (cf. 55 above).

Therefore, we can write 61 and 62 to show the structural description and the structural change for NP deletion and verb deletion respectively:

61- SD \( \text{la:} \rightarrow \text{- VERB - Quant - + NP - Loc } \Rightarrow \)
\ [+Exist] 
\[1\ 2\ 3\ 4\ 5\]
 SC \[1\ 2\ 3\ \varnothing\ 5\]

Conditions:

i- Quant= quantifier
ii- Exist= existential
A Transformational Grammar of Modern Literary Arabic

62- SD  la: - VERB - Quant - Loc ⇒

\[\{+\text{Exist}\}\]

1 2 3 4

SC 1  3 4

Conditions:
i- Quant= ?ahad
ii- Exist= existential

Clearly, the output of 61 serves as input to 62, whereas sentences like 54 and 59 can be generated by rules of VERB and NP deletion respectively.

The aforementioned elucidatory examples deal with la: as a realization of NEG in nominal-initial sentences. However, la: may equally precede verbal-initial sentences where it does not seem to trigger any phonological transformation. Here are some examples:

63- yuzhiru nnaba:tu fi: rrabi:c
   blossom the plant in the spring
   (Plants blossom in the spring)

64- la: yuzhiru nnaba:tu fi: rrabi:c
   not blossom the plant in the spring
   (Plants do not blossom in the spring)

65- yuzhiru nnaba:tu fi: rrabi:ci wa ṣṣaif
   blossom the plant in the spring and summer
   (Plants blossom in the spring and the summer)

   not blossom the plant in the spring and not in the summer
   (Plants blossom neither in the spring nor in the summer)

67- * la: yuzhiru nnaba:tu fl: rrabi:ci wa ṣṣaif
   not blossom the plant in the spring and summer

   not blossom the plant not in the spring and not in the summer
   (Plants blossom neither in the spring nor in the summer)

   not blossom the plant not in the spring and not blossom the plant in the summer

Careful examination of 63-69 above shows that 64 differs from 63 in that the former is preceded by the negative item la:, whereas the latter is not. At the same time, it shows that 65 and 66 are both conjoined structures, though both conjuncts of the latter are preceded by la:. This allows us to assign to it a configuration similar to 25 above. Note that deletion rules do not apply to the second occurrence of NEG in conjoined structures such as 66; i.e. the negative item should be retained in both conjuncts, otherwise we might generate deviant outputs such as 67 where la: has been deleted from the second conjunct. Moreover, 68 poses a special case for my analysis as it seems to contain an additional negative item preceding the first of the surface conjuncts. This is illustrated in the following structural description which represents 68:

70-  NEG - VP - NP - [NEG - PP - Conj - NEG - PP]

Returning to 66 above, one will discover that although the conjuncts are two prepositional phrases, they may as well be other grammatical categories. Note also that both 68 and 66 have almost identical semantic interpretations with the exception that 68 has probably a greater degree of emphasis as a result of the a third negative item. It seems that in 69 la: may be optionally inserted in front of C1 by transformations once the structural description is met for 66. Consider the following:
Negation

C1

not blossom the plant not in the spring and not in the summer
(Plants blossom neither in the spring nor in the summer)

Since 69 is excluded from the language, it becomes evident that la: insertion, as the rule may be termed, should apply at a later stage of the derivation, particularly after conjunction reduction (or gapping). Therefore, in order to apply la: insertion correctly, the following structural description should be met:

72- SD: NEG _ X _ C _ Conj _ la: - C _ Y ⇒
    1  2  3  4  5  6  7
SC: 1  2 la:+3  4  5  6  7

Conditions:

i- NEG / la:sa
ii- C has undergone conjunction reduction.

The rule as stated in 72 above is capable of generating derivations like 73-75:

not love brother my not music and not sports
(My brother likes neither music nor sports)

74- lam ya?ti lmufattisu la: fi: ššaba:ḥ wa la: fi: lmasa:? did not come the inspector not in the morning and not in the evening
(The inspector came neither in the morning nor in the evening)

75- lam ?ara la: ŏriqan wa la: marwa:n didn’t see not Tariq and not Marwan
(I saw neither Tariq nor Marwan)

Another apposite point in this respect is the fact that la: may not precede a simplex sentence if the verb is [+Perf]. However, insofar as conjoined sentences are concerned, both features, i.e. [+Perf] and [-Perf] will yield grammatical output as in 77-79, but not 76:

76- * la: wašala lqiṭa:ru muta?axira:
    [ + V ]
    + Perf
not arrived the train late

77- ma: wašal lqiṭa:ru muta?axira:
    [ + V ]
    + Perf

78- la: yašišu lqiṭa:ru muta?axira:
    [ + V ]
    - Perf
not arrived the train late
(The train does not arrive late)

79- la: wašala lqiṭa:ru muta?axiran wa la: ka:nati rrriḥlatu ša:qqah
    [ + V ]
    + Perf
not arrived the train late and was the journey tiresome
(The train was not late and the journey was not tiresome)

If we compare 76-79 above, we realize that the reason for the ungrammaticality of 76 is twofold: first, the [+Perf] aspect of the verb; second, the sentence being simplex. Note that 79 is semantically equivalent to 80 below:

80- lam yašišu lqiṭa:ru muta?axiran wa la: lam takunin rrriḥlatu ša:qqah
didn’t arrive the train late and was not the journey tiresome
(The train was not late and the journey was not tiresome)
The negative item *lam* will be dealt with in due course, but it is useful to bear in mind at this stage that *lam* serves as a tense exponent and corresponds to English "did not" in negative sentences in the sense that it is followed by a verb marked [-perfective].

The Jussive *la*:

Verbal forms marked for the jussive usually have contracted forms derived from the [-Jussive] and [+Perfective] counterparts. The feature [+Jussive] is assigned to the verb when the sentence is preceded by IMP and in some conditional sentences which, for the lack of space, I choose not to treat in this book. In its simplest form, the Jussive manifests itself in the loss of the final vowel of the verb in the sense that it is followed by a verb marked [-perfective]. Compare the following verbs:

\[
\begin{align*}
\text{yabhaθu} & \quad \text{yabhaθ} \\
\text{[-Juss]} & \quad [+\text{Juss}] \\
\text{search} & \quad \text{search}
\end{align*}
\]

Since Arabic verbs take certain forms in imperative sentences, it seems necessary to introduce [+IMP] and [+Juss] as optional features on the verb. However, since [+IMP] entails [+Juss], the latter feature is automatically made redundant; therefore [+IMP] will henceforth refer to both features at the same time. The following table indicates the phonological structure of verbs marked [+IMP] as opposed to those marked [-IMP]:

<table>
<thead>
<tr>
<th></th>
<th>[+]Perfective</th>
<th>3rd</th>
<th>[+]Impersonal</th>
<th>Masc</th>
<th>[+Jussive]</th>
</tr>
</thead>
<tbody>
<tr>
<td>i- CV CV CV</td>
<td>?-CC VC</td>
<td></td>
<td>?iktub</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kataba</td>
<td></td>
<td>(he wrote)</td>
<td>(you, write!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sabaθa</td>
<td></td>
<td>(he swam)</td>
<td>(you, swim!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>najaθa</td>
<td></td>
<td>(he succeeded)</td>
<td>(you, succeed!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii- ?ista -CC VC V</td>
<td>?ista- CC VC</td>
<td></td>
<td>?istaqbil</td>
<td>(you, receive...!)</td>
<td></td>
</tr>
<tr>
<td>?istaqbalaa</td>
<td></td>
<td>(he received)</td>
<td>(you, receive...!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>?istarhama</td>
<td></td>
<td>(he begged for mercy)</td>
<td>(you, beg for mercy!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>?istanjada</td>
<td></td>
<td>(he asked for help)</td>
<td>(you, ask for help!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii- CV CC CV V</td>
<td>CV VV VC</td>
<td></td>
<td>fakkir</td>
<td>(you, think!)</td>
<td></td>
</tr>
<tr>
<td>fakkara</td>
<td></td>
<td>(he thought)</td>
<td>(you, think!)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ballaθa</td>
<td></td>
<td>(he conveyed)</td>
<td>(you, convey ...)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cammara</td>
<td></td>
<td>(he built)</td>
<td>(You, build)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Table 1)
The patterns (i-iii) display the phonological transformation that the verb undergoes as a result of the feature [+IMP]. The details of the transformational process do not seem to be relevant here, and I will sidestep them, but what really concerns us in this respect is that in sentences of the form 1 below, the NEG must always be realized as la:. From the semantic view point the structure indicates prohibition, i.e. negative order (23).

S $\rightarrow$ NEG IMP S.

Note that the adjacent verb in this particular context may exclusively have one of the phonological structures listed in table 2 below; the subject of these verbs is always the second person (singular, dual or plural):

<table>
<thead>
<tr>
<th>Number</th>
<th>Masc</th>
<th>Fem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing</td>
<td>$\emptyset$</td>
<td>-i:</td>
</tr>
<tr>
<td>Dual</td>
<td>-a:</td>
<td>-a:</td>
</tr>
<tr>
<td>Plural</td>
<td>-u:</td>
<td>-na</td>
</tr>
</tbody>
</table>

(Table 2)

The following table may simplify the idea where the verbs are preceded by la: and have the feature [+IMP] (23). The table shows the verb suffixes in relation to number and gender:

<table>
<thead>
<tr>
<th>Number</th>
<th>Masc</th>
<th>Fem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sing</td>
<td>$\emptyset$</td>
<td>-i:</td>
</tr>
<tr>
<td>Dual</td>
<td>-a:</td>
<td>-a:</td>
</tr>
<tr>
<td>Plural</td>
<td>-u:</td>
<td>-na</td>
</tr>
</tbody>
</table>

(Table 3)

It should be mentioned that the greater majority of Arabic verbs terminate in the suffixes that appear in table 3 in the context of 1 above irrespective of the original pattern under which they are classified. Furthermore, these verbs take the prefix ta- which indicates the second person. It seems to be the case that the verbs assigned the feature [+IMP], when they occur adjacent to la:, take the same forms of the verbs marked [-Perf], but terminate in the suffixes shown in table 3 above. From table 4 below one may discover that the only difference between the [-IMP] and the [+IMP] verbs (whether negative or affirmative) is that the latter are shorter as a result of the feature [+Juss] which is assigned to them.
A Transformational Grammar of Modern Literary Arabic

<table>
<thead>
<tr>
<th>VERB</th>
<th>la: + VERB</th>
<th>VERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>-IMP</td>
<td>+IMP</td>
<td>+IMP</td>
</tr>
<tr>
<td>-Perf</td>
<td>-Perf</td>
<td>-Perf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>taxruju</th>
<th>la: taxruj#</th>
<th>?uxruj #</th>
</tr>
</thead>
<tbody>
<tr>
<td>(You go out)</td>
<td>(do not go out)</td>
<td>(go out)</td>
</tr>
<tr>
<td>+Masc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Sing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tastaqbili:na</th>
<th>la: tastaqbili: #</th>
<th>?istaqbili:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(You receive)</td>
<td>(do not receive)</td>
<td>(receive)</td>
</tr>
<tr>
<td>+Fem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Sing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>taftariqa:ni</th>
<th>la: taftariqa: #</th>
<th>?iftariqa:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(You separate)</td>
<td>(do not separate)</td>
<td>(separate)</td>
</tr>
<tr>
<td>+Masc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Dual</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tatana:fasu:n</th>
<th>la: tatana:fasu: #</th>
<th>tana:fasu: #</th>
</tr>
</thead>
<tbody>
<tr>
<td>(You compete)</td>
<td>(do not compete)</td>
<td>(compete)</td>
</tr>
<tr>
<td>+Plural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Masc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tunazzifna</th>
<th>la: tunazzifna #</th>
<th>nazzifna #</th>
</tr>
</thead>
<tbody>
<tr>
<td>(You clean)</td>
<td>(do not clean)</td>
<td>(clean)</td>
</tr>
<tr>
<td>+Plural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Fem</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| (table 4) |

*la*: in Embedded Sentences

So far I have been discussing how *la*: operates in coordinate sentences as well as in simplex sentences. It may also be useful to deal briefly with *la*: in complement sentences. Apparently, this negative item may occupy various levels of the hierarchy, but not without semantic variations (24).

   I want to not you lose the money
   (I want you not to lose the money)
   not I want to you lose the money
   (I do not want you to lose the money)

Sentences 5 and 6 can be assigned configurations 7 and 8 respectively. Configurations 7-8 demonstrate that *la*: may occur at different levels of the hierarchy. In 7, for instance, it precedes Sii which is embedded in Si, whereas in 8 it precedes Si, the matrix sentence.
On the other hand, the conjoined sentence 9 below exhibits another transformational rule involving \textit{la}: in embedded sentences. For although \textit{la}: is dominated by the node labelled Reason in surface structure, it starts off as a presentential element dominated by NEG. Configuration 10 represents the derivation of 9.

9- \textit{ja: la: liyantaqim} 
\textit{he did not come to apologize, but to take revenge}

Configuration 10 below demonstrates that \textit{la}: is dominated by NEG in the embedded S3, and that it is shifted to the left-hand side of the node Reason by transformations. This process in fact is triggered by conjunction \textit{bal} (but) which coordinates S2 and S4. Note that the surface realization of S2 cannot be isolated from the conjoined structure, i.e. a sentence like 11 is not possible in Arabic (28):
It seems therefore that shifting "la:" to a position under Reason is conditioned by the matrix being a conjoined sentence. The surface representation of 9 is something like 12:

ja:?a huwa li la: yactadira huwa ja:?a huwa li yantaqim huwa
came he not to apologize but to he take revenge

11-* # ja:?a la: liyactadira #
came he not to apologize

ja:?a huwa li la: yactadira huwa ja:?a huwa li yantaqim huwa
came he not to apologize but to he take revenge

11-* # ja:?a la: liyactadira #
came he not to apologize

It seems therefore that shifting "la:" to a position under Reason is conditioned by the matrix being a conjoined sentence. The surface representation of 9 is something like 12:

ja:?a la: li yactadira yactadira

came not to apologize
Negation

**lam**

*lam* is a negative item that is optionally introduced into the sentence as a possible surface realization of NEG only when the adjacent element is a verb; this means that it cannot precede nouns or other grammatical categories. Its occurrence is also governed by the verb aspect which must always be [+Per]. Consider (26).

left the emigrant property his in the country  
(The emigrant left his property in the country)

14- lam yatruki lmuha:jiru ?amla:kahu fl: lbalad  
did not leave the emigrant property his in the country  
(The emigrant did not leave his property in the country)

15-* lam taraka lmuha:jiru ?amla:kahu fl: lbalad  
not left the emigrant property his in the country

The verbal-initial 13 in which aspect is marked [+Perf] contains taraka (left) in initial position, and this makes it possible to introduce *lam* presententially as seen in 14 above. It is certainly crucial to note in this respect that although the tense is still past, the verb has been superficially assigned the features [-Perf] and [+Juss] by an obligatory transformational rule. Failure to apply this rule is likely to produce deviance as in 15 above where the verb has retained the feature [+Perf].

16-\[S\]
\[\begin{array}{c}
\text{NEG} \\
\text{VERB} \\
\text{NP} \\
\text{NP} \\
\text{Loc}
\end{array}\]
\[\Delta\]
\[\begin{array}{c}
taraka lmuha:jiru \ ?amla:kahu \\
left \ the \ emigrant \ property \ his \\
in \ the \ country
\end{array}\]

17-\[S\]
\[\begin{array}{c}
\text{NEG} \\
\text{VERB} \\
\text{NP} \\
\text{NP} \\
\text{Loc}
\end{array}\]
\[\text{lam} \]
\[\begin{array}{c}
taraka lmuha:jiru \ ?amla:kahu \ fl: lbalad \\
did \ not \ left \ the \ emigrant \ property \ his \ in \ the \ country
\end{array}\]

18-\[S\]
\[\begin{array}{c}
\text{NEG} \\
\text{VERB} \\
\text{NP} \\
\text{NP} \\
\text{Loc}
\end{array}\]
\[\begin{array}{c}
[+\text{Juss}] \\
\end{array}\]
\[\text{lam yatruki lmuha:jiru} \ ?amla:kahu \ fl: lbalad \\
did \ not \ leave \ the \ emigrant \ property \ his \ in \ the \ country
\]
Configuration 16 represents an earlier stage of 13, and in it the node NEG terminates in a dummy symbol which will be replaced by lam in the following stage of the derivation \(^{(27)}\). Once lam insertion has been effected (configuration 17), the verb may undergo the morphosyntactic transformation triggered by lam. This is illustrated in 18 where the verb has been assigned the feature [+Juss] (the final /u/ is inserted by phonological rules.)

Furthermore, on the semantic level, lam can be interpreted in a variety of ways, depending on its contextual surroundings. On the one hand, it may denote that the action has not taken place, and probably will not take place, e.g. 19. On the other hand, it may indicate that the action has not taken place until now, e.g. 20:

19- lam ?azur kulla ibila:di l?awrubiyah
   did not I visit all the countries European
   (I did not visit all the European countries)
   did not we know that he away then
   (We did not know that he was away then)

What 19 suggest is "I did not visit all the European countries, and probably I will not visit them in the future" \(^{(28)}\). However, 20, by contrast, suggests that "the unknowing that he was away was in effect until we discovered that fact."

To conclude, negation in Arabic can be elegantly accounted for by introducing an optional presentential NEG in deep structure as a constituent of S. However, the actual selection of the lexical negative item that realizes NEG is largely determined by the nature of the adjacent grammatical category; that is why the replacement of the dummy symbol A should be delayed until the adjacent element has been realized in surface structure. To put the same idea another way, transformational rules such as focus, permutation, copula deletion and pronominalization should be ordered in such a way that they precede the replacement of the dummy symbol. Rule ordering therefore is particularly important in this respect since it helps to generate only grammatical outputs. The different syntactic behaviours exhibited by the various negative morphs make it necessary that each one of them receive a separate treatment.
One crucial fact about interrogatives is that they resemble imperatives in the sense that both are semantically a special kind of request (1). However, while imperatives may involve some extralinguistic behaviour or action, questions are in most cases limited to linguistic responses. Therefore, we may assign the semantic interpretations 2 and 4 to the imperative sentences 1 and 3 respectively:

1- ?iftahi nna: fidah
   (open the window)
   (request I to you to open the window)
   (I request that you open the window)
3- hal satadhabu ?la: bairu:t
   will go you to Beirut?
   (Are you going to Beirut?)
   request I you answer "X I will/will not go to Beirut"

The actual realization of "X" in 4 should be a member of a class of sentence adverbials that include nacam or la: (yes and no respectively). This, as we shall see later in this chapter, is due to the presence of the interrogative morph hal (2).

Before going into the more technical details of interrogatives, it is worth remembering that Arabic direct questions are characterized by having a deep structure presentential Q - an abstract node label which may be motivated by various syntactic arguments (3). It dominates lexical interrogative items such as hal and ?a- that are associated with Arabic nacam/la: questions (4). In this sense, Q is comparable to NEG which, as we have seen in chapter four, dominates a whole range of negative items (5). Consider the following example:

5- hal fa?a?a Ixabi:ru I?a:lah?
   Q examined the expert the machine?
   (Did the expert examine the machine?)

According to my line of analysis 5 can be represented by configuration 6:
A Transformational Grammar of Modern Literary Arabic

In addition to this rather straightforward argument in support of a deep structure presentential Q, a number of conventional arguments can also be presented in this respect. One such argument is based on the fact that certain lexical items in Arabic cannot occur in interrogative sentences, as can be seen in the following:

7- qad ja?:a ?axu:k   
Emph. came brother your 
(Your brother has come)
8- * hal qad ja?:a ?axu:k   
Q came Emph. came brother your 
9- hal ja?:a ?axu:k   
Q came brother your 
(Did your brother come?)
10- rubbama: ta?axxara lqi?:a:r   
perhaps the train delayed 
(The train may be late)
11- * hal rubbama: ta?axxara lqi?:a:r   
Q perhaps the train delayed 
12- hal ta?axxara lqi?:a:r   
Q delayed the train 
(Was the train late?)

Examination of examples 7-9 reveals that the ungrammaticality of the starred sentence 8 is due to the cooccurrence of the preverbal element qad and the interrogative element hal. By the same token, 11 is also starred because of the cooccurrence of the sentential adverb rubbama: (perhaps) with hal (6). Conversely, the quantifier ?ayyu (any) may occur with interrogative sentences, but not with declaratives:

13- ?acindahu ?ayyu kita:b?   
(Q has he any book?)
14- * cindahu ?ayyu kita:b   
he has any book

A comparison between 13 and 14 above will immediately show that the quantifier ?ayyu in the latter is the cause of the sentence deviance. Further, it indicates that the cooccurrence of the interrogative element ?a- and the quantifier ?ayyu is perfectly legitimate and produces well-formed output as represented in 13 above. Thus 7-14 clearly indicate that a restriction should be imposed on the base rule (39) so that Q and sentential adverbs are made mutually exclusive; the restriction can be stated in deep structure once and for all, allowing us to generate the well-formed and exclude the deviant outputs.

Furthermore, assuming that WH words start in deep structure as constituents of NP (i.e. feature on the determiner) in a position appropriate to the grammatical relations they bear to the sentence, it follows that we need the abstract Q to attract the WH word to initial position, and to capture the semantic information which the sentence imparts. Thus, once the WH word is moved, it will automatically be...
Interrogative Clauses

attached under Q. (Note that the deep structure Q terminates in a dummy symbol which is replaced by the WH word when the latter is moved. Cf. WH-Movement.) The foregoing arguments leave one with little doubt that a deep structure Q is in fact syntactically well-motivated in Arabic grammar.

It is useful to bear in mind at this stage that the WH may be interpreted as ?a, where X stands for a variety of items that include ٌ, ٌ, ٌ, etc. (person, place, time) respectively. Moreover, WH can also be realized as a lexical noun or assigned the features [± Specific] as determined by the adjacent noun. Remember that NPs can be [± Definite] when preceded by ?a. It is essential, however, to note that definiteness and singularity are two mutually exclusive features in this case. Put differently, a singular questioned NP may not be assigned the feature [+Definite] if the WH constitutes a feature on its determiner. This seems to explain the ungrammaticality of 15 in comparison with 16-17 below:

15- * ?ayyu tta:libi hadara ddars

which students attended the lesson

16- ?ayyu t kullu hadara ddars

which the students attended the class

(Which one of the students attended the class?)

17- ?ayyu ta:libin hadara ddars

(Which student attended the class?)

Sentence 15 is starred because the questioned NP ta:lib (student) is preceded by the definite article al- (realized as at-) and at the same time marked [+Singular]. However, 16 and 17 are perfectly well-formed questions since they both observe the above stated restriction imposed on questioned NPs.

Returning now to the notion of [± Specific], it seems to me as though we have to recognize two sets of NPs: the semantically indefinite NPs, e.g. ٌ, ٌ, ٌ, etc. and all other lexical nouns. It is noteworthy that ?a will be assigned the feature [+Specific] only when it occurs with the second group. This is necessary to capture the semantic information which sentences like 16 imply when the speaker, say, wants to refer to one individual from a specific group of "students". Thus 17 may be represented by 18 which is in turn derived from the deep structure 19:

18-

\[
\begin{align*}
\text{S} & \quad \text{Q} \\
\text{VERB} & \quad \text{NP} \\
\text{Det} & \quad \text{N} \\
[\text{-Def} & \quad [\text{-Spec} \quad [\text{-Def} \quad \text{NP}] \quad \text{NP}] \quad \text{NP}] \\
\Delta & \quad \text{haḍara} \quad \text{?ayyu} \quad \text{ta:libin ddars} \\
\text{attended} & \quad \text{what} \quad \text{student} \quad \text{the class}
\end{align*}
\]
A Transformational Grammar of Modern Literary Arabic

As seen in 15-17 above, when the sentence contains a lexical noun, ?ayyu must be retained in surface structure. Alternatively, if ?ayyu is followed by any member of the indefinite set of NPs, then it may be transformed into a corresponding pronoun (9). Thus, assuming that WH pronouns can also be derived from prepositional phrases by optional morphophonemic rules, we can write the following:

20- 

The data listed in 20 predicts that the deep structure 21 surfaces as 22 rather than 23, although 22 and 23 are both grammatical (10).

Certain ambiguous cases are yet to be accounted for. In 24, for instance, it is not clear whether man (who) represents the subject or the object of the sentence. In other words, the lexical noun that appears in the surface structure may be interpreted in two different ways: first, as an object, in which case man refers to the subject NP; second, as a subject, where it functions as the object of the sentence. Hence in order to account for the two readings, 24 must be given two underlying representations as can be seen in 25 and 26:

24- man sa:cada huda;  
(who helped Huda?)
(Who did Huda help?)
The proper noun *huda:* is given two distinct syntactic functions in 25 and 26 namely, subject and object respectively.

25-

```
Q  VERB  NP  NP  
   Det  +WH  -Spec

\( \alpha \) sa:cada huda: ?ayya \( \alpha \) sax\( \alpha \)n  
     helped     Huda  what    person
```

26-

```
Q  VERB  NP  NP  
   Det  +WH  -Spec

\( \alpha \) sa:cada ?ayyu \( \alpha \) sax\( \alpha \)n huda:  
     helped what  person Huda
```

It must be mentioned that the ambiguity of 24 emanates from the fact that case markings take a null form when attached to nouns terminating in an open back vowel /a:/.

Indeed, even nouns terminating in consonants may create similar ambiguous sentences as a result of a phonological restriction which bans short vowels from occurring before a pause; this is why 27 is assigned two distinct readings:

27- man qatala l\( \alpha \)a:ris  
(Who killed the guard?)
(Who did the guard kill?)

In 27 *man* could be interpreted either as the subject or the object of the verb *qatal* (killed). However, the ambiguity would disappear if *al\( \alpha \)a:ris* (the guard) were not the terminal element in the sentence, i.e. if it were followed by other elements. This would make case marking explicit, leaving little room for ambiguity. Recall that case marking is realized as vowel suffixes (either nominative -u or accusative -a in this particular example). On the other hand, 24 does not lend itself to this analysis, and consequently, it remains ambiguous. Thus two answers are equally possible:

28- X sa:cada huda:  
   X helped Huda
29- huda: sa:cada X  
   Huda helped X

where X is the subject noun in 28 and object in 29.
Indirect Questions

The analysis of indirect questions in many languages, including Arabic, is complicated by the fact that the same set of pronouns is used to introduce relative and interrogative clauses. Such a problem does not arise in languages with two distinct sets for relative and interrogative pronouns. However, in spite of the fact that Arabic possesses such distinct sets, there are two ambiguous pronouns - man and ma: - that belong to both sets. In the few coming paragraphs I will try to provide a basis whereby the relative and the interrogative functions of these two pronouns may be distinguished. Consider the following examples:

30- lam naclam mani stalama rrisa:lah
    did not know we who received the letter
    (We did not know who received the letter)
31- lam yahdur man ji?tu liliqa:?ih
    did not show up whom came I to meeting his
    (The one whom I came to meet did not show up)
    will he ask you what kept you from the coming
    (He will ask you what kept you from coming)
    pleased me what drew the children
    (I liked what the children drew)

I will argue that in 31 and 33 man and ma: are relative pronouns, and that they are interrogative pronouns in 30 and 32. The evidence I am about to present is based on a syntactic argument that explicitly supports the claims made about these pronouns. Here are a few examples:

34- lam naclam mani lladi: stalama rrisa:lah
    did not know we who who received the letter
    (We did not know who received the letter)
35-* lam yahdur ma: lladi: ji?tu liliqa:?ih
    did not show up whom who came I to meeting his
    will he ask you what what kept you from the coming
    (He will ask you what kept you from coming)
    pleased me what what drew the children

Having examined 34-37 above, we may reach the conclusion that, unlike their interrogative counterparts, relative man and ma: cannot precede the relative pronoun alladi: (who, whom, which). This fact accounts for the deviance of 33 and 37, and at the same time explains the well-formedness of 34 and 36 in relation to the deviant ones. This syntactic test of whether or not it is possible for the relative pronoun alladi: to follow man and ma: proves to be extremely effective in distinguishing between their relative and interrogative functions. The reason for the ungrammaticality of 35 and 37 above is due to the fact that it is impossible to have more than one relative pronoun referring to the same antecedent in the same clause. However, in 34 and 36 man and ma: being interrogative pronouns, are both followed by alladi: without affecting the grammaticality of the sentence.

The distinction between the relative and the interrogative functions of man and ma: is best handled in deep rather than surface structure. The two pronouns, when used to fulfil the relative function, are transformationally derived in a way
Interrogative Clauses

comparable to that observed in deriving other relative pronouns. Furthermore, when *man* and *ma:* function interrogatively, they are derived by a set of morphophonemic rules similar to those stated in 20 above. Examples 38 and 39 below illustrate the different structures representing 30 and 31 respectively; these also manifest the twofold grammatical function fulfilled by the pronouns in question:

38- 

```
S
  |--- Neg VERB
  |    NP
  |      lam yahdur issaxsu
  |      did not show up the person
```

39- 

```
S
  |--- Neg VERB NP
  |    NP
  |      lam naclam nahnu
  |      did not know we
  |    S
  |      Q VERB NP NP
  |          Det -Def +WH
  |          N
  |          istalama ?ayyu issxin arrisa:lah
  |          received what person the letter
```

Although I will not attempt to discuss the process of relativization in detail, I will assume, for present purposes, that the relative pronoun *man* in 38 is transformationally copied as a separate node on the left-hand side of the embedded clause, observing agreement with its original noun *assaxs* (the person). It is also important to take into account that the original noun undergoes obligatory transformation, and is consequently assigned the features [+Clitic] and [+Pro]. The actual realization of the derived pronoun in this case is the clitic *-hu.* Moreover, the antecedent NP in the matrix clause should be deleted when the relative pronoun *man* is selected instead of *alladi:* (13). I have also to point out that the embedded clause in 39 has to undergo WH-Movement - a transformational rule that moves the questioned NP (the subject of the clause in this case) to the left-hand side replacing the dummy symbol

107
under Q (14). Together with the morphophonemic rules stated in 20, WH-Movement will ultimately generate 30 as surface structure.

So much, then, by way of a general treatment of ambiguous relative/interrogative pronouns. But before I move to discuss Arabic nacama: (Yes/No) questions, it is constructive to add at this point that the presentential Q in indirect nacama: questions is needed to dominate surface structure question particles hal or (?a-) (15). Consider for instance:

40- sa?alani: ?awašal lwa?du ?am la:
asked he me Q arrived the delegation or not
(He asked me if the delegation had arrived)
41- lam ya?crifu: ?awašala lwa?du ?am la:
did not know Q arrived the delegation or not
(They did not know if the delegation had arrived)

The interrogative morph ?a- is still dominated by presentential Q although both 40 and 41 represent indirect questions. In this sense, 40 and 41 further shore up the claim that a presentential Q is needed not only in deep structure but also in surface structure as well (16).

nacama: Questions

Schachter (1973) (17) and Pope (1975) (18) have treated Yes/No questions as derived from alternative questions. Motivations are also available for adopting a similar analysis for this type of questions in Arabic. One argument in support of this analysis is that it accounts for indirect questions of the type seen in 40 and 41 above where we notice a residue of the second alternative questions expressed by ?am la: (or not). Moreover, by adopting such analysis, we can also unify the treatment of nacama: questions, be they direct or indirect. Compare the following examples:

42- la: nacrifu ?ada?haba ?am la:
do not know we Q went he or not
(We do not know if he went or not)
43- * la: ncrifu ?adahab
do not know we Q he went

Clearly, 42 with the disjunctive ?am (or), falls within the domain of coordination where most of the elements have been deleted from the second clause. In fact, the only items left are the disjunctive ?am and the negative morph la: (not). Thus 43 is excluded from the language on the grounds that indirect nacama: questions of this type should have the final ?am la: (or not) as an indication of the reduced conjunct of the alternative question. On the other hand, the present analysis makes nacama: questions part of a larger domain of alternative questions in general. It follows that sentences like 44-46 can be accounted for in the same way as 42:

Q attended the president the meeting or was absent
( Did the president attend the meeting or was he absent?)
Q stay we at home or go we to the party
( Shall we stay home or go to the party?)
Q travelled Amer to Paris or still he in Aleppo
(Did Amer go to Paris or is he still in Aleppo?)

It seems to be quite possibly correct to represent sentences 44-46 by a common schema which may look as follows:
where Si is not necessarily identical to Sii.

Note that this is a more general account since it includes nacam/la: questions which are restricted to the form (19):

where Si is identical to Sii.

The present analysis has the additional advantage of obviating the need to create a new device, since it can be neatly incorporated within the coordination schema discussed in chapter three (20). This includes deletion rules that affect Sii in 48, deleting it either partially or completely, as seen in 49-52 below; 49 is the underlying structure:

Looking more closely at 50, we see that the subject NP of Sii has been deleted. Similarly, in 51 what is left of Sii is just the NEG and the disjunctive ?am. However, Sii and the disjunctive have been deleted from Sii in 52 and we are left with Si preceded by Q. Examples such as 50-52 help explain how deletion rules, when incorporated within the coordination schema, can successfully apply to Arabic nacam/la: questions.

It should be mentioned in this connection that la: is the only morph that may be left stranded in a position like the one it occupies in 51. Any other negative morph will render the sentence ungrammatical. For instance:

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>53-</td>
<td>?ana:ma ?am lam</td>
<td>Q slept the child or did not sleep the child</td>
</tr>
<tr>
<td>54-</td>
<td>?asayactarifu ?am lam</td>
<td>Q will confess the criminal or will not</td>
</tr>
</tbody>
</table>

109
A Transformational Grammar of Modern Literary Arabic

55- ?asayactarifu lmujrimu ?am lan yactarif ?
Q will confess the criminal or will not confess
(Will the criminal confess or won't he confess?)
56- ?asayactarifu lmujrimu ?am la: ?
Q will confess the criminal or not
(Will the criminal confess or not?)
57- ?ahuwa lqa:tilu ?am laisa huwa ?
Q he the killer or not he
(Is he the killer or isn't he?)
58-* ?ahuwa lqa:tilu ?am laisa ?
Q he the killer or not
59- ?ahuwa lqa:tilu ?am la: ?
Q he the killer or not
(Is he the killer or not?)

All the starred cases in 53-59 contain stranded negative morphs (lam, lan, laisa in 53, 54, and 58 respectively.) On the other hand, the well-formed questions contain either a stranded la:, e.g. 56 and 59, or some other element following the negative morph as in 55 and 57. Consequently, it seems be necessary to introduce a simple transformation that changes every negative morph left stranded in final position (cf. configuration 48) into la:.
The rule may look as follows:

60- SD # - Q - Si - ?am - NEG - Sii - # =>
1 2 3 4 5 6 7
SC 1 2 3 4 la:+7 Ø
Conditions:
i- 3 = 6
ii- The rule is obligatory.

Another deletion rule may also be required to delete both the disjunctive ?am and the NEG that follows. Thus we can account for questions like 52 above; the rule is of the form:

61- SD: # - Q - S - ?am la: - # =>
1 2 3 4 5 6
SC: 1 2 3+6 Ø Ø
Conditions:
i- The rule is optional
ii- ↑ represents rising intonation

The Interrogative Morphs ?a- and hal

I have argued earlier that a presentential Q in nacam/la: questions dominates the surface morphs ?a- and hal. However, interestingly enough, these two morphs exhibit semantic as well as syntactic idiosyncrasies which will be discussed in the following paragraphs in some detail. The most striking difference between ?a- and hal manifests itself in the fact that the former may occur with alternative questions, e.g. 44-46 above, whereas the latter may not. Nonetheless, both morphs may similarly occur in structures like 48 above where the answer to the question is either nacam or la:. Consider the following examples (23):

Q came the student or the teacher
(Did the student or the teacher come?)
Interrogative Clauses

(Did the student or the teacher come?)

a) ja:?a ?ta:libu
   came the student
   (The student came)

b) a?ta:libu
   (The student)

c) ja:?a I?usta:d
   came the teacher
   (The teacher came)

d) al?usta:d
   (The teacher)

63- *hal ja:?a ?ta:libu ?ami I?usta:d ?
   Q came the student or the teacher

64- hal ja:?a ?ta:libu ?
   Q came the student
   (Did the student come?)

65- ?aja:?a ?ta:libu ?
   Q came the student
   (Did the student come?)

66- a) nacam (ja:?a ?ta:lib)
   b) ?ajal (ja:?a ?ta:lib)
   (Yes, the student came)
   c) ja: (lam ya?ti ?ta:lib)
      no, did not come the student
      (No, the student did not come)

It is quite obvious that, contrary to 64-65, 62 does not accept straightforward nacam/la: answers. Therefore, it seems to be the case that hal may exclusively occur with questions that specially demand the adverbials nacam/la: as equally possible answers. In 62, however, these adverbials cannot be used; instead, we have to use something similar to 62 a, b, or c (22).

Another crucial difference to be noted between ?a- and hal has to do with the possibility of occurring with NEG. Unlike ?a-, hal may never occur with NEG; hence we can write the following data:

67- ?alam ?aqullak ?
   Q did not say to you
   (Didn't I tell you?)

68- hal lam ?aqul lak ?
   Q did not I say to you

   Q will not come he to the party
   (Won't he come to the party?)

70- hal lam ya?ti ila: l?haflah ?
   Q will not come he to the party

71- ?alaisa nnaja:hu ?acba: ?
   Q is not success difficult
   (Isn't success difficult?)

72- hal laisa nnaja:hu ?acba: ?
   is not success difficult

   Q not you agree on that
   (Don't you agree to that?)
A careful comparison between the starred questions and their well-formed counterparts reveals that the reason for their deviance is the use of the interrogative *h*al with negative morphs. Therefore, in order to avoid generating ungrammatical questions like those seen above, we have to place a restriction on the environment in which *h*al may occur.

Another apposite point has to do with conditional clauses where the two interrogative morphs behave differently. Arabic does not allow the occurrence of *h*al in conditional clauses, but uses *?a*- instead. Examples 75 and 76 illustrate this point:

\[ 75-^* \text{*h*al } fa\text{?}m \text{a}\text{:ta fahum lba\text{:qu}\text{:n} ?} \]
\[ \text{Q if died he they survivors} \]
\[ 76- \text{*?a*fa\text{?}m \text{a}\text{:ta fahum laba\text{:qu}\text{:n} ?} \]
\[ \text{Q if died he they survivors} \]

(Is it to give you the money that he came?)

Clearly, 75 is excluded from the language on the grounds that the presentential Q has been realized as *h*al although the sentence is preceded by the conditional particle *?in* (if). However, when *?a*- is used instead of *h*al in the same position, the output 76 is perfectly grammatical.

Apart from the foregoing arguments, it should be added that in cleft sentences with a fronted complement clause, *?a*- and not *h*al must be used; this is why 77 is ungrammatical whereas 78 is not. Configuration 80 represents the underlying structure of 77-79:

\[ 77-^* \text{h} \text{iyu\text{c}\text{t}i:ka lma\text{:la ja}\text{:?} ?} \]
\[ \text{Q to give you the money came he} \]
\[ 78- \text*?a*liyu\text{c}\text{t}i:ka lma\text{:la ja}\text{:?} ? \]
\[ \text{Q to give you the money came he} \]

(Is it to give you the money that he came?)

\[ 79- \text{h} \text{al ja}\text{:?a liyu\text{c}\text{t}i:ka lma\text{:l} ?} \]
\[ \text{Q came he to give you the money} \]

(Did he come to give you the money?)

Note that 79 is a well-formed question with the interrogative morph *h*al. However, when *h*al occurs in the cleft version 77, the result is ungrammatical, and *h*al has to be replaced by *?a*- as in 78. Therefore, we have to impose a further restriction on the
Interrogative Clauses

environment in which hal may occur so as to prevent it from preceding complement clauses.

Other striking differences between hal and ?a- involve semantic and probably pragmatic aspects, and I will deal with these all too briskly. First, in some cases, ?a- may imply that a negative answer is expected; that is to say, questions of the form: [?a- [P]] where P is proposition, then the answer should be: [la: [NEG P]]. Here are a few examples to illustrate the point:

81- ?artakaba jari:matan šani:cah
Q committed he a crime hideous
(Did he commit a hideous crime?)
82- la:, lam yartakib jari:matan šani:cah
no did not he commit crime hideous
(No, he did not commit a hideous crime)

Questions such as 81 imply that the speaker knows already that what he is asking about is not true, and consequently expects an immediate denial or negation on the part of the hearer. On the other hand, Questions with ?a- are also used to express denunciation of some action or state of affairs of which the speaker does not approve. The semantic interpretation of the above mentioned interrogative form [?a-] will be in this case: "the speaker denounces P". For example:

83- ?atatakallamu ?a8na:?a ddars ?
Q you talk during the class
(How dare you talk in the class?)
84- ?ata?kulu llāhma nayyi?a:
Q you eat raw meet
(How dare you eat raw meat?)

What the speaker actually wants to impart in 83-84 respectively is his disapproval of talking in the class and of eating raw meat (23).

In addition to what has been said earlier, we must bear in mind that ?a- would be more appropriate than hal when the speaker wants to elicit confession from the hearer. In this case [?a- P] is interpreted as "I want you to answer: yes - P".

Consider the following:

85- ?a?anta qatalta lha:ris ?
Q you killed the guard
(Was it you who killed the guard?)
86- ?azaidan ḏarabt ?
Q Zaid hit you
(Was it Zaid that you hit?)

It has to be remembered that the actual implication of nacam/la: questions is largely determined by pragmatic factors; these implications vary from one situation to another. For example, a nacam/la: question which implies denunciation in a given situation may imply request for a negative answer in another, and so on. However, we need not go into the more pragmatic details of these two interrogative morphs; what has been said is sufficient for our present purpose.

113
A Transformational Grammar of Modern Literary Arabic

The Question Tag

Unlike English, but like many other languages, Arabic has a fixed form of the question tag (24) - ?alaisa kada:lik - which is interpreted as (isn't it so?). It is interesting to note that the same tag precedes both positive and negative sentences, and is usually marked by a rising pitch pattern in which the speaker demands confirmation or agreement to what he is stating (25).

(The cabinet in Egypt resigned, haven't they?)

(did you see yesterday's movie, did you?)

(resigned the cabinet in Egypt not so)

(did not you see movie yesterday not you so)

Obviously, the ungrammatical cases 89-90 are the outcome of the incompatible tags at the end of each of them; for unlike English, the Arabic tag question need not agree with the subject of the sentence in terms of number and gender. This suggests that the tag is introduced at the end of the sentence as an idiom with a particular semantic effect (i.e. as a request of confirmation or agreement).

WH-Questions

By WH-questions I mean questions that have a question word such as man, ma:da:, ?aina, etc. (who, what, where, respectively) rather than nacam/la: questions introduced by ?a- and hal and which have been discussed earlier. My analysis is based on the assumption that these questions are derived by a movement rule that allows presentential Q to attract and subsequently dominate the questioned deep-structure NP (26). Such a rule, commonly known as WH-Movement, seems to exhibit universal features (27), and is designed to account for questions like (28):

91- man ja:?a maca lwafd ?
(Who came with the delegation?)

92- ?aina wa:qacta l?awra:q ?
(where put you the papers)

93- kaifa wa:qalta fi: lwaqti Imuna: sib ?
(how arrived you in the time suitable)

In my analysis I will assume that questions such as 91-93 originate from deep structures that look like the following:

94- Q ja:?a ?ayyu 6axsin maca lwafd
 Q came what person with the delegation

 Q put you the papers in what place

96- Q wa:qalta fi: lwaqti Imuna: sibi bi?ayyati wasi:lah
 Q arrived you in the time suitable in what way
I will also maintain the assumption that WH-Movement is a left unbounded rule, in the sense that the questioned NP is able to move over an indefinitely large distance in the sentence to reach presentential Q. Thus, assuming that the original position of the WH word is marked with a trace $\_\_$, we may write the following WH questions:

(To what school said Ahmad that Khalid sent his son)

It is not difficult to see how the prepositional phrase ?ila:  ?ayyati madrasah (to what school) has been attracted to sentence-initial position, although it starts off as a constituent of the embedded sentence. Configuration 98 represents the deep structure of 97:

Note that when the questioned NP is dominated by a PP, Arabic requires that not only the NP, but the whole PP should be moved. Consequently, 99-100 are excluded from the language, but 101-102 are not.  

99-  *ma: da: ma: dahaba Imufattisu mac*  
who went the inspector with

100-  *ma: da: tanzuru ?ila:  *  
what you look at

101-  maca ma: dahaba Imufattis $\_\_$?  
with whom went the inspector  
(With whom did the inspector go?)

(To what are you looking?)
Sentences 99 and 100 are ungrammatical because they violate the WH-Movement rule; both prepositions ?la: and maca have been left stranded at the end of their respective sentences. The deviance of 99 and 100, however, is remedied in 101-102 where the whole preposition phrase has been shifted to sentence-initial position. The rule of WH-Movement as it stands can be formulated as follows:

\[
103-\text{SD: } X - Q - Y - (P) \quad \text{Det} \quad N - Z \Rightarrow +\text{WH}
\]

\[
\begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 \\
\text{SC:} & 1 & 4 & 3 & \emptyset & 5
\end{array}
\]

Conditions:

i- The rule is obligatory

ii- 3 does not contain [WH, +Pro]

The structural description shows how the questioned material (P) + Det + WH is moved to occupy the sentence-initial position under Q. We have to bear in mind that Y (item 3) can be indefinitely large. Yet, condition (ii) makes it clear that Y must not contain a proform. This stipulation is necessary to avoid generating outputs of the type:

\[
104-^* \text{?la: ?ayyati madi:natin man dahab t}
\]

to which town who went

Item Y is represented by man in 104 above, and this is the reason why the sentence is deviant.

Bach (1971) argues that the unboundedness of WH-Movement has a semantic explanation. If we believe that the semantic interpretation of questions is something like "supply a value of X such that P is a true sentence", then there is no reason why the sentence from which the missing bit is supplied should not be indefinitely complex. Ross (1967) also makes a similar observation regarding the unboundedness of WH-Movement, and he argues that although movement to the left may be unbounded, all rightward movement rules are bounded. Since WH-movement invariably moves the questioned item to the left and never to the right, it seems clear that WH-Movement may be unbounded rule.

Conditions and Remarks on WH-Movement

As formulated in 103, the rule of WH-Movement is unbounded in the sense that it is able to move items from position 4 to position 2 under Q, no matter how large the intervening variable 3 may be. This seems to violate the principle of strict cyclicity (moving a WH-phrase out of its island) since WH can be in embedded sentences as seen in 97 above and in the analogous 105:

\[
105- \text{man yatawaqqacu lmuraššaḥu:na ñan yuxbirahum rra?i:su bi?annahu yawaddu law yafu:z ?}
\]

who expect the candidates that tell them the president that he wishes to win

(Who do the candidates expect the president to tell them he wishes to win?)

The WH pronoun man (who) has been moved across two cyclic nodes before reaching its final position. So while there seems to be no reason for maintaining the principle of strict cyclicity for Arabic WH questions, there are certain problematic cases that call for the modification of the rule, as can be discovered from the following data:
Interrogative Clauses

106- lam yahdur marwan li?anna sad:qahu wasala min faransa:
   did not come Marwan because friend his arrived from France
   (Marwan did not come because his friend arrived from France)

107-* man lam yahdur marwan li?anna sad:qahu wasala min faransa:
   who did not come Marwan because he arrived from France

   from where did not come Marwan because friend his arrived

109- lima:da: lam yahdup ?
   why did not he come t
   (Why did not he come?)

110- S
     NEG VERB NP ADV
     lam yahdur marwan PP
     did not come Marwan

     P NP
     li?anna S
     because

     NP VERB PP
     sad:qahu wasala min faransa:
     friend his arrived from France

A comparison between 106-110 makes it clear that no questioned item can be
extracted from an S which is dominated by Reason. Any attempt to form a WH-
pronoun referring to certain items inside the S will invariably give deviant output,
e.g. 107-108. However, 109 is well-formed since the WH-pronoun lima:da: refers to
the S as a single constituent.

Before developing this point any further, it is instructive to explain two relevant
rules of interpretation: the bound anaphora, and the disjoint reference (33). Chomsky
defines the rules of bound anaphora and disjoint reference as follows bound
anaphora: assign to a pronoun the feature [+anaphoric] to \( i \) in a structure containing
NP; disjoint reference: assign to a pronoun the feature [- anaphoric] to \( i \) in a
structure containing NPi. These rules are designed to specify the relationship
between NPs in any given sentence in terms of coreferentiality. Consider the
following examples:

111- tactaqidu salwa: ?anna ?ahmada yuhibbu camalahu
   believe Salwa that Ahmad likes job his
   (Salwa believes that Ahmad likes his job)

112- yactaqidu xa:lidun ?annahu yuhibbu sayyaratahu
   believes Khalid that he likes car his
   (Khalid believes that he likes his car)
Careful examination of 111 above reveals that the clitic pronoun -hu in camalahu (his work) does not refer to the noun salwa: (34), and this means that the rule of bound anaphora can no longer apply to the feature i which appears on the NP and the Pro. In other words, the rule is blocked because of the intervening noun ?ahmad between salwa: and camalahu. In this case the rule of disjoint reference applies to i and assigns to it the feature [-anaphoric]. By contrast, in 112 the rule of bound anaphora applies to allow coreferentiality between the proper noun xa:lid and the clitic pronoun -hu since there is no intervening NP between the two items.

Furthermore, it is important to take in consideration the fact that the noun ?ahmad in 111 is not contained in the preceding noun salwa:; in other words, it is not controlled by the preceding NPI. NPs such as ?ahmad in 111 are referred to as specified subjects (henceforth SS). Therefore, we can rephrase the preceding conclusion by saying that because 111 has no embedded clause with a specified subject, the rule of bound anaphora is blocked. However, the question that arises in this respect is: how far does an SS in embedded clauses affect WH-Movement? In other words, is it possible to move a Wh-phrase from an embedded clause that contains an SS (not controlled by the subject of the matrix)? Put schematically, the question is as follows: is it possible to move a Wh-phrase out of i in 113 where α is a cyclic node and Z is a specified subject not controlled by X - the subject of the matrix clause?

113 [... X [... Y ...]...]

α

Consider the following examples: α

114- [ma: [tactaqidu salwa: [?anna ?ahmada yu?ib t]]]?

S  S

what believe Salwa that Ahmad likes
(What does Salwa believe that Ahmad likes?)

115- [man [yactaqidu xa:lidun [?annahu yu?ibbu sayyaratahu]]]?

f  S

who believes Khalid that likes he car his
(Who does Khalid believe that he likes his car?)

Both of the above examples contain an embedded clause or a cyclic node (S in this case) (35); yet, we are able to move the Wh-phrase man (who) from the position marked with a trace f across the S to occupy the sentence-initial position despite the fact that both sentences have specified subjects (36). This clearly indicates that it is possible to apply the rule of WH-Movement even if this means crossing a cyclic node with an SS. However, there are cases where the presence of an SS would block WH-Movement in embedded clauses. For example:

116-* ma: lhada:ya: llati: yuridna 1an tucta: ! ill kullun minhunna lil1uxra:

what t the presents that want they (t) to be given each one (f) to the

other (f)

The verb tucta: in 116 is in the passive, i.e. the logical subject is not overt, but is represented by t, whereas tii represents the moved NP which is the questioned object. Careful examination of 116 will immediately show that by moving a WH-phrase ma: lhada:ya: (What presents) across the specified subject ti, the sentence violates the SS condition (henceforth SSC.) Though it falls short of a sweeping generalization, syntactic evidence can be established in support of SSC as we have seen in 116. To carry the argument a step further, consider these examples:
Interrogative Clauses

what the presents that want they (f) Tariq to she give them (f) each one (f) to the other (f)

what the presents that want they (f) to give them (f) each one (f) to the other (f)

(What presents do they want to give each other?)

Again, 117 violates SSC, the specified subject being the proper noun !a:riq which is not controlled by any NP in the matrix clause. Conversely, in 118, where both the subjects of the matrix and the embedded clauses are marked [+anaphoric], the absence of any SS has made it possible for WH-Movement to apply smoothly, yielding grammatical output.

The specified subject condition makes correct predictions insofar as derived questions such as 116 and 118 are concerned. Recall that the cyclic nodes across which the Wh-phrase is moved have so far been of the type S in all the above cited examples. However, the cyclic node may involve NPs as well as full sentences. Compare 119-120:

What believed the judge that the defendant gave!.to friend his

(What did the judge believe that the defendant gave his colleague?)

What believed the judge the claim that the defendant gave!.to friend his

Some interesting observations can be made with regard to 119-120 above. For instance, the rule of WH-Movement has shifted the questioned P ma:da: (what) in 119 from the embedded clause despite the presence of the specified subject almuttaham (the defendant). This is a glaring violation of SSC since the movement takes place across a cyclic node S. But, as we have seen before, this movement is not possible with 120 as it produces deviation as a result of a second cyclic node of the type NP. Examples 119-120 suggest that the specified subject condition alone may not be sufficient to screen all bad output, and it looks as though we need another condition to exclude derivations like 120 from the language. Chomsky (1972) (37) has suggested another condition - subjacency - which is designed to prevent the movement of items from embedded clauses across more than one cyclic node. The condition may be schematically represented as follows:

121- [... X ...[... [ ... Y ...][...]]...

α α

The subjacency condition stipulates that no item can be moved from a position Y to position X where α s are cyclic nodes (i.e. either NPs or Ss).

Questions such as 120 and 122 are excluded by the subjacency condition where the questioned word (i.e. the WH-pronoun) ma:da: has crossed two cyclic nodes: S and NP:

122- *ma:da: tusaddiqu liddica:?a ?anna Icaqqa:da katab t
what you believe the claim that Al-Akkad wrote t

By the same token, 124 is ungrammatical on account of illegal WH-movement. In this particular example the Wh-phrase has been moved across more than one cyclic node (of the type NP) thus violating the subjacency condition. Compare 123 with 124:

119
A Transformational Grammar of Modern Literary Arabic

123- kataba maqlatun can ra?yi ma:hir fi lharb
   (He wrote an article about Maher in the war)
   (about what wrote he article about opinion Maher!)

In short, the subjacency condition seems to make correct predictions about cases
like 120 and 124 in the sense that it explains the reason for their deviance. However,
although the two conditions - subjacency and specified subject - are still far from
being clear. It seems more likely that moving a WH-phrase across one, or more than
one NP cyclic node is more constrained than moving it across S cyclic nodes.
Consider the simple case of Arabic construct phrase outlined earlier, and which I
repeat here for convenience (38):

125- NP
   (39)
   "saw we collection the books the new"
   (We saw the collection of the new books/ the new collection of books)

   (what saw we the books the new)

   (what saw we the books the new)

129- ma:da: ša:hadna:?
   (What did we see?)

It is not difficult to discover that the ungrammaticality of 127-128 is caused by the
improper extraction of the interrogative pronoun ma:da: (what) that refers to
alkutub and to majmu:cah (the books and collection respectively) in 127-128. Hence
the conclusion that if ma:da: refers to the construct NP as a single entity, the derived
WH-question is well-formed, e.g. 129; if not, ungrammaticality will be the result.

It should be mentioned that the complex NP constraint has been noted earlier by
Ross (40), and it seems that the constraint blocks WH-Movement when it involves
moving items out of a noun phrase, or out of a sentence which is dominated by a noun
phrase as explained in configuration 130 below:

130- NP
   (130b)
   "do not know I what said the lecturer"
   (I do not know what the lecturer said)
Interrogative Clauses

132. man la: ?acrifu ma: qa:l t
who do not know I what said he

Configuration 133 is the underlying representation of 131:

\[
\begin{array}{l}
\text{NEG} \quad \text{VERB} \quad \text{NP} \quad \text{NP} \\
la: \quad ?\text{acrifu} \quad ?\text{ana:} \\
do \text{not} \quad \text{know} \quad I
\end{array}
\]

\[
\begin{array}{l}
\text{Rel} \quad \text{VERB} \quad \text{NP} \quad \text{NP} \\
ma: \quad qa:l \quad \text{Imu}\hfill \text{a:diru say?} \\
\text{what said the lecturer something}
\end{array}
\]

Configuration 133 demonstrates that the noun \textit{almu}\text{a: ifi}, (the lecturer) is a constituent of S which is also part of the object NP in the matrix clause. Therefore, applying WH-Movement to this noun clearly violates the complex NP constraint and gives rise to ungrammaticality of the type exemplified in 132 above.

As I have argued earlier, the specified subject and the subjacency conditions seem to make correct predictions only for a limited range of data, leaving many cases unaccounted for. Turning back to examples 97 and 105 above, we discover that the WH-phrase has been moved in such a way that the movement violates both conditions. In subsequent works, however, Chomsky tried to provide a further generalization concerning WH-Movement. To do so he resorted to another method of analysis, namely the COMP-TO-COMP analysis. This new hypothesis makes the claim that questions like 97 and 105, which I repeat here as 134-135 for convenience, can be captured by making the movement rule successive cyclic. This means that we do not move the Wh-phrase (whether NP or PP) to its presentential position in one big jump, but rather in gradual steps applied to each cycle separately. Thus, the WH-phrase is moved into a COMP position in each cycle (41). Consider the following 134-135, with the illustrative configuration 136:

to what school said Ahmad that Khalid sent son his

(To what school did Ahmad say that Khalid sent his son?)

135. man yactaqidu anna:su ?an yuxbirahum rra?li:su ?annahu yawaddu law yafu:z\text{t}
who expect the people to tell them the president that he wishes to win

(Who do the people expect the president to tell them that he wishes to win?)

The COMP-TO-COMP analysis seems to be powerful enough to generate questions such as those exemplified in 134-135. Note that since a restriction has been placed on the movement of prepositional phrases forming a WH-phrase, there will be no possibility for a preposition hopping from one COMP to another to be left stranded somewhere on the way. However, although this COMP-TO-COMP "escape
In summary, although I would like to maintain that WH-Movement is an unbounded rule, certain cases such as those discussed above seem to challenge any sweeping generalization. The COMP-TO-COMP analysis as it stands appears to be an ad hoc rule that has been postulated just to make up for the deficiency of other conditions on universal grammar. However, the COMP-TO-COMP escape hatch explains the ungrammaticality of 106 and 110 above on the grounds that the COMP place is already occupied by Reason, leaving no place for the WH to hop to. It also predicts that there is a presentential COMP under which the moved WH may be attached once it has been moved from its original deep structure position. The problem certainly deserves more research and attention since the scope of data involved seems to be surprisingly large.

136-

A Transformational Grammar of Modern Literary Arabic
6 Notes

Introduction

1- For further discussion of the interaction between literary Arabic and its various dialects, see Charles A. Ferguson, Diglossia in Word, 15 (1959) pp 325-340.


7- These sentences may also be referred to as nominal equative or verbless sentences. In my analysis these terms apply only to surface structures.


10- This is a rather general statement which applies to lexical insertions. However, in some cases we might want the insertions of certain items to be delayed to a further stage as is the case with negative items which are sensitive to adjacent elements.
Thus, the insertion of lexical items under NEG will have to wait until all the transformations concerning the adjacent element have applied.

11- However, in EST semantic interpretation is determined both in surface and deep structures. This new approach is motivated by examples like:
   a) Beavers build dams
   b) Dams are built by beavers
   c) John did not date many girls
   d) Many girls were not dated by John.

According to Chomsky, (b) and (d) are ambiguous, while (a) and (c) are not. One interpretation of (b) suggests that all dams are built by beavers, which is obviously not implied in the active version of the sentence (a). Similarly, one interpretation of (d) suggests that although John dated a number of girls, many girls still were not dated by him. Again, this reading is not implied in the active version (c). A more adequate version of (d) in relation to (c) may be (e):
   e) Not many girls were dated by John.

This problem led Chomsky to abandon the former view concerning semantic interpretation and adopt the view that semantic interpretation should be specified in surface as well as in deep structure. This is necessary to preserve the stipulation that transformations do not change meaning.


13- The node VERB will dominate the copula ka: na as well as other lexical verbs. Arguments that support treating the copula as a main verb will follow in chapter one.

14- For discussion of clitic movement, see p. 37.

15- Note that a transformation such as case marking will be best applied as last cyclic rule rather than at each stage of the derivation. This is due to the fact that case markers do not reflect the logical relationship among items. A deep structure object, for example, will be marked [+Accusative], but when it is fronted to sentence-initial position, it will be marked [+Nominative].


Chapter One

1- Although this may involve minor transformations such as case marking.

2- I will be dealing with some major Arabic transformations in chapter two.

4- This term has been used by Anschen and Schreiber in their article “Focus transformation of Modern Standard Arabic,” New York University, Language, V. 44, (1968).

5- This contradicts Lewkowicz’s analysis which treats *ka:na* as an optional element (copula) in the predicate. Cf. Lewkowicz, N.M.K. (1967).

6- For more discussion of the use of auxiliaries as main verbs, see Pullum and Wilson, Auxiliaries as Main Verbs Language, (1978).

7- Cf. Time and Aspect p. 20

8- Cf. VERB p. 19

9- The feature [+Jussive] is manifested in verbs mainly by shortening the final syllable. In other words, singular verbs delete their final vowel, whereas plural verbs delete their final */-nV*/.

10- The motivation for having IMP in deep structure will follow (cf. p. 17 ff).

11- For number agreement, see focus transformation in chapter two.

12- Shehadi Fadlou, Arabic and "to Be" in the verb to be and its synonyms Philosophical and Grammatical Studies (4) (ed) John W.M. Verhaar, F.O.L. Supplementary Series, Vol. 9.

13- This was suggested to me by Dr. D. Wilson (personal communication).

14- Bear in mind that this rule is applicable only to the verb *ka:na*; not to any other verb in this context.

15- Again, this is contrary to Lewkowicz’s analysis of Arabic PS rules. (See reference cited above.) She makes the rules context sensitive and introduces even lexical items in deep structure.

16- In fact this verb represents a class of similar verbs that exhibit similar behaviour; e.g. *ganna*, *şaddaqa* (to sing and to believe) respectively.

17- This was also suggested to me by Dr. D. Wilson (personal communication).

18- By nominal-initial sentences I mean surface structures with the subject NP, rather than the verb, occupying the initial position. It follows that verbal-initial sentences are the unmarked order of Arabic, i.e. VSO.

19- Alternatively, in this case of proper nouns, a vocative article should precede the subject NP, e.g.:

   a) *?idhab ya: ?ahmadu ?ila: ssu:q*

   go + Voc Ahmad to the market

   b) *tasallaḫu: ?ayyuha: ūṭulla:bu bilcilim*

   be armed + Voc students with knowledge

   But this need not be treated in detail here.
20- Reflexive pronouns in Arabic are composed of the noun *nafs-* (self) plus a clitic form corresponding to the identical subject NP preceding it. Thus we generate *nafsi:* , *nafsuka,* etc (myself, yourself, etc.) For clitic pronouns see p. 36.

21- For more discussion, see Burt, M. An Introduction to Transformational Syntax, From Deep to Surface Structure (1971). Also see Grinder and Elgin, Guide to Transformational Grammar (1973), (pp. 138-140), and Katz and Postal (1964) An Integrated Theory of Linguistic Description.

22- Usually the second person subject pronouns are deleted when reflexive objects are used. If they are to be retained at all, they should be initially introduced by transformations, e.g.:

a) *?ihtarimu:* ?anfusakum  
   respect +Pro yourselves

b) *?ihtarimu:* ?antuum ?anfusakum  
   respect + Pro you yourselves

c) ?antuum *?ihtarimu:* ?anfusakum  
   you respect +Pro yourselves

23- Note that the reflexive pronouns should agree with the subject NP in number, gender, and person.

24- See Jacobs and Rosenbaum, English Transformational Grammar, (1968) (pp 30-33).

25- The same clitics occur at the end of verbs marked for the Jussive.

26- As far as reflexives are concerned, these are determined by the phonological structure of the root of the verb. In this respect, they are different from the reflexives seen in 60 which are shared by all imperative verbs.


28- The Habitual and Continuous Aspects are determined by some sentence adverbials such as Time or Frequency; e.g. *ca:datan,* *da:iiman,* *?al?a:n,* etc. (usually, always, now, etc.) respectively.

29- The NP in 71 represents the object, i.e. the second NP in the unmarked order seen in 39 above.

30- Singular indefinite nouns in Arabic take no article, but are characterized by what is known as tanween. This is realized as a suffix consisting of a short vowel plus /u/, i.e. -un, -an, -in corresponding to the nominative, accusative and genitive cases respectively.

31- See Chomsky, Aspects (p. 85).

32- See Chomsky, op. cit.
33- Passivization changes the vowel in the first and the penultimate syllables of the passivized verb. The vowel in the first syllable is changed into /u/, while that in the penultimate syllable is changed into either /u/ or /ə/ according to the aspect of the verb. With the perfective, for instance, it becomes /u/ as in kusira (was broken), whereas in the case of the imperfective it becomes /ə/ as in yuksaru (is broken).

34- The rules of pronominalization and conjunction reduction will be discussed in chapter two.

35- This will be treated under dative movement.

36- See Fillmore, op. cit.

37- The PP rewrite rule should in this analysis be made recursive so as to account for the cooccurrence of more than one prepositional phrase. The rule may be stated as PP → PP\(^{(n)}\) where \((n)\) is the number of prepositional phrases that may be found concurrently. However, the cooccurrence of more than two PP's is unlikely as it brings the sentence down the scale of acceptability.


39- See H. Wise (Op. cit.)

40- When the instrumental is preposed to occupy the subject position, it is important to drop the preposition, otherwise the syntactic function of the PP will remain instrumental.

41- Intensifiers can be regarded as nominals of a special kind. They have to be singular, indefinite, and marked [+Accusative].

42- These are derivable by a certain morphological process depending on the actual phonological structure of the root of the verb. But this point is irrelevant to the present work.

43- It is important to distinguish the prepositional use of wa from the conjunction wa which will be discussed under coordination. The preposition wa may be interpreted as (while) or (as) in English, while the conjunction is usually interpreted as (and).

44- Note that the manner clauses in 125-126 have initial pronouns rather than initial verbs.

45- Surface verbs realizing adverbial clauses should have the imperfective rather than the perfective aspect.

46- The nominal in this case should be [-Definite]. In this respect it is very similar to that found in Manner adverbials, e.g. sari:can, maşyan, etc. (quickly, on foot, etc.)
Chapter Two

1- The dual pronoun for the first person is identical to that of the plural both masculine and feminine.


3- The rule is obligatory, at least within the same sentence, but it could be optional across sentence boundaries. As a matter of fact, this depends on stylistic considerations.

4- This is contrary to English which allows backward pronominalization as in: When he came home, Mr. Taylor told his wife about the meeting. Backward pronominalization of this kind is alien to Arabic, and if it is used at all, it sounds odd and may be regarded as direct translation from languages that allow the rule to operate in both directions.

5- Note that example 9 is grammatical in English which allows NPs to refer to preceding pronouns.

6- We have to remember that the feature [+Pro] which is assigned to NPs by 2 has the power to replace full NPs and absorb only their relevant features, namely person, gender, and number.

7- The latter case corresponds to possessive pronouns in English.

8- For the present, I will not attempt to account for possessive clitics which are normally attached to nouns.

9- Atiya argues that the clitic pronoun and the verb to which it is attached are dominated by a single node: V. However, according to her analysis, clitic forms are generated by a rule T-accusative clitic placement which has the form:

\[
\begin{align*}
\text{SD:} & \quad X - \text{NP} - Z \Rightarrow \\
\text{+Pro} & \\
1 & 2 & 3 \\
\text{SC:} & \quad \# 1 + 2 - (2) \# - 3 \\
\end{align*}
\]

where \# are phonological boundaries.

1 and 2 are immediately dominated by the same node and 2 may be optionally deleted except when \( Z = \) emphatic reflexive, conjunction, or numeral. However, her analysis does not seem to capture all the syntactic and semantic facts. It would be much easier to apply T-pronominalization to the NP when the structural description is met for the rule, then attach the resultant pronoun to the verb or the preposition by Chomsky adjunction.

10- Chomsky adjunction (also known as constituent adjunction) creates a new node identical to that to which an element is to be attached. This means that the new node immediately dominates the other two. Chomsky adjunction may be represented by the following diagram:
11- This is determined by morphophonemic rules.

12- In discussing the rule of dative movement, I have used the argument suggested by N. V. Smith of University College London during lectures he delivered on transformational grammar (1975-1976). See also Marina Burt (op. cit.)

13- Some of my colleagues with whom I checked this derivation found it acceptable, others were not sure, but preferred to delete the preposition in any case.

14- See Greenberg (op. cit.)

15- Anshen and Schreiber (op. cit.)

16- Sometimes this is termed topic extraction method. The former method may be also called daughter adjunction since it creates a new node dominated by S. See Lewkowicz (op. cit.)

17- In this case the resultant pronoun will be a clitic.

18- See table 14 p. 36 for clitic pronouns of this type.

19- This is true of examples 46 and 48 where the subject NPs are singular. Thus there is no overt number agreement between the verb and the preceding subjects.

20- This phenomenon may be considered as further evidence that Arabic is actually a VSO language.

21- The resultant pronoun will be of the independent type in this example, as determined by morphophonemic rules.

22- ?inna and ?anna may be initially inserted to precede nouns or pronouns when these are preposed as a result of focus transformation. It should be mentioned that ?anna/?inna fulfill two functions: when they occur in initial position, i.e. in the matrix, it has an emphatic function; whereas it functions as a complementizer in embedded sentences. Furthermore, ?inna triggers a phonological change in the final vowel of singular nouns, and morphological change in the suffix of dual or plural nouns that immediately follow it. Thus the new endings triggered by ?inna will be phonologically similar to those that mark the accusative case, i.e. /-a/ for singular, /-ainal/ for dual, and /-ina/ for plural nouns.

23- For construct NPs, see p. 23 ff.


A Transformational Grammar of Modern Literary Arabic

26- The original motivation for adopting the trace notion in English was necessitated by the desire to account for the impossibility of sentences like "*Mary seemed to them like each other." The claim is that the derivation is blocked by the specified subject condition (this will be discussed in chapter five) that prevents the application of each movement to the structure "Mary seemed to each of the men to like the other." Thus, the ungrammaticality of the former sentence can be described by assuming that there is a trace t that is left in the original place of the subject "Mary": "Mary seemed to each of them t to like the other."

Chapter Three

1- Chomsky, Syntactic Structures (The Hague, 1957).

2- See deletion rules p. 66 ff.


4- These conjuncts appear on the surface level regardless of their transformational history or schema.

5- For definition of nominal initial sentences, see p. 10.

6- T- pronominalization was discussed in chapter two. (Cf. pp. 34 ff.)

7- Lakoff, R. (1969) stresses the fact that conjoined sentences should have some semantic relationship between them so as to avoid generating awkward outputs like: *John eats apples and I know people who have never been to a doctor. For more discussion, see Lakoff If's, And's and But's About Conjunction Studies in Linguistic Semantics, (ed.) Fillmore.

8- These terms are borrowed from Fillmore's case grammar (Cf. op.cit.)

9- For construct NP see p. 23.

10- T-conjunction reduction will be discussed later when dealing with deletion rules.

11- Construct NPs usually behave as definite NPs. For instance, the may occur initially in nominal-initial sentences, whereas indefinite NPs may not. Consider:

NP  NP  Adj
a) [kita:bu iqawa:cidji  [ṣaṭḥ]]
book the grammar difficult
b) * [kita:bu ṣaṭḥ]
The ungrammaticality of (b) is due to the indefiniteness of the initial NP kita:b (book); but when the same NP forms part a construct NP in (a), the result is obviously well-formed.

12- Note that conjoined structures with different features in terms of definiteness (e.g. 19, 20, 24, 28) may be acceptable if ?aydan (too) is inserted after the second conjunct. Thus the following are well-formed:

130
19- (a) ?ištairatu iburtuqa:lata wa tuffaḥatan ?ayda:
   bought I the orange and apple too
   (I bought the orange and an apple too)
20- (b) ?ištairatu burtuqa:latan wa tuffaḥatan ?ayda:
   bought I orange and apple too
   (I bought an orange and an apple too).

13- S. Dik (1968) presents some arguments against transformational grammar of
   coordination. He claims that a transformational grammar cannot represent all the
   functional information that the sentence has, and there is no motivation for a
   transformational grammar which is unable to describe the full range of coordinate
   conjoined structures. However, Dik seems to have overlooked some important
   arguments in favour of transformational grammar as will be seen in this chapter.
   (Cf. Simon C. Dik, Coordination: its Implications for the Theory of General
   Linguistics.)

14- Arguments concerning the transformational and the phrasal hypotheses are
   presented by Dougherty in her paper A Grammar of Coordinate Conjoined

15- Note that conjoined NPs resemble plural NPs or NPs marked [+Collective] in that
   they have plural verbs.

16- The capital C here denotes a consonant of the stem of the verb, as in qatala
   (killed), e.g.:
   qatala taqa: atala
   baḥaθa taba:haθa

17- In my analysis plural NPs are generated in the base by the complex feature
   mechanism, and not from a coordination of singular noun phrases. For more
   discussion of the transformational insertion hypothesis and the base hypothesis see
   Dougherty (op.cit.)

18- Ibid.

19- See Bellert (1966) On Certain Syntactical Properties of the English Connectives
   "and" and "but".

20- Cf. deletion rules p. 66 ff.

21- Note that the conjunction ?illa: ?anna triggers a morphosyntactic change in the
   following NP. Being a cognate of ?inna, ?anna resembles it in changing the final
   vowel of the following NP into /-a/ if it is singular, or broken plural; and it also
   changes the final suffix of a plural into /-i:na/. These changes take place at a later
   stage of the derivation.

22- The terms subject and predicate are traditional terms. Here what I mean by
   subject is the initial NP to which ?amma: attaches itself, and by predicate I mean the
   sentential category which follows the subject NP and to which fa- is attached.
23- It is not clear why traditional Arab grammarians do not think of *la:kin* as a conjunction of sentences. Most probably their treatment of the conjunction is limited to surface structure.

For example:

a) ma: ʃa:sha'bna la:kin l?axia:r
   (I did not befriend the bad but the good)

b) ma: ʃa:sha'bnu l?axia:r ʃa:sha'bnu
   (I did not befriend the bad people but befriended the good people).

Obviously, a) is derived from deep structure b) and differs from it only in that it has undergone deletion rules which have obliterated *anna:sa* (the people) from both conjuncts and the identical verb ʃa:sha'bnu (befriended I). This means that the traditional claim regarding *la:kin* cannot be substantiated.

24- In subsequent works, Chomsky suggests that deletion seems sensitive to some aspect of semantic interpretation, which means that the possibilities of deletion are in part fixed by properties of representations at LF (logical form) and Kn (phrase marker). See Chomsky's article Conditions on Rules of Grammar in Linguistic Analysis, Vol 2, No. 4, 1976.


26- These definitions were suggested to me by Dr. D. Wilson (personal communication).

27- Note that C1 in 12 may retain its original order though C2 has undergone T-focus, i.e. we can still generate:

   travelled the president to Beirut and the minister travelled to Cairo.

where in C1 the verb precedes the subject, whereas in C2 the subject precedes the verb.

28- See PS rules in chapter one.


30- For more discussion, cf. Time and Aspect p. 20.

31- It is worth mentioning that strings like 42 were permissible to some old schools of Arabic grammar. In cases such as this, the verb should be separated by pauses. However, none of my colleagues accepted such a derivation.

32- Modern Arabic does not allow T-transformational to apply to the subject NP in C1 instead of deleting it. It follows that it is rather odd to generate strings like:

   *sa:cadani: wa sa:cadu majdi
   helped me and helped I Majdi

Again, none of my colleagues felt that the above string was acceptable, although according to some old schools of Arabic grammar, it was. However, we need not go into the details of this problem as it falls outside the scope of the present work.
33- This condition is generally referred to as A/A principle. It can be illustrated by the following configuration:

```
 A
/   \
X     Y
   /   \
  A
 /     \
Z W
```

34- The majority of my colleagues accepted 4 and 8, but none accepted 2, 6, or 10.

35- In Arabic this is known as wa:wu lmaciyyah which is semantically and syntactically equivalent to the preposition mac (with).

36- Note that this transformation involves a phonological change in the final vowel of the noun phrase, from /i/ when it is preceded by the preposition into other vowels determined by the various syntactic functions.

Chapter Four

1- This is mainly Klima's analysis of negative clauses. He postulates a deep structure morpheme NEG, introduced optionally as a constituent of S in sentence-initial position. This NEG conditions the change of (some) into (any) in English, and it also triggers do-support and Sub-Aux inversion. For more details, see Klima, (1964c) Negation in English in The Structure of Language (pp. 246-323).

2- For discussion of T-copula deletion, and T-focus, see pp. 15, 41 and respectively.

3- These are referred to as nominal equative sentences.

4- These are referred as nominal non-equative sentences.

5- What I mean by this is that it is not a verb as traditional grammarians suggest. Discussions of this point will follow later.

6- The traditional classification of the cognates of ka:na include zalla, ma: za:la, ma: da:ma, ša:ra, ?ašbaha, etc. (continued, be still, as long as, became, became, etc.) This classification is based on the change that these items trigger in the predicative part of the sentence, i.e. the predicative noun or adjective, since these are assigned the accusative case markings.

7- This is contrary to the traditional concept of laisa. The only argument that traditional grammarians present in support of their classifying laisa as a verb is that, like ordinary verbs, it accepts subject clitic pronouns. They also claim that laisa has been historically derived from taiisa, but there is no concrete evidence to support their claim.

8- The term predicative here denotes the item that may occur in position X in surface structures like:
A Transformational Grammar of Modern Literary Arabic

[## - NP - X - Y - ##]
S S
where X may be realized as Adj or NP.

9- Traditional grammarians call it "la: of categoric negation" because it negates the existence of the following NP.

10- By verbless sentence I mean the sentence whose deep structure copula has been deleted.

11- The verb *yaku:nu* may also be used, but in deep structure only as it cannot surface in this context. Thus it is easier to maintain the claim that the existential verb is *yu:jadu* rather than *yaku:nu* when *la:* occurs in these sentences. As a matter of fact, there is a strong relationship between the verbs *yu:jadu* and *yaku:nu* (exist and be) respectively, with regard to the notion of existence. (Cf. Shehadi, Op. cit.)

12- As I have stated earlier, the actual choice of the negative item depends on the following grammatical category.

13- In this analysis we have to allow disagreement between the subject noun and the adjective with respect to case marking, i.e. the case marking transformation will apply to the noun and not to the adjective.

14- One may argue that constituent negation could also be introduced as well as sentence negation especially in cases like 30 above. As far as English is concerned, Klima (op. cit.) needed constituent negation to capture the difference between:
   a) Not many arrows hit the target
   b) Many arrows did not hit the target.
   Constituent negation is also needed in English to explain the ambiguity of (c)
which can be interpreted as either (d) or (e):
   c) I will force you to marry no one
   d) I won't force you to marry anyone
   e) I will force you not to marry anyone.
Since there is not enough evidence to motivate it in Arabic, constituent negation will not be investigated in more detail in this book. For more discussion, see Jakendoff (1969) An Interpretive Theory of Negation in F.O.L. 5, pp. 218-241.

15- For Chomsky adjunction see p. 37

16- The actual interpretation of *?ahad* is determined by its syntactic environment as will be explained later in this chapter.

17- See PS rules, chapter one.

18- In surface structure, the NP may be deleted when the Quant is preceded by *la:.*

19- Note that the negative item *ma:* does not affect the grammaticality of 77 though its verb has a perfective aspect.

20- *lam* is similar to English (did not) in that it carries the past tense while the verb takes the infinitive form.
21- This is equivalent to the English do not in "do not drive too fast" where both NEG and IMP are incorporated.

22- Also if preceded by the negative item lam, the same rules will remain valid.

23- It is not clear why traditional Arab grammarians tend to consider the contraction of the verbal form which occurs adjacent to la: to be triggered by la: itself. Clearly, the contraction is triggered by the presentential IMP since the same phenomenon is observed in sentences which convey positive orders or requests.

24- Note that the complementizer ?an and the negative item la: are assimilated into ?alla: when they occupy adjacent positions. This may be captured by a simple phonological rule of the form: n # - 1#/ + --- # l.

25- bal is an Arabic conjunction similar to la:kin in that it implies an element of contrast between the conjuncts.

26- For the [-Perfective], other negative items are used such as la:, lan, ma:, etc.

27- lam insertion is possible here since the two conditions for it, namely past tense and perfective verb, have been met.

28- Clearly, 60 is ambiguous as the quantifier kulla may be interpreted in two ways:
   a) I visited some of the European countries
   b) I visited none of the European countries.

Apart from the context, there is no definite way of distinguishing between the two possible interpretations.

Chapter Five


2- Detailed discussion of question particles and morphs will follow later in the chapter.

3- See PS rules, chapter one.

4- Katz and Postal (1964) justify having Q as a trigger to induce Sub-Aux inversion in English questions, and to account for the nonoccurrence of some adverbials like "certainly, probably, etc." in interrogative sentences.

5- See negation in chapter four.

6- This is also true of English where questions with items like "certainly, probably, etc." are not permitted, e.g.:
   * Certainly did he sleep?
   * Perhaps is it raining?
   * Probably are you leaving?
A Transformational Grammar of Modern Literary Arabic

7- It should be noted here that ?ayyu functions differently from examples 13-14 where it is interpreted as (any).

8- In English, "which" and "what" usually correspond to the definite and indefinite articles "the" and "a" respectively.

9- Note that ?ayyu shows gender agreement with the following NP when the former is retained in surface structure; hence the grammaticality of (a) and the deviance of (b):
   a) ?ayyu ttala:mi:di kataba ddars?
   b)*ayyatu ttala:mi:di kataba ddars?

10- The application of the set of rules which appears in 20 should be later than the movement rule so that ungrammatical output can be avoided; e.g.:
    kasara ?yyu ša:xšin nna:fidah?
    broke what person the window

11- See Baker (op. cit.)

12- This relative pronoun has the features: [+Rel, +Sing, +Masc, ±Hum].

13- This is necessary to avoid starred outputs such as (b):
   a) ra?aitu lwalada lladî sa:cadtu
   b)*ra?aitu lwalada man sa:cadtu
    saw I the boy who helped I him

14- A detailed discussion of this rule will follow under WH questions.

15- Insofar as English is concerned, indirect questions can be accounted for simply by having Sub-Aux inversion a last-cyclic rule. Hence, there is no need for the abstract Q in this case. (See Schacter Interrogative in Stockwell, Schachter, and Partee, The Major Syntactic Structures of English.) Baker (op.cit.) also argues that the presence of Q may not be justified in English direct questions. Assuming that Q is interpreted as "I request that you answer the question X" , it follows that this may lead to redundancy in sentences like "I request that you answer the question: did Mary buy a lollipop?"

16- To use Malone's terms, the sentences will have only internal valence that corresponds to Q and to the question morph attached to it. At the same time, no external valence will be noticed as it means rising intonation. For more discussion, see Malone (1967) language, Vol. 43, A Transformational Re-examination of English Questions.

17- Ibid.

18- See E. N. Pope (1975) Questions and Answers in English, MIT.

19- Note that in configurations 47, NEG will be optional in deep structure, while in the case of 48, it is obligatory though it may be deleted at a later stage of the derivation.
20- See coordination in chapter three.

21- Recall that 62 is not a direct nacam/la: question, though it appears to be so in English. The difference between the Arabic and the English versions is caused by the disjunctive ?am which could be interpreted as exclusive rather than inclusive (or) in English. Arabic uses the disjunctive ?aw for the inclusive interpretation.

22- Remember that answers like ?abadan, rubbama:, etc. (of course, never, probably, respectively) are considered evasions on the part of the hearer. Therefore, I do not consider them proper answers.

23- Sentences 83 and 84 will have the normal rising question intonation, so will 85 and 86. The same semantic implication will be conveyed if third person pronouns are used.

24- Tag formation in English is structure dependent; not so in Arabic.

25- Interestingly enough that English uses a different pitch pattern, normally falling, to convey the same semantic value.

26- The PP can also be moved as will be shown later in this chapter.

27- See arguments for having a deep structure Q p.101 ff.

28- Cf. Chomsky On WH-Movement (op. cit.)

29- Cf. Lightfoot (op. cit.)

30- This another point of difference between Arabic and English since the latter allows either form; e.g.
   a) To whom are you talking?
   b) Who are you talking to?
   As mentioned earlier, Arabic does not allow the form represented by (b) above.

31- The rule will only be optional if we require it to account for echo questions as well. In this case the WH word will be permitted in its original position as in:
   ša:hadta man fi: ťari:q ?
   saw you who in the way
   (You met who on the way?)


33- For more discussion, see Chomsky (1977).

34- Recall that the proper noun salwa: is feminine, so the sentence 111 is not ambiguous.

35- Chomsky draws a parallel between the following structures:
   a) The enemy destroyed the city
   b) The enemy's destruction of the city.
He argues that both structures exhibit similar syntactic properties, e.g. passivization as in:

c) The city was destroyed by the enemy

d) The city's destruction by the enemy.

Therefore $\alpha$ ranges over NP and S. However, (d) is dominated by NP though it is similar in more than one way to the S-dominated (c). Cf. Chomsky (1976) Conditions on Transformations in Linguistic Analysis Vol. 2.

36- Note that in 115 the trace takes the form of a clitic pronoun -hu as a result of questioning the subject NP of the embedded clause and fronting it by WH-Movement.

37- Cf. Chomsky (1972) Language and Mind MIT.

38- Cf. construct phrase p. 23 ff.

39- This sentence displays scope ambiguity, but as it has no bearing on the present discussion, we need not go into its technical details.

40- Ross Constraint (also the complex NP constraint) states that no items can be moved out of an NP which is dominated by a larger NP.

41- Cf. Chomsky (1972) (op. cit.)
Bibliography

A Transformational Grammar of Modern Literary Arabic

_______ Interesting Features of Gender, Number Concord in Modern Literary Arabic. University of Chicago (1968).

140
Bibliography


Ross, J. R. Constraints on Variables in Syntax. MIT, Ph.D. Dissertation (1967).


