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A GRAMMAR OF MODERN WRITTEN ARABIC CLAUSES.

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A GRAMMAR OF MODERN WRITTEN ARABIC CLAUSES

by
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A dissertation submitted in partial fulfillment
of the requirements for the degree of
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J.A.S.

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CHAPTER 1

INTRODUCTION

1.1 Purpose

The purpose of this grammatical description is to provide an explicit grammatical statement of the clause structures of Modern Written Arabic (MWA). The model for the statement is that of Transformational Grammar (TG) with certain minor modifications.[1]

'Clause', as used here, is intuitively defined as a unit of 'predication', and is essentially identical to the TG use of the term 'sentence'.

Specifically excluded from this statement are the MWA conditional sentences, and also any formulation of coordination. In addition, morphological considerations, except insofar as they bear directly on the description of the clauses, are likewise excluded.

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[1]The original intention was to formulate a Tagmemic grammar. This will, in part, explain certain of the liberties taken with the TG model (as presented here, the model of roughly pre-Summer, 1964).

The primary deviations from TG usage are the introduction of a limited number of functional labels (primarily, though not exclusively, as a pragmatic convenience), and the replacement of the TG parentheses, indicating 'optional', by a '±'. The parentheses are used solely as a means of bracketing constituents.

In certain sections a modified Tagmemic 'slot-and-filler' notation is used as a means of display. This is derived from Robert P. Stockwell, J. Donald Bowen, and John W. Martin, The grammatical structures of English and Spanish (Chicago, 1965).

1.2 The Language

Within the Arabic speaking world there is considerable dialect diversity, though it seems fairly well established that the most prominent urban centers of Baghdad, Beirut-Damascus-Jerusalem, Cairo, and Tangier-Fez-Marrakesh constitute the loci of the prestige dialects at the present time.

In addition to the colloquial dialects, there is a superposed literary language which can, for present purposes, be roughly divided into three historical periods:[2] (1) Classical Arabic, approximately spanning the Sixth through Eighth Centuries, characterized by a predominating influence of Arabs themselves (politically and culturally, including the literary output), and most notably including pre-Islamic poetry, the Qur'an, and the early Islamic literature; (2) Medieval Arabic, continuing up through much of the Nineteenth Century, characterized by a codified grammar and the predominating influence of non-Arab writers, and culminating in a long period of declining social and political importance; and (3) Modern Written Arabic (MWA),[3] reflecting a renaissance in Arab self-consciousness and certain very notable trends toward breaking with the traditional forms and ideals. However, whatever the differences between the written Arabic of these three periods --- differences seen most obviously in vocabulary and style --- there are strong bonds of continuity, especially in morphology and syntax, with the Qur'an still

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[2]For a more extensive introduction to this literary language, cf. 'ᶜArabiyya', Encyclopaedia of Islam, 2nd. ed., pp. 561-574.

[3]Other names currently in use are 'Modern Standard Arabic', 'Contemporary Arabic', 'Modern Literary Arabic', 'Contemporary Standard Arabic', etc. The name abbreviated MWA, however, is intended to represent the written language (rather than a combination of written and oral), and will thus least ambiguously serve the present purpose.

considered the acme of perfection.

Thus, in the Arab world today, MWA has no native speakers, is rather specialized in function as the vehicle of literary expression within Arab society, is of high prestige as the modern counterpart of a highly esteemed literary language of thirteen centuries duration, and has had a long history of painstaking, thorough grammatical study. It has, in addition, a number of grammatical categories not present in the colloquials (e.g., case inflections and dual forms for pronouns and verbs, etc.), but does share a large segment of vocabulary with them. This situation thus presents a classical case of 'diglossia';[4]

> DIGLOSSIA is a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation.

Two problems arise. The first, and most serious, is that written Arabic has a defective script, the short vowels (including case inflections) not being normally marked, and the long and short consonant contrast likewise not normally indicated. Thus, for instance, the written form tqdm could, depending on the context, be interpreted as any of the following:

taqdamu: 'she, you (m,sg) will arrive';

tuqdamu: 'it (a place) will be reached';

tuqaddimu: 'she, you (m,sg) will present (s.th.)';

tuqaddamu: 'she, you (m,sg will be presented';

tuqdimu: 'she, you (m,sg) are daring, audacious';

---

[4]Charles A. Ferguson, 'Diglossia', Word 15 (1959), p. 336.

taqaddama: 'he has preceded (s.o.)'.

Of course, a context always eliminates most of the possible interpretations, and a normal text leaves few if any ambiguities for the literate Arab.

The second problem arises in that it is only rarely that an Arab is able to read an unvowelled text of moderate complexity (virtually all texts, apart from the Qur'an and elementary language texts occur unvowelled) and assign the 'correct' (i.e., traditionally formulated) inflections. Thus, in the present statement, it has been necessary to assign case markers, or stem-mood markers, etc., where there has been no overt contrast in the written forms, on the basis of the traditional formulations. In addition, for the internal short vowels as well as consonant length, the traditional accounts of the morphology and the spelling conventions used in Wehr's dictionary[5] have been followed with only minor modifications.

1.3 The Corpus and Method of Analysis

The corpus of MWA materials used as the basis of this grammatical statement consists of the following (see the bibliography for the full reference):

FA: Ferguson and Ani, Lessons in Contemporary Arabic, 1960;

CAR I: McCarus and Yacoub, Contemporary Arabic Readers: Vol. I, Newspaper Arabic, 1962;

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[5]Hans Wehr, A dictionary of Modern Written Arabic, ed. J Milton Cowan (Ithaca, New York, 1961).

CAR II: Bashshur, McCarus, and Yacoub, Contemporary Arabic Readers: Vol. II, Arabic Essays, 1962;

CAR IV: Bellamy, McCarus, and Yacoub, Contemporary Arabic Readers: Vol. IV, Short Stories, 1965;

ZR: Ziadeh, A Reader in Modern Literary Arabic, 1964.

When making reference to the above, the abbreviation of the title will be given, then the page number, and, for the last three, the numbered line in the text. Thus, for instance, CAR IV.39.40 would indicate a reference to Bellamy, McCarus, and Yacoub, Contemporary Arabic Readers: Vol. IV, page 39, numbered line 40. Reference will be made on a few occasions to the Aramco magazine, qaafilaTu 'alzayti (QZ), with the month and year of publication plus the page reference. In addition, for comparisons, reference will be made to the grammar of W. W. Wright, using the notation WR.II.243 to indicate Wright, volume II, page 243.

In addition, at points where there were gaps in the data, recourse was made to three Arab graduate students at the University of Michigan: Halim Barakat from Beirut, Lebanon; Hamdi Qafisheh from Jerusalem, Jordan; and Raji Rammuny, also from Jerusalem. Realizing the problems inherent in informant reaction in this particular language situation, explicit mention is made at those points where their intuition has been relied upon without corroborating documentation from the above written materials.

The method of analysis has been in part that advocated by Tagmemics,[6] but with a very heavy influence from TG theory.

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[6]Benjamin Elson and Velma Pickett, An introduction to morphology and syntax (Santa Ana, California, 1962); Robert E. Longacre, Grammar discovery procedures (The Hague, 1964).

A word of caution is necessary concerning the grammatical statement of Chapters 2 and 3. Among the requirements for a grammar (i.e., a theory about the language in question) posited by TG is the requirement of simplicity. It can be generalized that, given two theories covering the same facts, the simpler of the two theories will be the one with the shorter set of statements, i.e., will have more general statements and fewer special ones.[7] Certain aspects of this present grammar will appear to run counter to the statistically predominant patterns of MWA, but the underlying reason is this criterion of simplicity in the set of grammatical statements. Specifically, in Chapter 2 it will be noted that all of the examples are given as subject-initial, thus giving, in appearance, an undue bias towards a 'subject-verb' constituent ordering. This ordering has been deliberately chosen as resulting in the simplest set of statements in the grammar --- the concord relationships within the clause (and, potentially, within the discourse) are more easily accounted for with this initial ordering; certain seemingly anomolous concord relationships are much more easily accounted for by positing this ordering of constituents plus certain transformations required by the grammar in any case; the very natural, systematic, transformational relationship between the 'subject-verb' ordering and the 'verb-subject' ordering of constituents can be easily accounted for by three transformations in Chapter 3; and the optionally deleted subject in the 'subject-verb' constructions is likewise accounted for in very straightforward fashion transformationally. A statistical study of the usage patterns would be another study in itself, and is outside the scope of the present description.

---

[7] Emmon Bach, An introduction to Transformational Grammars (New York, 1964), 10-11.

1.4 Notes on Some MWA Syntactic Categories

There are several syntactic categories, primarily but not exclusively inflectional, which will be used in this grammar in the form of syntactic 'markers'.[8] These markers will be very briefly sketched.

The MWA verb has five formally differentiated stem-mood markers which are syntactically assigned and which determine the stem-type of the verb ('perfect-stem' as against 'imperfect-stem', noted also as 'suffix-stem' as against 'prefix-stem') and the form of the person-gender-number subject affix(es). These five markers will be abbreviated here as follows:

perf: 'perfective' (also known as 'perfect', 'suffix');

impf: 'imperfective' (also known as 'imperfect', 'prefix', 'indicative');

subjnc: 'subjunctive';

jussv: 'jussive';

impv: 'imperative'.

In addition, transitive verbs may undergo a passive transformation, in which case they have an assigned voice marker of 'passive' (passv), which, morphologically, requires an internal vowel change.

Two derivational categories are 'participle' (ptcp) and 'verbal noun' (v.n.). These categories will be treated as markers in the same manner as the above stem-mood markers, with the additional requirements of a case marker (see immediately below) and whatever concord assignments are necessary.

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[8] For the background to the notion of 'marker' as used here, cf. Jerrold J. Katz and Jerry A. Fodor, 'The structure of a semantic theory', Language 39 (1963), p. 209 f.

The remaining sets of markers are the case inflections, 'nominative' (nomv), 'accusative' (accv), and 'genitive' (genv).

In addition, the inflectional categories of 'person' (p), 'gender' (g), and 'number' (n) will be used as subscript markers to designate (with dominated forms) constraints imposed on the form prior to its morphological generation. For instance, $(V\text{-}x)_{2,m,sg}$ would indicate a verb of distributional class 'x' which would, in its ultimate realization, be marked 'second person, masculine gender, and singular number'. Likewise, a NOM_{def} would indicate a nominal which must either be definite (a pronoun or proper noun), or a noun phrase which is obligatorily assigned a definite determiner.

1.5 Transliteration

The transliteration used here will be based on the written forms with the short vowels and consonant length indicated. Word boundaries, indicated by a space, will be coincident with word boundaries in the written text. Morpheme boundaries will be indicated by a dash in the case of proclitics (prefixed prepositions, sa-, fa-) and suffixed pronominal forms only. The taa' marbuutaT will be given independent graphemic status by the use of the capital letter -T- . Consonant length will be indicated by a pair of adjacent, identical consonants, e.g., -rr-, -jj-, -tt-, etc. Vowel length will be indicated likewise, e.g., -aa-, -ii-, -uu-. The transliteration is as follows:

Arabic Letter	Transliteration
ا	',aa

Arabic Letter	Transliteration
ب	b
ت	t
ث	θ
ج	j
ح	ḥ
خ	x
د	d
ذ	ð
ر	r
ز	z
س	s
ش	š
ص	ṣ
ض	ḍ
ط	ṭ
ظ	ẓ
ع	c

Arabic Letter	Transliteration
غ	g
ف	f
ق	q
ك	k
ل	l
م	m
ن	n
ه	h
و	w, uu
ي	y, ii
ة	T

Short vowels: a, i, u

CHAPTER 2

KERNEL

2.1 Introduction

The kernel clause constructions will be generated here by a series of phrase structure (PS) rewrite rules. The first five will be given immediately below, with the remaining sections of the chapter representing rather natural breaks in the progression of these rules. In each section, along with the rules, a paradigmatic format, with brief explanation will be given in order to provide rapid insight into the generated patterns of the grammar.

Given: # CL(ause) #

1. CL ---> NUCL(eus) ± ADV(erbial)

2. ADV ---> TIME, LOC, MAN, PURP

The clause construction (CL) consists of a nucleus (NUCL) which is a set of strings with various dependency relationships within them, and a set of adverbials (ADV). The set of adverbials is rewritten as TIME (answering the interrogative word mataa 'when?'), LOC ('locational', answering the interrogative word 'ayna 'where?'), MAN ('manner', answering the question kayfa 'how?'), and PURP ('purpose', answering the question limaaðaa 'why?'). This set of adverbials will be more fully discussed, with appropriate examples, in Section 2.5.

3. NUCL ⟶ nomv + SUBJ(ect) + PRED(icate)[1]

The nucleus consists of a subject (SUBJ) with a preposed nominative (nomv) case marker and a predicate (PRED). In Chapter 3, the preposed case markers will be attached transformationally to the <u>following</u> nominal, as will the verbal stem-mood markers be attached to the <u>following</u> verb, as exemplified in the following with the broken arrows indicating the constituent to which these markers are attached:

nomv + N + perf + V + ...

In the structural descriptions provided for the examples, this broken arrow will be provided for the first few examples.

$$4.\ \text{PRED} \longrightarrow \text{AUX} + \left\{ \begin{array}{c} \pm\ (\text{case} + \text{ptcp}) + \text{VP} \\ \text{EQN} \end{array} \right\}$$

The predicate consists of an auxiliary (AUX; see Section 2.2 below) which will introduce the modifications of negation, 'temporal point of reference', and aspect into the clause; and a choice between a verb phrase (VP; see Section 2.4 below) or an equational (EQN; see Section 2.3 below). In addition, the verb phrase may have a(n optionally) preposed 'case plus participle' set of markers which will result in a participial phrase.[2] The participial phrase in this context is

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[1]The constituent order of 'subject-predicate' may be disputable on statistical grounds (though this is by no means certain), but it is chosen here primarily because the statement of concord is simpler and the overall grammatical statement is simpler.

[2]It is not completely true to say that all verbs allow this participial phrase option (e.g., verbs of the form <u>fa^cula</u> do not normally have participles, presumably on historical grounds). For the present we ignore this, and await a strict subcategorization of participles.

derived from the VP, has a lexically conditioned aspectual modification (e.g., ðaahib- 'going' is imperfective, but daaris- 'studied' is perfective), and is assigned the verb's markers of gender, number, and voice. On the other hand, the participial phrase will be seen to occur with the same form of the auxiliary as the EQN constituent, and also forms the basis for the 'NP + (attrib) PTCP.P' nominalization (analogously to the 'NP + (attrib)ADJ' phrases, derived via a subset of the EQN). In this respect, the participial phrases here stand in a position intermediate between the VP and EQN with certain resemblances to both.

Thus, as defined in this grammar, the primary dichotomy between the kernel clause constructions is that between 'equational' and 'non-equational', with the participial phrase option occupying an intermediate position. Minimal examples of each are:

(Equational)	'alrajulu kaana ra'iisan	'The man was president.'
(Non-equational)	'alrajulu yaðhabu 'ilaa lubnaana	'The man is going (will go) to Lebanon.'
(Participial)	'alrajulu ðaahibun 'ilaa lubnaana	'The man [is] going to Lebanon.'

5. $EQN \longrightarrow \left\{ \begin{array}{c} case + EQN_1 \\ EQN_2 \end{array} \right\}$

In PS rule 5, EQN is divided into two constituents, EQN_1 which will result in the predicate nominals and the predicate adjectives and which requires a preposed case marker to be attached transformationally; and EQN_2 which will be rewritten as a series of adverbials partially resembling the ADV of PS rule 2 (see Section 2.4).

2.2 Structure of the Auxiliary

The AUX constituent consists of three basic elements:

$$6.\quad \text{AUX}/__\left[\begin{Bmatrix}\text{VP}\\ \text{case}\\ \text{EQN}_2\end{Bmatrix}\right] \dashrightarrow \pm\ \text{NEG} \pm \text{TPR}\left[\begin{matrix}+\text{ASP}_1\\ \pm\text{ASP}_2\end{matrix}\right]$$

The three major constituents are the negative (NEG), 'temporal point of reference' (TPR), and aspect, with two variants, the first variant (ASP_1) occurring immediately preceding a VP, and the second variant (ASP_2) occurring elsewhere. The mappings into the negative words will be provided in Section 3.4, but the other constituents will be further rewritten here, with explanations and illustrations below.

$$7.\quad \text{TPR} \dashrightarrow \begin{Bmatrix}\text{past}\\ \text{fut}\end{Bmatrix} + \text{V-k}$$

The temporal point of reference, TPR, is rewritten as a 'past point of reference' or a 'future point of reference' which is carried by the unique lexical item <u>kaana</u> (V-k, i.e., the 'k-subclass' of verbs).

Summarizing the PS rules 3 through 7, we have the following composite formula:

$$\text{nomv} + \text{SUBJ} \pm \text{NEG} \pm \left(\begin{Bmatrix}\text{past}\\ \text{fut}\end{Bmatrix} + \text{V-k}\right) + \left\{\begin{matrix}\text{ASP}_1 + \text{VP}\\ \pm\text{ASP}_2 + \left\{\begin{matrix}\text{case} + \begin{Bmatrix}\text{ptcp} + \text{VP}\\ \text{EQN}_1\end{Bmatrix}\\ \text{EQN}_2\end{matrix}\right\}\end{matrix}\right\}$$

The following broad generalizations may now be made: First, the ASP_1 and ASP_2 constituents will introduce the modifications of completed (perfective) action or incompleted (imperfective) action, these types of

action being formally marked in affirmative clauses by the perfect and imperfect (perf; impf) stem-mood markers respectively, with further, secondary, aspectual modification possible as will be pointed out; secondly, if a form of V-k (the verb kaana) is present, the temporal point of reference will be either past (kaana) or future (yakuunu), i.e., we can have completed action with respect to a past point of reference (e.g., kaana qad darasa 'He had studied.'), incompleted action with respect to a past point of reference (kaana yadrusu 'He was studying.'), completed action with respect to a future point of reference (yakuunu qad darasa 'He will have studied.'), or incompleted action with respect to a future point of reference (sa-yakuunu yadrusu 'He will be studying...'); thirdly, in equational clauses, when the 'minus ASP_2' option is taken, the forms of kaana correspond to past or future time, with the 'minus V-k' option corresponding to non-past.

It is now possible to give the simplest set of examples, the equationals, with the 'minus ASP_2' option. We will use a minimum of lexical examples at this point for the purposes of paradigmatic contrast: rajul- 'man', ra'iis- 'president', kariim- 'generous; noble', hunaaka 'there'. Structural descriptions (SD) will be supplied:

SD: nomv + SUBJ + EQU

'alrajulu $\begin{bmatrix} \text{ra'iisun} \\ \text{kariimun} \\ \text{hunaaka} \end{bmatrix}$ 'The man [is] $\begin{bmatrix} \text{president} \\ \text{noble} \\ \text{there} \end{bmatrix}$.'

SD: nomv + SUBJ + past + V-k + EQU

'alrajulu kaana $\begin{bmatrix} \text{ra'iisan} \\ \text{kariiman} \\ \text{hunaaka} \end{bmatrix}$ 'The man was $\begin{bmatrix} \text{president} \\ \text{noble} \\ \text{there} \end{bmatrix}$.'

SD: nomv + SUBJ + fut + V-k + EQN

'alrajulu yakuunu $\begin{bmatrix} \text{ra'iisan} \\ \text{kariiman} \\ \text{hunaaka} \end{bmatrix}$ 'The man will be $\begin{bmatrix} \text{president} \\ \text{noble} \\ \text{there} \end{bmatrix}$.'

8. $ASP_1 / \begin{bmatrix} \text{SUBJ} \pm \text{NEG} \\ \text{past} + \text{V-k} \\ \text{fut} + \text{V-k} \end{bmatrix} \longrightarrow \begin{bmatrix} \text{ASPECT}_a \pm (\text{V-aux} + \text{impf}) \\ \text{ASPECT}_b \quad - - - \\ \text{ASPECT}_c \quad - - - \end{bmatrix}$

ASP_1 consists of three context-restricted variants, the first occurring in the context of a preceding subject (and optional negative) and consisting of $ASPECT_a$ with an optional auxiliary verb (V-aux) and imperfect (impf) stem-mood marker following, the second occurring in the context of a preceding 'past + V-k' and consisting of $ASPECT_b$, and the third occurring in the context of a preceding 'fut + V-k' and consisting of $ASPECT_c$. In the above, the set of auxiliary verbs (V-aux) is defined as that set which has the same subject as the VP and which assigns an imperfect (impf) stem-mood marker to the following verb. There are two subsets of V-aux, however, the first which may occur also in the environment of a following 'case' or EQN_2 constituent, and the second which may not:

9. V-aux $\longrightarrow \begin{Bmatrix} \text{V-aux}_1 \\ \text{V-aux}_2 \end{Bmatrix}$

The following four rules will be given with brief explanation prior to examples:

10. $ASP_2 / \begin{bmatrix} SUBJ \pm NEG \\ past + V\text{-}k \\ fut + V\text{-}k \end{bmatrix} \longrightarrow \begin{bmatrix} ASPECT_a \\ ASPECT_b \\ ASPECT_c \end{bmatrix} + V\text{-}aux_1$

11. $ASPECT_a \longrightarrow \left\{ \begin{matrix} \pm pv_1 & + perf \\ \pm \begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix} & + impf \end{matrix} \right\}$

There are two preverbals (pv), preverbal$_1$ (pv_1) which will be rewritten as the preverbal particle qad, and preverbal$_2$ (pv_2) which will be rewritten as either the preverbal particle sawfa or the preverbal proclitic sa-. sa- and sawfa indicate futurity, while qad, in the context of a following perfect (perf) marker indicates a definitely completed action, but in the context of a following imperfect (impf) marker implies doubt and is here translated 'perhaps'.

12. $ASPECT_b \longrightarrow \left\{ \begin{matrix} + pv_1 & + perf \\ \pm pv_2 & + impf \end{matrix} \right\}$

13. $ASPECT_c \longrightarrow \left\{ \begin{matrix} + pv_1 & + perf \\ --- & + impf \end{matrix} \right\}$

Note from PS rule 10 that ASP_2 requires $V\text{-}aux_1$, but otherwise has the same set of context-restricted ASPECT constituents as ASP_1. The three ASPECT constituents differ only in the restrictions on the occurrence of the preverbals.

In the following, examples with the VP will be given first, with VP represented by various forms of one of the following three lexical strings, qaala haaðaa 'He said this.', darasa hunaaka 'He studied there.',

or ðahaba 'ilaa hunaaka 'He went (to) there.' Following examples with the VP, examples with EQN will be given with the same lexical items used above. In each case, a structural description will be given:

SD: nomv + SUBJ + pv_1 + perf + VP

'alrajulu qad qaala haaðaa — 'The man (had) said this.'

SD: nomv + SUBJ + impf + VP

'alrajulu yadrusu hunaaka — 'The man is studying (will study) there.'

SD: nomv + SUBJ + pv_1 + impf + VP

'alrajulu qad yaðhabu 'ilaa hunaaka 'The man will perhaps go there.'

SD: nomv + SUBJ + pv_2 + impf + VP

'alrajulu sa-yaquulu haaðaa — 'The man will say this.'

Including V-aux in the above examples, we would have:

SD: nomv + SUBJ + pv_1 + perf + V-aux + impf + VP

'alrajulu qad 'axaða yadrusu hunaaka — 'The man has begun studying there.'

SD: nomv + SUBJ + perf + V-aux + impf + VP

'alrajulu ẓalla yaquulu haaðaa — 'The man continued to say this.'

SD: nomv + SUBJ + impf + V-aux + impf + VP

'alrajulu yakaadu yadrusu hunaaka — 'The man is about to study there.'

Examples with forms of the EQN constituent and ASP_2 are the following:

SD: nomv + SUBJ + pv_1 + perf + $V\text{-}aux_1$ + EQN

'alrajulu qad 'aṣbaha ra'iisan — 'The man became president.'

SD: nomv + SUBJ + impf + V-aux$_1$ + EQN

'alrajulu yagallu kariiman — 'The man will continue to be generous.'

SD: nomv + SUBJ + pv$_2$ + impf + V-aux$_1$ + EQN

'alrajulu sawfa yabqaa hunaaka — 'The man will remain there.'

Before including V-k in the examples, we will rewrite the constituents 'past' and 'fut(ure)' as context-restricted sets of preverbals and stem-mood markers to be attached to V-k:

14. $\text{past}/__\text{V-k} + \begin{bmatrix} + \text{pv}_1 \\ \pm \text{pv}_2 \end{bmatrix} \dashrightarrow \begin{bmatrix} --- \\ \pm \text{pv}_1 \end{bmatrix} + \text{perf}$

15. $\text{fut}/__\text{V-k} + \begin{bmatrix} \{\text{EQN} \\ \text{accv}\} \\ \{\text{pv}_1 \\ \text{impf}\} \end{bmatrix} \dashrightarrow \begin{bmatrix} \pm \{\text{pv}_1 \\ \text{pv}_2\} \\ \pm \text{pv}_2 \end{bmatrix} + \text{impf}$

In the above, it can be stated roughly that these two rules prevent pv$_1$ from co-occurring with itself in the same auxiliary string, and likewise for pv$_2$. These allow examples such as the following, again including the structural descriptions:

SD: nomv + SUBJ + perf + V-k + pv$_1$ + perf + VP

'alrajulu kaana qad darasa hunaaka — 'The man had studied there.'

SD: nomv + SUBJ + pv$_2$ + impf + V-k + pv$_1$ + perf + VP

'alrajulu sa-yakuunu qad qaala haaðaa — 'The man will have said this.'

SD: nomv + SUBJ ± pv_1 + perf + V-k + impf + $V\text{-}aux_1$ + EQN

'alrajulu qad kaana yabqaa hunaaka — 'The man used to stay there.'

SD: nomv + SUBJ + impf + V-k + case + ptcp + VP

'alrajulu yakuunu ðaahiban 'ilaa hunaaka — 'The man will be going there.'

SD: nomv + SUBJ + pv_1 + perf + V-k + case + ptcp + VP

'alrajulu qad kaana daarisan hunaaka — 'The man had studied there.'

The case marker noted in the structural descriptions above, and generated by PS rules 4 and 5, has two variants, as is seen in the following rule:

16. case/ $\begin{bmatrix} \text{SUBJ} \pm \text{NEG} \\ \text{V} \end{bmatrix}$ ⟶ $\begin{bmatrix} \text{nomv} \\ \text{accv} \end{bmatrix}$

Thus, in the context of a preceding verb (V), case is rewritten as accusative (accv), and in the context of a preceding subject (SUBJ) without an intervening verb, it is rewritten as nominative (nomv). Examples of these differing case inflections for the EQN constituent have been given (see above under PS rule 7), and for the 'ptcp + VP' combination we have the following:[3]

SD: nomv + SUBJ + nomv + ptcp + VP

[3]It appears that not all participles allow this option freely, though the restrictions are not yet known. A study on the syntax of participles, including a strict subcategorization of them, is currently in progress in a dissertation at the University of Michigan by Mrs. Nancy Kennedy Lewkowicz.

'alrajulu ðaahibun 'ilaa hunaaka — 'The man [is] going there.'

'alrajulu daarisun hunaaka — 'The man has studied there.'

From the preceding set of PS rules it is possible to set up the MWA AUX as a two-dimensional field structure with the categories of partitioning being the categories of the TPR ('past point of reference', 'future point of reference', and 'minus TPR') and the categories of ASP_1 ('perfective' and 'imperfective', omitting the optional V-aux for clarity) and the 'minus ASP_2' option for the equational and participial constructions. This partitioned field structure gives a format to which we can apply the traditional label 'paradigm'. Figure 1, indicating the structural elements, is designated a 'structural paradigm', and Figure 2, with the corresponding lexical examples and translations, is designated as a 'citation paradigm'.

	TPR		
	PAST PT. REF.	(-TPR)	FUT. PT. REF.
ASP$_1$ PERFECTIVE	perf + V-k + <u>qad</u> + perf + VP	--- perf + VP	impf + V-k + <u>qad</u> + perf + VP
IMPERFECTIVE	perf + V-k + impf + VP	--- impf + VP	impf + V-k + impf + VP
PARTICIPIAL	perf + V-k + accv + ptcp + VP	--- nomv + ptcp + VP	impf + V-k + accv + ptcp + VP
EQUATIONAL	perf + V-k + (accv) + EQN	--- (nomv) + EQN	impf + V-k + (accv) + EQN

Fig. 1.--Structural paradigm of the minimum elements of the MWA Auxiliary.

	TPR		
	PAST PT. REF.	(-TPR)	FUT. PT. REF.
ASP_1 PERFECTIVE	kaana qad ðahaba 'He had gone.'	ðahaba 'He went, has gone.'	yakuunu qad ðahaba 'He will have gone.'
IMPERFECTIVE	kaana yaðhabu 'He was going.'	yaðhabu 'He goes, is going.'	yakuunu yaðhabu 'He will be going.'
PARTICIPIAL	kaana ðaahiban 'He was going.'	(huwa) ðaahibun '(He) [is] going.'	yakuunu ðaahiban 'He will be going.'
EQUATIONAL	kaana ra'iisan 'He was president.'	(huwa) ra'iisun '(He) [is] president.'	yakuunu ra'iisan 'He will be president.'

Fig. 2.--Citation paradigm of the minimum elements of the MWA Auxiliary.

2.3 Structure of the Equation

In this section we will briefly characterize the 'equational clauses', i.e., those clauses which have an EQN constituent and which may occur without a verb, i.e., as 'non-verbal equationals'. It is necessary to assume, in the examples, a certain amount of Section 2.5 in which the SUBJ is rewritten, for the equationals, as either a nominal (NOM) or, in certain contexts, as an 'an-CL (a clause subordinated by the particle 'an).

17. $EQN_1 \longrightarrow \left\{\begin{matrix}(\text{pred})\text{NOM} \\ (\text{pred})\text{ADJ}\end{matrix}\right\}$

The constituent EQN_1, assigned a case marker of nomv or accv in the preceding PS rules, consists of either a 'predicate nominal' or 'predicate adjective' ((pred)NOM and (pred)ADJ respectively). The preposed, parenthesized (pred) is primarily a functional label added as a convenience at this point. There will be an obligatory concord relationship between the subject nominal and the predicate adjective (discussed in Section 2.7, and transformationally assigned in Section 3.2). There is no such obligatory relationship between the subject nominal and predicate nominal, though there is, in most cases and especially when the subject nominal is a pronoun, an observable concord relationship. This accounts for the common constructions as:

hum 'aṣdiqaa'u-hu	'They (m,pl) [are] his friends.'
hiya ṭaalibaTun	'She [is] a student.'

But also allowed are such as the following:

nahnu 'almaliku	'We [are] the king.'
hum 'alhukuumaTu	'They (m,pl) [are] the government.'

There will thus be no obligatory concord relationship posited for these constructions in this grammar.

These two equational patterns can be summarized in the following paradigmatic format as 'non-verbal equationals':

(subj)NOM	(pred)NOM	
'alrajulu	ra'iisun	'The man [is] president.'
muhammad	sadiiqu-ka	'Muhammad [is] your friend.'
'anta	'al'ustaaðu	'You (m,sg) [are] the professor.'

(subj)NOM	(pred)ADJ	
'albintu	jamiilaTun	'The girl [is] pretty.'
darsu-naa	saᶜbun jiddan	'Our lesson [is] very difficult.'
'aljaamiᶜaTu	kabiiraTun	'The university [is] large.'

The headings for these examples, as will be the case with future examples as well, have been simplified in that the case markers are not included.

At this stage, for future transformations primarily, we will partition the adjectives into two classes, the first class which has a form 'aCCaC- (i.e., a comparative form in the case of most adjectives, but also the m,sg form of the 'color' adjectives), and the second class

which does not, while assigning an 'indefinite determiner' (INDEF; see Section 2.6). The definite determiner is assigned transformationally to adjectives:

$$18.\quad \text{ADJ} \dashrightarrow \text{INDEF} + \begin{Bmatrix} \text{ADJ}_1 \\ \text{ADJ}_2 \end{Bmatrix}$$

Examples of ADJ_1, with the comparative forms, are the following:

kabiir-	'big, large'	'akbar-	'larger'
ṣa^{c}b-	'difficult'	'aṣ^{c}ab-	'more difficult'
mašhuur-	'famous'	'ašhar-	'more famous'
haamm-	'important'	'ahamm-	'more important'

Color adjectives, included as a subclass of ADJ_1, would be the following:

'abyaḍ-	'white'	'aṣfar-	'yellow'
'azraq-	'blue'	'axḍar-	'green'

Examples of ADJ_2 would be such as the following:

siyaasiiy-	'political'
ḥurriiy-	'free'
'ijtimaa^{c}iiy-	'social'

EQN_2 is now rewritten as the following:

$$19.\quad \text{EQN}_2 \dashrightarrow \begin{Bmatrix} \text{TIME} \\ \text{LOC} \\ \text{DIR}_a \\ \text{MAN}_a \\ \text{REL} \end{Bmatrix}$$

TIME is the same as the adverbial TIME of PS rule 2, and LOC likewise. DIR_a is a subset of the directional adverbial, the subset beginning with the preposition min 'from'. A certain subset of the manner adverbials, MAN_a, may occur in equational constructions, though this does not seem to be a very common usage. The only new term introduced here is an adverbial of 'relation' (REL) which has a semantic range including 'accompaniment', 'ownership', 'possession', 'ability-obligation', etc. It will be noted that not every nominal may occur with TIME in this equational construction, but rather only nominals which may be considered 'event nouns' (N_{ev}), e.g., haflaT- 'party', 'ijtimaaᶜ- 'meeting', 'imtihaan- 'examination', etc.

Examples of this set of equationals are the following:

(subj)NOM	EQN_2	
'alhaflaTu	'alyawma	'The party [is] today.'
'altasjiilu	gadan	'Registration [is] tomorrow.'
'alrajulu	fii misra	'The man [is] in Egypt.'
hum	hunaa	'They [are] here.'
sadiiqu-hu	min suuriiyaa	'His friend [is] from Syria.'
'ahl-ii	bi-xayrin	'My family [is] well.'
huwa	ka-'alᶜaadaTi	'It [is] as usual.'
'alkitaabu	li-'alrajuli	'The book [is] the man's.'
'ummu-haa	maᶜa-haa	'Her mother [is] with her.'

Further, it is necessary to distinguish a small subset of REL which allows an 'an-CL as subject. This is illustrated in the following, with

a required inversion of the 'an-Cl construction:

REL_a	(subj)'an-CL	
li-'alra'iisi	'an yaðhaba	'The president can go.'
ᶜalaa 'albinti	'an tadrusa	'The girl must study.'

Though all of the examples in this section have been given as 'non-verbal equationals', the 'verbal equational' counterparts are equally valid as viable options, as the following random set of examples illustrates:

'anta tabqaa 'al'ustaaða	'You will continue to be the professor.'
darsu-naa kaana saᶜban jiddan	'Our lesson was very difficult.'
'altasjiilu yakuunu gadan	'Registration will be tomorrow.'
'ummu-haa kaanat maᶜa-haa	'Her mother was with her.'
maa zaala ᶜalaa 'albinti 'an tadrusa	'The girl still must study.'

In these latter examples, and with the examples given in Section 2.4, the 'subject-verb' ordering without any context conditions is normally not preferred. In these cases, the preferred ordering would be 'verb-subject' though this ordering is introduced, in this grammar, transformationally in Section 3.2.

Summarizing the EQN patterns, we have the following three basic types:

1. (subj)NOM + (pred)NOM
2. (subj)NOM + (pred)ADJ

3. SUBJ + 'adverbial'

In this latter subset of 'equationals', the 'adverbial' constituent partially resembles the original set of ADV constituents, and adds an 'adverb of relation', of which one subset allows an 'an-CL as subject.

2.4 Structure of the Verb Phrase

The basic constituents of the verb phrase (VP) are generated in this section. As was noted earlier, the usage of the term 'verb phrase' here does not correspond to the normal TG usage. Rather, PRED here is used in the normal TG sense of 'verb phrase', while VP here indicates the various subsets of verbs plus their objects, complements, etc. Further, as in Section 2.3, a certain partial and intuitive subcategorization of nominals will be assumed in this section.

20. $VP \longrightarrow \begin{Bmatrix} VP\text{-}in \\ VP\text{-}tr \end{Bmatrix}$

The two subsets of VP constituents are the 'intransitive' (VP-in) and the 'transitive' (VP-tr). These two subsets are defined by their transformational potential: VP-tr allows a passive transformation; VP-in does not.

21. $VP\text{-}in \longrightarrow \begin{bmatrix} V\text{-}in_1 \\ V\text{-}in_{2.1} \pm PREP.P \\ V\text{-}in_{2.2} \pm INT \end{bmatrix}$

There are three subsets of VP-in: $V\text{-}in_1$ has no characteristic prepositional phrase or adverbial; $V\text{-}in_2$ does have a characteristic prepositional phrase (PREP.P) or 'adverb of interest' (INT),[4] which in turn designate the two subclasses of $V\text{-}in_2$. The 'adverb of interest' includes what is normally considered an 'indirect object', but covers a wider area, as will be seen within the remainder of this section. For the most part, this 'adverb of interest' will be a prepositional phrase (PREP.P) with a nominal referring to a person or persons (NOM_{pers}) as the object of the preposition. Occasionally this may occur as an '$accv + NOM_{pers}$'. Where this is the case, primarily in lexically conditioned contexts, it will be so noted.

Before illustrating the above, it is necessary to set up two subsets of $V\text{-}in_{2.2}$, the first subset which allows either a NOM or 'anna-CL as subject, and the second subset which allows an 'an-CL (or, transformationally, a verbal noun phrase, VNP) as subject.

$$22.\quad V\text{-}in_{2.2} \longrightarrow \begin{Bmatrix} V\text{-}in_{2.2.1} \\ V\text{-}in_{2.2.2} \end{Bmatrix}$$

The patterns including $V\text{-}in_1$ are the following:

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[4]This term is borrowed from Stockwell, Bowen, and Martin, 1965; cf. pp. 192-194.

(subj)NOM	V-in$_1$	
'alrajulu	ẓahaa	'The man appeared.'
'al'aanisaTu	taquumu	'The young lady is standing.'
'alṭaa'iraTu	habaṭat	'The plane landed.'
'alḥarbu	bada'at	'The war began.'
'al'intixaabu	yajrii	'The election is taking place.'
'al'imtiḥaanu	tamma	'The examination is finished.'
'alḥaflaTu	'inᶜaqadat	'The party was held.'

For certain of these, particularly the second group, a TIME or LOC would often occur. Note that the second group of examples has subject nominals that would be classified as 'event nouns' (N_{ev}).

The V-in$_2$ patterns can be summarized by the following:

(subj)NOM	V-in$_{2.1}$	PREP.P	
'alkitaabu	yata'allafu	min xamsiina ṣafḥaTan	'The book is composed of fifty pages.'
'almuslimuuna	'inqasamuu	'ilaa qismayni	'The Muslims split into two parts.'

(subj)NOM	V-in$_{2.2.1}$	INT	
'alnabiiyu	ẓahara	li-'alnaasi	'The prophet appeared to the people.'

In the event the 'anna-CL occurs as subject with V-in$_{2.2.1}$, with the same required order inversion as was noted with the 'an-CL in Section 2.3, we would have the following:

V-in$_{2.2.1}$	INT	(subj)'anna-CL	
yaẓharu	la-hum	'anna-hu waṣala	'[It] appears to them that he has arrived.'

Examples of V-in$_{2.2.2}$, with the 'an-CL occurring as subject, are the following:

V-in$_{2.2.2}$	INT	(subj)'an-CL	
yajibu	ᶜalay-ka	'an tadrusa	'You (m,sg) must study.'
yanbagii	ᶜalay-him	'an yaktubuu la-haa	'They must write to her.'
yalzamu	-haa	'an taqra'a-hu	'She must read it.'
yumkinu	-kum	'an taðhabuu	'Perhaps you (m,pl) can go.'
ᶜasaa	-naa	'an naraa-hum	'Possibly we will see them.'

The translations above are idiomatic English. Perhaps translations, reflecting the structure more accurately, would be the following, with the English expletive 'it':

'[It] is encumbant upon you to study.'

'[It] is necessary for them to write to her.' ... etc.

It will be noted that the adverb of interest (INT) is optional, but, when present, the NOM$_{pers}$ must be the subject of the embedded

'an-CL. This is noted in the lexicon (Section 2.8) by an 'obligatory concord match'; see also T-30, Section 3.3. One further note: Informants have supplied 'amkana li- 'to be possible for ...' and lazima Calaa 'to be encumbant upon ...', in which case the INT would be primarily a PREP.P with the 'accv + NOM' (indicated in the above examples by the hyphenated pronouns) a variant in these contexts. However, no examples of such have been found.

The transitive verb phrases have two primary subsets, a 'minus object' subset which will have an impersonal passive transformation, and a 'plus object' subset in which case the object becomes the subject of the passive verb in the passive transformation:

$$23.\quad \text{VP-tr} \longrightarrow \begin{Bmatrix} \text{VP-tr}_{-o} \\ \text{VP-tr}_{+o} \end{Bmatrix}$$

Before progressing with the forms of VP-tr_{-o}, it is worth mentioning that a number of verbs (conventionally noted as 'optional object' verbs or the like) will be cross-classified, i.e., will occur in both VP-tr_{-o} and VP-tr_{+o}, verbs such as darasa 'he studied' but darasa 'altaariixa 'he studied history', etc. The grammar here does not allow this option in that it does make a difference in the passive transformation whether or not the object is present. However, it is assumed that the fact of this optional object will be noted in a lexicon (e.g., $\pm$ Obj or the like) with whatever other structural information is necessary, and the choice taken at that point will reflect in the transformational potential.

VP-tr_{-o} is characterized by the fact that there is no object nominal in the string. The subsets (which in turn define the subclasses of

verbs occurring here) are determined by the characteristic INT (adverb of interest), PREP.P, or, in the subclass of verbs which can be characterized as 'verbs of motion', 'adverb of direction' (DIR):

$$24.\quad VP\text{-}tr_{-o} \dashrightarrow \left\{ \begin{array}{l} V\text{-}tr_{1.1} \pm DIR \\ \left\{ \begin{array}{ll} V\text{-}tr_{1.2.1} & --- \\ V\text{-}tr_{1.2.2} & + INT \end{array} \right\} \\ \left\{ \begin{array}{l} V\text{-}tr_{1.3.1} + PREP.P \\ V\text{-}tr_{1.3.2} + INT + PREP.P \end{array} \right\} \end{array} \right\}$$

Thus, $V\text{-}tr_1$ is the subclass of transitive verbs which does not take an object nominal. This class is then subdivided into three further subsets: $V\text{-}tr_{1.1}$ which may take an optional DIR; $V\text{-}tr_{1.2}$ which does not take either a DIR or a characteristic PREP.P; and $V\text{-}tr_{1.3}$ which does allow a characteristic PREP.P construction. $V\text{-}tr_{1.2}$ and $V\text{-}tr_{1.3}$ are then further subdivided according to whether or not an adverb of interest is allowed.

Examples of $V\text{-}tr_{1.1}$ constructions are the following (it will be noted that generally these 'verbs of motion' will have, as subject, a NOM_{pers}):

(subj)NOM	$V\text{-}tr_{1.1}$	DIR	
'alra'iisu	saafara	'ilaa bayruuta	'The president travelled to Beirut.'
'ummu-hu	raja^{c}at	min 'alqaahiraTi	'His mother returned from Cairo.'
'al'ustaaðu	ya'tii	min 'aljaami^{c}aTi	'The professor is coming from the University.'
hum	waṣaluu	'ilaa 'almaṭaari	'They arrived at the airport.'
hiya	taḥduru	'ilaa 'almaktabaTi	'She is going to the library.'

The last two verbs, wasala 'to arrive' and hadara (+DIR) 'to go' will be cross-classified in any extensive lexicon, as is shown informally by the following pair of examples:

'alhadiiyaTu wasalat-nii (or: ... wasalat li-iy)	'The gift reached me.'
hiya hadarat 'alhaflaTa	'She attended the party.'

Examples of V-$tr_{1.2}$, first the set without INT, and then the set with INT, are as follow:

(subj)NOM	V-$tr_{1.2.1}$	
'alṭaalibu	yadrusu	'The student studies.'
'almuᶜallimu	'abaa	'The teacher refused.'
'albintu	fahimat	'The girl understood.'
'uxtu-hu	nasiyat	'Her sister forgot.'
'alrajulu	ᶜaaša	'The man lived.'

(subj)NOM	V-$tr_{1.2.2}$	INT	
'al'ustaaðu	kataba	la-haa	'The professor wrote to her.'
huwa	yuðiiᶜu	ᶜalay-naa	'He broadcasts to us.'
'alrajulu	qara'a	ᶜalay-him	'The man read to them.'
'alwafdu	'ijtamaᶜa	maᶜa-kum	'The delegation met with you.'

Of the above eight verbs, only ᶜaaša 'to live, be alive' and 'ijtamaᶜa 'to meet' can not be cross-classified as 'plus object' verbs.

The following set, with the PREP.P option, is a large class in MWA,

of which the following are representative:

(subj)NOM	V-tr$_{1.3.1}$	PREP.P	
'alwaziiru	ḥamala	ᶜalaa 'almašruuᶜi	'The minister attacked the project.'
'alṣabiiyu	'iḥtafaẓa	bi-'alkutubi	'The boy kept the books.'
'alwafdu	'ittafaqa	ᶜalaa 'alriḥlaTi	'The delegation agreed on the trip.'
'alᶜummaalu	'aḍrabuu	ᶜan ᶜamali-him	'The workers struck from their work.'
'albintu	tatamattaᶜu	bi-'alḥaflaTi	'The girl is enjoying the party.'
'alṭullaabu	yaštarikuuna	fii 'al'ijtimaaᶜi	'The students will participate in the meeting.'
'almuðiiᶜu	ᶜallaqa	ᶜalaa 'al'axbaari	'The announcer commented on the news.

The PREP.P set which may take the adverb of interest is not as large:

(subj)NOM	V-tr$_{1.3.2}$	INT	PREP.P	
'alra'iisu	waafaqa	maᶜa-naa	ᶜalaa haaðaa	'The president agreed with us on this.'
'ummu-ka	samaḥat	la-ka	bi-'an taðhaba	'Your mother permitted you to go.'
huwa	ᶜaḥida	la-haa	bi-'an taktuba	'He committed her to write.'

The first of the above three examples has, as an alternative to the prepositional phrase occurring as INT, an 'accv + NOM': 'alra'iisu waafaqa-naa ᶜalaa haaðaa (same translation).

There are three major subclasses of VP-tr$_{+o}$ with a number of sub-subclasses in the first two:

25. $VP\text{-}tr_{+o} \longrightarrow \left\{ \begin{array}{l} V\text{-}tr_2 + accv + OBJ \\ V\text{-}tr_3 + accv + OBJ \\ V\text{-}tr_4 + accv + OBJ + accv + OBJ_2 \end{array} \right\}$

$V\text{-}tr_2$ and $V\text{-}tr_3$ are characterized by an 'object' (OBJ) with a preposed accusative (accv) case marker. Certain subclasses of $V\text{-}tr_2$ may have OBJ rewritten as an 'anna-CL or 'an-CL, whereas members of $V\text{-}tr_3$ will have, including the object nominal possibility, the possibility of embedded clauses functioning as a 'complement' (COMPL). $V\text{-}tr_4$ is characterized by two object nominals and two passive transformations. Each of these sets and subsets will be treated separately.

$V\text{-}tr_2$ has two subsets, one which does not allow an adverb of interest (INT), and one which does:

26. $V\text{-}tr_2 \longrightarrow \left\{ \begin{array}{l} V\text{-}tr_{2.1} \\ V\text{-}tr_{2.2} \pm INT \end{array} \right\}$

Assuming that OBJ will be rewritten as a nominal (NOM), we can give examples of each of these subsets of $V\text{-}tr_2$ in the following:

(subj)NOM	$V\text{-}tr_{2.1}$	(obj)NOM	
'al'ustaaðu	darasa	'almašruuᶜa	'The professor studied the project.'
'alsafiiru	yahduru	'alḥaflaTa	'The ambassador will attend the party.'
hum	jamaᶜuu	'alkutuba	'They gathered the books.'
'altullaabu	baḥaθuu	'almuškilaTa	'The students discussed the problem.'
'almuᶜallimu	bada'a	'alṣaffa	'The teacher began the class.'
hiya	zaarat	'alqudsa	'She visited Jerusalem.'

(subj)NOM	V-tr$_{2.2}$	INT	(obj)NOM	
huwa	'arsala	'ilay-naa	hadiiyaTan	'He sent to us a gift.'
'alrajulu	ðakara	la-ka	makaanan	'The man mentioned to you a place.'
hum	qara'uu	ᶜalay-ya	šiᶜran	'They read to me a poem.'
'uxtu-hu	'araadat	min-nii	šay'an	'His sister wanted from me something.'
'anti	qulti	la-hum	haaðaa	'You said to them this.'

Both V-tr$_{2.1}$ and V-tr$_{2.2}$ have subsets, depending on whether or not OBJ can be rewritten as something besides NOM, i.e., whether it can be rewritten as an 'anna-CL or 'an-CL, or, in one instance, with the verb qaala 'to say', as any direct or indirect quotation (including, uniquely, an 'inna-CL). We thus rewrite these two major verb classes as the following:

27. $$\text{V-tr}_{2.1} \longrightarrow \left\{ \begin{matrix} \text{V-tr}_{2.1.1} \\ \text{V-tr}_{2.1.2} \\ \text{V-tr}_{2.1.3} \end{matrix} \right\}$$

28. $$\text{V-tr}_{2.2} \longrightarrow \left\{ \begin{matrix} \text{V-tr}_{2.2.1} \\ \text{V-tr}_{2.2.2} \\ \text{V-tr}_{2.2.3} \\ \text{V-tr}_{2.2.4} \end{matrix} \right\}$$

In each case, the first subset occurs with object nominals only, the second subset occurs with object nominals or an 'anna-CL functioning as the object, the third subset occurs with object nominals or an 'an-CL

functioning as the object, and V-$tr_{2.2.4}$ is the verb <u>qaala</u>, mentioned above. These constructions are illustrated in sequence by the following:

(subj)NOM	V-$tr_{2.1.2}$	(obj)<u>'anna</u>-CL	
'allajnaTu	'iᶜtaqadat	'anna-hu waṣala	'The committee believed that he had arrived.'
'alwaziiru	ra'aa	'anna-hu hunaa	'The minister saw that he [was] here.'
'alṭullaabu	fahimuu	'anna-ka ðahabta	'The students understood that you had gone.'
'almuðiiᶜu	'aᶜlana	'anna-hu zaara-haa	'The announcer announced that he had visited her.'

(subj)NOM	V-$tr_{2.1.3}$	(obj)<u>'an</u>-CL	
'albintu	'abat	'an taðhaba	'The girl refused to go.'
'alra'iisu	nasiya	'an yaquuma	'The president forgot to stand.'
'alṭaalibu	ra'aa	'an yarjiᶜa	'The student decided to return.'
'umm-ii	tuḥibbu	'an yazuura-naa	'My mother would like him to visit us.'
'alṣabiiyu	ḥaawala	'an yajii'a	'The boy tried to come.'
'alrajulu	yastaṭiiᶜu	'an yaᶜmala	'The man is able to work.'

In two of the verbs under V-$tr_{2.1.3}$ above, <u>ra'aa</u> and <u>'aḥabba</u>, 'to see; decide' and 'to like' respectively, the subject of the subordinate clause does not have to be the subject of V-$tr_{2.1.3}$. For the other four verbs, the subject of both clauses is identical. Where this is obligatory, a 'concord match' would be noted in the lexicon. See also the examples of V-$tr_{2.2.3}$ below, where the subject of the

subordinated clause will be identical to the nominal of the adverb of interest.

Continuing with the subsets of V-tr$_{2.2}$, we have the following:

(subj)NOM	V-tr$_{2.2.2}$	INT	(obj)'anna-CL	
'alṣabiiyu	kataba	la-naa	'anna-hu jaa'a	'The boy wrote to us that he had come.'
'alwaḍu	qara'a	ᶜalay-him	'anna-ka taṣilu	'The delegation read to them that you were arriving.'
'uxtu-haa	ðakarat	li-iy	'anna-haa hunaa	'Her sister mentioned to me that she [was] here.'
'almuðiiᶜu	'aðaaᶜa	ᶜalay-him	'anna-hu hunaa	'The announcer broadcast to them that he [was] here.'

(subj)NOM	V-tr$_{2.2.3}$	INT	(obj)'an-CL	
'alsafiiru	ṭalaba	'ilay-ya	'an 'aðhaba	'The ambassador requested me to go.'
'ummu-haa	turiidu	min-haa	'an tadrusa	'Her mother wants her to study.'
'albintu	rajat	min-naa	'an nafhama	'The girl hoped that we would understand.'

The latter two examples allow INT to occur as 'accv + NOM', as is indicated in the following (with the same translations): 'ummu-haa turiidu-haa 'an tadrusa; 'albintu rajat-naa 'an nafhama.

V-tr$_{2.2.4}$ consists of the unique lexical item qaala 'to say', as was mentioned above, which may allow a direct or indirect quotation as its object, and which we abbreviate QT for convenience:

(subj)NOM	V-tr$_{2.2.4}$	INT	(obj)QT	
'alra'iisu	qaala	la-naa	'inna-hu sa-yaðhabu	'The president said to us that he would go.'
'al'aanisaTu	qaalat	la-hu	'utruk-nii	'The young lady said to him, 'Leave me!'

The first example could be equally well translated 'The president said to us, "He will go."' Only the context can clarify whether or not an 'inna-CL constitutes a direct or indirect quotation.

In all of the above examples of V-tr$_{2.2}$, the adverb of interest is optional (see PS rule 26), and consequently the examples could have this constituent deleted.

V-tr$_3$ constitutes the set of verbs which allow a complement, i.e., embedded clause construction with certain syntactic changes. There are five differing forms of the COMPL, which, in turn, determine the five subsets of V-tr$_3$. In the first three instances, the subject nominal of the embedded clause functions as the object nominal of V-tr$_3$; the other two COMPL structures are slightly different.

29. $$\text{V-tr}_3 \rightarrow \left\{ \begin{matrix} \text{V-tr}_{3.1} \\ \text{V-tr}_{3.2} \\ \text{V-tr}_{3.3} \\ \text{V-tr}_{3.4} \\ \text{V-tr}_{3.5} \end{matrix} \right\}$$

The examples below will indicate only the COMPL structures, though it would be quite proper, with V-$tr_{3.1}$ through V-$tr_{3.3}$, to delete all but what stands as the object nominal. Each subset will be explained and illustrated separately.

V-$tr_{3.1}$ allows an embedded COMPL consisting of 'subject nominal + predicate nominal'. It is the case that with most verbs occurring as V-$tr_{3.1}$, the predicate nominal is obligatorily indefinite. However, two verbs have been noted which allow a definite predicate nominal, and thus we set up two subclasses:

$$30.\quad \text{V-}tr_{3.1} \longrightarrow \left\{ \begin{matrix} \text{V-}tr_{3.1.1} \\ \text{V-}tr_{3.1.2} \end{matrix} \right\}$$

These are illustrated in the following:

(subj)NOM	V-$tr_{3.1.1}$	(obj)COMPL	
'alwafdu	ᶜayyana	'alrajula 'ustaaðan	'The delegation appointed the man professor.'
hum	'ixtaaruu	ᶜumar xaliifaTan	'They chose Umar caliph.'
'alšaᶜbu	'intaxaba	-hu ra'iisan	'The people elected him president.'
hiya	taᶜtabiru	-hu rajulan kariiman	'She considers him a generous man.'
hum	sammaw	-hu mudiiran	'They named him director.'

(subj)NOM	V-$tr_{3.1.2}$	(obj)COMPL	
'abuu-hu	sammaa	-hu 'ahmad	'His father named him Ahmad.'
'al^{c}arabu	ya^{c}tabiruuna	'al^{c}arabiiyaTa xayra 'allugaati	'The Arabs consider Arabic the best of [all] languages.'

V-$tr_{3.2}$ allows an embedded COMPL consisting of 'subject nominal + predicate adjective'. This construction is illustrated in the following:

(subj)NOM	V-$tr_{3.2}$	(obj)COMPL	
'alnaasu	^{c}arafuu	'alrajula mašhuuran	'The people knew the man [was] important.'
'anti	ra'ayti	'altaaliba ṭawiilan	'You (f,sg) saw the student [was] tall.'
huwa	yaẓunnu	'albayta 'abyaḍa	'He thinks the house [is] white.'
hiya	'i^{c}tabarat	'uxta-haa jamiilaTan	'She considered her sister pretty.'

V-$tr_{3.3}$ allows an embedded COMPL consisting of 'subject nominal + verb phrase', as shown in the following:

(subj)NOM	V-$tr_{3.3}$	(obj)COMPL	
'alsafiiru	zanna	'uxta-hu qad katabat	'The ambassador thought his sister had written.'
'albintu	taraa	'axaa-haa yaktubu	'The girl sees her brother writing.'
'alwafdu	sami^{c}a	'alrijaalu yajii-'uuna	'The delegation heard the men coming.'
huwa	ja^{c}ala	'alṣabiiya yadrusu	'He made the boy study.'
'ummu-hu	tada^{c}u	-hu yaðhabu	'His mother lets him go.'

V-$tr_{3.4}$ allows an embedded interrogative construction as COMPL, the interrogative construction being either a 'yes-no' (see T-9, Section 3.2) or an interrogative from one of the ADV constituents (see T-10, same section). This particular form of COMPL has been noted thus far only with the verbs ^{c}arafa 'to know' and sa'ala 'to ask', though it seems entirely reasonable that there would be a larger list of verbs occurring as V-$tr_{3.4}$:

(subj)NOM	V-$tr_{3.4}$	(obj)COMPL	
'antum	ta^{c}rifuuna	hal yaðhabu	'You (m,pl) know if he is going.'
huwa	sa'ala	limaaðaa tadrusu hunaa	'He asked why you are studying here.'

V-$tr_{3.5}$ allows as COMPL a verbal noun phrase (VNP) which has no other transformational origin (a number of verbal noun phrases can be transformationally derived from 'an-CL constructions; see the remarks

under T-30, etc., Section 3.3):[5]

(subj)NOM	V-tr$_{3.5}$	(obj)COMPL	
'uxtu-haa	waaṣalat	darsa 'allugaTi	'Her sister continued studying the language.'
'allajnaTu	tabda'u	'alðahaaba	'The committee is beginning to go.'
'alwaziiru	'atamma	ziyaaraTa miṣra	'The minister finished visiting Egypt.'
'ustaaðu-hu	'anhaa	'alqiraa'aTa	'His professor finished reading.'
'alra'iisu	yubaaširu	'al'ittifaaqa ᶜalay-haa	'The president will carry out the agreement on it.'

The final set of transitive verb phrases consists of that set with two objects and two possible passive transformations. The first object is a NOM$_{pers}$, and may, by T-2 (see Section 3.2), become an adverb of interest. The second object is likewise a NOM, usually a nominal referring to a 'thing'. These are illustrated in the following, with examples immediately following of the transformations:

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[5]It is possible that this set of nominalizations would be best considered as 'event nouns', or nominalizations embedded at the points in which event nouns can occur, though this is not certain at this time.

(subj)NOM	V-tr_4	(obj)NOM	(obj_2)NOM	
hiya	tu^{c}ṭii	-hi	kitaaban	'She will give him a book.'
'ummu-haa	ballagat	-haa	tahiiyaat-ii	'Her mother conveyed [to] her my regards.'
hum	manaḥuu	-hu	'alθiqaTa	'They granted him confidence.'
'uxt-ii	'axbarat	-naa	'al'axbaara	'My sister told us the news.'
huwa	^{c}allama	-hum	'altaariixa	'He taught them history.'
naḥnu	sa'alnaa	-hu	ra'ya-hu	'We asked him his opinion.'

The object nominal here is, in each case, a NOM_{pers} ('personal nominal'). Examples of this NOM_{pers} being transformed to an adverb of interest have been elicited from informants (but occur only rarely in the corpus) as the following:

hiya tu^{c}ṭii-hi kitaaban ⇒ hiya tu^{c}ṭii la-hu kitaaban
'She will give him a book.' 'She will give to him a book.'

These, then, as in the English counterpart, provide the basis for two differing passives (again elicited from informants; see T-3, Section 3.2):

hiya tu^{c}ṭii-hi kitaaban ⇒ huwa yu^{c}ṭaa kitaaban
'He is being given a book.'

hiya tu^{c}ṭii la-hu 'alkitaaba ⇒ 'alkitaabu yu^{c}ṭaa la-hu
'The book is being given to him.'

Summarizing now the VP kernel patterns informally, we have the following four patterns (omitting the various subdivisions) which can be added to the 'equational' patterns of the preceding section:

1. SUBJ + V-in

'Intransitive' constructions do not allow a passive transformation, but may have an adverb of interest or characteristic (i.e., lexically selected) prepositional phrase; a subclass of V-in requires an 'an-CL as subject.

2. (subj)NOM + V-tr_1

The 'minus-object' transitive constructions do not have an OBJ, and have an 'impersonal passive' transformation; either an adverb of interest or a characteristic prepositional phrase (or both) may occur as variants of this pattern.

3. (subj)NOM + V-tr_2 + (obj)NOM

This construction is characterized by an OBJ (with the variants being a NOM, 'anna-CL, 'an-CL, or 'quotation' QT), with the adverb of interest as an option in one subset.

4. (subj)NOM + V-tr_3 + OBJ

This construction is characterized by an object nominal which provides the point for the embedding of a COMPL (or nominalized clause) construction.

5. (subj)NOM + V-tr_4 + (obj)NOM_{pers} + (obj_2)NOM

This transitive construction is characterized by two object nominals and (at least in theory) two forms of the passive transformation.

2.5 Remaining Clause Constituents

In this section, the PS rules for the SUBJ, OBJ, 'adverb of interest' (INT), 'adverb of relation' (REL), and the PREP.P of the VP will be given. In addition, certain structural generalizations concerning the ADV constituents (TIME, LOC, MAN, and PURP) will be given.

31. $SUBJ/__ \begin{bmatrix} EQN \\ REL_a \\ V\text{-}in_1 \text{ , } V\text{-}in_{2.1} \\ V\text{-}in_{2.2.1} \\ V\text{-}in_{2.2.2} \\ V\text{-}tr \end{bmatrix} \rightarrow \begin{bmatrix} NOM \\ \underline{'an}\text{-}CL \\ NOM \\ NOM \text{ , } \underline{'anna}\text{-}CL \\ \underline{'an}\text{-}CL \\ NOM \end{bmatrix}$

This rule states, for instance, that in the environment of a following EQN, SUBJ --> NOM, whereas in the environment of a following REL_a, SUBJ --> 'an-CL. Inasmuch as REL_a is included in, i.e., a subset of, EQN, the SUBJ may then be rewritten as either a NOM or an 'an-CL in the context of a following REL_a, as in the following:

'alkitaabu la-hu	'The book is his.'
la-hu 'an yadrusa	'He can study.'

in which la-hu is an occurrence of REL_a.

OBJ is rewritten in its context-restricted forms in the following. The forms of the OBJ have been amply illustrated in the preceding section under the rewrites of $VP\text{-}tr_{+o}$ and will be given here without further comment:

32. $OBJ/___ \begin{bmatrix} V\text{-}tr_2 \\ V\text{-}tr_{2.1.2}\ ,\ V\text{-}tr_{2.2.2} \\ V\text{-}tr_{2.1.3}\ ,\ V\text{-}tr_{2.2.3} \\ V\text{-}tr_{2.2.4} \\ V\text{-}tr_3 \\ V\text{-}tr_4 \end{bmatrix} \longrightarrow \begin{bmatrix} NOM \\ \underline{'anna}\text{-}CL \\ \underline{'an}\text{-}CL \\ QT \\ NOM\ ,\ COMPL \\ NOM_{pers} \end{bmatrix}$

33. $OBJ_2 \longrightarrow NOM$

The PREP.P of the verb phrase may be introduced by a number of prepositions, the most common being <u>bi-</u>, <u>min</u>, <u>ᶜan</u>, <u>ᶜalaa</u>, <u>'ilaa</u>, and <u>li-</u>. This PREP.P is then rewritten as:

34. $PREP.P \longrightarrow \left\{ \begin{matrix} \underline{bi\text{-}} \\ \underline{min} \\ \underline{ᶜan} \\ \underline{ᶜalaa} \\ \underline{'ilaa} \\ \underline{li\text{-}} \end{matrix} \right\} + genv + \left\{ \begin{matrix} NOM \\ \underline{'anna}\text{-}CL \\ \underline{'an}\text{-}CL \end{matrix} \right\}$

Though written as a context-free rule, this is not the case. It is the individual verb which selects the preposition and the 'object of the preposition'. The preposition assigns its object a genitive (genv) case marker.

The adverb of interest is likewise written here as a context-free rule, though this is not correct. As above, the individual verb will select the preposition (or allow the 'accv + NOM' option), but not every option is correct for every verb:

35. INT ⟶ $\left\{ \begin{bmatrix} \text{'ilaa} \\ \text{ᶜalaa} \\ \text{li-} \\ \text{bi-} \\ \text{maᶜa} \end{bmatrix} + \text{genv} \right\} + \text{NOM}_{\text{pers}}$
$\qquad\qquad\qquad

transformation. In the following, sets of constructions which may occur as each of these adverbials will be given followed by sets of examples for each construction. It is to be noted that the examples are representative, not exhaustive. Further, no particular attempt will be made to give a semantic sub-classification of the examples at this time.

$$39.\quad \text{TIME} \longrightarrow \left\{ \begin{array}{l} PRT_t \\ accv + NOM_t \\ accv + (INDEF + ADJ_t) \\ haal\text{-}CL_t \\ PREP.P_t \end{array} \right\}$$

The five sets of constructions which may occur as TIME are: (1) a 'particle' with a semantic marker of 'time' (PRT_t); (2) a nominal with a semantic marker of time and a preposed accusative case marker; (3) an adjective with a semantic marker of time, an indefinite determiner, and a preposed accusative case marker; (4) a '<u>haal</u>-CL', i.e., a parenthetical, declarative clause usually introduced by the conjunction <u>wa</u>- 'and; while; ...'; and (5) a prepositional phrase with a semantic marker of time. Examples of each of these five subsets of TIME are as follow:

(1) PRT_t:

qablu	'previously, before'
ba^{c}du	'afterwards; [with negative] yet'

(2) accv + NOM_t:

'alyawma	'today'
gadan	'tomorrow'
ṣabaaḥa 'alyawmi	'this morning' (lit: 'the morning of today')
haaðaa 'al'usbuuᶜa	'this week'
yawma 'al'aḥadi	'Sunday'

(3) accv + (INDEF + ADJ_t):

qariiban	'soon'
baᶜiidan	'far, distant (in time)'

(4) haal-CL_t:

('alrajulu saafara) wa-huwa ra'iisun	'(The man travelled) while he [was] president.'
(huwa 'ijtamaᶜa bi-'almaliki) wa-qad zaara lubnaana	'(He met with the king) [after] having visited Lebanon.'

(5) PREP.P_t:

fii 'alšahri 'alqaadimi	'in (during) the coming month'
fii-maa maḍaa	'in the past; before'
min qablu	'previously'
baᶜda 'alyawmi	'after today'
baᶜda qaliilin	'after a little (while)'
qabla 'al'ijtimaaᶜi	'before the meeting'
qabla 'an darasa	'before he studied'
qabla 'an yadrusa	'before he studies' (or: '... studied')
munðu yawmin	'a day ago'
munðu 'alyawmi	'from today on'

ᶜinda 'al'ijtimaaᶜi	'at the meeting'
ᶜinda-maa yaðhabu	'when he goes'
xilaala 'alyawmi	'during the day'
ḥattaa 'al'aana	'until now'
ḥattaa 'alḥaflaTi	'until the party'

In the latter set, the PREP.P_t, it is possible to consider certain of the 'prepositions' as nouns with an assigned accusative marker, e.g., baᶜd-, qabl-, ᶜind-, xilaal-. This is done under LOC, but there is no particular gain in so doing here.

The adverbial of location (LOC) answers the question word 'ayna 'where?', and is rewritten as the following:

40. LOC ⟶ $\left\{\begin{array}{l} PRT_{loc} \\ accv + (INDEF + ADJ.P_{loc}) \\ accv + PTCP.P_{loc} \\ hayθu + (maa\text{-}CL,\ V + X) \\ accv + N_{loc} + genv + NOM \\ PREP.P_{loc} \end{array}\right\}$

The six sets of constructions which may occur as LOC are: (1) a particle with a semantic marker of 'locational'; (2) an adjective phrase with a semantic marker of locational, an indefinite determiner, and a preposed accusative case marker; (3) a participial phrase with a semantic marker of locational and a preposed accusative case marker; (4) the adverbial particle hayθu 'where' plus a following maa-CL or verb-initial declarative clause; (5) a small subset of nouns with a semantic marker of locational and a preposed accusative case marker,

in an 'idaafaT- relationship to a following nominal (see Section 2.6); and (6) a prepositional phrase with a semantic marker of locational. Examples of each of these six constructions follow:

(1) PRT_{loc}:

hunaa	'here'
hunaaka	'there'

(2) accv + (INDEF + $ADJ.P_{loc}$):

baᶜiidan ± ᶜan makaanin	'far ± from a place'
qariiban ± min makaanin	'near ± to a place'
šarqiiyan ± min hunaa	'to the east ± of here.'

(3) accv + $PTCP.P_{loc}$:

xaarijan	'outside'
daaxilan	'inside'
xaarija 'albayti	'outside the house'
daaxila 'albayti	'inside the house'

(4) ḥayθu + (maa-CL, V + X):

ḥayθu-maa taðhabu	'wherever you go'
ḥayθu kaana yabqaa	'where he was staying'

(5) accv + N_{loc} + genv + NOM:

'amaama 'aljibaali	'before, in front of the mountains'
taḥta 'almabnaa	'under the building'
bayna 'alṣuxuuri	'between, among the rocks'
ᶜinda bayti-hi	'at (near) his home'
fawqa 'alšajaraTi	'above the tree'
waṣta lubnaana	'in the middle of Lebanon'

(6) PREP.P_{loc}:

fii 'al'ijtimaa^{c}i[6]	'in the meeting'
fii 'almaktabaTi	'in the library'
^{c}alaa 'alkursiiyi	'on the chair'
'ilaa jaanibi-hi[7]	'to the side of him' (i.e., 'beside him')

The 'adverbial of direction' (DIR) is closely related to LOC. The forms of DIR are prepositional phrases (the prepositions being limited primarily to min 'from' and 'ilaa 'to, towards', infrequently nahwa 'towards'; the objects of the prepositions are derived from certain of the LOC constructions) which, under interrogative transformation, transform to 'preposition + 'ayna' (e.g., 'ilaa 'ayna 'to where?', min 'ayna 'from where?'). We will note informally that DIR_a, the subset of DIR which occurs in equational constructions, is the subset which begins with the preposition min.

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[6]When the object of the preposition can be interpreted as either an 'event noun' or a 'locational noun', the resultant will be ambiguously TIME or LOC as is evidenced in the following pairs:

takallama fii 'al'ijtimaa^{c}i 'He spoke in the meeting.'	⇒	'ayna takallama 'Where did he speak?'
takallama fii 'al'ijtimaa^{c}i (same)	⇒	mataa takallama 'When did he speak?'

[7]This string is ambiguously LOC or DIR. The verb with which it cooccurs will assign the interpretation (i.e., a 'verb of motion' would assign it a 'directional' instead of 'locational' interpretation).

41. DIR ⟶ $\left\{ \begin{array}{l} \underline{\text{min}} + \text{genv} + N_{loc} + \text{genv} + \text{NOM} \\ \left\{ \begin{array}{l} \underline{\text{min}} \\ \underline{\text{'ilaa}} \\ \underline{\text{naḥwa}} \end{array} \right\} + \left\{ \begin{array}{l} PRT_{loc} \\ \underline{\text{ḥayθu}} + (\underline{\text{maa}}\text{-CL};\ V + X) \\ \text{genv} + \left\{ \begin{array}{l} (\text{INDEF} + \text{ADJ}.P_{loc}) \\ \text{PTCP}.P_{loc} \end{array} \right\} \end{array} \right\} \end{array} \right\}$

All of these forms, apart from the introductory preposition and the assignment of the genitive case marker, may be found under LOC, subsets (1) through (5). Examples of DIR follow:

min 'amaami 'albayti	'from in front of the house'
min bayni 'alṣuxuuri	'from among the rocks'
min taḥti 'alšajaraTi	'from under the tree'
min hunaa	'from here'
'ilaa hunaaka	'to there'
min 'albayti	'from the house'
'ilaa 'alqudsi	'to Jerusalem'
naḥwa 'alšarqi	'toward the East'
'ilaa ḥayθu-maa tašaa'u	'to wherever you wish'

The adverbial of manner (MAN) answers the question word <u>kayfa</u> 'how?', and is rewritten as follows:

$$42.\quad \text{MAN} \longrightarrow \left\{\begin{array}{l} \text{accv + INDEF + ADJ.P}_{\text{man}} \\ \text{accv + INDEF + NP}_{\text{man}} \\ \text{accv + INDEF + (ptcp + VP)}_{\text{man}} \\ \text{accv + INDEF + (v.n. + VP)}_{\text{man}} \\ \text{haal-CL}_{\text{man}} \\ \text{PREP.P}_{\text{man}} \end{array}\right\}$$

The six sets of constructions which may occur as MAN are: (1) through (4), an ADJ.P, NP, PTCP.P, and VNP, all marked semantically as 'manner', with indefinite determiners and a preposed accusative case marker; (5) a parenthetical declarative clause, sometimes introduced by wa- 'and; with'; (6) a prepositional phrase with a semantic marker of manner. These six sets are illustrated in the following:

(1) accv + INDEF + ADJ.P$_{\text{man}}$:

siyaasiiyan	'politically'
sirriiyan (jiddan)	'(very) secretly'
ṣaḥiiḥan	'soundly; correctly'

(2) accv + INDEF + NP$_{\text{man}}$:

barlimaanan	'parliamentarily, as a parliament'
ḥurran	'freely'

(3) accv + INDEF + (ptcp + VP)$_{\text{man}}$:

('alrajulu saafara 'ilaa hunaa) qaadiman min miṣra	'(The man travelled here), coming from Egypt.'
('alwafdu gaadara 'amsi) ᶜaa'idan 'ilaa 'alkuwayti	'(The delegation left yesterday) returning to Kuwait.'

(4) accv + INDEF + (v.n. + VP)$_{man}$:[8]

('allajnaTu 'ijtamaᶜa 'amsi) 'ijtimaaᶜan sirriiyan bi-'alra'iisi	'(The committee met yesterday) meeting secretly with the president.'
('uxt-ii zaarat bayruuta) ziyaaraTan qaṣiiraTan	'(My sister visited Beirut) [on] a short visit.'

(5) haal-CL$_{man}$:

('altaalibu darasa) wa-kitaabu-hu fii yadi-hi	'(The student studied) with his book in his hand.' (lit: '... and his book [was] in his hand.')
'anaa waqaftu 'ata'ammalu	'I paused, pondering.'

(6) PREP.P$_{man}$:

bi-'albariidi	'by (means of the) mail.'
bi-darsi 'alᶜarabiiyaTi	'by studying Arabic'
maᶜa 'alrajuli	'with the man'
ka-ðaalika	'like that; thus'
ka-'anna-hu ra'iisun	'as though he [is] president'

In addition to the above, kayfa also substitutes for (pred)ADJ constructions as will be noted under T-10, Section 3.2.

The 'purpose adverbial' (PURP) answers the interrogative word limaaðaa (sometimes shortened to limaa or lima) 'why?' The constructions occurring as PURP are rather naturally accounted for by a transformational progression, and will be thus described below, though informally with respect to the ordering of the rules and the structural

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[8]An indefinite accusative verbal noun without a modifier of some sort no longer answers the question kayfa, but rather simply adds a component of emphasis, as in the following:

'alwafdu 'ijtamaᶜa 'ijtimaaᶜan	'The delegation really had a meeting!'

characteristics. The two basic constituents are (1) an <u>'an</u>-CL and (2) an <u>'anna</u>-CL, with (3) a haal-CL occurring marginally:

43. PURP ⟶ { <u>li-</u> + <u>'an</u>-CL ; <u>li-</u> + <u>'anna</u>-CL ; haal-CL_{purp} }

(1) <u>li-</u> + <u>'an</u>-CL:

li-'an yadrusa fii 'al-jaami^{c}aTi	'in order that he study in the university'
li-'an laa taðhaba ma^{c}a-hu	'in order that you not go with him'

(2) <u>li-</u> + <u>'anna</u>-CL:

li-'anna 'alrajula ðahaba 'ilaa 'albayti	'because the man went home'

(3) haal-CL_{purp}:

(jalasnaa) našrabu 'alqahwaTa '(we sat) [to] drink coffee'

The examples under (1) above can have the following transformational progressions:

li-'an yadrusa fii 'aljaami^{c}aTi	'in order to study in the university'
⇒ li-yadrusa fii ...	(same)
⇒ li-'aldarsi fii ...	(same)

or, beginning with the source construction again:

⇒ ḥattaa yadrusa fii ...	(same)
or: ⇒ li-kay yadrusa fii ... (or: kay yadrusa ...)	(same)

If we choose the negative example under (1), we would have the following:

li-'an laa taðhaba ma^{c}a-hu	'in order that you not go with him'
⇒ li-kay laa taðhaba ma^{c}a-hu (or: kay laa ...)	(same)

The example under (2) has one other option:

li-'anna 'alrajula ðahaba 'ilaa 'albayti	'because the man went home'
⇒ hayθu 'anna ...	(same)

2.6 Structure of the Nominal

In this section an outline of the structure of the NOM will be given.

44. NOM ⟶ pre-nom MODIF + $\left\{\begin{matrix} PRN_{1,2} \\ PN \\ NP \end{matrix}\right\}$

The NOM consists of a 'pre-nominal modifier' (pre-nom MODIF), and one of three options, a first or second person pronoun ($PRN_{1,2}$), a proper noun (PN), or a noun phrase (NP).

The pre-nom MODIF consists primarily of the set of quantifiers which will normally assign a case marker to the following construction, and sometimes markers of number and/or definition, as in the following:

baᶜḍu 'alrijaali	'some of the men'
kullu-kum	'all of you'
ᶜadadun min 'alṭullaabi	'a number of the students'
'akθariiyaTu 'alšaᶜbi	'a majority of the people'
xamsaTu kutubin	'five books'
xamsaTun min haaðihi 'alkutubi	'five of these books'
xamsaTa ᶜašara kitaaban	'fifteen books'
xamsu mi'aTi kitaabin	'five hundred books'

Normally the pronouns and proper nouns have quantifiers only in a partitive sense, e.g.:

kullun min-hum	'all of them'
xamsatun min 'alqaahiraTi	'five (people) from Cairo'

The problems involved in these pre-nominal modifiers will not concern us further here.

45. PRN ⟶ (PRON + p + g + n), where p = 1,2

The pronoun (PRON) is marked for person, number, and gender and is definite but has no determiner. We allow only first and second person pronouns to be introduced at this point in the grammar; third person pronouns will be introduced transformationally in Section 3.2.

46. NP ⟶ DET + (N + g + n)

The noun phrase (NP) is rewritten as a determiner (DET) plus a noun (N) which obligatorily is marked for gender and number. In addition, N is (lexically) assigned a marker of +R (referring to 'rational' individuals) or -R (referring to other than rational beings), which is one

of the categories necessary for the correct establishment of concord relations. The +R or -R will, where it is marked, be noted as a subscript to N, as: N_{+R}, N_{-R}. The gender (g) is likewise lexically assigned. The number marker (n) may be either singular (sg), dual (d), plural (pl) (with pl having two subcategories, pl-snd 'sound plural' and pl-brk 'broken plural') or collective (coll). The relevance of these categories for the problems of concord will be discussed in the following section, Section 2.7.

47. DET ---> $\left\{\begin{matrix}\text{DEF}\\ \text{INDEF}\end{matrix}\right\}$

The determiner (DET) is rewritten as an obligatory choice between a definite determiner (DEF) or an indefinite determiner (INDEF).

48. DEF ---> $\pm$ DEM.PR + 'al-[9]

49. INDEF ---> $\left\{\begin{matrix}\text{-n}\\ \text{-}\emptyset\end{matrix}\right\}$ [9]

The definite determiner is rewritten as an optional demonstrative pronoun (DEM.PR), which is assigned markers of number and gender but for which we will provide no further statements here, and an obligatory definite article 'al-. On the other hand, the indefinite determiner is rewritten as a (morphologically conditioned) choice between

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[9]These do not account for the determiners of the dual or masculine sound plural forms. Slight changes in the above, formulating them as context-restricted rules, would be necessary so as to account for the deletion the final -na or -ni in 'idaafaT phrases (e.g. , kitaabaani 'two books', but kitaabaa-hu 'his two books').

an -n (traditionally known as 'nunation' and, ultimately, which must be postposed to the case marker), or a ∅. Assuming the necessary transformations to account for the order changes, these forms of the NP may be shown by the following:

rajul- + -u- + -n ⟶ rajulun 'a man'

(N+R + m + sg) + nomv + INDEF

haaðaa + 'al- + rajul- + -a ⟶ haaðaa 'alrajula 'this man'

± DEM.PRN + 'al- + (N+R + m + sg) + accv

Or, in the case of a form requiring a ∅ indefinite determiner:

makaatib- + -u- + ∅ ⟶ makaatibu '[some] libraries'

(N-R + f + pl) + nomv + INDEF

Proceeding to the proper nouns (PN), we have two forms, depending on the form of the determiner (proper nouns are, by definition, definite, but one class has a part of the definite determiner, i.e., the article 'al-, and the other class an indefinite determiner):

50. $PN \longrightarrow \left\{ \begin{matrix} PN_1 \\ PN_2 \end{matrix} \right\}$

51. $PN_1 \longrightarrow$ + 'al- + $(N_{pr}$ + g + n) ± (attr)ADJ

The first subset of proper nouns (PN_1) is rewritten as an obligatory article 'al-, a noun with a subscript 'proper' (N_{pr}), and obligatory gender and number markers. One subclass of PN_1 will take an attributive ADJ, the other will not, though this is marked above simply as an option. In addition, N_{pr} will be marked as '+R' or '-R'.

Examples are the following, all without any structural description:

'al'urdunn-	'Jordan'
'alqaahiraT-	'Cairo'
'alᶜiiraaq-	'Iraq'
'alwilaayaat- 'almuttaḥidaT-	'The United States'
'al'umam- 'almuttaḥidaT-	'The United Nations'
'al'almaan-	'The Germans'
'al'amriikaan-	'The Americans'
'alᶜarab-	'The Arabs'

The first five examples would be marked '-R', and the last three as '+R' and collective. The fourth and fifth examples require the attributive ADJ.

52. $PN_2 \dashrightarrow \emptyset + (N_{pr} + g + n)$

PN_2 is rewritten as a $\emptyset$ indefinite determiner, with $(N_{pr} + g + n)$ being the same as noted above. Occasionally a proper noun of this class is found with an attributive adjective, though more normally this is not the case (the last example below does have one):

bayruut-	'Beirut'
miṣr-	'Egypt'
'amriikaa	'America'
muḥammad-	'Muhammad'
'aḥmad-	'Ahmad'
'amriikaa 'aljanuubiiyaT-	'South America'

In addition to the above, there are several functional

subcategories of nouns which have, at least in part, been assumed in the foregoing, and which are relevant in terms of co-occurrence restrictions with verbs, adverbials, etc., that is, 'event nouns', 'time nouns', 'locational nouns', 'personal nouns', 'non-personal nouns', etc. We await a strict subcategorization of MWA nouns for the range of relevant categories.[10] In the meantime, a brief mention of verbal nouns is in order so as to avoid certain potential confusion.

Verbal nouns are (for the most part) defined morphological form classes (e.g., a verb of the form 'ijtamaᶜa will have a verbal noun of the form 'ijtimaaᶜ-, a verb of the form qaddama will have a verbal noun of the form taqdiim-, etc.). Verbal nouns, however, have at least three different functions. Some verbal nouns may occur as 'event nouns' (see Sections 2.3 and 2.4, PS rules 18 and 20 respectively), as in the following:

'al'ijtimaaᶜu gadan	'The meeting [is] tomorrow.'
'altaqdiimu hadaθa 'amsi	'The presentation took place yesterday.'

Some verbal noun forms, especially those inflected for dual or plural, appear to occur as a noun without any 'verbal' function at all, in which case we simply list and classify it as one of the subsets of N, as:

dars-	'lesson' (N_{-R})
taᶜliimaat-	'instructions' (N_{-R})
qaraaraat-	'decisions; resolutions' (N_{-R})

[10] A dissertation currently in progress at the University of Michigan, by Mrs. Carolyn G. Killean, will provide the framework for such a strict subcategorization of nominals in MWA.

with the understanding, of course, that forms may have more than one function (e.g., 'aldarsu 'alxaamisu 'the fifth lesson' as against darsu-hu 'alᶜarabiiyaTa 'his study of Arabic').

On the other hand, verbal noun phrases (VNP) occur as nominalizations of clauses, either from an 'an-CL, as in the following:

'uḥaawilu 'an 'aḥṣula-hu 'I will try to obtain it.'	⇒	'uḥaawilu ḥuṣuula-hu 'I will try to obtain it.'
yajibu ᶜalay-naa 'an naðhaba 'ilaa 'albayti '[It] is encumbant upon us that we go home' (i.e., 'We must go home.')	⇒	yajibu ᶜalay-naa 'alðahaabu 'ilaa 'albayti (same; lit: 'Going home is encumbant upon us.')
li-'an yadrusa haaðihi 'allugaTa 'in order to study this language...'	⇒	li-darsi haaðihi 'allugaTi (same)

or as a COMPL nominalization without an intermediate construction, as was illustrated under V-tr$_{3.5}$ (Section 2.4, under PS rule 29). We will provide no further formal statements of the verbal noun phrases apart from the COMPL embedding transformation (T-43, Section 3.3).

It is possible now to give a brief summary of the NP using the 'slot-and-filler' notation used in Sections 2.3 and 2.4 for the kernal clause constructions, omitting, however, the pre-nominal modifiers. We assume that the NP as noted above functions as the 'head' construction with three orders of (transformationally assigned) post-nominal modifiers:

	HEAD NP	$MODIF_1$ ± ADJ	$MODIF_2$ ± PREP.P	$MODIF_3$ ± REL.CL
DEF	'alrajulu	'alṭawiilu	fii 'albayti	'allaðii ra'aytu-hu
INDEF	rajulun	ṭawiilun	fii 'albayti	ra'aytu-hu

The first of the two examples is translated 'the tall man in the house whom I saw', and the second 'a tall man in the house whom I saw'. The modifiers are assigned transformationally in the following manner:

'alrajulu tawiilun
'The man [is] tall.'
⇒ 'alrajulu 'alṭawiilu
'The tall man ...'

'alrajulu 'alṭawiilu fii 'albayti
'The tall man [is] in the house.'
(same form)
'The tall man in the house ...'

'alrajulu 'alṭawiilu fii 'albayti ...
'The tall man in the house ...'

ra'aytu 'alrajula 'alṭawiila fii 'albayti
'I saw the tall man in the house.'
⇒ 'alrajulu 'alṭawiilu fii 'albayti 'allaðii ra'aytu-hu
'The tall man in the house whom I saw ...' (lit: '... who I saw him ...')

It is further possible to delete the head construction and have the following, with the ADJ functioning substantively in the first instance, and the REL.CL functioning substantively in the second:

'alṭawiilu fii 'albayti 'allaðii ra'aytu-hu
'The tall [one] in the house whom I saw ...'

'allaðii ra'aytu-hu
'[The one] whom I saw ...'

This process thus allows adjectives or relative clauses to function substantively, and is the basis for such sentences as:

haaðaa 'alrajulu kaana 'albaxiila	'This man was the miser[ly man].'
'anaa 'aʿṭaytu-hu 'allaðii yuriidu-hu min-nii	'I gave him [the one] which he wanted (it) from me.'

Building constructions in this manner considerably simplifies the problems of concord in MWA while simultaneously providing insight into certain of the formal mechanisms of the underlying structure.

Brief mention can now be made of a form of nominalization known as 'idaafaT phrases. Derived from various sources, this type of nominalization syntactically 'binds' two or more nominals by the deletion of all but the final determiner and assigns a genitive case marker to all but the initial nominal. The formal mechanism can be characterized by the following (the case marker being attached to the following nominal):

$$\left.\begin{array}{l} \text{case} + \text{DET} + (\text{N} + \text{g} + \text{n}) \\ \text{case}' + \text{DET}' + (\text{N}' + \text{g}' + \text{n}') \end{array}\right\} \Rightarrow$$

$$\text{case} + (\text{N} + \text{g} + \text{n}) + \text{genv} + \text{DET}' + (\text{N}' + \text{g}' + \text{n}')$$

This can be illustrated by taking the two nominals, haaðaa 'alkitaabu 'this book' and haaðihi 'albintu 'this girl', and separating the constituents and recombining them thus:

$$\left.\begin{array}{l} \text{-u} + \text{haaðaa 'al-} + \text{kitaab} \\ \text{-u} + \text{haaðihi 'al-} + \text{bint} \end{array}\right\} \Rightarrow \begin{array}{l} \text{-u} + \text{kitaab} + \text{-i} + \text{haaðihi 'al-} + \text{bint} \\ \text{(i.e., kitaabu haaðihi 'albinti)} \end{array}$$

The resultant phrase would mean, in this instance, '[the]book of this girl', i.e., 'this girl's book.' This, however, would not be the best source for this nominalization, but is used simply to indicate the formal mechanism of the 'iḍaafaT. Rather, to indicate the relationship of 'ownership' or 'possession', we would posit the non-verbal equation with a subject nominal and an adverb of relationship, thus:

'alkitaabu li-'albinti ⇒ kitaabu 'albinti
'The book [is]the girl's.' 'the girl's book ...'

Note that a pronoun, not having a deletable determiner, cannot be the first member of an 'iḍaafaT, but can be the second member, as:

'alkitaabu la-haa ⇒ kitaabu-haa
'The book [is] hers.' 'her book ...'

In addition to an 'iḍaafaT indicating relationship and derived as the above, the verbal noun phrase is a very productive source for this construction, as:

huwa yadrusu 'alᶜarabiiyaTa ⇒ darsu-hu 'alᶜarabiiyaTa
'He is studying Arabic.' 'his study of Arabic ...'

There is a third source for certain types of 'iḍaafaT phrases, a non-verbal equation of the type 'X is a member of the class Y' where X is a proper noun. This can be illustrated by the following:

bayruutu madiinaTun ⇒ madiinaTu bayruuta
'Beirut [is] a city.' 'the city of Beirut ...'

'alniilu nahrun ⇒ nahru 'alniili
'The Nile [is] a river.' 'the Nile River ...' (lit: 'the river of the Nile')

miišigaan wilaayaTun ⇒ wilaayaTu miišigaan
'Michigan [is] a state.' 'the state of Michigan ...'

These classify X as a member of Y, and are thus noted here as 'classificatory' 'idaafaT phrases. Note that, in this context, the second member of these classificatory 'idaafaT phrases cannot be pronominalized (see T-1, Section 3.2), and under interrogative transformation they transform differently than the 'relational' 'idaafaT noted initially:

kitaabu 'albinti 'the girl's book ...'	⇒	kitaabu man 'the book of who(m) ...?'
madiinaTu bayruuta 'the city of Beirut ...'	⇒	'ayyu madiinaTin 'which city ...?'
but not:	⇒	*madiinaTu maaðaa 'the city of what ...?'

In a manner similar to the above noted classificatory 'idaafaT phrases, certain ('classical') 'NP + (pred)ADJ' constructions allow an option as the above, e.g.:

'alyadu kariimaTun 'The hand [is] generous.'	⇒	'alyadu 'alkariimaTu 'the generous hand ...'
but also:	⇒	kariimu 'alyadi 'generous [with respect to] hand ...'
'alwajhu hasanun 'The face [is] handsome.'	⇒	hasanu 'alwajhi 'handsome [with respect to] face ...'

With this latter set, assuming that the grammar were extended to cover the structure of phrases, these adjectives, which, by the 'idaafaT transformation, have had their determiners deleted, may, in an attributive relationship, now have the definite article 'al- transformationally reassigned, thus resulting in such as the following:

'alrajulu 'alkariimu 'alyadi	'the man generous of hand'
'almaliku 'alḥasanu 'alwajhi	'the king handsome of face'

This constitutes the limit of our characterization of the MWA nominals.

2.7 Determination of Syntactic Markers

The problem of concord will be handled in this grammar, by first the determination of the set of 'syntactic markers' for nominal constructions and, secondly, in Section 3.2, the transformational assignment of these markers to the dominated constructions (e.g., to predicate adjectives, verbs, participles, relative pronouns, etc.).

The syntactic marker categories are person (p), gender (g), and number (n). Person may be first, second, or third (1, 2, or 3); gender may be masculine or feminine (m or f); and number may be singular, dual, or plural (sg, d, or pl). The question is how to determine the factors which determine the choice of each category. Each of these three categories, p, g, and n will be characterized separately.

The syntactic marker category of person is quite straightforward: Of the nominals, only pronouns are marked for first or second person (as well as third), and consequently the pronominal marker of 'person' determines the syntactic marker of 'person'. All other constructions which can dominate a concord relationship have a syntactic person marker of third person (3).

The syntactic marker category of gender is slightly more complex. The formal gender marker for singular feminine forms is the <u>taa'</u>

marbuuṭaT, noted in the transliteration by the capital -T-. This marker does not hold for plural forms, however, as can be indicated by the following singular-plural pairs:

su'aal- 'question' (m,sg)	'as'ilaT- 'questions' (m,pl)
'ustaað- 'professor' (m,sg)	'asaatiðaT- 'professors (m,pl)

These singular forms are formally masculine, though the plural forms are both marked by the taa' marbuuṭaT. In general, however, the formal marker, the taa' marbuuṭaT, does serve to distinguish the gender of singular forms in the large majority of nouns.

There is, of course, as in many languages, a set of nouns in MWA which are formally marked for one gender but which can be said to be semantically another (or, here, 'the other') gender, i.e., referring to beings of the other sex. Examples of such are xaliifaT- 'caliph', 'umm- 'mother', 'uxt- 'sister', bint' 'girl; daughter'. In instances such as these, the semantic gender overrides the formally marked gender in the determination of concord, and thus these forms will be assigned a syntactic gender marker the opposite of their formal gender marker.

There is a third class of nouns, however, which are formally marked for one gender, behave distributionally as the opposite gender (i.e., assign the opposite gender marker in concord relationships), but cannot be reasonably assigned a semantic interpretation of either gender, e.g., ḥarb- 'war', naar- 'fire', yad- 'hand', all feminine.

In these latter two instances, it will be assumed that a marker 'f' will be entered in the lexicon indicating the distributional behavior of these particular lexical items. Where no such marker is

present, the formal gender marker will be presumed to indicate the distributional characteristics. Understanding these characteristics, we will refer to the gender of the noun as 'lexically assigned' as a cover term for convenient reference.

The syntactic marker category of number is, in part, determined by the noun's number inflection (sg, d, or pl, with pl having two subcategories, pl-snd 'sound plural' and pl-brk 'broken plural'[10]), or by the category 'collective' (coll), referring to either count nouns (e.g., 'al'amriikaan 'the Americans', 'al'almaan 'the Germans', 'alruus 'the Russians', 'alᶜarab- 'the Arabs', etc.) or non-count nouns (e.g., 'alnaas- 'the people', šajar- 'trees', tuffaaḥ- 'apples', naḥl- 'bees', naxl- 'date palms', etc.). The relevance of these categories will be summarized below.

In addition, there is the further (distributional) category of 'rationality' (+R, indicating 'plus rationality', and -R, indicating 'minus rationality'). As a rule of thumb, it can be stated that the +R marker is assigned to nouns referring to rational individuals (e.g., rajul- 'man', ra'iis- 'president', bint- 'girl', etc.) with animals, as well as inanimate nouns, generally considered -R. It is possible, however, to have a discourse conditioned shift in the assignment of the +R marker, e.g., in fairy tales or poetry, in which +R may be assigned to animals or even inanimate nouns.

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[10]'Sound plural' and 'broken plural' are traditional terms, the former designating certain pluralizing suffixes, the latter designating plurals formed by internal consonant-vowel changes (a virtually chaotic subsystem of Arabic morphology which has not been satisfactorily handled to date). Note also that some formally masculine singular forms form feminine sound plurals, e.g., 'ijtimaaᶜ- 'meeting', but 'ijtimaaᶜaat- 'meetings'. This information properly belongs in the lexicon.

Thus far, then, it would be possible, say, to have a NP such as 'alrijaal- 'the men' which would have (from PS rules 46 and 48, Section 2.6) the following structure, with the +R marker noted:

'al- + (N_{+R} + m + pl-brk)

that is, a noun distributionally marked as +R, masculine gender, and a broken plural. We want to determine its syntactic markers of p,g,n, for which we shall adopt the convention of writing as subscripts in the following manner (as was indicated in Section 1.4):

'al- + (N_{+R} + m + pl-brk)$_{pgn}$ or NP_{pgn} or NOM_{pgn}

This allows the following set of statements with respect to the syntactic marker assignments, continuing the PS rule numbering:

53.a $\begin{bmatrix} \text{'an-CL} \\ \text{'anna-CL} \\ \text{QT} \end{bmatrix} \longrightarrow \begin{bmatrix} \text{'an-CL}_{3,m,sg} \\ \text{'anna-CL}_{3,m,sg} \\ \text{QT}_{3,m,sg} \end{bmatrix}$

In the context of an 'an-CL, 'anna-CL, or QT ('quotation') functioning as subject, i.e., cross-referenced to a given verb or participle as subject, these constructions will assign markers of 3,m,sg to the verb (or, in the case of the participle, m,sg), as is indicated in the following examples:

yajibu ᶜalay-ka 'an tazuura-hu	'[It] is encumbant upon you to visit him.'
yufhamu 'anna-hu hunaa	'[It] is understood that he [is] here.'

yuqaalu 'inna-hu qad gaadara '[It] is said that he had left.'

The remainder of the syntactic marker assignments can be stated, first, as a context-restricted PS rule, and secondly, by which insight into the system of syntactic markers is facilitated, by the 'paradigm' of Figure 3. Examples and explanation will follow.

53.b NOM_{pgn}/ NOM =

$$\begin{bmatrix} \text{PRON} + \text{p} + \text{g} + \text{n} \\ \text{N}_{-\text{R}} + \text{g} + \text{pl} \\ \text{N}_{+\text{R}} + \text{m} + \text{pl-snd} \\ \text{N}_{+\text{R}} + \text{m} + \text{pl-brk} \\ \text{N}_{+\text{R}} + \text{f} + \text{pl} \\ \text{N}_{\pm\text{R}} + \text{g} + \begin{bmatrix} \text{sg} \\ \text{d} \end{bmatrix} \\ \text{N}_{+\text{R}} + \text{g} + \text{coll} \\ \text{N}_{-\text{R}} + \text{g} + \text{coll} \end{bmatrix} \dashrightarrow \text{NOM} \begin{bmatrix} \text{p'g'n'} \ (= \text{pgn}) \\ 3\ \text{f}\ \text{sg} \\ 3\ \text{m}\ \text{pl} \\ 3 \left\{ \begin{matrix} \text{m pl} \\ [\text{f sg}] \end{matrix} \right\} \\ 3\ \text{f} \left\{ \begin{matrix} \text{pl} \\ [\text{sg}] \end{matrix} \right\} \\ 3\ \text{g'} \begin{bmatrix} \text{sg} \\ \text{d} \end{bmatrix},\ \text{g} = \text{g'} \\ 3\ \text{g'}\ \text{pl},\ \text{g} = \text{g'} \\ 3\ \text{m}\ \text{sg} \end{bmatrix}$$

In the context of NOM being rewritten as a pronoun, there is a one-to-one correspondence between the pronominal categories of person, gender, and number and the assigned syntactic markers (though there is neutralization of the categories in certain of the pronominal <u>forms</u>).

In the context of NOM being rewritten as a N_{-R} with n = pl (a plural noun marked -R), the syntactic markers are automatically 3,f,sg. Thus, examples such as the following would be noted as 3,f, sg:

'alwufuud- 'the delegations' = $NOM_{3,f,sg}$

'al'ijtimaa^{c}aat- 'the meetings' = $NOM_{3,f,sg}$

'albuyuut- 'the houses' = $NOM_{3,f,sg}$

'almakaatib- 'the libraries' = $NOM_{3,f,sg}$

The lexically assigned gender marker of the first three examples is masculine ('alwafd-, 'al'ijtimaa^{c}-, and 'albayt- being the singular forms), while the fourth is feminine ('almaktabaT-). Thus, with respect to most concord situations, the effect of the lexically assigned gender marker is neutralized. The only exception to this is with respect to the cardinal numbers, whose form is determined by the gender marker of the singular nouns which they modify (e.g., xamsaTu buyuutin 'five houses', but xamsu makaatiba 'five libraries'). It is to be noted in passing that -R does not cooccur with the 'sound masculine plural'.[11]

In the third line of PS rule 53.b, a N_{+R} with a 'masculine sound plural' is automatically assigned syntactic markers of 3,m,pl, as in the following:

'almanduubuuna 'the delegates' = $NOM_{3,m,pl}$

'allubnaaniiyuuna 'the Lebanese' = $NOM_{3,m,pl}$

If, in the above, the 'broken plural' (pl-brk) is substituted for the 'sound plural' (pl-snd), there is an option, noted in brackets, of assigning syntactic markers of 3,f,sg or 3,m,pl. The former, however, is extremely rare in MWA and does not reflect a viable option so much as a theoretical possibility. For all practical purposes, noun phrases so marked will be assigned syntactic markers of 3,m,pl, as in the

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[11]The only attested exception to this is the idiomatic phrase 'alsinuuna 'alTiwaalu 'the many years; years and years'. This is best handled as a lexical, rather than grammatical, item.

following:

'alrijaal- 'the men' = $NOM_{3,m,pl}$

'alxulafaa'- 'the caliphs' = $NOM_{3,m,pl}$

'alṭullaab- 'the students' = $NOM_{3,m,pl}$

In the fifth line of PS rule 53.b, there is again a bracketed option, with the same remarks as above holding. For a N_{+R}, feminine plural, the syntactic markers will be 3,f,pl:

'al'ummahaat- 'the mothers' = $NOM_{3,f,pl}$

'al'aanisaat- 'the young ladies' = $NOM_{3,f,pl}$

'albanaat- 'the girls; daughters' = $NOM_{3,f,pl}$

In the context of a noun which is not plural, but rather is singular or dual, the syntactic markers of gender and number will be identical to the noun's markers. Thus:

'alrajulaani 'the two men' = $NOM_{3,m,d}$

'albintaani 'the two girls' = $NOM_{3,f,d}$

'almaktabaTaani 'the two libraries' = $NOM_{3,f,d}$

'albaytaani 'the two houses' = $NOM_{3,m,d}$

The final pair of lines in rule 53.b, a collective noun marked +R is assigned a syntactic number marker of plural, and a collective noun marked -R is assigned a syntactic number marker of singular. Thus:

'al'amriikaan 'the Americans' = $NOM_{3,m,pl}$

'alᶜarab- 'the Arabs' = $NOM_{3,m,pl}$

'alnaas- 'the people' = $NOM_{3,m,pl}$

'alšajar- 'the trees' = $NOM_{3,m,sg}$

'altuffaah- 'the apples' = $NOM_{3,m,sg}$

'alnaxl- 'the date palms' = $NOM_{3,m,sg}$

It is to be noted that with a few items, e.g., qawm- 'tribe', 'ahl- 'family, kin', a dual lexical classification is possible, i.e., both of these nouns may be classified as either -R (in which case their plural forms, 'aqwaam- and 'ahaaliy-, would be assigned syntactic markers of 3,f,sg), or as +R, coll (in which case all three forms, singular, dual, and plural would be assigned syntactic markers of 3,m,pl).

The marker assignment of all of the nominals except the collectives and first and second person pronouns is indicated in Figure 3, 'Syntactic marker paradigm', which provides visual insight into the distribution of these marker assignments.

FORMAL NUMBER

		Sg	D	Pl		
LEXICALLY ASSIGNED GENDER	M	m,sg	m,d			
	F	f,sg	f,d			
					+R	-R
M	(snd)				m,pl	---
	(brk)				m,pl [f,sg]	f,sg
F	(snd)				f,pl [f,sg]	f,sg
	(brk)				f,pl [f,sg]	f,sg

Fig. 3.--Syntactic marker paradigm.

2.8 Lexicon

The following lexicon will not be in the form of a set of rules as X ⟶ a, b, c where a, b, and c are words. This information has been given, for the most part, informally in the preceding sections of this chapter. Rather, an abbreviated lexicon will be given with appropriate structural information under each entry, thus representing a lexicon with grammatical information rather than an extension of the grammar with lexical information. Subcategorization will not be carried further than has already been the case (i.e., if a verb allows a NOM as subject, no further information as to whether the nominal should be marked 'personal', 'event', etc., will be given). A modified slot-and-filler notation is used, e.g., S: 'an-CL would indicate an 'an-CL occurs as subject. Where appropriate, options will be allowed (e.g., ± O: NOM would indicate an optional object nominal, with the verb being classified, presumably, as V-tr_1 and V-tr_2). Further, in contexts where concord matches are required (e.g., with the verb wajaba), a subscript c will be noted between the two constituents, as:

wajaba ± INT: ^{c}alaa$_{c}$ + 'an-CL$_{c}$	'[It] was encumbant upon s.o. to do s.th.'

where the adverb of interest, INT, consisting of a preposition ^{c}alaa plus a predictable (and thus unlisted) NOM_{pers}, when present, must have a concord match with the subject of the verb in the 'an-CL, thus:

yajibu ^{c}alay-naa 'an narji^{c}a	'[It] is encumbant upon us to return.' (lit: '... that we return.')

A sample entry of a verb is given, with explanation following. The remainder of the lexicon will be reasonably clear from the preceding sections of the grammar.

kataba, yaktubu (kitaabaT-)(kaatib-; maktuub-) V-tr$_{1.2}$, V-tr$_{2.2}$

S: NOM; ± INT: li-, 'ilaa; ± O: NOM, 'anna-CL

'to write ± to s.o. ± s.th., that ...'

where: kataba is the 3,m,sg perfective form of the verb; yaktubu is the 3,m,sg imperfective form; kitaabaT- in the first parentheses is the verbal noun; kaatib- and maktuub-, in the second parentheses, are the m,sg active and passive participial forms respectively; and this entry is noted as functioning as a transitive verb of either class 1.2 or 2.2 (further subdivisions, possibly helpful at times, become meaningless, whereas the structural information provides all of the necessary information). It is then noted that the verb allows a nominal as subject, an optional adverb of interest with the choice of prepositions being li- or 'ilaa, and an object nominal or an 'anna-CL occurring as object. The translation is intended to reflect the structural characteristics of the lexical item in question.

Intransitive Verbs.--

qaama, yaquumu (qiyaam-)(qaa'im-; ---) V-in$_1$

S: NOM; 'to stand, stand up, arise'

jaraa, yajrii (jary-)(jaariy-; ---) V-in$_1$

S: NOM; 'to take place; to flow, run, ...'

'inqasama, yanqasimu ('inqisaam-)(munqasim-; ---) V-in$_{2.1}$

S: NOM; ± PREP.P: 'ilaa + NOM; 'to split, be split ± into s.th.'

ẓahara, yaẓharu (ẓuhuur-)(ẓaahir-; ---) V-in$_{2.2}$

S: NOM, 'anna-CL; ± INT: li-;

'to seem, appear ± to s.o.; to come into view'

wajaba, yajibu (wujuub-)(waajib-; ---) V-in$_{2.2}$

S: 'an-CL$_c$; ± INT: ^{c}alaa$_c$ 'to be encumbant ± upon s.o. + to ...;

to be necessary ± for s.o. + to ... '

Transitive Verbs.--

saafara, yusaafiru (safar-)(musaafir-; musaafar-) V-tr$_{1.1}$

S: NOM; ± DIR; 'to travel, leave, depart ± to, from s.pl.'

ʿaaša, ya^{c}iišu (^{c}ayš-)(^{c}aa'iš-; ma^{c}iiš-) V-tr$_{1.2}$

S: NOM; 'to live, be alive'

'ijtama^{c}a, yajtami^{c}u ('ijtimaa^c-)(mujtami^c-; mujtama^c-) V-tr$_{1.2}$

S: NOM; ± INT: bi-, ma^{c}a 'to meet ± with s.o.; hold a meeting'

tamatta^{c}a, yatamatta^{c}u (tamattu^c-)(mutamatti^c-; mutamatta^c-) V-tr$_{1.3}$

S: NOM; + PREP.P: (bi- + NOM); 'to enjoy + s.th.'

waafaqa, yuwaafiqu (muwaafaqaT-)(muwaafiq-; muwaafaq-) V-tr$_{1.3}$

S: NOM; ± INT: ma^{c}a (or: accv + NOM); + PREP.P: (^{c}alaa + NOM)

'to agree ± with s.o. + on, about, concerning s.th.'

^{c}ahida, ya^{c}hadu (^{c}ahd-)(^{c}aahid-; ma^{c}huud-) V-tr$_{1.3}$

S: NOM; + INT: li-$_c$; + PREP.P:(bi- + 'an-CL$_c$)

'to delegate, entrust + to s.o. + to do s.th.'

darasa, yadrusu (dars-, diraasaT-)(daaris-; madruus-) V-tr$_{1.2; 2.1}$

S: NOM; ± O: NOM; 'to study ± s.th.'

fahima, yafhamu (fahm-)(faahim-; mafhuum-) V-tr$_{1.2; 2.1}$

S: NOM; ± O: NOM, 'anna-CL; 'to understand ± s.th., that ...'

haawala, yuḥaawilu (muḥaawalaT-)(muḥaawil-; muḥaawal-) V-$tr_{2.1}$

S: NOM_c; + O: NOM, 'an-CL_c; 'to try + s.th., to do s.th.'

kataba, yaktubu (kitaabaT-)(kaatib-; maktuub-) V-$tr_{1.2; 2.2}$

S: NOM; ± INT: li-, 'ilaa; ± O: NOM, 'anna-CL

'to write ± to s.o. ± s.th., that ...'

zaara, yazuuru (ziyaaraT-)(zaa'ir-; mazuur-) V-$tr_{2.1}$

S: NOM; O: NOM; 'to visit + s.o., s.pl.'

'araada, yuriidu ('iraadaT-)(muriid-; muraad-) V-$tr_{2.2}$

S: NOM; ± INT: min_c; + O: NOM, 'an-CL_c

'to want, wish ± from s.o. + s.th., that he do s.th.'

(Optionally, in context O: 'an-CL_c, INT may be 'accv + NOM_c')

ṭalaba, yaṭlubu (ṭalab-)(ṭaalib-; maṭluub-) V-$tr_{2.2}$

S: NOM; ± INT: 'ilaa, min_c; + O: NOM, 'an-CL_c

'to ask, request ± s.o., from s.o. + s.th, to do s.th.'

ᶜayyana, yuᶜayyinu (taᶜyiin-)(muᶜayyin-; muᶜayyan-) V-$tr_{3.1}$

S: NOM; + O: NOM, COMPL (COMPL = NOM + NOM_{indef})

'to appoint + s.o.; to appoint + s.o. + s.th.'

ᶜarafa, yaᶜrifu (maᶜrifaT-)(ᶜaarif-; maᶜruuf-) V-$tr_{1.2; 2.1; 3.1,2,3,4}$

S: NOM; O: NOM, 'anna-CL, COMPL

'to know ± s.th., that; to know + [that] s.o., s.th. + [is]

s.th.; to know + if, where, how ...'

waaṣala, yuwaaṣilu (muwaaṣalaT-)(muwaaṣil-; muwaaṣal-) V-$tr_{3.5}$

S: NOM; O: NOM, COMPL (COMPL = VNP)

'to continue + doing s.th., to do s.th.'

'aᶜṭaa, yuᶜṭii ('iᶜṭaa'-)(muᶜṭiy-; muᶜṭaa'-) V-tr_4

S: NOM; O: NOM; O_2: NOM. ⇒ O: NOM ± INT: 'ilaa

'to give + s.o. + s.th.' ⇒ 'to give + s.th. ± to s.o.'

Verbs of the AUX(iliary).--

kaana, yakuunu 'was; will be' V-k

laysa 'not to be' V-lys

'asbaha, yusbihu 'to be, become' V-aux$_1$

baqiya, yabqaa 'to continue, remain' V-aux$_1$

ṣaara, yaṣiiru 'to become; to begin, get to the point where; occur, happen' V-aux$_1$

zalla, yazallu 'to continue, remain' V-aux$_1$

zaala, yazaalu + NEG, 'still, yet; not to cease (doing s.th.)' (T-25, NEG position inversion, not applicable here).

kaada, yakaadu 'almost'; + NEG 'hardly, scarcely' (in context of + NEG, T-25 not applicable)

bada'a, yabda'u 'to begin' V-aux$_2$

raaḥa, yaruuḥu 'to begin, set out to (do s.th.)' V-aux$_2$

'axaða, ya'xuðu 'to begin' V-aux$_2$

ᶜaada, yaᶜuudu 'to resume, renew (doing s.th.)' V-aux$_2$

Nouns and Proper Nouns.--[12]

xaliifaT- (+R, m; pl-brk xulafaa'-[2]) 'caliph'

ra'iis- (+R; pl-brk ru'asaa'-[2]) 'president; leader, one in charge'

rajul- (+R; pl-brk rijaal-) 'man'

'ustaað- (+R; pl-brk 'asaatiðaT-) 'professor'

---

[12]The superscript [2] designates an MWA form class ('diptote') which has a ∅ indefinite determiner co-occurring with two formally differentiated case inflections, e.g., nominative makaatibu 'libraries', but accusative and genitive makaatiba.

ṣabiiy- (+R; pl-brk ṣibyaT-) 'boy, lad'

bint- (+R, f; pl-snd banaat-) 'daughter; girl'

'umm- (+R, f; pl-snd 'ummahaat-) 'mother'

ṣabiiyaT- (+R; pl-brk ṣabaayaa) 'girl, young girl'

'uxt- (+R, f; pl-snd 'axawaat-) 'sister'

'aanisaT- (+R; pl-snd 'aanisaat-; pl-brk 'awaanis-2) 'young lady; Miss;

bayt- (-R; pl-brk buyuut-) 'house'

jabal- (-R; pl-brk jibaal-) 'mountain'

šaᶜb- (-R; pl-brk šuᶜuub-) 'people'

kitaab- (-R; pl-brk kutub-) 'book'

wafd- (-R; pl-brk wufuud-) 'delegation'

maktuub- (-R; pl-brk makaatiib-2) 'letter'

ḥukuumaT- (-R; pl-snd ḥukuumaat-) 'government'

ḥarb- (-R, f; pl-brk ḥuruub-) 'war'

ḥaflaT- (-R; pl-snd ḥafalaat-) '(social) party'

maktabaT- (-R; pl-snd maktabaat-; pl-brk makaatib-2) 'library'

yad- (-R, f; pl-brk 'aydiy-, 'ayaadiy-) 'hand'

hadiiyaT- (-R; pl-brk hadaayaa) 'gift, present'

šajar- (-R; coll [non-count]) 'trees'

tuffaaḥ- (-R; coll [non-count]) 'apples'

naas- (+R; coll [non-count]) 'people'

'al'amriikaan (+R; coll [count]) 'the Americans'

'alᶜarab- (+R; coll [count]) 'the Arabs'

qawm- (+R, coll; -R; pl-brk 'aqwaam-) 'tribe; people'

'ahl- (+R, coll; -R; pl-brk 'ahaaliy-) 'family, kin; people';
(+R, coll; pl-snd 'ahluuna) (same)

lubnaan-^{2} (-R; PN_1) 'Lebanon'

misr-^{2} (-R, f; PN_1) 'Egypt'

bayruut-^{2} (-R, f; PN_1) 'Beirut'

'alqaahiraT- (-R; PN_2) 'Cairo'

'al^{c}iraaq- (-R; PN_2) 'Iraq'

Adjectives.--

kabiir- (ADJ_1) 'big, large; distinguished'

ṣagiir- (ADJ_1) 'small; young'

ṭawiil- (ADJ_1) 'tall; long'

ṣa^{c}b- (ADJ_1) 'difficult, hard'

mašhuur- (ADJ_1) 'famous'

haamm- (ADJ_1) 'important'

'amiirkiiy- (ADJ_2) 'American'

^{c}arabiiy- (ADJ_2) 'Arabic'

siyaasiiy- (ADJ_2) 'political'

CHAPTER 3

TRANSFORMATIONS

3.1 Introduction and Summary

This chapter will consist of three parts beside this present introduction: 'Single base transformations' (T-1 through T-26); 'double base transformations' (T-27 through T-43); and a final section consisting of transformations which attach the various stem-mood and case markers to the appropriate constructions as well as the morpho-phonemic mapping of the negative and question words (T-44 through T-52).

In the following, the transformations will be informally characterized with at least one example:

T-1: The optional third-person pronominal substitution for definite nominals:

'antum katabtum la-hu 'You (m,pl) wrote to him.'	⇒	hum katabuu la-hu 'They wrote to him.'
'alrajulu ḥasanun 'The man[is] handsome.'	⇒	huwa ḥusanun 'He [is] handsome.'

T-2: The optional change in function of the two objects of V-tr$_4$ constructions to an object and adverb of interest, thus providing two inputs into the passive transformation:

'alrajulu 'aᶜṭaa binta-hu hadiiyaTan 'The man gave his daughter a present.'	⇒	'alrajulu 'aᶜṭaa hadiiyaTan li-binti-hi 'The man gave a present to his daughter.'

T-3: The impersonal passive transformation derived from the 'minus-object' transitive verbs:

'alṭullaabu yadrusuuna fii 'almaktabaTi	⇒	yudrasu fii 'almaktabaTi
'The students are studying in the library.'		'[There] is studying in the library.'

T-4: The passive transformation of the 'plus-object' transitive verbs:

'al'ustaaðu yaqra'u 'alkutuba	⇒	'alkutubu tuqra'u
'The professor is reading the books.'		'The books are being read.'

T-5: The obligatory assignment of the subject nominal's gender and number markers to the predicate adjectives:

'alsafiiru kariimun	'The ambassador [is] generous.'
bintu-hu jamiilaTun	'His daughter [is] pretty.'
'alduruusu ṣaᶜbaTun	'The lessons [are] difficult.'

T-6: The obligatory assignment of the subject construction's person, gender, and number markers to the verbs:

'alrajulu kaana yaktubu	'The man was writing.'
'alṣabiiyaTu takuunu qad ðahabat	'The girl will have gone.'
'antum takuunuuna hunaaka	'You (m,pl) will be there.'

T-7: Optional negation by the defective verb laysa 'is not':

'alrajulu kaana yaktubu	⇒	'alrajulu laysa yaktubu
'The man was writing.'		'The man is not writing.'
'albanaatu kunna maᶜa-naa	⇒	'albanaatu lasna maᶜa-naa
'The girls were with us.'		'The girls are not with us.'

T-8: The obligatory position change of 'anna-CL, 'an-CL, or 'inna-CL constructions:

('an yadrusa) ᶜalaa 'alṭaalibi ⇒ ᶜalaa 'alṭaalibi 'an yadrusa
'[It is encumbant] upon the student to study.'

T-9: The 'yes-no' interrogative transformation:

huwa fii 'albayti ⇒ 'a-huwa fii 'albayti (or: hal huwa ...)
'He [is] in the house.' '[Is] he in the house?'

T-10: Interrogatives derived from the ADV constituents; the order is inverted by T-12 if necessary:

haaðaa 'alwaziiru yaᶜiišu fii bayruuta ⇒ haaðaa 'alwaziiru yaᶜiišu 'ayna
'This minister lives in Beirut.' 'This minister lives where?'

T-11: Interrogatives derived from certain types of nominal constructions ('who?', 'what?', 'which?', 'how much, how many?'), with the order inverted by T-12 if necessary:

huwa kataba la-haa ⇒ man kataba la-haa
'He wrote to her.' 'Who wrote to her?'

'anta darasta 'alᶜarabiiyaTa ⇒ 'anta darasta maaðaa
'You (m,sg) studied Arabic.' 'You studied what?'

T-12: The inversion of the question-words from T-10 and T-11 to clause-initial position (with the 'subject-verb' inversion of T-18 or T-19 below required if applicable, and presupposed here):

'ayna yaᶜiišu haaðaa 'alwaziiru 'Where does this minister live?'
maaðaa darasta ('anta) 'What did you study?'

T-13: The second person affirmative and negative imperative transformation (the subject will be normally deleted or inverted by T-17 or T-18):

'anti laa tabqay fii 'albayti 'You (f,sg), don't stay at home!'

'anta 'udrus duruusa-ka	'You (m,sg), study your lessons!'

T-14: The first and third person ('indirect') imperatives (with the subject normally being deleted or inverted by T-17, T-18, or T-19):

'alwafdu li-yaðhab 'ilaa miṣra	'The delegation, let it go to Egypt!'
naḥnu li-našrab finjaana qahwaTin	'Us, let's drink a cup of coffee!'

T-15: The 'topic-comment' transformation, the particle 'ammaa marking the 'topic', and the proclitic fa- marking the 'comment':

'alrijaalu saafaruu 'ilaa lubnaana 'alyawma	⇒	'ammaa 'alyawma fa-'alrijaalu saafaruu 'ilaa lubnaana
'The men travelled to Lebanon today.'		'As for today, the men travelled to Lebanon.'
'alṣabiiyu yadrusu kitaaba-hu	⇒	'ammaa 'alṣabiiyu fa-(huwa) yadrusu kitaaba-hu
'The boy is studying his book.'		'As for the boy, he is studying his book.'
bintu-ka fii 'albayti	⇒	'ammaa 'albaytu fa-bintu-ka fii-hi
'Your daughter [is] in the house.'		'As for the house, your daughter [is] in it.'

T-16: The transformation which deletes the 'ammaa and fa- from T-15 while still retaining the 'topic-comment' structure:

'ammaa 'alrajulu fa-huwa fii 'albayti	⇒	'alrajulu huwa fii 'albayti
'As for the man, he [is] in the house.'		'The man he [is] in the house.'
'ammaa haaðaa 'alkitaabu fa-man yadrusu-hu	⇒	haaðaa 'alkitaabu man yadrusu-hu
'As for this book, who is studying it?'		'This book, who is studying it?'

T-17: The 'subject pronoun deletion' transformation, where a pronominal subject, in the context of a 'subject-verb' construction, may

be deleted:

'anaa fahimtu 'alkitaaba 'I understood the book.'	⇒	fahimtu 'alkitaaba 'I understood the book.'
'anta laa taktub la-hum 'You (m,sg), don't write to them!'	⇒	laa taktub la-hum 'Don't write to them!'
hiya laysat hunaa 'She is not here.'	⇒	laysat hunaa 'She is not here.'

T-18: The 'subject pronoun inversion' transformation, which allows the inversion of the pronominal subject to mark emphasis:

'antum 'iðhabuu 'ilaa 'almaktabaTi 'You (m,pl) go to the library!'	⇒	'iðhabuu 'ilaa 'almaktabaTi 'antum '<u>You</u>, go to the library!'
hum yadrusuuna 'alᶜarabiiyaTa 'They are studying Arabic.'	⇒	yadrusuuna 'alᶜarabiiyaTa hum '<u>They</u> are studying Arabic.'

T-19: The 'subject inversion' transformation when the subject is not a pronoun, including neutralization of the number marker of the preceding verb(s):

'alrijaalu kaanuu yadrusuuna 'alkutuba	'The men were studying the books.'
⇒ kaana 'alrijaalu yadrusuuna 'alkutuba	(same)
⇒ kaana yadrusu 'alrijaalu 'alkutuba	(same)

T-20: The transformation which permits (in certain contexts) the inversion of the subject to a post-object or post-indirect object position, etc:

zaara haaðaa 'alrajulu lubnaana 'This man visited Lebanon.'	⇒	zaara lubnaana haaðaa 'alrajulu '<u>This man</u> visited Lebanon.'

T-21: This transformation takes as input a 'topic-comment'

construction and allows one of the verbs of the AUX to be shifted to a pre-topic position with a consequent reassignment of the verbal gender and number markers:

'albintu kaana qad sumiha la-haa bi-'an taðhaba 'The girl, permission had been granted to her to go.' (or: 'The girl had been permitted to go.')	⇒	kaanat 'albintu qad sumiha la-haa bi-'an taohaba (same)

T-22 and T-23: These two transformations introduce the subordinating particle 'inna to independent clauses:

huwa 'alra'iisu 'He [is] the president.'	⇒	'inna-hu 'alra'iisu (same)
yujtamaᶜu bi-'alra'iisi '[There] is a meeting with the president.'	⇒	'inna-hu yujtamaᶜu bi-'alra'iisi (same)

T-24: The 'ADV order change' transformation is described informally, with the generally observed range of ADV positions noted.

T-25: The 'negative position inversion' allows, in certain contexts, the NEG constituent to be shifted to a pre-second-verb position in a two verb 'AUX + VP' or 'AUX + EQN' sequence:

NEG kaana 'alrijaalu yaðhabuuna 'ilaa miṣra	⇒	kaana 'alrijaalu laa yaðhabuuna 'ilaa miṣra 'The men were not going to Egypt.'

T-26: Here, 'subject + ADJ_1' constructions are transformed into an exclamatory construction:

haaðaa 'alrajulu ṭawiilun 'This man [is] tall.'	⇒	maa 'atwala haaðaa 'alrajula 'How tall this man [is]!'

The double base transformations are the following, each illustrated informally using the embedding notation:

T-27: This transformation embeds the 'quotation' (QT) in the COMPL of the verb <u>qaala</u> 'to say', a unique lexical item in this respect:

huwa qaala + QT
'He said + (that) ...'

'inna 'uxta-hu hunaa
'His sister[is] here.'

⇒ huwa qaala 'inna 'uxta-hu hunaa
'He said (that) his sister[was] here.' (or: 'He said, "His sister[is] here."')

T-28 and T-29 provide for two variants of an embedded <u>'anna-CL</u>, the first being nominal initial, and the second being verbal initial (the initial nominal and verb in each being underlined):

ðakaruu + 'anna-CL
'They mentioned + that ...'

<u>'antum</u> tazuuruuna misra
'You (m,pl) are visiting Egypt.'

⇒ ðakaruu 'anna-kum tazuuruuna misra
'They mentioned that you were visiting Egypt.'

katabnaa + 'anna-CL
'We wrote + that ...'

<u>yuwaafaqu</u> ᶜalaa 'al'ijtimaaᶜaati
'[There] is agreement on the meetings.'

⇒ katabnaa 'anna-hu yuwaafaqu ᶜalaa 'al'ijtimaaᶜaati
'We wrote that [there] was agreement on the meetings.'

T-30 through T-32 provide for different forms of an embedded <u>'an-CL</u>, first with an obligatory concord match outside of the embedded clause itself, secondly without such a match, and thirdly for a context-restricted set of differing stem-mood markers assigned to the embedded verb:

yajibu ᶜalay-kum + 'an-CL
'[It] is necessary for you to ...'

tadrusuuna
'You (m,pl) are studying.'

⇒ yajibu ᶜalay-kum 'an tadrusuu
'[It] is necessary for you to study.'

darasnaa li- + 'an-CL
'We studied in order to ...'

najtaazu 'al'imtihaana
'We will pass the examination.'

⇒ darasnaa li-'an najtaaza 'al'imtihaana
'We studied in order to pass the examination.'

... baᶜda + 'an-CL ...
'after + (doing s.th.) ...

qara'tu 'alkitaaba
'I read the book.'

⇒ ... baᶜda 'an qara'tu 'alkitaaba ...
'... after I read the book ...'

T-33 and T-34 embed nominalized clauses introduced by maa 'what(ever), s.th. which', and man 'who(ever), someone, those (who)':

fahimnaa + (NP)
'We understood + (s.th.)'

katabta + (NP) + la-naa
'You (m,sg) wrote + (s.th.) + to us.'

⇒ fahimnaa maa katabta-hu la-naa
'We understood what you wrote (it) to us.'

li-yuḥibba + (NP_{pers}) + 'almadiinaTa ...
'Let + (s.o.) + love the city ...

(NP_{pers}) + šaa'a
'(S.o.) + wills, wants'

⇒ li-yuḥibba 'almadiinaTa man šaa'a ...
'Let whoever wants to love the city ...'

T-35 through T-37 provide for the embedded variants of the relative clause constructions, of which the following pair, the first with a definite antecedent and the second with an indefinite antecedent, exemplify T-36 only:

zaarat-naa 'albintu
'The girl visited us.'

'albintu ta^{c}iišu fii 'al-qaahiraTi
'The girl lives in Cairo.'

⇒ zaarat-naa 'albintu 'allatii ta^{c}iišu fii 'alqaahiraTi
'The girl who lives in Cairo visited us.'

zaarat-naa bintun
'A girl visited us.'

bintun ta^{c}iišu fii 'al-qaahiraTi
'A girl lives in Cairo.'

⇒ zaarat-naa bintun ta^{c}iišu fii 'alqaahiraTi
'A girl [who] lives in Cairo visited us.'

T-38 through T-43 provide for the embedding of the various types of COMPL constructions; these were illustrated in Section 2.4, PS rule 27, etc., though one example will be given here of T-38:

'alwafdu 'intaxaba + COMPL
'The delegation elected + COMPL'

'alrajulu ra'iisun
'The man [is] president.'

⇒ 'alwafdu 'intaxaba 'alrajula ra'iisan
'The delegation elected the man president.'

The following set of transformations provide the correct mapping of NEG into the negative words (T-44 through T-47, illustrated immediately below), the mapping of Q_1, Q_2, and Q_3 into the interrogative words (T-48, T-49, and T-50, illustrated under T-9, T-10, and T-11 previously), and the 'stem-mood' and case marker transformations which attach these markers to the correct verbal or nominal forms (T-51 and T-52).

T-44:

darasa fii 'almaktabaTi
'He studied in the library.'

⇒ maa darasa (lam yadrus) fii 'almaktabaTi
'He didn't study in the library.'

T-45:

... 'an yadrusa fii 'almak-tabaTi '... that he study in the library.'	⇒	... 'an laa yadrusa fii 'al-maktabaTi '... that he not study in the library.'
'udrus fii 'almaktabaTi 'Study in the library!'	⇒	laa tadrus fii 'almaktabaTi 'Don't study in the library!'

T-46:

yadrusu fii 'almaktabaTi 'He is studying (will study) in the library.'	⇒	maa yadrusu fii 'almaktabaTi 'He is not (now) studying in the library.'
or:	⇒	laa yadrusu fii 'almaktabaTi 'He is not (will not) study in the library.'
sa-yadrusu fii 'almaktabaTi 'He will study in the library.'	⇒	sawfa laa yadrusu fii 'almak-tabaTi 'He will not study in the library.'
or:	⇒	lan yadrusa fii 'almaktabaTi (same)

T-47:

cinda-naa 'imtihaanun gadan 'We have an examination tomorrow.'	⇒	maa cinda-naa 'imtihaanun gadan 'We don't have an examination tomorrow.'

The two transformations which attach the markers to the verbs or nominals presuppose a (non-existent) grammatical statement of the morphology by which, given the various grammatical constraints, plus a certain input from the lexicon, the correct form may be generated. Thus, for instance, T-51 attaches the 'stem-mood' marker to a verb form, as:

$$X + \text{jussv} + (\text{Vb} + 3,\text{m},\text{sg}) + Y \Rightarrow X + (\text{Vb} + 3,\text{m},\text{sg} + \text{jussv}) + Y$$

which would indicate that, at that point in the grammar where the

morphological forms are generated, Vb would have the constraints of jussv, 3,m,sg, and active voice (since no passv is attached). This means that the only further necessary information are the root (e.g., d-r-s) and the form number (e.g., I, II, V, etc.) in order to generate the verbal form. The case marker transformation, T-52, operates similarly.

3.2 Single Base Transformations

The first transformation allows the third person pronoun to be substituted for definite nominal constructions:

T-1: Optional

SD: $X + Y_{pgn} + Z$, where $Y = PRN_{1,2}$, PN, or DEF + NP, and pgn = syntactic markers of Y.

SC: $X + (PRON + 3 + g' + n') + Z$, where $gn = g'n'$

The PRN thus substitutes for a definite construction, including any post-nominal modifiers (see Section 2.6), the pronominal form being chosen by the assigned syntactic markers of Y, and retaining the same semantic interpretation with respect to rationality, lexically assigned gender, and number. It is required that Y be definite in order to prevent the pronominalization of the second noun of COMPL constructions as well as the (pred)NOM in equational constructions (e.g., hum ᶜayyanuu 'alrajula ra'iisan 'They appointed the man president' does not allow *hum ᶜayyanuu-hu 'alrajula). Further, within discourse contexts, a

definite nominal presupposes either a contextual or situational referent, and it is this nominal which may be pronominalized.

This substitution can take place in any or all three of the following environments:

'alrijaalu talabuu min 'alra'iisi 'altaᶜliimaati
'The men requested from the president the instructions.'
⇒ hum talabuu min 'alra'iisi 'altaᶜliimaati
'They requested from the president the instructions.'

or: ⇒ 'alrijaalu talabuu min-hu 'altaᶜliimaati
'The men requested from him the instructions.'

or: ⇒ 'alrijaalu talabuu-naa min 'alra'iisi
'The men requested them from the president.'

Or, substituting the third person pronoun for a first or second person pronoun, we would have the following:

'alkutubu la-kum
'The books [are] yours (3,m,pl).'
⇒ 'alkutubu la-hum
'The books [are] theirs.'

'anta tadrusu fii 'aljaamiᶜaTi
'You (m,sg) study in the University.'
⇒ huwa yadrusu fii 'aljaamiᶜaTi
'He studies in the University.'

Notice further that the requirement that the construction Y be definite prevents the pronominalization of the first member of an 'idaafaT phrase (see Section 2.6) inasmuch as it has no determiner. Rather, the whole 'idaafaT phrase has one determiner, or the last member has a determiner, and it is either the whole phrase or the last member which may be pronominalized. The classificatory 'idaafaT forms an exception to this, however.

The second transformation is optionally applied to the two-object

clause constructions containing V-tr_4:

T-2: Optional

SD: T + V-tr_4 + U + NOM_{pers} + accv + NOM + Z

S + W + X + Y + Z

SC: S + Y ± (PREP + genv + W) + Z

Here the object nominal (NOM_{pers}) becomes the object of a (lexically supplied) preposition (and thus, for all intents and purposes, becomes an adverb of interest), while the second object nominal becomes the new object. Examples are the following:

huwa 'aᶜṭaa 'alṣabiiya šay'an 'He gave the boy something.'	⇒	huwa 'aᶜṭaa šay'an li-'alṣabiiya 'He gave something to the boy.'
'uxt-ii ballagat binta-haa 'al'axbaara 'My sister communicated [to] her daughter the news.'	⇒	'uxt-ii ballagat 'al'axbaara 'ilaa binti-haa 'My sister communicated the news to her daughter.'

A word is necessary concerning the pronominalization of the object nominals. Contrary to English, both object nominals may be pronominalized prior to this 'adverb of interest' transformation, in which case, however, the carrier of the accusative pronoun, 'iiyaa-, must be inserted. This, however, does not occur commonly in MWA.

huwa 'aᶜṭaa-hu 'iiyaa-hu	'He gave him it.'
'uxt-ii ballagat-haa 'iiyaa-haa	'My sister communicated [to] her it.'

T-3: Optional

SD: W + (subj)NOM + Y ± V-x + X + V-tr_1 + Z, where x = k, aux

SC: Y ± $(V\text{-}x)_{3,m,sg}$ + X + $(V\text{-}tr_1)_{3,m,sg;passv}$ + Z

T-3 provides for the impersonal passive of the 'minus-object' transitive constructions. The verbs automatically have syntactic markers of 3,m,sg assigned, and V-tr_1 has a passive voice marker assigned as well. It will be noted that here, and in T-4 following, the subject nominal is automatically deleted and (at least in theory[1]) does not form an agentive phrase as does the English transformed subject. Examples, without any structural description, are the following:

'alrijaalu yusaafiruuna 'ilaa 'alqaahiraTi 'The men are travelling to Cairo.'	⇒	yusaafaru 'ilaa 'alqaahiraTi '[People] are travelling to Cairo.'
'alxaliifaTu ᶜaaša hunaaka 'The caliph lived there.'	⇒	ᶜiiša hunaaka '[There] was life there.'
'alwufuudu tajtamiᶜu 'The delegations are meeting.'	⇒	yujtamaᶜu '[There] is a meeting.'
'alwufuudu tajtamiᶜu bi-'alra'iisi 'The delegations are meeting with the president.'	⇒	yujtamaᶜu bi-'alra'iisi '[There] is a meeting with the president.'
bintu-haa tamattaᶜat bi-'alkutubi 'Her daughter enjoyed the books.'	⇒	tumuttiᶜa bi-'alkutubi 'The books were enjoyed.'

[1]The Arab grammarians call this transformation 'almajhuul 'the unknown (agent)', and are insistent that any agentive phrase cannot be the original subject.

'alru'asaa'u fahimuu 'The presidents understood.'	⇒	fuhima 'There was understanding.' (or: '[People] understood.')
'al'asaatiðaTu yuwaafiquuna ᶜalaa 'alḥaflaTi 'The professors are in agreement on the party.'	⇒	yuwaafaqu ᶜalaa 'alḥaflaTi '[There] is agreement on the party.'

There are two points worth mentioning here. First, there is no subject in any of the above passives, though the English glosses 'People are ...' or 'There is ...' approximate the sense. Also, inasmuch as the equivalent of the above passives are formed in a different manner in the underlying colloquials, Arab informants may exhibit differences in judgment as to the legitimacy of some of the above examples, especially the first two.

In Section 2.1 one of the options built into the PS rules was the '... ptcp + VP ...'. This allows the direct transformational derivation of the passive participle constructions, as is indicated in the following, with the first example having the SD and SC:

SD: $\overset{\frown}{\text{nomv}} + \overset{\frown}{\text{NOM}} + \overset{\frown}{\text{perf}} + \overset{\frown}{\text{V-k}} + \overset{\frown}{\text{accv}} + \overset{\frown}{\text{ptcp}} + \overset{\frown}{\text{V-tr}_1} + \text{Z}$

'alrijaalu kaamuu mujtamiᶜiina bi-'alra'iisi	'The men were meeting with the president.'

SC: $\overset{\frown}{\text{perf}} + (\overset{\frown}{\text{V-k}})_{3,m,sg} + \overset{\frown}{\text{accv}} + \overset{\frown}{\text{ptcp}} + (\overset{\frown}{\text{V-tr}_1})_{3,m,sg;passv} + \text{Z}$

kaana mujtamaᶜan bi-'alra'iisi	'[There] was a meeting with the president.'

hiya tabqaa mutamattiᶜaTan bi-'alkutubi 'She will continue to enjoy the books.'	⇒	yabqaa mutamattaᶜan bi-'alkutubi 'The books will continue to be enjoyed.'
'alhukuumaTu kaanat saamiḥaTan lā-hu bi-'an yaðhaba 'The government had permitted him to go.'	⇒	kaana masmuuḥan la-hu bi-'an yaðhaba 'Permission has been granted him to go.' (or: 'He was permitted to go.')

'alrajulaani maa zaalaa muwaafiqayni ᶜalaa 'alsaffi
'The two men are still agreed on the class.'

⇒ maa zaala muwaafaqan ᶜalaa 'alsaffi
'[There] is still agreement on the class.'

These resultants would normally then have the 'topic-comment' transformations (T-15 and T-16) applied, and then a shift in the auxiliary verb to a pre-topic position (by T-21), resulting in the more acceptable examples:

tabqaa 'alkutubu mutamattaᶜan bi-haa
'The books are continuing to be enjoyed.'

maa zaala 'alsaffa muwaafaqan ᶜalay-hi
'The class is still agreed upon.'

One minor problem arises at this point, and that is that certain non-clause sequences are permitted, as, e.g.:

'alrijaalu mujtamiᶜuuna bi-'alra'iisi
'The men [are] meeting with the president.'

⇒ mujtamaᶜun bi-'alra'iisi
'a meeting with the president.'

The transform is a PTCP.P, not a clause. We will nevertheless permit this in anticipation of the two transformations, T-15 and T-16 (the 'topic-comment' transformations), which will result in the following:

'alra'iisu mujtamaᶜun bi-hi
'The president [there is] a meeting with him.'

In the context of the participle alone, however (e.g., mujtamaᶜ- without the following PREP.P, this latter pair of transformations is not possible, and nothing further can be done with the participle (though note that with a preceding V-k or V-aux$_1$ this again becomes a perfectly legitimate clause: kaana mujtamaᶜan 'There was a meeting.').

T-4: Optional

SD: R + (subj)NOM + T + V-tr + W + accv + OBJ + Z

R + S + T + V-tr + W + X + Y + Z

SC: R + SUBJ + T + $(V\text{-}tr)_{passv}$ + W + Z

R + Y + T + $(V\text{-}tr)_{passv}$ + W + Z

This is the passive transformation applied to the 'plus-object' transitive constructions. As in the previous transformation, the subject is automatically deleted and the transitive verb is assigned a passive voice marker. In addition, the underlying object construction (a NOM, 'anna-CL, 'an-CL, or QT) becomes the subject (i.e., will be cross-referenced to the passive verb as its subject). The following examples, without SD, will illustrate this transformation:

'alrijaalu yafhamuuna 'alkutuba 'The men understand the books.'	⇒	'alkutubu tufhamu 'The books are understood.'
'uxtu-hu taktubu la-hu risaalaTan 'His sister is writing a letter to him.'	⇒	risaalaTun tuktabu la-hu[2] 'A letter is being written to him.'
bintu-hu ṭalabat min-hu 'alhadiiyaTa 'His daughter requested from him the present.'	⇒	'alhadiiyaTu ṭulibat min-hu 'The present was requested from him.'
'alša^{c}bu 'intaxaba-hu ra'iisan 'The people elected him president.'	⇒	huwa 'untuxiba ra'iisan 'He was elected president.'

[2]In clauses outside of any defining discourse context, the verb in initial position is strongly preferred. When the subject is indefinite, as is risaalaTun here, the inversion to a 'verb-subject' order by T-19 is obligatory for independent sentences.

'al'ustaaðu kaana yuᶜṭii 'uxta-hu 'alhadiiyaTa
'The professor was giving his sister the present.'

⇒ 'uxtu-hu kaanat tuᶜṭaa 'alhadiiyaTa
'His sister was being given the present.'

'alxaliifaTu kaana qad 'aᶜṭaa 'alkitaaba li-'ummi-hi
'The caliph had given the book to his mother.'

⇒ 'alkitaabu kaana qad 'uᶜṭiya li-'ummi-hi
'The book had been given to his mother.'

This transformation, as the preceding one, also includes participial phrases as options:

'alkutubu kaanat mafhuumaTan — 'The books were understood.'

'alhadiiyaTu maṭluubaTun min-hu — 'The presents [are, have been] requested from him.'

'alrajulu muᶜayyanun ra'iisan — 'The man [is, has been] appointed president.'

'alkitaabu qad kaana muᶜṭan 'ilaa 'ummi-hi — 'The book had been given to his mother.'

Not illustrated this far is the instance in which an 'anna-CL, 'an-CL, or QT, occurring as OBJ, becomes the SUBJ. Anticipating the required position change (T-8), we have such as the following:

yufhamu 'anna-haa hunaa — '[It] is understood that she [is] here.'

'almafhuumu 'anna-hu qad jaa'a — '[It is] understood that he has come.'

ṭuliba min-haa 'an tadrusa — '[It] was requested of her that she study.'

yuqaalu 'inna 'altaᶜaama 'alᶜarabiiya yaziidu 'alwazna — '[It] is said that Arabic food increases the weight.' (i.e., is fattening)

The next pair of transformations assign the syntactic markers of the subject to, first, the predicate adjective, and secondly, the verb(s) in the predicate string.

T-5: Obligatory

SD: X + (subj)NOM_{pgn} + Y + (pred)ADJ + Z

SC: X + (subj)NOM_{pgn} + Y + (pred)$ADJ_{g'n'}$ + Z, where gn = g'n'

Examples of this assignment of gender and number syntactic markers to the predicate adjective is shown in the following series of 'non-verbal equations', with the first set containing +R subject nominals, and the second set containing -R subjects:

(1) +R:

3,m,sg	'alrajulu kariimun	'The man [is] generous.'
3,f,sg	bintu-hu jamiilaTun	'His daughter [is] pretty.'
3,m,d	'al'ustaaðaani kabiiraani	'The two professors [are] distinguished.'
3,f,d	'alṣabiiyaTaani ṣagiiraTaani	'The two girls [are] young.'
3,m,pl	'alru'asaa'u kiraamun	'The presidents [are] noble.'
3,f,pl	'axawaatu-hu ṣagiiraatun	'His sisters [are] young.'
2,m,pl	'antum ṣigaarun	'You [are] small.'
2,f,d	'antumaa 'amiirkiiyaTaani	'You [are] American.'
2,m,sg	'anta ᶜarabiiyun	'You [are] Arab.'
1,f,d	naḥnu ᶜarabiiyaTaani	'We [are] Arab.'
1,m,d	naḥnu ᶜarabiiyaani	'We [are] Arab.'
1,f,pl	naḥnu kabiiraaTun	'We [are] distinguished.'

(2) -R:

3,m,sg	'albaytu ṣagiirun	'The house [is] small.'
3,f,sg	'alḥukuumaTu kariimaTun	'The government [is] generous.'
3,m,d	'aljabalaani kabiiraani	'The two mountains [are] big.'

3,f,d	'almaktabaTaani ṣagiiraTaani	'The two bookstores [are] small.'
3,f,sg	'alkutubu 'amiirkiiyaTun	'The books [are] American.'
3,f,sg	'alḥuruubu ᶜaniifaTun	'The wars [are] violent.'
3,m,sg	'alšajaru kabiirun	'The trees (coll) [are] large.'

As noted in Section 2.6, it is this set of non-verbal equationals from which the 'NP + (attrib)ADJ' constructions are derived, as in the following:

bintu-hu jamiilaTun 'His daughter [is] pretty.'	⇒	bintu-hu 'aljamiilaTu 'his pretty daughter ...'
'albaytu ṣagiirun 'The house [is] small.'	⇒	'albaytu 'alṣagiiru 'the small house ...'

T-6: Obligatory

SD: $W + SUBJ_{pgn} + X + V\text{-}x + Y$

SC: $W + SUBJ_{pgn} + X + (V\text{-}x)_{p'g'n'} + Y$, where pgn = p'g'n'

T-6 assigns the syntactic markers of the subject construction to all of the verbs in the predicate string which have not previously had these markers assigned. Note that the 'minus-object' transitives, after T-3, do not fit the SD in that they have no subject construction present. All examples with subjects and verbs thus far have assumed this syntactic marker assignment, but a set of examples similar to that given under T-5 above will be given here also, with the SD included:

(1) +R: $\overset{\frown}{nomv} + \overset{\frown}{NOM} + \overset{\frown}{perf} + V\text{-}k + \overset{\frown}{impf} + V\text{-}tr_1$

3,m,sg	'alrajulu kaana yadrusu	'The man was studying.'
3,f,sg	'ummu-hu kaanat tadrusu	'His mother was studying.'

3,m,d	'alrajulaani kaanaa yadrusaani	'The two men were studying.'
3,f,d	'albintaani kaanataa tadrusaani	'The two girls were studying.'
3,m,pl	'alrijaalu kaamuu yadrusuuna	'The men were studying.'
3,f,pl	'axawaatu-ka kunna yadrusna	'Your sisters were studying.'
2,m,sg	'anta kunta tadrusu	'You were studying.'
2,f,sg	'anti kunti tadrusiina	'You were studying.'
1,m,sg	'anaa kuntu 'adrusu	'I was studying.'

(2) -R: nomv + NOM + X + V-y + EQN, y = k or aux_1.

3,m,sg	'albaytu maa zaala hunaaka	'The house is still there.'
3,f,sg	'alḥukuumaTu kaanat kabiiraTan	'The government was big.'
3,m,d	'aljabalaani 'aṣbaḥaa muhimmayni	'The two mountains became important.'
3,f,d	'allajnaTaani baqiyataa fii miṣra	'The two committees remained in Egypt.'
3,f,sg	'alwufuudu maa zaalat hunaa	'The delegations are still here.'
3,f,sg	'alkutubu kaanat min-hu	'The books were from him.'
3,f,sg	'aljibaalu laa tazaalu jamiilaTan	'The mountains are still pretty.'

Similarly, the syntactic markers of gender and number will here determine the ultimate realization of the participial forms, as can be seen by the following paradigmatic set with the SD as indicated:

SD: nomv + NOM + nomv + ptcp + $V\text{-}tr_1$ + DIR

3,m,sg	'alsafiiru ðaahibun 'ilaa bayruuta	'The ambassador [is] going Beirut.'
3,f,sg	'uxtu-hu ðaahibaTun 'ilaa bayruuta	'His sister [is] going to Beirut.'

3,m,d	'alṭaalibaani ðaahibaani 'ilaa bayruuta	'The two students [are] going to Beirut.'
3,f,d	'albintaani ðaahibaTaani 'ilaa bayruuta	'The two girls [are] going to Beirut.'
3,m,pl	'alwuzaraa'u ðaahibuuna 'ilaa bayruuta	'The ministers [are] going to Beirut.'
3,f,pl	'axawaatu-hu ðaahibaatun 'ilaa bayruuta	'His sisters [are] going to Beirut.'

This assignment also shows up in the paradigm of participial forms when the contrast is neutralized in the pronominal and/or verbal forms, as in the following:

1,m,d	nahnu <u>ðaahibaani</u> 'ilaa bayruuta	'We [are] going to Beirut.'
1,f,d	nahnu <u>ðaahibaTaani</u> 'ilaa bayruuta	'We [are] going to Beirut.'
1,m,pl	nahnu <u>ðaahibuuna</u> 'ilaa bayruuta	'We [are] going to Beirut.'
1,f,pl	nahnu <u>ðaahibaatun</u> 'ilaa bayruuta	'We [are] going to Beirut.'

It is at this point that the 'NP + (attrib)PTCP.P' constructions, or at least one variety of them, are best accounted for, as is indicated in the following pair of examples:

'alsafiiru ðaahibun 'ilaa bayruuta 'The ambassador [is] going to Beirut.'	⇒	'alsafiiru 'alðaahibu 'ilaa bayruuta 'the ambassador [who is] going to Beirut ...'
'alṭaalibu daarisun kitaaban 'The student [has] studied a book.'	⇒	'alṭaalibu 'aldaarisu kitaaban 'The student [who has] studied a book.'

Finally, when an <u>'anna</u>-CL, <u>'an</u>-CL, or QT occur as SUBJ, the verb is assigned syntactic markers of 3,m,sg prior to the obligatory position

change of T-8 (which latter is assumed in the following examples):

3,m,sg	yaẓharu 'anna-hu fii miṣra	'[It] appears that he [is] in Egypt.'
3,m,sg	ru'iya 'anna-hu qad darasa	'[It] was seen (understood) that he had studied.'
3,m,sg	yajibu ᶜalay-ka 'an taraa 'ustaaðа-ka	'[It] is encumbant upon you to see your professor.' (i.e., 'You must see ...')
3,m,sg	yuraadu min-naa 'an nazuura 'ahla-hu	'[It] is desired of us that we visit his family.'
3,m,sg	yuqaalu 'inna-haa qad waṣalat	'[It] is said that she has arrived.'

The above could equally well have been given in their participial forms, with the participal, in initial position, requiring the definite article <u>'al-</u>, as in the following (abbreviated) examples:

'alẓaahiru 'anna-hu ...	'[It] appears that he ...'
'almar'iiyu 'anna-hu ...	'[It is] seen that he ...'
'alwaajibu ᶜalay-ka 'an ...	'[It is] your duty to ...'
'almuraadu min-naa 'an ...	'[It is] wanted from us that ...'
'almaquulu 'inna-haa ...	'[It is] said that she ...'

The following transformation, T-7, introduces the defective verb <u>laysa</u> 'is not' into the clause string. Its primary function is as the negator of equational constructions with a present meaning, though it occurs occasionally in the role of an auxiliary verb.

<u>T-7</u>: Optional

<u>SD</u>: $W + NEG + X + (V\text{-}k)_{pgn} + \begin{bmatrix} accv + \begin{bmatrix} ptcp \\ EQN_1 \end{bmatrix} \\ Y \end{bmatrix} + Z$

$$\underline{SC}: \quad W + (V\text{-}lys)_{p'g'n'} + \left[\begin{Bmatrix} accv \\ \underline{bi}- + genv \end{Bmatrix} + \begin{bmatrix} ptcp \\ EQN \end{bmatrix}_Y \right] + Z, \quad pgn = p'g'n'$$

Examples of laysa as an auxiliary are the following:

'alrajulu laysa yaquumu	'The man is not standing.'
'uxtu-hu laysat taktubu la-hu	'His sister is not writing to him.'
'anta lasta tazuuru 'alqaahiraTa	'You (m,sg) are not visiting Egypt.'

The more common usage, however, is as in the following:

haaðaa 'alrajulu laysa ra'iisan	'This man is not president.'
'anta lasta 'al'ustaaða (or: bi-'al'ustaaði)	'You (m,sg) are not the professor.'
'albintu laysat jamiilaTan (or: bi-jamiilaTin)	'The girl is not pretty.'
darsu-naa laysa ṣa^{c}ban jiddan (or: bi-ṣa^{c}bin jiddan)	'Our lesson is not very difficult.'
'alḥaflaTu laysat 'alyawma	'The party is not today.'
'alrijaalu laysuu fii 'al'urdunni	'The men are not in Jordan.'
'alkitaabu laysa li-'albinti	'The book is not the girl's.'
laysa li-'alra'iisi 'an yaðhaba	'The president cannot go.'
laysa ^{c}alaa 'albinti 'an tadrusa	'The girl need not study.'
'anaa lastu qaa'iman	'I am not standing.'

laysa is a formally defective verb, having only one set of person-gender-number markers (corresponding in form to the 'perfect' set of pgn markers, though with present, not perfective, meaning), and is also

limited in distribution, occurring either independently or, infrequently, in the context of a preceding 'an + subjnc.

The following transformation requires the obligatory position change of an 'anna-CL, 'an-CL, or 'inna-CL to a NUCL(eus)-final position, with also a position change with certain of the ADV constructions.

T-8: Obligatory

$$\underline{SD}: \quad W + \begin{Bmatrix} nomv \\ accv \end{Bmatrix} + \begin{Bmatrix} \text{'anna-CL} \\ \text{'an-CL} \\ \text{'inna-CL} \end{Bmatrix} + Y + \begin{bmatrix} TIME \\ LOC \\ MAN \\ \\ PURP \end{bmatrix}$$

$$W + \qquad X \qquad + Y + \quad Z$$

$$\underline{SC}: \quad W + Y + \begin{bmatrix} TIME \\ LOC \\ MAN \\ \\ ---- \end{bmatrix} + X + \begin{bmatrix} ---- \\ \\ \\ PURP \end{bmatrix}$$

Leaving the problem of the placement of the ADV constructions to the side (this problem is discussed informally under T-24, this Section), the obligatory positioning of these clauses has been illustrated in a number of instances previously (e.g., the last ten examples under T-6). A few additional examples are given:

'al'aanisaTu katabat la-naa 'anna bayruuta jamiilaTun	'The young lady wrote to us that Beirut [is] beautiful.'
kutiba la-naa 'anna bayruuta jamiilaTun	'[It] was written to us that Beirut [is] beautiful.'
'al'ustaaðu sa-yaṭlubu min-ka 'an taðhaba maᶜa-hu	'The professor will request you to go with him.'

sa-yuṭlabu min-ka 'an taðhaba maᶜa-hu	'[It] will be asked of you to go with him.' (i.e., 'You will be asked to ...')
'almuðiiᶜu qaala 'inna 'alra'iisa sa-yaḥḍuru 'alḥaflaTa	'The announcer said that the president will attend the party.'
qiila 'inna 'alra'iisa sa-yaḥḍuru 'alḥaflaTa	'[It] was said that the president will attend the party.'

The following four transformations, T-9 through T-12, provide the basis for the interrogative constructions, of which there are three basic kinds: The first, to be represented by the symbol Q_1 ('question$_1$'), will produce the 'yes-no' interrogatives, those expecting an answer equivalent to 'yes', 'no', 'perhaps', etc.; the second, represented by the symbol Q_2, produces interrogatives from the ADV constituents, resulting in the questions mataa 'when?', 'ayna 'where?', kayfa 'how?', and limaaðaa 'why?'; and the third, Q_3, which produces interrogatives from specific types of nominal constructions, man 'who?', maa or maaðaa 'what?', 'ayy- 'which?', and kam 'how much, how many?'. Examples will be presented under each of the transformations, but the actual forms of the interrogative words will be deferred until Section 3.4.

T-9: Optional

SD: X + Y

SC: Q_1 + X + Y

Q_1 has three forms, the two most common being the particle hal or the proclitic 'a- in clause-initial position. The only limitation on the mutual substitutability of these two is that 'a- does not occur

adjacent to the definite article 'al- because of its (the article's) morphophonemic alternation. The third form of Q_1 is a contextually implied echo-question intonation (normally marked by a question mark in MWA; here, the question mark will be used only for this echo-question). This latter is generally limited to the context of dialogues in MWA texts (e.g., in short stories or plays). T-17, T-18, or T-19, deleting or inverting the subject in 'subject-verb' sequences, may be optionally (though not obligatorily) applied in the context of Q_1. Examples, including those presupposing T-17, T-18, or T-19, are the following:

'alrijaalu yadrusuuna hunaa 'The men are studying here.'	⇒	hal 'alrijaalu yadrusuuna hunaa 'Are the men studying here?'
or:	⇒	'alrijaalu yadrusuuna hunaa? 'The men are studying here?'

Then, with the subject inverted in the above two resultants, we would have the following possibilities:

hal yadrusu 'alrijaalu hunaa (or: 'a-yadrusu ...)	'Are the men studying here?'
yadrusu 'alrijaalu hunaa?	'The men are studying here?'

Further examples are:

huwa fii 'albayti 'He [is] in the house.'	⇒	hal huwa fii 'albayti (or: 'a-huwa ...') '[Is] he in the house?'
'anta ðaahibun 'ilaa 'almaktabaTi 'You [are] going to the library.'	⇒	'a-'anta ðaahibun 'ilaa 'almaktabaTi (or: hal 'anta ...) '[Are] you going to the library?'
la-ka 'an tu^{c}ṭiya-nii kitaaban 'You are able to give me a book.'	⇒	hal la-ka 'an tu^{c}ṭiya-nii kitaaban (or: 'a-la-ka ...) 'Can you give me a book?'

'alṣabiiyu laa yakuunu maᶜa-naa ⇒	hal 'alṣabiiyu laa yakuunu maᶜa-naa
'The boy will not be with us.'	'Won't the boy be with us?'

With inverted subject order, three of the above examples would appear as follow in interrogative form:

'a-fii 'albayti huwa (or: hal fii ...)	'[Is] he in the house?'
'a-ðaahibun 'anta 'ilaa 'almaktabaTi (or: hal ðaahibun ...)	'[Are] you going to the library?'
'a-laa yakuunu 'alṣabiiyu maᶜa-naa (or: hallaa ...)	'Won't the boy be with us?'

The next two transformations, T-10 and T-11, will leave the interrogative element in its original position (non-inverted), with the inversion specified by T-12. When the interrogatives Q_2 and Q_3 are in clause-initial position, T-17, T-18, or T-20 is obligatory if the clause contains a 'subject-verb' sequence. The non-inverted interrogatives may be either a request for information equivalent in meaning to the inverted interrogative, or an echo-question. In either case, the non-inverted interrogatives are infrequent and, within the grammar, primarily an intermediate step toward the inverted interrogatives.

T-10: Optional

$$\underline{SD}: \quad T + \begin{bmatrix} ADV \\ (pred)ADJ \\ PREP + LOC \end{bmatrix} + Z$$

$$\underline{SC}: \quad T + \left[\begin{array}{l} Q_2 + \left\{\begin{array}{l} ADV \\ (pred)ADJ \end{array}\right\} \\ PREP + Q_2 + LOC \end{array}\right] + Z$$

$$T + Y + Z$$

The mapping of Q_2 into the actual question words will be stated formally in Section 3.4, T-49, though we can reproduce the mapping here, informally, for the purpose of the examples to follow:

$$Q_2 + \left[\begin{array}{l} TIME \\ LOC \\ \left\{\begin{array}{l} MAN \\ (pred)ADJ \end{array}\right\} \\ PURP \end{array}\right] \Rightarrow \left[\begin{array}{l} \underline{mataa}\ \text{'when?'} \\ \underline{\text{'ayna}}\ \text{'where?'} \\ \underline{kayfa}\ \text{'how?'} \\ \underline{limaaðaa}\ \text{'why?'} \end{array}\right]$$

$$PREP + Q_2 + LOC \Rightarrow PREP + \underline{\text{'ayna}}$$

Note that (pred)ADJ, contrary to English, answers the question <u>kayfa</u> 'how?' rather than <u>maa</u> or <u>maaðaa</u> 'what?'. The first three examples will indicate the non-inverted interrogatives as well as the inverted (anticipating T-12), while the remaining examples will be given only in their inverted form.

bintu-ka ðahabat 'amsi	'Your daughter went yesterday.'
⇒ bintu-ka ðahabat mataa	'Your daughter went when?'
⇒ mataa ðahabat bintu-ka	'When did your daughter go?'
'alwafdu sa-yajtami^{c}u fii miṣra	'The delegation will meet in Egypt.'
⇒ 'alwafdu sa-yajtami^{c}u 'ayna	'The delegation will meet where?'
⇒ 'ayna sa-yajtami^{c}u 'alwafdu	'Where will the delegation meet?'

'alrajulu zaara 'alqaahiraTa sirriiyan	'The man visited Cairo secretly.'
⇒ 'alrajulu zaara 'alqaahiraTa kayfa	'The man visited Cairo how?'
⇒ kayfa zaara 'alrajulu 'alqaahiraTa	'How did the man visit Cairo?'

huwa hunaa li-yadrusa 'He [is] here to study.'	⇒ limaaðaa huwa hunaa 'Why [is] he here?'
'antum min 'alqaahiraTi 'You (m,pl) [are] from Cairo.'	⇒ min 'ayna 'antum 'From where [are] you?'
duruusu-ka ṣaᶜbaTun jiddan 'Your studies [are] very difficult.'	⇒ kayfa duruusu-ka 'How [are] your studies?'
'alḥaflaTu gadan 'The party [is] tomorrow.'	⇒ mataa 'alḥaflaTu 'When [is] the party?'
'antum fahimtum 'anna-hu qad darasa fii bayruuta 'You (m,pl) understood that he had studied in Beirut.'	⇒ 'ayna fahimtum 'anna-hu qad darasa 'Where did you understand that he had studied?'
hiya saafarat bi-'alṭaa'iraTi 'She travelled by plane.'	⇒ kayfa saafarat hiya 'How did she travel?'
hum qaamuu li-yaraw-hu 'They stood to see him.'	⇒ limaaðaa qaamuu 'Why did they stand?'
'alra'iisu ðahaba 'ilaa miṣra 'The president went to Egypt.'	⇒ 'ilaa 'ayna ðahaba 'alra'iisu 'To where did the president go?'
'alṭaqsu jamiilun 'alyawma 'The weather [is] beautiful today.'	⇒ kayfa 'alṭaqsu 'alyawma 'How [is] the weather today?'

T-11: Optional

SD: $T + \begin{bmatrix} \text{nomv} \\ \text{accv} \\ X + \text{genv} \end{bmatrix} + \text{NOM}_{3gn} + Z$, where X = PREP or initial member(s) of 'idaafaT phrase.

$T + U + W + Z$

SC: T + U + Q_3 + W + Z

T + Y + Z

The mapping of Q_3 into the question words is somewhat more complex than is the mapping of Q_2. A more formal statement is found in Section 3.4, but for the present only a series of informal statements and examples will be given. It will be noted that NOM is marked as 'third person', i.e., is either a third person pronoun or a NP or PN. The reasons for this will be explained below.

Q_3 plus a definite construction marked 'personal', which has been pronominalized by T-1, is mapped into man, 'who?' This sequence is illustrated by the following examples:

haaðaa 'alrajulu kataba la-haa	'This man wrote to her.'
⇒ huwa kataba la-haa	'He wrote to her.'
⇒ man kataba la-haa	'Who wrote to her?'
'anta kunta maᶜa-hum	'You (m,sg) were with them.'
⇒ huwa kaana maᶜa-hum	'He was with them.'
⇒ man kaana maᶜa-hum	'Who was with them?'

Both haaðaa 'alrajulu and 'anta are definite and both are marked +R. However, to ensure the correct person marker being assigned to the verb (p = 3 obligatorily), it is necessary to go through the intermediate pronominalization by T-1.

However, in addition to constructions marked +R, certain constructions marked -R in the lexicon may be assigned a semantic interpretation of 'personal' by co-occurrence with a particular verb, as is noted in the following pair of examples:

'alša^{c}bu 'al'amiirkiiyu 'intaxaba-hu ra'iisan	'The American people elected him president.'
⇒ huwa 'intaxaba-hu ra'iisan	'They (m,sg) elected him president.'
⇒ man 'intaxaba-hu ra'iisan	'Who elected him president?'
'alwafdu saafara 'ilaa miṣra	'The delegation travelled to Egypt.'
⇒ huwa saafara 'ilaa miṣra	'It travelled to Egypt.'
⇒ man saafara 'ilaa miṣra	'Who travelled to Egypt?'

Further, as in English, inanimate NPs may receive this contextually assigned pers marker, as 'aljariidaT- 'the newspaper' or 'alraadyuu 'the radio' (e.g., qaala 'alraadyuu ... 'The radio said ...').

The rewrite of Q_3 into man does not necessarily require 3,m,sg markers assigned to a verb. For instance, in a context in which only females were being referred to, such an interrogative as the following would be permissible:

hiya sa-tadrusu fii bayruuta 'She will study in Beirut.'	⇒ man sa-tadrusu fii bayruuta 'Who (f,sg) will study in Beirut?'

In like manner, given a defining context, the verb (or participle or adjective) may be marked as dual or plural. The most common, though, as would be expected, is for the assignment of 3,m,sg markers.

Further, it was stated that this mapping into man requires a definite construction. This is, first, to prevent interrogatives such as the following (assuming the inversions of T-12 and T-19):

'alwafdu ^{c}ayyana 'alrajula ra'iisan 'The delegation appointed the man president.'	⇒ *man ^{c}ayyana 'alwafdu 'alrajula *'Whom did the delegation appoint the man?'

This, as in the English counterpart, is properly mapped into maaðaa 'what?', in spite of the fact that ra'iis- is marked +R in the lexicon:

maaðaa ᶜayyana 'alwafdu 'alrajula	'What did the delegation appoint the man?'

Note further that English allows a transformation such as: 'This man is a teacher in the University.' ⇒ 'Who is this man?' MWA does not allow it, but rather has the two alternatives noted below, with the second being preferable:

haaðaa 'alrajulu muᶜallimun fii 'aljaamiᶜaTi 'This man [is] a teacher in the University.'	⇒	maa haaðaa 'alrajulu 'What [is] this man?'
haaðaa 'alrajulu yaᶜmalu muᶜalliman fii 'aljaamiᶜaTi 'This man works as a teacher in the University.'	⇒	maaðaa yaᶜmalu haaðaa 'alrajulu 'What does this man do?' (or: 'What does this man work as?')

Three further examples, with man non-inverted first, and then inverted by T-12 plus T-17, T-18, or T-19, are as follow:

'alwafdu ᶜayyana-hu ra'iisan	'The delegation appointed him president.'
⇒ 'alwafdu ᶜayyana man ra'iisan	'The delegation appointed who president?'
⇒ man ᶜayyana 'alwafdu ra'iisan	'Who did the delegation appoint president?'
haaðihi 'alkutubu la-hu	'These books [are] his.'
⇒ haaðhihi 'alkutubu li-man	'These books [are] whose?'
⇒ li-man haaðihi 'alkutubu	'Whose [are] these books?'
'anta saafarta maᶜa-hum	'You (m,sg) travelled with them.'
⇒ 'anta saafarta maᶜa man	'You travelled with whom?'

⇒ ma^{c}a man saafarta ('anta) 'With whom did you travel?'

Q_3 plus a NP or VNP which is either indefinite or non-personal (or both) is mapped into maa or maaðaa 'What?' As a general rule of thumb, it can be said that maaðaa occurs preverbally, either maa or maaðaa may occur in the context of a preceding genv case marker, and maa occurs elsewhere. Examples are as follow, with only the first indicating the non-inverted interrogative:

'antum darastum 'allugata 'al^{c}arabiiyaTa
'You (m,pl) studied the Arabic language.'

⇒ 'antum darastum maaðaa
'You studied what?'

⇒ maaðaa darastum ('antum)
'What did you study?'

'alḥaflaTu sa-tajrii gadan
'The party will take place tomorrow.'

⇒ maaðaa sa-yajrii gadan
'What will take place tomorrow?'

'alwafdu waafaqa ^{c}alaa ta^{c}yiini-hi
'The delegation agreed on his appointment.'

⇒ ^{c}alaa maaðaa waafaqa 'alwafdu
'On what did the delegation agree?'

yufhamu 'anna 'alwafda waafaqa ^{c}alaa ziyaaraTi-hi
'[It] is understood that the delegation has agreed on his visit.'

⇒ ^{c}alaa maaðaa yufhamu 'anna 'alwafda waafaqa
'On what is [it] understood that the delegation has agreed?'

bayruutu madiinaTun fii lubnaana
'Beirut [is] a city in Lebanon.'

⇒ maa bayruutu
'What [is] Beirut?'

Note that the 'classificatory' 'iḍaafaT phrase (see Section 2.6), as madiinaTu bayruuta 'the city of Beirut', does not allow *madiinaTu maaðaa, but only 'ayyu madiinaTin 'which city?' or maaðaa 'what?'

Two very common forms of interrogatives with man and maa (which presuppose T-15 and T-16) are the following, with a seemingly

redundant pronoun referring to the subject construction:

'alrajulu huwa fii 'albayti	'The man he [is] in the house.'
⇒ huwa huwa fii 'albayti	'He [is] in the house.'
⇒ man huwa fii 'albayti	'Who [is] in the house?'
bayruutu hiya madiinaTun fii lubnaana	'Beirut it [is] a city in Lebanon.'
⇒ maa hiya madiinaTun fii lubnaana	'What (it) [is] a city in Lebanon?'
or: ⇒ maa hiya bayruutu	'What [is] (it) Beirut?'

The interrogative word 'ayy- 'which?' requests information about a specific (i.e., definite) item or class of items, and is thus derived from Q_3 plus a definite NOM. In its different forms, 'ayy- is assigned the preceding case marker, and in turn assigns a genitive case marker to the following NOM (as in the 'idaafaT phrase). This is indicated in the following, with T-12 presupposed:

haaðaa 'alkitaabu la-hu 'This book [is] his.'	⇒	'ayyu kitaabin la-hu 'Which book [is] his?'

If the NOM is singular, as in this example, then an indefinite determiner is assigned by 'ayy-. If it is plural, then either a definite or indefinite determiner is possible, with different meanings, as in the following:

'al'asaatiðaTu min 'aljaami^{c}aTi hunaa 'The professors from the University [are] here.'	⇒	'ayyu 'asaatiðaTin hunaa 'Which professors [are] here?'
or:	⇒	'ayyu 'al'asaatiðaTi hunaa 'Which of the professors [is, are] here?'

If the NOM is feminine, the form 'ayyaT-, with the feminine morpheme, may be optionally used, as in the following:

huwa min madiinaTi bayruuta 'He [is] from the city of Beirut.'	⇒	min 'ayyaTi madiinaTin huwa 'From which city [is] he?'
but also:	⇒	min 'ayyi madiinaTin huwa (same)

If the context makes the (class of) referent(s) clear, then 'ayy- may substitute for the whole phrase, but must agree in gender with the referent, and is assigned an indefinite determiner, as in the following:

huwa min madiinaTi bayruuta 'He [is] from the city of Beirut.'	⇒	min 'ayyaTin huwa 'From which [one is] he?'
haaðaa 'al'ustaaðu hunaa 'This professor [is] here.'	⇒	'ayyun hunaa 'Which [one is] here?'

When occurring with non-count nouns, a counter of some sort is normally inserted with the partitive preposition min, as in the following:

'anta turiidu 'altuffaaḥa 'You want some apples.'	⇒	'ayya nawᶜin min 'altuffaaḥi turiidu ('anta) 'Which kind of apples do you want?'

Informants have accepted 'ayy- plus the non-count noun directly, but interpreted it as having the counter understood, somewhat like English 'Which (kind of) ice cream do you want?'

Some further examples of the 'ayy- interrogative are as follow:

haaðaa 'alrajulu fahima 'alkitaaba
'This man understood the book.'

⇒ 'ayyu rajulin fahima 'alkitaaba (or: 'ayyun fahima ...')
'Which man understood the book?' (or: 'Which [one] understood ...?)

hiya kaanat 'al'aanisaTa 'aljamiilaTa
'She was the pretty young lady.'

⇒ 'ayyaTa 'aanisaTin kaanat hiya
'Which young lady was she?'

huwa yaᶜiišu fii 'albayti 'alkabiiri hunaaka
'He lives in the large house there.'

⇒ fii 'ayyi baytin yaᶜiišu huwa
'In which house does he live?'

Examples of 'ayy- plus a partitive min phrase have been elicited from informants (e.g., 'ayyun min 'alṭullaabi 'which of the students?'), but no examples have been found.

The interrogative word kam 'how much, how many?' requests information with respect to quantity, and is thus derived from phrases with a quantifier included. The quantifier may be an indefinite number (e.g., baᶜḍ- 'some', ᶜadad- min 'a number of', kull- or jamiiᶜ- 'all', niṣf- 'half', etc.) or a definite number (e.g., sittaT- 'six', xamsuuna 'fifty', mi'aT- 'a hundred', etc.). Thus, Q_3 plus a 'quantified phrase' is mapped into kam.

If the quantified phrase contains a definite quantifier, there are two possibilities, depending on the form of the phrase, for kam. The first possibility is the numeral plus the noun, as xamsaTu kutubin 'five books', in which case kam substitutes for the numeral and assigns accusative, singular (accv, sg) markers to the noun (it is already indefinite, and must remain so), giving kam kitaaban 'how many books?' The second possibility is the numeral plus a partitive min phrase, as xamsaTun min 'alkutubi 'five of the books', in which case kam

substitutes for the numeral giving kam min 'alkutubi 'how many of the books?' In either case, in a defining context, kam may substitute for the whole phrase. These possibilities are summarized in the following examples:

la-hu xamsaTu kutubin 'He has five books.'	⇒	kam kitaaban la-hu (or: kam la-hu) 'How many books has he?' (or: 'How many has he?')
la-hu sabᶜaTun min 'alkutubi 'He has seven of the books.'	⇒	kam min 'alkutubi la-hu (or: kam la-hu) 'How many of the books has he?' (or: 'How many has he?')

A non-count noun with a counter would be transformed into a construction as the first of the two examples above, i.e., as the following:

huwa yuriidu 'arbaᶜa ku'uusin min 'almaa'i 'He wants four glasses of water.'	⇒	kam ka'san min 'almaa'i yuriidu (huwa) 'How many glasses of water does he want?'

If the quantified phrase contains an indefinite quantifier, either with count or non-count nouns, a transformation into a min phrase is presupposed (though indicated here only informally):

'anta šaribta 'almaa'a kulla-hu 'You drank the water all of it.'	⇒	kam min 'almaa'i šaribta ('anta)? 'How much of the water did you drink?'
baᶜḍu 'alṭullaabi zaaruu miṣra 'Some of the students visited Egypt.'	⇒	kam min 'alṭullaabi zaara miṣra 'How many of the students visited Egypt?'

Some miscellaneous examples are the following:

ᶜumru-haa 'arbaᶜuuna sanaTan 'Her age [is] forty years.'	⇒	kam sanaTan ᶜumru-haa (or: kam ᶜumru-haa) 'How many years [is] her age?' (or: 'How much [is] ...?')

'alθamanu xamsuuna liiraTan 'The price [is] fifty lira.'	⇒	kam liiraTan 'alθamanu (or: kam 'alθamanu) 'How many lira [is] the price?' (or: 'How much [is] ...?')
muddaTu 'al'ijtimaaᶜi saaᶜaTun waaḥidaTun 'The period of the meeting [was] one hour.'	⇒	kam muddaTu 'al'ijtimaaᶜi 'How much [was] the period of the meeting?' (i.e., 'How long ...?')
tisᶜu sanawaaTin maḍat ᶜalay-hi fii lubnaana 'Nine years passed over him in Lebanon.' (i.e., 'He spent nine years in Lebanon.')	⇒	kam sanaTan maḍaa ᶜalay-hi fii lubnaana 'How many years passed over him in Lebanon?' (i.e., 'How many years did he spend ...?')

Note in this last example that kam assigns markers of 3,m,sg to the verb when occurring as subject, regardless of the gender of the underlying phrase subject (sanaT- is f,sg).

T-12: Optional

SD: SC from T-10 and T-11

SC: Y + T + Z

From the SCs of T-10 and T-11, T-12 inverts the Q_2 and Q_3 elements (plus the appropriate case markers and, if present, preceding preposition or members of 'iḍaafaT) to clause-initial position. This transformation has been assumed and illustrated under both of the foregoing transformations, and will not be repeated here.

T-13: Optional

SD: $U \pm NEG + X + \left\{ \begin{matrix} (V\text{-}x)_{2gn} + EQN \\ (V\text{-}y)_{2gn} \end{matrix} \right\} + Z$

$W + X + Y + Z$

where: $x = k, aux_1$; $y = in, tr$; and Q_1, Q_2, Q_3 are not present.

SC: W + impv + Y + Z

T-13 will produce the second person affirmative and negative imperative constructions. If the NEG is not present, the imperative (impv) marker will be assigned to the immediately following second-person verb. If the NEG is present, 'NEG + impv' will be rewritten in Section 3.4 as '<u>laa</u> + jussv' (i.e., the negative imperative constructions are formed by <u>laa</u> plus a verb with an assigned jussv stem-mood marker). It will be noted that the transformation is formulated so as to retain only one verb in the string prior to any COMPL embeddings. Miscellaneous examples are given in the following, including the negative imperatives (paired horizontally with the affirmative counterpart) for ease of comparison. The gender-number markers are noted at the left. In addition, the subject pronouns are retained because of further transformational possibilities, but are normally preferably deleted by T-17. As the examples stand, the retention of the subject pronouns reflects a strong emphasis.

m,sg	'anta laa takun tiflan 'You, don't be a child!'	'anta kun rajulan 'You, be a man!'
f,sg	'anti laa tabqay fii 'albayti 'You, don't stay in the house!'	'anti 'ibqay fii 'albayti 'You, stay in the house!'
d	'antumaa laa taquumaa 'You two, don't stand up!'	'antumaa quumaa 'You two, stand up!'
m,pl	'antum laa taktubuu la-hu 'You, don't write to him!'	'antum 'uktubuu la-hu 'You, write to him!'
f,pl	'antunna laa tazurna lubnaana 'You, don't visit Lebanon!'	'antunna zurna lubnaana 'You, visit Lebanon!'
m,sg	'anta laa tada^{c}-hu yaðhabu 'You, don't let him go!'	'anta da^{c}-hu yaðhabu 'You, let him go!'

f,sg 'anti laa tuᶜṭii-hi 'alkutuba 'anti 'aᶜṭii-hi 'alkutuba
'You, don't give him the books!' 'You, give him the books!'

The next-to-last example, with an embedded clause huwa yaðhabu 'he is going' in the COMPL of the verb wadaᶜa, yadaᶜu 'to let (s.o. do s.th.)', is the normal manner of making the negative indirect, i.e., first or third person, imperatives, and one of the options for the affirmative indirect imperative.

It is necessary to mention in passing that, though there is no grammatical reason for it, passive imperatives do not occur.

T-14: Optional

$$\text{SD: } W - NEG + X + \left[\begin{Bmatrix} (V\text{-}x)_{3gn} + EQN \\ (V\text{-}y)_{3gn} \end{Bmatrix} \begin{Bmatrix} (V\text{-}x)_{1gn} + EQN \\ (V\text{-}y)_{1gn} \end{Bmatrix} \right] + Z$$

$$W + X + Y + Z$$

where: x = k, aux$_1$; y = in, tr; and Q_1, Q_2, Q_3 are not present.

$$\text{SC: } W + \begin{bmatrix} + \underline{li}- \\ \pm \underline{li}- \end{bmatrix} + jussv + Y + Z$$

T-14, producing the 'hortatory' or indirect imperatives, assigns a jussv stem-mood marker to the following verb (the only verb in the string prior to COMPL embeddings, as with the second-person imperatives of T-13), and assigns an obligatory prefixed li- if the verb is third person, and an optional prefixed li- if the verb is first person plural.

In the following examples, the subject is retained in initial position for the same reasons as noted under T-13:

'alwafdu yaðhabu 'ilaa miṣra 'The delegation is going to Egypt.'	⇒	'alwafdu li-yaðhab 'ilaa miṣra 'The delegation, let it go to Egypt!'
'albintu taquumu 'The girl is standing.'	⇒	'albintu li-taqum 'The girl, let her stand!'
'alrijaalu yaktubuuna la-naa 'The men are writing to us.'	⇒	'alrijaalu li-yaktubuu la-naa 'The men, let them write to us!'
nahnu našrabu finjaana qahwaTin 'We are drinking a cup of coffee.'	⇒	nahnu li-našrab finjaana qahwaTin (or: nahnu nasrab ...) 'Us, let's drink a cup of coffee!'

T-15: Optional

$$\underline{\text{SD}}: \quad X + \left[\begin{bmatrix} \text{TIME} \\ \text{LOC} \end{bmatrix} \quad \begin{bmatrix} \text{nomv} \\ \text{accv} \\ \text{genv} \end{bmatrix} + \text{NOM}_{\text{(def)pgn}} \right] + Z$$

$$\underline{\text{SC}}: \quad \underline{\text{'ammaa}} + \left[\begin{bmatrix} \text{(topic)} \begin{bmatrix} \text{TIME} \\ \text{LOC} \end{bmatrix} \\ \text{nomv} + \text{(topic)NOM}_{\text{pgn}} \end{bmatrix} \right]$$

$$+ \underline{\text{fa-}} + X + \left[\begin{bmatrix} \text{- - - -} \\ \pm \text{ (nomv} + \text{PRN}_{\text{p'g'n'}}\text{)} \end{bmatrix} \begin{bmatrix} \text{accv} \\ \text{genv} \end{bmatrix} + \text{PRN}_{\text{p'g'n'}} \right] + Z, \text{ where pgn} = \text{p'g'n'}.$$

T-15 is a 'topic-comment' transformation where one element of the underlying clause is moved to clause-initial position, marked by the particle 'ammaa as 'topic' (usually translated 'as for ...'), and, depending on the original function, may be replaced by a PRN. The remainder of the resultant clause, the 'comment', is then marked by the proclitic fa-. The three variants will be described and illustrated separately.

The first variant occurs when T-15 is applied to a TIME or LOC. There is no replacive pronoun in this context, as is illustrated by the following:

'alrijaalu saafaruu 'ilaa bayruuta 'alyawma
'The men travelled to Beirut today.'
⇒ 'ammaa 'alyawma fa-'alrijaalu saafaruu 'ilaa bayruuta
'As for today, the men travelled to Beirut.'

'uxtu-hu sa-tabda'u 'aldiraasaTa baᶜda 'alyawmi
'His sister will begin studying after today.'
⇒ 'ammaa baᶜda 'alyawmi fa-'uxtu-hu sa-tabda'u 'aldiraasaTa
'As for after today, his sister will begin studying.'

bintu-ka tadrusu fii haaðaa 'albayti
'Your daughter is studying in this house.'
⇒ 'ammaa fii haaðaa 'albayti fa-bintu-ka tadrusu
'As for in this house, your daughter is studying.'

For these three examples, T-19, inverting the 'subject-verb' order, would be preferably applied, giving the following three examples from the above, with the same translations:

'ammaa 'alyawma fa-saafara 'alrijaalu 'ilaa bayruuta

'ammaa baᶜda 'alyawmi fa-sa-tabda'u 'uxtu-hu 'aldiraasaTa

'ammaa fii haaðaa 'albayti fa-tadrusu bintu-ka

The second variant of T-15 is applied to a definite NOM occurring in the context of a preposed nominative marker. A(n optionally

deletable) PRN is assigned to replace the NOM, the pronominal form being chosen by the pgn constraints imposed by the NOM. This PRN is preferably deleted in the context of an imperative marker, and preferably retained in the context of 'non-verbal' equations. Examples follow, with the replacement PRN underlined for clarity:

'alra'iisu hunaaka 'The president [is] there.'	⇒	'ammaa 'alra'iisu fa-<u>huwa</u> hunaaka 'As for the president, he [is] there.'
'alṣabiiyu fii 'albayti 'The boy [is] in the house.'	⇒	'ammaa 'alṣabiiyu fa-<u>huwa</u> fii 'albayti 'As for the boy, he [is] in the house.'
'alhadiiyaTu maṭluubaTun min-hu 'The gift [has been] requested from him.'	⇒	'ammaa 'alhadiiyaTu fa-<u>hiya</u> maṭluubaTun min-hu 'As for the gift, it [has been] requested from him.'
'uxtu-haa laysat fii 'almaktabaTi 'Her sister is not in the library.'	⇒	'ammaa 'uxtu-haa fa-<u>hiya</u> laysat fii 'almaktabaTi 'As for her sister, she is not in the library.'
'alwafdu saafara 'ilaa miṣra 'The delegation travelled to Egypt.'	⇒	'ammaa 'alwafdu fa-<u>huwa</u> saafara 'ilaa miṣra 'As for the delegation, it travelled to Egypt.'
'alkutubu kaanat li-'alrajuli 'The books were the man's.'	⇒	'ammaa 'alkutubu fa-<u>hiya</u> kaanat li-'alrajuli 'As for the books, they were the man's.'
'al'intixaabaatu sa-tajrii gadan 'The elections will take place tomorrow.'	⇒	'ammaa 'al'intixaabaatu fa-<u>hiya</u> sa-tajrii gadan 'As for the elections, they will take place tomorrow.'
'anta 'uktub la-hu 'You, write to him!'	⇒	'ammaa 'anta fa-<u>'anta</u> uktub la-hu 'As for you, you write to him!'

'al'ustaaðu li-yazur lubnaana	⇒	'ammaa 'al'ustaaðu fa-<u>huwa</u> li-yazur lubnaana
'The professor, let him visit Lebanon.'		'As for the professor, let him visit Lebanon.'

The first three of the above examples, being 'non-verbal' equations, would appear as follow with the PRN deleted (no examples of such have been found, but informants attest to their validity; further, it will be seen that this pattern matches the REL.CL pattern very closely; see Section 3.3):

'ammaa 'alra'iisu fa-hunaaka	'As for the president, [he is] there.'
'ammaa 'alṣabiiyu fa-fii 'albayti	'As for the boy, [he is] in the house.'
'ammaa 'alhadiiyaTu fa-maṭluuba-Tun min-hu	'As for the present, [it has been] requested from him.'

The last two of the above examples, being 'imperatives', would obligatorily have the replacive PRN deleted, and would appear as follows:

'ammaa 'anta fa-'uktub la-hu	'As for you, write to him!'
'ammaa 'al'ustaaðu fal-yazur lubnaana	'As for the professor, let him visit Lebanon.'

The third variant of T-15 occurs when the NOM occurs in the environment of a preposed accusative or genitive case marker. The NOM is moved to clause-initial position and assigned a nominative case marker, and an obligatory replacive PRN is assigned to the NOM's original environment, with the pronominal form being chosen by the pgn and case constraints of the NOM. Examples are as follows:

'alṣabiiyu fii 'albayti ⇒ 'ammaa 'albaytu fa-'alṣabiiyu fii-hi
'The boy [is] in the house.' 'As for the house, the boy [is] in it.'

'uxtu 'alṣabiiyi laysat fii 'almaktabaTi ⇒ 'ammaa 'alṣabiiyu fa-'uxtu-hu laysat fii 'almaktabaTi
'The boy's sister is not in the library.' 'As for the boy, his sister is not in the library.'

or: ⇒ 'ammaa 'almaktabaTu fa-'uxtu 'alṣabiiyi laysat fii-haa
'As for the library, the boy's sister is not in it.'

'alkutubu kaanat li-'alrajuli ⇒ 'ammaa 'alrajulu fa-'alkutubu kaanat la-hu
'The books were the man's.' 'As for the man, the books were his.'

ᶜalaa 'alḥukuumaTi 'an tuᶜayyina waziiran ⇒ 'ammaa 'alḥukuumaTu fa-ᶜalay-haa 'an tuᶜayyina waziiran
'The government must appoint a minister.' 'As for the government, it must appoint a minister.'

'alwafdu yuwaafiqu ᶜalaa taᶜyiini-hi ⇒ 'ammaa taᶜyiinu-hu fa-'alwafdu yuwaafiqu ᶜalay-hi
'The delegation is in agreement on his appointment.' 'As for his appointment, the delegation is in agreement on it.'

man kataba li-'alrajuli ⇒ 'ammaa 'alrajulu fa-man kataba la-hu
'Who wrote to the man?' 'As for the man, who wrote to him?'

'anta laa taktub la-hu ⇒ 'ammaa huwa fa-'anta laa taktub la-hu
'You, don't write to him!' 'As for him, don't you write to him!'

'alwafdu li-yazur lubnaana ⇒ 'ammaa lubnaanu fa-'alwafdu li-yazur-hu
'The delegation, let it visit Lebanon.' 'As for Lebanon, let the delegation visit it.'

In the first of the above set of examples, there is a possible order inversion of the constituents in order to bring the constituent containing the replacive pronoun as close as possible to its antecedent

(this is optional here, but obligatory in the REL.CL constructions; see T-20, and also Section 3.3). This would result in the following:

'ammaa 'albaytu fa-fii-hi 'alṣabiiyu	'As for the house, in it [is] the boy.'

Also, the last two examples, being a 'negative imperative' and a 'third-person imperative', will have either the subject inverted or deleted by T-17, T-18, or T-19, as in the following examples:

'ammaa huwa fa-laa taktub la-hu ('anta)	'As for him, don't (you) write to him!'
'ammaa lubnaanu fal-yazur-hu ('alwafdu)	'As for Lebanon, let it (the delegation) visit it!'

Some further examples, from the 'minus-object' passives of T-3, are the following:

yujtamaᶜu bi-'alra'iisi	⇒	'ammaa 'alra'iisu fa-yujtamaᶜu bi-hi
'[There] is a meeting with the president.'		'As for the president, [there] is a meeting with him.'
yuwaafaqu ᶜalaa 'alḥaflaTi	⇒	'ammaa 'alḥaflaTu fa-yuwaafaqu ᶜalay-haa
'[There] is agreement on the party.'		'As for the party, [there] is agreement on it.'

These latter two examples become interesting when their underlying structure is 'ptcp + VP' (i.e., when they form non-clausal PTCP.P constructions; see T-3), as in the following:

mujtamaᶜun bi-'alra'iisi	⇒	'ammaa 'alra'iisu fa-mujtamaᶜun bi-hi
'... a meeting with the president.'		'As for the president, [there is] a meeting with him.'

muwaafaqun ᶜalaa 'alḥaflaTi
'...agreement on the party.'

⇒ 'ammaa 'alḥaflaTu fa-muwaafaqun ᶜalay-haa
'As for the party, [there is] agreement on it.'

masmuuḥun li-'albinti bi-'an taðhaba
'...permission granted to the girl to go.'

⇒ 'ammaa 'albintu fa-masmuuḥun la-haa bi-'an taðhaba
'As for the girl, permission [has been] granted to her to go.'

These become the sources for interesting 'NP + PTCP.P' phrases, as well as clauses, as will be pointed out under the following transformation, T-16.

In addition to the above, T-15 may be applied across subordinate clause boundaries as were the interrogatives earlier:

kaana mafhuuman 'anna 'albinta hunaa
'[It] was understood that the girl [was] here.'

⇒ 'ammaa 'albintu fa-kaana mafhuuman 'anna-haa hunaa
'As for the girl, [it] was understood that she [was] here.'

ᶜalaa 'alḥukuumaTi 'an tadrusa 'al'ijtimaaᶜa
'[It is] encumbant upon the government to study the meeting.'

⇒ 'ammaa 'al'ijtimaaᶜu fa-ᶜalaa 'alḥukuumaTi 'an tadrusa-hu
'As for the meeting, [it is] necessary for the government to study it.'

T-16: Optional

SD: 'ammaa + X + fa- + Y

SC: X + Y

T-16 takes as input the 'topic-comment' structure of T-15 and deletes the markers 'ammaa and fa-. This gives examples such as the following (where T-17, T-18, or T-19, distinctly preferable in certain instances, are applied, it will be so noted):

'ammaa 'alyawma fa-'alrijaalu saafaruu 'ilaa bayruuta
'As for today, the men travelled to Beirut.'
⇒ (+ T-19) 'alyawma saafara 'alrijaalu 'ilaa bayruuta
'Today the men travelled to Beirut.'

'ammaa fii haaðaa 'albayti fa-bintu-ka tadrusu
'As for in this house, your daughter is studying.'
⇒ (+ T-19) fii haaðaa 'albayti tadrusu bintu-ka
'In this house, your daughter is studying.'

'ammaa 'alra'iisu fa-huwa hunaaka
'As for the president, he [is] there.'
⇒ 'alra'iisu huwa hunaaka
'The president he [is] there.'

'ammaa 'alṣabiiyu fa-huwa fii 'albayti
'As for the boy, he [is] in the house.'
⇒ 'alṣabiiyu huwa fii 'albayti
'The boy he [is] in the house.'

'ammaa 'alhadiiyaTu fa-hiya maṭluubaTun min-hu
'As for the gift, it [is] requested from him.'
⇒ 'alhadiiyaTu hiya maṭluubaTun min-hu
'The gift it [is] requested from him.'

'ammaa 'uxtu-haa fa-hiya laysat fii 'almaktabaTi
'As for her sister, she is not in the library.'
⇒ 'uxtu-haa hiya laysat fii 'almaktabaTi
'Her sister she is not in the library.'

'ammaa 'al'ustaaðu fa-huwa li-yazur lubnaana
'As for the professor, let him visit Lebanon.'
⇒ (+ T-18) 'al'ustaaðu li-yazur lubnaana huwa
'The professor, let him visit Lebanon.'

'ammaa 'albaytu fa-fii-hi 'alṣabiiyu
'As for the house, in it [is] the boy.'
⇒ 'albaytu fii-hi 'alṣabiiyu
'The house, in it [is] the boy.'

'ammaa 'almaktabaTu fa-'uxtu 'alṣabiiyi laysat fii-haa
'As for the library, the boy's sister is not in it.'
⇒ (+ T-19) 'almaktabaTu laysat fii-haa 'uxtu 'alsabiiyi
'The library, the boy's sister is not in it.'

'ammaa 'alḥukuumaTu fa-ᶜalay-haa 'an tuᶜayyina waziiran
'As for the government, it must appoint a minister.'
⇒ 'alḥukuumaTu ᶜalay-haa 'an tuᶜayyina waziiran
'The government, it must appoint a minister.'

'ammaa taᶜyiinu-hu fa-'alwafdu yuwaafiqu ᶜalay-hi
'As for his appointment, the delegation is agreed on it.'
⇒ (+ T-19) taᶜyiinu-hu yuwaafiqu ᶜalay-hi 'alwafdu
'His appointment, the delegation is agreed upon it.'

'ammaa 'alrajulu fa-man kataba la-hu	⇒	'alrajulu man kataba la-hu
'As for the man, who wrote to him?'		'The man, who wrote to him?'

All of the foregoing have been selected from examples originally given under T-15. The first two examples had T-15 applied to TIME or LOC. The next four have had T-15 applied to the subject nominal, and in each case the replacive PRN is noted as occurring between the topic and the remainder of the string (the Arab grammarians call this the 'pronoun of separation' damiiru 'alfaṣl but do not analyze it in the foregoing manner). The rest of the examples are of a miscellaneous nature.

The two examples under T-15 in which T-15 was applied across the subordinate clause boundaries appear here in the following manner:

'ammaa 'albintu fa-kaana mafhuuman 'anna-haa hunaa	⇒	'albintu kaana mafhuuman 'anna-haa hunaa
'As for the girl, [it] was understood that she [was] here.'		'The girl [it] was understood that she [was] here.'
'ammaa 'al'ijtimaaᶜu fa-ᶜalaa 'alḥukuumaTi 'an tadrusa-hu	⇒	'al'ijtimaaᶜu ᶜalaa 'alḥukuumaTi 'an tadrusa-hu
'As for the meeting, [it is] necessary for the government to study it.'		'The meeting, [it is] necessary for the government to study it.'

Applied to a NP constituent of a (non-classificatory) 'iḍaafaT, we would have the following example:

'ammaa 'alra'iisu fa-baytu-hu fii 'alqaahiraTi	⇒	'alra'iisu baytu-hu fii 'alqaahiraTi
'As for the president, his house [is] in Cairo.'		'The president, his house [is] in Cairo.'

From the 'minus-object' passive constructions which have had T-15 applied, we have the following examples:

'ammaa 'alwufuudu fa-yujtamaᶜu bi-haa ⇒ 'alwufuudu yujtamaᶜu bi-haa
'As for the delegations, [there] is a meeting with them.' 'The delegations, [there] is a meeting with them.' (or: 'The delegations are being met with.')

'ammaa 'alḥaflaTu fa-yuwaafaqu ᶜalay-haa ⇒ 'alḥaflaTu yuwaafaqu ᶜalay-haa
'As for the party, [there] is agreement on it.' 'The party, [there] is agreement on it.' (or: 'The party is agreed upon.')

'ammaa 'albintu fa-yusmaḥu la-haa bi-'an taðhaba ⇒ 'albintu yusmaḥu la-haa bi-'an taðhaba
'As for the girl, permission is granted to her to go.' 'The girl, permission is granted to her to go.' (or: 'The girl is permitted to go.')

It is interesting, from a pedagogical point of view, that the English passive translations given above approximate the sense but not the structure of this type of construction. These examples are of further interest when, as mentioned under T-15, their underlying structure is 'ptcp + VP':

'ammaa 'alwufuudu fa-majtamaᶜun bi-haa ⇒ 'alwufuudu mujtamaᶜun bi-haa
'As for the delegations, [there is] a meeting with them.' 'The delegations [there is] a meeting with them.' (or: 'The delegations [are being] met with.')

'ammaa 'alḥaflaTu fa-muwaafaqun ᶜalay-haa ⇒ 'alḥaflaTu muwaafaqun ᶜalay-haa
'As for the party, [there is] agreement on it.' 'The party, [there is] agreement on it.' (or: 'The party [is] agreed upon.')

'ammaa 'albintu fa-masmuuḥun la-haa bi-'an taðhaba ⇒ 'albintu musmuuḥun la-haa bi-'an taðhaba
'As for the girl, permission [has been] granted to her to go.' 'The girl, permission [has been] granted to her to go.' (or: 'The girl has been permitted to go.')

These then become one of the source constructions for 'NP + (attrib) PTCP.P' constructions, as in the following examples:

'alwufuudu 'almujtamaᶜu bi-haa	'The delegations [which are] being met with ...'
'alḥaflaTu 'almuwaafaqu ᶜalay-haa	'The party [which is] agreed upon ...' (or: '... upon which [there is] agreement...')
'albintu 'almasmuuḥun la-haa bi-'an taðhaba	'The girl [who has been] permitted to go ...'

In each of these, the participial forms have the gender-number markers of the underlying passive verb (m,sg), while it is the replacement pronoun with which the noun head agrees. This is about the practical limit of the phrasal concord problems, though upon rare occasion a variant of these may occur, and these are discussed under T-18 and T-19.

T-17: Optional

SD: $W + nomv + (subj)PRN + Y$, where $Y \neq \pm NEG + \begin{Bmatrix} nomv \\ EQN_2 \end{Bmatrix} + Z$

SC: $W + Y$

T-17 provides for the deletion of the subject if the subject construction is a PRN, but with restrictions which eliminate the possibility of deleting it in the context of the 'non-verbal' equations or 'subject-participial phrase' constructions. Note that a PRN, either first or second person and introduced as a prime, or third person introduced transformationally by T-1, presupposes a situational or contextual referent, and it is in this context that the subject may be deleted.

The following set of examples, with first and second person pronoun subjects, will normally have the subject pronoun deleted except in the case of emphasis, in which case it may be retained in initial position or inverted by T-18:

'anaa fahimtu 'alkitaaba 'I understood the book.'	⇒	fahimtu 'alkitaaba 'I understood the book.'
'anti sa-tadrusiina fii 'almaktabaTi 'You (f,sg) will study in the library.'	⇒	sa-tadrusiina fii 'almaktabaTi 'You will study in the library.'
nahnu nuᶜṭii 'alṣabiiya kitaaban 'We are giving the boy a book.'	⇒	nuᶜṭii 'alṣabiiya kitaaban 'We are giving the boy a book.'
'antum lastum min misra 'You (m,pl) are not from Egypt.'	⇒	lastum min misra 'You are not from Egypt.'
'anta laa takun tiflan 'You (m,sg), don't be a child!'	⇒	laa takun tiflan 'Don't be a child!'
'antumaa quumaa 'You two, stand up!'	⇒	quumaa 'Stand up (d)!'
nahnu li-našrab finjaana qahwaTin 'Us, let's drink a cup of coffee!'	⇒	li-našrab finjaana qahwaTin 'Let's drink a cup of coffee!'
'ammaa 'anta fa-'anta laa taktub la-hu 'As for you, don't you write to him!'	⇒	'ammaa 'anta fa-laa taktub la-hu 'As for you, don't write to him!'
'ammaa 'alrajulu fa-'anta laa taktub la-hu 'As for the man, don't you write to him!'	⇒	'ammaa 'alrajulu fa-laa taktub la-hu 'As for the man, don't write to him!'

Third person pronominal subjects may also be deleted, as in the following set of random examples, with the first three indicating the intermediate step of pronominalization and the remainder omitting it:

'alrajulu ra'aa binta-hu — 'The man saw his daughter.'

⇒ huwa ra'aa binta-hu — 'He saw his daughter.'

⇒ ra'aa binta-hu — 'He saw his daughter.'

'alṣabiiyaTu tuᶜṭaa kitaaban — 'The girl will be given a book.'

⇒ hiya tuᶜṭaa kitaaban — 'She will be given a book.'

⇒ tuᶜṭaa kitaaban — 'She will be given a book.'

'alkutubu tufhamu — 'The books are understood.'

⇒ hiya tufhamu — 'They (f,sg) are understood.'

⇒ tufhamu — 'They (f,sg) are understood.'

'ummu-hu laysat hunaa — ⇒ laysat hunaa
'His mother is not here.' — 'She is not here.'

'uxtu-haa kaanat ðaahibaTan 'ilaa miṣra — ⇒ kaanat ðaahibaTan 'ilaa miṣra
'Her sister was going to Egypt.' — 'She was going to Egypt.'

'alrijaalu sa-yabqawna fii bayruuta — ⇒ sa-yabqawna fii bayruuta
'The men will remain in Beirut.' — 'They will remain in Beirut.'

'alwafdu li-yaðhab 'ilaa hunaaka — ⇒ li-yaðhab 'ilaa hunaaka
'The delegation, let it go there!' — 'Let it go there!'

'alrijaalu li-yazuuruu lubnaana — ⇒ li-yazuuruu lubnaana
'The men, let them visit Lebanon!' — 'Let them visit Lebanon!'

'ammaa 'alqaahiraTu fa-'alwafdu saafara 'ilay-haa — ⇒ 'ammaa 'alqaahiraTu fa-yusaafiru 'ilay-haa
'As for Cairo, the delegation will travel to it.' — 'As for Cairo, it will travel to it.'

hum yuriiduuna min-ka 'an tadrusa — ⇒ yuriiduuna min-ka 'an tadrusa
'They want you to study.' — 'They want you to study.'

hiya katabat li-'alṣabiiyaTi — ⇒ katabat li-'alṣabiiyaTi
'She wrote to the girl.' — 'She wrote to the girl.'

The following transformations, T-18 and T-19, allow for the inversion of the 'subject-verb' order. T-18 is applied to a (subj)PRN, and T-19 to a (subj)NP or (subj)PN. The latter transformation requires a neutralization of the preceding verb's syntactic marker of number, with an optional neutralization of gender as well. These will be given and illustrated separately.

T-18: Optional

SD: U + nomv + (subj)PRN + X + V-x + Y + Z

U + W + X + V-x + Y + Z

where $Y \neq$ 'anna-CL, 'an-CL, 'inna-CL, COMPL, or PREP + CL.

SC: $U + X + V\text{-}x + \left\{\begin{matrix} W + Y \\ Y + W \end{matrix}\right\} + Z$

This inversion of the pronominal subject normally marks emphasis, with the PRN thus inverted tending to occur in short sentences (e.g., imperatives, brief questions, etc.), sometimes immediately post-verbally (noted by the 'W + Y' option of the SC), but also sometimes after brief constructions functioning as INT, TIME, LOC, DIR, or, occasionally, (obj)NOM. Rarely is the subject pronoun found occurring between a V-k (kaana) or $V\text{-aux}_1$ and the VP. Note that the inversion with the INT, TIME, LOC, or DIR is distinctly preferred, both here and in T-19, if any of these latter constructions contain a replacive PRN from T-15 or the REL.CL constructions. Note that Y is circumscribed above so that this subject pronoun does not cross the boundaries of an 'anna-CL, 'an-CL, 'inna-CL, or COMPL. Some examples, with various forms of this option,

are the following:

'antum 'iðhabuu 'ilaa 'almaktabaTi	⇒	'iðhabuu 'antum 'ilaa 'almaktabaTi (or: ... 'almaktabaTi 'antum)
'You (m,pl), go to the library!'		'<u>You</u>, go to the library!'
hum laysuu 'amiirkiiyiina	⇒	laysuu hum 'amiirkiiyiina (or: ... 'amiirkiiyiina hum)
'They are not Americans.'		'<u>They</u> are not Americans!'
'ammaa 'alrajulu fa-'anta laa taktub la-<u>hu</u>	⇒	'ammaa 'alrajulu fa-laa taktub 'anta la-<u>hu</u> (or: ... la-<u>hu</u> 'anta)
'As for the man, don't you write to him!'		'As for the man, don't <u>you</u> write to him!'
'anaa katabtu la-haa	⇒	katabtu 'anaa la-haa (or: ... la-haa 'anaa)
'I wrote to her.'		'<u>I</u> wrote to her!'

One of the available options from the PS rules of Section 2.1 was the structure '(subj)NOM + ptcp + VP' which would ultimately result in a string such as <u>'anaa ðaahibun 'ilaa 'almaktabaTi</u> 'I [am] going to the library.' T-18 allows for the inversion of the subject and the verb (prior to its being written as a participial phrase) resulting in the following:[3]

'a-'anta ðaahibun 'ilaa 'albayti	⇒	'a-ðaahibun 'anta 'ilaa 'albayti
'[Are] you (m,sg) going home?'		(same)

[3]Only four such examples have been found, three in FA in the form of 'yes-no interrogatives' as in the example, and the other as a statement in a text of ZR. Informants did not like the statement example, but did accept the interrogatives, and, further, supplied examples with NP subjects which followed the concord patterns of T-20 (e.g., <u>hal 'alrijaalu ðaahibuuna 'ilaa hunaaka</u> '[Are] the men going there?' ⇒ <u>hal ðaahibun 'alrijaalu 'ilaa hunaaka</u> (same). These are quite naturally accounted for in the present grammar.

'a-'antum ðaahibuuna 'ilaa 'albayti	⇒	'a-ðaahibuuna 'antum 'ilaa 'albayti
'[Are] you (m,pl) going home?'		(same)

These are unusual in that very rarely does an indefinite construction occur in clause-initial position without some definite contextual constraints.

T-19: Optional if subject is definite; obligatory if subject is indefinite.[4]

$$\underline{SD}: \quad S + (nomv + T) + U + \begin{bmatrix} (V\text{-}x)_{3gn} \\ - - - \end{bmatrix} + W + \begin{Bmatrix} EQN_2 \\ Y \end{Bmatrix} + Z$$

where: $T = (subj) \begin{Bmatrix} NP \\ PN \end{Bmatrix}_{3gn}$; $Y \neq$ 'anna-CL, 'an-CL, 'inna-CL, COMPL, or PREP + CL.

$$\underline{SC}: \quad S + U + \begin{bmatrix} (V\text{-}x)_3 \begin{Bmatrix} g \\ m \end{Bmatrix} sg \\ - - - \end{bmatrix} + (nomv + T) + W + \begin{Bmatrix} EQN_2 \\ Y \end{Bmatrix} + Z$$

$$S + U + \quad V \quad + (nomv + T) + W + \quad X \quad + Z$$

T-19 inverts the 'subject-verb' order of noun phrases or proper nouns while neutralizing the preceding verb's number marker and, optionally (though preferably when the subject construction is indefinite) the gender marker as well. T-19 is applied optionally to definite subject constructions, and obligatorily to indefinite ones (but

[4]It is not quite correct to say 'obligatory' in that at least one narrative style (culturally equivalent to 'Once upon a time ...') allows an initial indefinite subject. Also, in REL.CL constructions, when the antecedent is the subject of the embedded clause, this neutralization of number (and optionally gender) cannot occur. In independent constructions, however, indefinite subjects in sentence-initial position are virtually non-occurrent.

see n. 4 below). Note further that T-19 may be reapplied in the instance of a two-verb sequence (e.g., 'V-k + V-tr', etc.), or, in the case of a definite subject, the subject may remain between the two verbs. The alternative 'no-verb' in the SD and SC is an ad hoc device to allow the SC to include the 'non-verbal' equations as input into T-20 below. T-20 will be given, and then examples and explanation for both of the transformations:

T-20: Optional if subject is definite; preferable if subject is indefinite.

SD: SC from T-19 provided T-19 is no longer applicable.

SC: S + U + V + W + X + (nomv + T) + Z

T-20 provides a continuation of T-19, allowing a subject construction to be moved to a post-indirect object or post-object position (provided the object construction is not part of an embedded COMPL, 'anna-CL, 'inna-CL, 'an-CL, or PREP + CL), or to a post-$^{F}QN_2$ position (i.e., following a TIME, LOC, DIR_a, MAN_a, or REL).

Two sets of examples with definite subjects are the following:

haaðaani 'al'ustaaðaani kaanaa yuzuuraani lubnaana fii 'alšahri 'almaaḍii	'These two professors were visiting Lebanon last month.'
(T-19) ⇒ kaana haaðaani 'al-'ustaaðaani yazuuraani ...	(same)
(T-19) ⇒ kaana yazuuru haaðaani 'al'ustaaðaani lubnaana ...	(same)
(T-20) ⇒ kaana yazuuru lubnaana haaðaani 'al'ustaaðaani ...	(same, but stronger emphasis on subject)
(T-20) ⇒ kaana yazuuru lubnaana fii 'alšahri 'almaaḍii haaðaani 'al'ustaaðaani	(same, but subject strongly emphasized)

'albanaatu yadrusna 'al'aana fii 'almaktabaTi	'The girls are studying now in the library.'
(T-19) ⇒ tadrusu 'albanaatu 'al'aana fii 'almaktabaTi	(same)
(T-20) ⇒ tadrusu 'al'aana fii 'almaktabaTi 'albanaatu (or: yadrusu ...)	(same, but stronger emphasis on subject)

The following should be noted with respect to these examples: First, the inversion of a definite subject construction (unless rather long) in a two-verb sequence to a post-second-verb position is not common, the preference being to leave it between the two verbs, and, in like manner, the inversion of a definite subject to a post-object position where the object has not been pronominalized is not common; secondly, a pronominalized object is normally suffixed to the verb (but see T-2, 'iiyaa-), in which case a post-verbal subject will also be post-object pronoun, and also a post-verbal subject will tend to be inverted with a PREP.P whose object is short or pronominalized; and, third, the choice of gender in the case of an inverted feminine subject appears to be wholly arbitrary in the case of definite subjects (though the neutralization is preferred in the case of indefinite subjects).

Some examples with indefinite subjects are the following (with the input examples, having an initial indefinite subject, not preferred as noted above):

kutubun laysat li-'alrajuli	(T-20, T-21) ⇒ laysat li-'alrajuli kutubun (or: laysa ...) 'The man doesn't have [any] books.'
rajulun kataba-haa la-hum	(T-20, T-21) ⇒ kataba-haa la-hum rajulun 'A man wrote it to them.'

'ustaaðun fii 'albayti (T-21) ⇒ fii 'albayti 'ustaaðun
'A professor [is] in the house.'

The inversion of the 'subject-verb' order in Q_2 and Q_3 interrogatives (T-10, T-11, and T-12), imperatives (T-13 and T-14), and 'topic-comment' constructions (T-15 and T-16) has been mentioned and illustrated under these constructions respectively. It will suffice here to note an interesting, though uncommon construction (considered 'classical', and certainly infrequent in MWA) which is quite naturally accounted for in the present grammar. Given the SD:

nomv + (subj)NP + nomv + ptcp + V-tr$_1$ + PREP.P

using the example 'alwafdu muwaafiqun ᶜalaa 'alḥaflaTi 'The delegation [is] agreed on the party.', it is possible to derive the following:

(T-15, T-16) ⇒ 'alḥaflaTu 'alwafdu muwaafiqun ᶜalay-haa — 'The party, the delegation [is] in agreement on it.'

(T-19, T-20) ⇒ 'alḥaflaTu muwaafiqun ᶜalay-haa 'alwafdu — (same as above, or the following: 'The party [is] agreed upon by the delegation.')

This latter then provides an input into the 'NP + (attrib)PTCP.P' (see also T-16), resulting in the phrase:

'alḥaflaTu 'almuwaafiqu ᶜalay-haa 'alwafdu — 'The party [which is] agreed upon by the delegation ...'

This is interesting in that the underlying subject is 'alwafdu, but the participal muwaafiq- has become attributive to the 'topic' while simultaneously retaining the underlying subject and its concord relation to it.

T-21: Optional

$$\underline{SD}: \quad W \pm NEG + \begin{Bmatrix} perf \\ impf \end{Bmatrix} + (V\text{-}x)_{3gn} + \begin{Bmatrix} pv_1 + perf \\ \pm\ pv_2 + impf \\ accv + ptcp \end{Bmatrix} + Z$$

$$W + \quad X \quad + (V\text{-}x)_{3gn} + \quad Y \quad + Z$$

where: $W = nomv + (topic)\begin{Bmatrix} NP \\ PN \end{Bmatrix}_{3g'n'}$; x = k, aux.

$$\underline{SC}: \quad X + (V\text{-}x)_{3g'sg} + W + Y + Z$$

T-21 provides for a V-k or V-aux to be shifted to a pre-topic position with a consequent reassignment of the verb's gender and number markers. This leaves an interesting, though on the surface puzzling, set of concord relations, as the following pair of 'topic-comment' input examples will illustrate:

'alhaflaTu kaana yuwaafiqu ʿalay-haa 'alwafdu
'The party, the delegation was agreeing on it.'

⇒ kaanat 'alhaflaTu yuwaafiqu ʿalay-haa 'alwafdu
(same, or: 'The party was being agreed upon by the delegation.')

kutubu 'alra'iisi baqiya yaqra'u-haa 'al'ustaaðu
'The president's books, the professor was continuing to read them.'

⇒ baqiyat kutubu 'alra'iisi yaqra'u-haa 'al'ustaaðu
(same, or: 'The president's books were continuing to be read by the professor.')

Informants have readily supplied examples with laysa as in the following:

'alkutubu laysa muwaafaqan ʿalay-haa
'The books, there is no agreement on them.'

⇒ laysat 'alkutubu muwaafaqan ʿalay-haa
'The books are not agreed upon.'

T-22: Optional

SD: nomv + NOM + $\begin{bmatrix} \text{NEG} \\ \text{Y} \end{bmatrix}$ + Z, where Y ≠ NEG + ...

SC: 'inna + accv + NOM + $\begin{bmatrix} \text{NEG} \\ \pm \text{la-} + \text{Y} \end{bmatrix}$ + Z

T-22 introduces the subordinating particle 'inna in clause-initial position and requires the following nominal to be marked with an accusative case marker. Examples are the following:

'albintu fii 'albayti 'The girl [is] in the house.'	⇒	'inna 'albinta (la-)fii 'albayti (same)
'alrijaalu hum min 'alqaa-hiraTi 'The men they [are] from Cairo.'	⇒	'inna 'alrijaala (la-)hum min 'alqaahiraTi (same)
'anta fahimta haaðaa 'alkitaaba 'You understood this book.'	⇒	'inna-ka (la-)fahimta haaoaa 'alkitaaba (same)
hiya hiya madiinaTun jamiilaTun 'It, it [is] a beautiful city.'	⇒	'inna-haa hiya madiinaTun jamiilaTun (same)

Originally a particle denoting emphasis, 'inna has, for the most part, become a stylistic variant of independent clauses in MWA. Further, a problem in the order of transformations arises here in that 'inna-CL constructions take, as one of their inputs, a 'topic-comment' construction. Yet, T-15 and T-16 may apply to 'inna-CL constructions, as in the following:

'inna-nii 'adrusu 'al^{c}arabii-yaTa 'I study Arabic.'	⇒	'ammaa 'anaa fa-'inna-nii 'adrusu 'al^{c}arabiiyaTa 'As for me, I study Arabic.'

The means of circumventing this problem of ordering is not clear at present.

T-23: Optional

$$\underline{SD}: \quad \pm \text{NEG} \pm \begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix} + \begin{Bmatrix} perf \\ impf \end{Bmatrix} + Y$$

$$X \qquad\qquad + Y$$

$$\underline{SC}: \quad \underline{'inna} + accv + PRN_{3,m,sg} + X + Y$$

T-23 provides for a non-nominal initial input subordinated by 'inna. A 3,m,sg dummy pronoun is required, whether the underlying subject is present (i.e., inverted by T-19) or deleted or simply not present in the underlying string. The following illustrates this:

sa-yaẓharu 'anna 'albayta huwa kabiirun '[It] will appear that the house it [is] large.'	⇒	'inna-hu sa-yaẓharu 'anna 'albayta huwa kabiirun (same)
kaanat fii 'almaktabaTi bintaani '[There] were, in the library, two girls.'	⇒	'inna-hu kaanat fii 'almaktabaTi bintaani (same)

In general, if the subject construction is a pronoun, T-22 rather than T-23 will be applied.

T-24: Optional

T-24 is a transformation (or, ultimately, will be a series of transformations) which will allow the ADV constituents (TIME, LOC, MAN, PURP) to be placed at the differing possible points within the linear

string of a construction. Because of a number of presently unresolved problems,[5] a few rather general remarks will be given in expository form, though a more extensive analysis is required for an explicit (and thus more satisfactory) statement.

The ADV constituents occur as modifiers of clauses, though at least some of them occur as modifiers of phrases (e.g., 'alrajulu fii 'albayti ... 'the man in the house ...', 'altaalibu min lubnaana 'the student from Lebanon ...', 'albintu ma^{c}a-hum 'the girl with them ...', etc.). When occurring as modifiers of phrases, these adverbials will occur in a post-NP position (see Section 2.6; they will occur in a post-attributive adjective position but pre-relative clause if these latter are present), except for the partitive min-P which may occur inverted with the head NP (e.g., 'ayyaamun ja^{c}alat min-naa 'ixwaanan 'days [which] made [out] of us brothers', instead of ... 'ixwaanan min-naa '... brothers [out] of us.').

If an ADV follows an embedded 'an-CL, 'anna-CL, etc. (i.e., a subordinate clause), it, as in English, will normally be interpreted as modifying the subordinate rather than the independent clause, as in the following pair of examples:

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[5]Note the statement from Stockwell, Bowen, and Martin, p. 202, concerning the same problem in Spanish: "The problem in the description of adverbs which most seriously challenges the initiative of the analyst is their placement, in relation to each other and to other sentence elements ... Charting and comparing the patterns and contrasts is an extremely complex task, involving not only adverb, but verb and noun, classification. This task has not been accomplished and is not attempted in this present study. We content ourselves with offering a few guidelines and limitations that are part of the system, until such time as extensive research can be done."

qaaluu 'inna 'alra'iisa qad waṣala 'amsi	'They said that the president had arrived yesterday.'
qaaluu 'amsi 'inna 'alra'iisa qad waṣala	'They said yesterday that the president had arrived.'

The haal-CL constructions (see Section 2.5, TIME, MAN, and PURP) occur parenthetically following the construction that they modify, as in the following:

qaala wa-huwa yuḥalliqu fii 'alfiḍaa'i ... (CAR I.188)	'He said while he was soaring in space ...'
wa-qutila wa-'alsilaahu bi-yadi-hi (CAR IV.10.86)	'and he was killed with the weapon in his hand.'

If a TIME adverbial contains an embedded clause itself, it will often occur clause-initially, or, if there is no preceding subordinate clause (as noted above), it may occur clause-finally:

baᶜda 'an 'intaqala 'alraa'idu 'ilaa 'alqiyaadaTi 'alyadawii-yaTi bada'a ... (CAR I.189)	'After the astronaut moved to manual control, he began...'
ðaalika maa qaala li-iy šayxu 'alᶜarabi fulayḥaan qabla 'an tajmaᶜa bayna-naa riḥlaTu 'alṣaydi ... (CAR IV.4.28)	'That [is] what the Sheikh of the Arabs, Fulayhaan, said to me before the hunting trip brought us together...'

In general, however, the TIME adverbial has considerable freedom of occurrence, occurring clause-initially or finally as above, or between the verb of the AUX and the verb of the VP, or following the main verb, or following an adverb of interest, a directional adverb, or an object nominal, as in the following examples:

wa-kaana 'abuu ᶜassaaf muð ra'aa-hu daaxilan qad 'asraᶜa 'ilaa 'almaṭbaxi ... (CAR IV.27.20)	'And Abu-Assaaf, since he had seen him entering, had rushed to the kitchen ...'

la-qad 'awsaa-nii 'ab-ii qabla ðahaabi-hi fii 'alriḥlaTi ... bi-'an ... (CAR IV.8.66)	'My father commanded me, before he went on the trip ... to ...'
saafara 'alwafdu 'amsi 'ilaa miṣra	'The delegation travelled yesterday to Egypt.'
ᶜudtu 'ilaa suuriiyaa baᶜda ðaalika (CAR IV.9.76)	'I returned to Syria after that.'

Generally, though not always, TIME, when occurring adjacent to a subject nominal, will follow it (as is the case in several of the above examples), though the following is an exception:

yazuuru miṣra haaðaa 'al'usbuuᶜa 'alduktuuru ṣalaaḥ	'Visiting Egypt this week is Doctor Salah.'

LOC likewise tends to have considerable freedom of occurrence, with the same type of statements as were made above for TIME generally applicable to LOC. Examples are the following:

wa-fii filisṭiina kaanat xalaaya 'aldubbaaṭi 'al'aḥraari tadrusu ... fii 'alxanaadiqi ... (CAR II.4.34)	'And in Palestine, the cells of the free officers were studying ... in the trenches ...'
kuntu fii 'almaktabaTi 'adrusu ...	'I was, in the library, studying ...'

When TIME and LOC occur adjacent to each other, it appears that the ordering of the two is optional:

yadrusu 'al'aana fii 'aljaamiᶜaTi	'He is studying now in the University.'
... wa-yutlaa fii 'al'ijtimaaᶜaati wa-'almajaalisi ḥattaa yawmi-naa haaðaa (FA.134)	'... and it is read in the meetings and councils up until this very day.'

If, in a relative clause, the replacive pronoun occurs in a TIME or LOC

adverbial, this construction will tend to occur either post-verbally if a verb is present or adjacent to the relative pronoun if such is present (see T-35 through T-37, Section 3.3):

... 'aljaamiᶜaTu 'allatii darastu fii-haa 'alhandasaTa ...	'... the University which I studied in it engineering...'

The classification of the occurrences of the MAN adverbial raises the problem of a number of subclassifications which have not been made here (e.g., 'accompaniment', 'means', etc.). If MAN is an indefinite accusative nominal, participial phrase, or verbal noun phrase (see Section 2.5), these will occur post-verbally or post-(predicate) nominal:

wasaluu 'amsi qaadimiina min ᶜammaana	'They arrived yesterday, coming from Amman.'
ᶜaada saaliman baᶜda 15 daqiiqaTan (CAR I.188)	'He returned [safe and] sound after 15 minutes.'
nahnu 'akbaru dawlaTin ᶜaskariiyan ᶜalaa 'al'ardi (CAR I.21)	'We [are] the greatest nation, militarily, on the earth.'

Note that in the first two of the above three examples there is an alternation in linear position of MAN and TIME.

If MAN is a prepositional phrase indicating 'accompaniment', as with the verbs of motion, MAN tends to occur (immediately) postverbally:

saafartu maᶜa-hu 'ilaa bayruuta	'I travelled with him to Beirut.'

Occasionally, a MAN phrase occurs initially in a clause:

ka-jaa'iᶜin ya'kulu kulla maa yuqaddamu la-hu (CAR IV.12.4)	'As a starving [man], he eats everything presented to him.'

PURP adverbials, as in English, tend to occur finally in the clause:

... 'an ta^{c}mala kaθiiran li-kay tuṣbiḥa dawlaTan (CAR II.17.2)	'... that it work a lot in order to become a government.'

One occurrence of PURP in a paragraph initial position is the following (though it is dependent on the preceding paragraph and appears as an awkward break in the sequence):

'ið 'anna qiraa'aTa kulli kalimaati 'aljariidaTi tadallu ^{c}alaa ^{c}uzlaTin ^{c}aaṭifiiyaTin (CAR IV.12.3)	'Since the reading of every word of the newspaper points to an emotional isolation ...'

T-25: Optional

$$\underline{SD}: \quad T + NEG + U + \begin{Bmatrix} V\text{-}k \\ V\text{-}aux \end{Bmatrix} + \begin{Bmatrix} nomv + NOM \\ TIME \\ LOC \end{Bmatrix} \pm pv_2 + impf + W$$

$$T + NEG + \qquad Y \qquad + \qquad Z$$

$$\underline{SC}: \quad T + Y + NEG + Z$$

T-25 allows an optional position shift of the NEG in a two-verb sequence where a NOM, TIME, or LOC intervenes between the verbs to a position immediately pre-second-verb. A pair of examples illustrating this are the following:

NEG kaana 'alrujulu yadrusu fii 'almaktabaTi 'The man NEG was studying at home.'	⇒	kaana 'alrajulu laa yadrusu fii 'almaktabaTi 'The man was not studying at home.'
NEG kaanat kutubu-haa yaqra'u-haa 'al'ustaaðu 'Her books, the professor NEG was reading them.'	⇒	kaanat kutubu-haa laa yaqra'u-haa 'al'ustaaðu 'Her books, the professor was not reading them.'

T-26: Optional

SD: nomv + NOM + nomv + (INDEF + ADJ_1), where NOM is definite.

SC: maa + accv + (INDEF + compv + ADJ_1) + accv + NOM

T-26 transforms a 'subject + predicate adjective' construction to an exclamatory construction. A 'comparative' (compv) marker will be attached to ADJ_1 to produce the comparative form of the adjective (see PS rule 18, Section 2.3). Examples are the following:

haaðihi 'aljibaalu jamiilaTun
'These mountains [are] beautiful.'
⇒ maa 'ajmala haaðihi 'aljibaala
'How beautiful these mountains [are]!'

darsu-naa saᶜbun
'Our lesson [is] difficult.'
⇒ maa 'aṣᶜaba darsa-naa
'How difficult our lesson [is]!'

'albaytu 'al'abyaḍu kabiirun
'The White House [is] big.'
⇒ maa 'akbara 'albayta 'al'abyaḍa
'How large the White House [is]!'

As noted under PS rule 18, this transformation would also include adjectives denoting color.

3.3 Double Base Transformations

In this section of Chapter 3, each transformation will consist of two clause constructions, the first being the 'Matrix' and the second the 'Insert' (also known as 'Constituent'). The insert string will have the requirements of not being an imperative or interrogative construction, or having the markers 'ammaa and fa- present, and will be embedded in the matrix string with whatever structural changes are necessary.

The problem of ordering of transformations is very much in evidence at this point in that after these double base transformations it is necessary to allow (at least some of) the single base transformations to reapply (e.g., the Q_2 and Q_3 interrogatives of T-10 and T-11, and the 'topic-comment' transformations of T-15 and T-16). This was noted at certain points in the illustrations in Section 3.2 in that these transformations can be applied 'across' clause boundaries. We note this problem, but make no further effort to solve it at this time.

The first double base transformation embeds a 'quotation' (QT) as the object of the verb <u>qaala</u>. Statistically, the most important form of QT in this context is an <u>'inna</u>-CL, though other forms (e.g., imperatives, declaratives, words, etc.) may likewise occur.

<u>T-27</u>:

Matrix: $T + V\text{-}tr_{2.2.4} + U + QT + W$

$X \qquad + QT + W$

Insert: QT = <u>'inna</u>-CL, 'direct quote'

$$\left.\begin{matrix}\text{Matrix}\\ \text{Insert}\end{matrix}\right\} \Rightarrow X + \left\{\begin{matrix}\text{'}\underline{\text{inna}}\text{-CL}\\ \text{'direct quote'}\end{matrix}\right\} + W$$

This may be illustrated structurally by the following, using <u>M</u> for 'matrix' and <u>I</u> for 'insert':

M: qaala la-hum + QT + Ø — 'He said to them + QT'

$X \quad + QT + W$

I: 'inna-nii 'anaa min lubnaana — 'I, I [am] from Lebanon.'

QT

M, I ⇒ qaala la-hum + 'inna-nii 'anaa min lubnaana + ∅
X + QT + W

'He said to them that I [was] from Lebanon.' (or: 'He said to them, "I [am] from Lebanon."'

Informally, without the structural description, we would also have examples such as the following:

M: yuqaalu + QT — '[It] is said + QT'

I: 'inna 'alqudsa madiinaTun muqaddasaTun — 'Jerusalem is a holy city.'

M, I ⇒ yuqaalu 'inna 'alqudsa madiinaTun muqaddasaTun

'[It] is said that Jerusalem [is] a holy city.'

Or, as the following pair of examples, QT is an imperative, with the second example being an example of an embedded participial phrase:

M: yaquulu + QT — 'He says + QT'

I: 'iðhabuu wa-'udrusuu — 'Go (m,pl) and study!'

M, I ⇒ yaquulu 'iðhabuu wa-'udrusuu

'He says, "Go and study!"'

M: katabtu la-haa qaa'ilan + QT — 'I wrote to her saying + QT'

I: 'inna-nii qad ðahabtu — 'I have (had) gone.'

M, I ⇒ katabtu la-haa qaa'ilan 'inna-nii qad ðahabtu

'I wrote to her saying that I had gone.' (or: '... saying, "I have gone."'

Note that no examples of an embedded 'inna-CL have been found with the proclitic la- noted in T-22.

The following two transformations, providing for embedded 'anna-CL constructions, will be seen to resemble the form of the 'inna-CL constructions, assigning an accusative case marker to an initial nominal, or, in the case of a verb initial input, requiring a dummy pronoun.

T-28:

Matrix: S + 'anna-CL + T

Insert: nomv + NOM + W

Matrix, Insert ⟹ S + 'anna + accv + NOM + W + T

Three examples follow, the first only having the structural description (for further examples, see $V\text{-}in_{2.2.1}$, $V\text{-}tr_{2.1.2}$, and $V\text{-}tr_{2.2.2}$ examples in Section 2.4):

M: yaẓharu la-naa + 'anna-CL + ∅ 'It appears to us + that ...'
S + 'anna-CL + T

I: 'alrajulu + tamattaᶜa bi-'alḥaflaTi 'The man enjoyed the party.'
(nomv + NOM) + W

M, I ⟹ yaẓharu la-naa + 'anna + 'alrajula + tamattaᶜa
S + 'anna + (accv + NOM) + ...
bi-'alḥaflaTi + ∅ 'It appears to us that the man enjoyed the party.'
W + T

M: darasuu li- + 'anna-CL 'They studied because ...'

I: hum yuḥibbuuna 'ustaaða-hum 'They like their professor.'

M, I ⟹ darasuu li-'anna-hum yuḥibbuuna 'ustaaða-hum
'They studied because they liked their professor.'

M: yufhamu + 'anna-CL '[It] is understood + that ...'

I: 'albintu laysa la-haa kutubun 'The girl, she doesn't have [any] books.'

M, I ⟹ yufhamu 'anna 'albinta laysa la-haa kutubun

'[It] is understood that the girl doesn't have [any] books.'

T-29:

Matrix: S + 'anna-CL + T

Insert: $\pm$ NEG $\pm \begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix} + \begin{Bmatrix} perf \\ impf \end{Bmatrix} + Y$

$X \qquad + Y$

Matrix, Insert ⟹ S + 'anna + accv + $PRN_{3,m,sg}$ + X + Y + T

In the case of a verb-initial input (plus-or-minus the negative), a 3,m,sg dummy pronoun is required, as in the following examples:

M: qara'naa + 'anna-CL + ∅ 'We read + that ...'
S + 'anna-CL + T

I: yuwaafaqu ᶜalaa 'al'ijtimaaᶜi 'There is agreement concerning the meeting.'
X + Y

M, I ⟹ qara'naa + 'anna + -hu + yuwaafaqu ᶜalaa 'al'ijtimaaᶜi
S + 'anna + PRN + X + Y

'We read that there is agreement on the meeting.'

M: kaana mafhuuman + 'anna-CL '[It] was understood + that ...'

I: qad darasa hunaaka bintaani 'Two girls had studied there.'

M, I ⇒ kaana mafhuuman 'anna-hu qad darasa hunaaka bintaani
'[It] was understood that two girls had studied there.'

Normally however, a definite subject will not be inverted, but will be embedded by T-28 rather than T-29.

With respect to this dummy pronoun, it will be noted that when a Q3 interrogative transformation (e.g. man 'Who?') is applied to an initial nominal in an 'anna-CL and moved to sentence-initial position, the dummy pronoun is required, as in the following:

ta^{c}taqidu 'anna 'alra'iisa sa-yaðhabu	'You believe that the president will go.'
⇒ man ta^{c}taqidu 'anna (---) sa-yaðhabu	'Who do you believe will go?'
⇒ man ta^{c}taqidu 'anna-hu sa-yaðhabu	(lit.) 'Who do you believe that he will go?'

The following three transformations will provide for the embedding of three slightly different forms of 'an-CL constructions. Each will be given and discussed in turn.

T-30:

Matrix: R + NOM$_c$ + S + 'an-CL$_c$ + Z, where the subscript c indicates an obligatory concord match.
T + 'an-CL$_c$ + Z

Insert: nomv + (subj)NOM' ± NEG ± $\begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix}$ + $\begin{Bmatrix} perf \\ impf \end{Bmatrix}$ + Y,

where NOM = NOM'.

Matrix, Insert ⇒ T + 'an ± NEG + subjnc + Y + Z

Certain lexical items or constructions require a concord match between the subject of the embedded 'an-CL and a NOM in the matrix string. This concord match has been noted in the lexicon of Section 2.8 by a subscript c. Examples are the following:

M: ^{c}alay-naa$_{c}$ + 'an-CL$_{c}$ + ∅ '[It is] upon us + to ...'
T + 'an-CL$_{c}$ + Z (i.e., 'We must ...')

I: nahnu nahduru 'alhaflaTa 'We will attend the party.'

M, I ⟹ ^{c}alay-naa + 'an + nahdura 'alhaflaTa + ∅
T + 'an + subjnc + Y + Z

'[It is] upon us that we attend the party.' (i.e., 'We must attend ...')

M: 'alrijaalu$_{c}$ haawaluu + 'an-CL$_{c}$ 'The men tried + to ...'

I: 'alrijaalu yadrusuuna fii 'almaktabaTi 'The men are studying in the library.'

M, I ⟹ 'alrijaalu haawaluu 'an yadrusuu fii 'almaktabaTi
'The men tried to study in the library.'

M: 'anta turiidu min-hu$_{c}$ + 'an-CL$_{c}$ 'You (m,sg) want him + to...'

I: huwa yazuuru-ka 'He will visit you.'

M, I ⟹ 'anta turiidu min-hu 'an yazuura-ka
'You want him to visit you.'

There are other contexts in which a concord match is not required, and T-32 provides for this:

T-31:

Matrix: T + 'an-CL + Z

$$\text{Insert: } \pm \text{NEG} \pm \begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix} + \begin{Bmatrix} \text{impf} \\ \text{perf} \end{Bmatrix} + Y$$

$$\left.\begin{matrix} \text{Matrix} \\ \text{Insert} \end{matrix}\right\} \Rightarrow T + \underline{\text{'an}} \pm \text{NEG} + \text{subjnc} + Y + Z$$

Essentially the same form results from T-31 as was found in T-30, the only difference being in the fact that there is no necessary concord relationships across the subordinating particle 'an. Examples are the following:

M: yajibu + 'an-CL — '[It] is necessary + that ...'

I: yuḥaawilu 'alrijaalu 'an yadrusuu fii 'almaktabaTi — 'The men are trying to study in the library.'

$$\left.\begin{matrix} M \\ I \end{matrix}\right\} \Rightarrow$$ yajibu 'an yuḥaawila 'alrijaalu 'an yadrusuu fii 'almaktabaTi

'[It] is necessary that the men try to study in the library.'

M: ṭalaba 'alrajulu + 'an-CL — 'The man requested + that ...'

I: tadrusu bintu-hu — 'His daughter is studying.'

$$\left.\begin{matrix} M \\ I \end{matrix}\right\} \Rightarrow$$ ṭalaba 'alrajulu 'an tadrusa bintu-hu

'The man requested that his daughter study.'

M: darastu li- + 'an-CL — 'I studied + in order to ...'

I: 'ajtaazu 'al'imtiḥaana — 'I (will) pass the exam.'

$$\left.\begin{matrix} M \\ I \end{matrix}\right\} \Rightarrow$$ darastu li-'an 'ajtaaza 'al'imtiḥaana

'I studied in order to pass the exam.'

The final form of 'an-CL allows either a subjunctive or perfect

stem-mood marker, but this option has been noted only in TIME constructions, specifically, following qabla, baᶜda, or ʾilaa 'before', 'after', and 'until' respectively. Whether this option is limited to these contexts or not is not certain at present, though we formulate T-32 to allow only these options:

T-33:

$$\text{Matrix: } R + \begin{Bmatrix} \underline{\text{qabla}} \\ \underline{\text{baᶜda}} \\ \underline{\text{ʾilaa}} \end{Bmatrix} + \text{genv} + \underline{\text{ʾan}}\text{-CL} + Z$$

$$T \qquad\qquad + \underline{\text{ʾan}}\text{-CL} + Z$$

$$\text{Insert: } \pm \text{NEG} \pm \begin{Bmatrix} pv_1 \\ pv_2 \end{Bmatrix} + \begin{bmatrix} \text{perf} \\ \text{impf} \end{bmatrix} + Y$$

$$\left.\begin{matrix} \text{Matrix} \\ \text{Insert} \end{matrix}\right\} \Rightarrow T + \underline{\text{ʾan}} \pm \text{NEG} + \begin{bmatrix} \text{perf} \\ \text{subjnc} \end{bmatrix} + Y + Z$$

Examples are as follow:

M: maa darastu baᶜda + ʾan-CL — 'I didn't study after + ...'

I: ʾijtaztu ʾalʾimtiḥaana — 'I passed the exam.'

M, I ⇒ maa darastu baᶜda ʾan ʾijtaztu ʾalʾimtiḥaana

'I didn't study after I had passed the exam.'

M: saafara ʾalraʾiisu ʾilaa miṣra qabla + ʾan-CL — 'The president travelled to Egypt before + ...'

I: ðahabta ʾilaa lubnaana — 'You went to Lebanon.'

M, I ⇒ saafara 'alra'iisu 'ilaa miṣra qabla 'an ðahabta 'ilaa lubnaana
'The president travelled to Egypt before you went to Lebanon.'

Before proceeding, it is worthwhile to note that in at least some of the above examples of the 'an-CL constructions there is a straightforward transformational relationship between the 'an-CL and the corresponding verbal noun phrase (VNP). These nominalizations, though, have not been carefully studied yet, and we will thus note the relationship only by the following examples:

'alrijaalu ḥaawaluu 'an yadrusuu fii 'almaktabaTi
'The men tried to study in the library.'
⇒ 'alrijaalu haawaluu 'aldarsa fii 'almaktabaTi
'The men tried to study in the library.'

'anta turiidu min-hu 'an yazuura-ka
'You want (from) him that he visit you.'
⇒ 'anta turiidu min-hu ziyaaraTa-ka
'You want (from) him to visit you.'

darastu li-'an 'ajtaaza 'al'imtiḥaana
'I studied in order that I pass the examination.'
⇒ darastu li-'ijtiyaazi 'al'imtiḥaani
'I studied in order to pass the examination.'

maa darastu baᶜda 'an 'ijtaztu 'al'imtiḥaana
'I didn't study after (that) I passed the examination.'
⇒ maa darastu baᶜda 'ijtiyaazi 'al'imtiḥaani
'I didn't study after passing the examination.'

saafara 'alra'iisu 'ilaa miṣra qabla 'an ðahabta 'ilaa lubnaana
'The president travelled to Egypt before (that) you went to Lebanon.'
⇒ saafara 'alra'iisu 'ilaa miṣra qabla ðahaabi-ka 'ilaa lubnaana
'The president travelled to Egypt before your going to Lebanon.'

It might be possible to formulate this in the following manner:

T + 'an + subjnc + Y + S ⇒ T + v.n. + Y + S

where the v.n. (as noted in Section 2.1) would be attached to the

following verb and transform that VP into the appropriate VNP.

The next pair of transformations bear certain resemblances to the Q_3 interrogatives in that they embed nominalized clauses introduced by maa (occasionally maaðaa) 'what(ever), s.th. (which)' and man 'who(ever); someone, some people (who)'. In like manner, there are similar nominalized clauses beginning with 'ayy- 'which(ever), what(ever), who(ever)', but there are presently certain unresolved problems with these latter. Consequently, we list some representative examples in Appendix 2, but do not provide a formal statement for them at this time.

T-33:

Matrix: X + NOM + Z, where NOM is indefinite and/or non-personal.

$$\text{Insert: } R + \left[\begin{bmatrix} \text{nomv} \\ \text{accv} \\ \text{genv} \end{bmatrix} + \text{NOM}' \right] + T, \quad \text{where NOM} = \text{NOM}'$$

$$\left.\begin{matrix} \text{Matrix} \\ \text{Insert} \end{matrix}\right\} \Rightarrow X + \text{maa} + R + \left[\begin{matrix} \\ \pm\ (\text{accv} + \text{PRN}_{3,m,sg}) \\ +\ (\text{genv} + \text{PRN}_{3,m,sg}) \\ \\ \end{matrix} \right] + T + Z$$

The variants of T-33 will be illustrated separately.

M: ∅ + NOM + laysa faransiiyan '(s.th.) + is not French.'
X + NOM + Z

I: ∅ + nomv + NOM' + laysa waaḍiḥan '(s.th.) + is not clear.'
R + nomv + NOM' + T

M, I ⟹ Ø + maa + Ø + laysa waadiḥan + laysa faransiiyan
X + maa + R + T + Z

'What is not clear is not French.'

Here, NOM and NOM' are functioning as the subject in their respective constructions. Thus, following the embedding transformation, the insert string is functioning as the subject of the matrix string. In this context, there is no replacive pronoun. In the following example, NOM and NOM' are functioning as the objects of their respective strings, and thus, following the transformation, the insert string may optionally have the replacive pronoun. Also, in this instance, the insert string is functioning as the object of the matrix string:

M: 'aᶜrifu + NOM + Ø — 'I know + (s.th.).'
X + NOM + Z

I: kataba + accv + NOM' + la-haa — 'He wrote + (s.th.) + to her.'
R + accv + NOM' + T

M, I ⟹ 'aᶜrifu + maa + kataba ± -hu + la-haa + Ø
X + maa + R + PRN + T + Z

'I know what he wrote (it) to her.'

On the other hand, if NOM' occurs in the context of a genitive case marker, i.e., as the object of a preposition or as the final member of a non-classificatory 'iḍaafaT phrase, the replacive pronoun is obligatory, as illustrated in the following:

M: 'inna-naa masruuruuna bi- + NOM + Ø — 'We [are] pleased with
X + NOM + Z + (s.th.).'

I: waafaqa 'alwafdu ᶜalaa + genv + NOM' + Ø — 'The delegation agreed
R + genv + NOM' + T on + (s.th.).'

M, I ⟹ ʾinna-naa masruuruuna bi- + maa + waafaqa ʾalwafdu ᶜalay-hi + ∅
X + maa + R
+ PRN + T+Z

'We [are] pleased with what the delegation agreed on (it).'

There is a fourth variant which differs from the previous three in that maa has no apparent relationship to the insert string. The point of embedding in this instance is generally a TIME. Examples only are given:

... fi-maa ʾanaa ðaahibun ...	'... while I [was] going ...'
... kulla-maa yadrusu ...	'... whenever he studies ...'
... bayna-maa yazuuru-hum ...	'... while he visits them ...'
... ᶜinda-maa tajiiʾu ...	'... as soon as, when she comes ...'

man and ʾayy- do not occur as frequently as the nominalizer maa, but the transformational characteristics are similar.

T-34:

Matrix: X + PRN(pers;3gn) + Z

Insert: $R + \begin{bmatrix} \text{nomv} \\ \text{accv} \\ \text{genv} \end{bmatrix} + PRN' + T$, where PRN = PRN'

Matrix, Insert ⟹ $X + \text{man} + R + \begin{bmatrix} - - - \\ \pm (\text{accv} + PRN') \\ + (\text{genv} + PRN') \end{bmatrix} + T + Z$

This transformation is illustrated by the following pair of examples, with only the first having a structural description:

M: 'aᶜtayta 'alkitaaba la- + -hu + ∅
X + PRN(pers;3,m,sg) + Z

'You (m,sg) gave the book to + him.'

I: ∅ + huwa + laa yafhamu-hu 'He + does not understand it.'
R + nomv + PRN' + T

M, I ⟹ 'aᶜtayta 'alkitaaba li- + man + ∅ + laa yafhamu-hu + ∅
X + man + R + T + Z

'You gave the book to someone [who] doesn't understand it.'

In the following example, the pronoun will have markers of m,pl for contrast:

M: haaðihi 'alhadiiyaTu min- + -hum 'This gift [is] from + them.'

I: zaara + -hum + fii ᶜammaana 'He visited + them + in Amman.'

M, I ⟹ haaðihi 'alhadiiyaTu min + man + zaara ± -hum fii ᶜammaana

'This gift [is] from those [who] he visited (them) in Amman.'

The following three transformations will provide for the embedding of the REL.CL constructions. The matrix string in each of the three cases is the same, but the insert strings are of three differing types with slightly different characteristics. Each will be given and explained separately.

T-35:

Matrix: $R + \begin{bmatrix} NOM_{def;pgn} \\ NOM_{indef;pgn} \end{bmatrix} + T$

$R + S + T$

$$\text{Insert: } \quad \underset{X}{\text{nomv} + \text{NOM'}} + \underset{Y}{\left\{\begin{matrix}\text{nomv} \\ \text{EQN}_2\end{matrix}\right\}} + Z, \qquad \text{where NOM} = \text{NOM'}.$$

$$\left.\begin{matrix}\text{Matrix} \\ \text{Insert}\end{matrix}\right\} \Longrightarrow R + S + \left[\begin{matrix}\text{REL.PRN}_{g'n'} \pm (\text{nomv} + \text{PRN}_{g'n'}) \\ \text{- - - -}\end{matrix}\right] + Y + T,$$

$$gn = g'n'.$$

In this transformation, NOM' is functioning as the subject of a 'non-verbal' equation. If NOM, in the matrix string, is definite, a REL.PRN is required, and a PRN replacing NOM' is optional.[5] If NOM is indefinite, neither the REL.PRN nor the replacive PRN is allowed. Examples of both are seen in the following:

M: haaðaa 'al'ustaaðu huwa + 'alrajulu + ∅ 'This professor, he
R + S + T [is] the man.'

I: 'alrajulu + min lubnaana 'The man [is] from
X + Y Lebanon.'

$$\left.\begin{matrix}\text{M} \\ \text{I}\end{matrix}\right\} \Longrightarrow \underset{R}{\text{haaðaa 'al'ustaaðu huwa}} + \underset{S}{\text{'alrajulu}} + \text{'allaðii} + \text{REL.PRN}$$

$$\pm \underset{\text{PRN}}{\text{huwa}} + \underset{Y}{\text{min lubnaana}} + \underset{T}{\emptyset}$$

'This professor, he [is] the man who (he) [is] from Lebanon.'

---

[5] Certain forms of the 'classificatory' 'idaafaT are formally indefinite and thus do not allow the REL.PRN (e.g., 'akbaru madiinaTin '[the] largest city'), this in spite of the fact that they are semantically definite. On the other hand, the formally definite counterpart changes the meaning completely ('akbaru 'almadiinaTi 'the largest [person, thing] of the city'). These appear to be best explained as nominalizations from differing sources.

If the indefinite rajulun 'a man' were substituted in the matrix string, the resultant would be the following:

$$\left.\begin{matrix}M\\I\end{matrix}\right\} \Rightarrow \underset{R}{\text{haaðaa 'al'ustaaðu huwa}} + \underset{S}{\text{rajulun}} + \underset{Y}{\text{min lubnaana}} + \underset{T}{\emptyset}$$

'This professor, he [is] a man [who is] from Lebanon.'

In the first example, it is permissible to delete the NP 'alrajulu and allow the attributive REL.CL to function substantively, thus giving:

⇒ haaðaa 'al'ustaaðu huwa 'allaðii min lubnaana — 'This professor he [is] the one who [is] from Lebanon.'

T-36:

Matrix: Same as T-35.

$$\text{Insert: } \underset{X}{\text{nomv + NOM' } \pm \text{ NEG}} + \left\{\begin{matrix}pv_1\\pv_2\end{matrix}\right\} + \underset{Y}{\left\{\begin{matrix}perf\\impf\end{matrix}\right\} + Z}, \quad \text{where NOM = NOM'}$$

$$\left.\begin{matrix}\text{Matrix}\\\text{Insert}\end{matrix}\right\} \Rightarrow R + S + \left[\begin{matrix}REL.PRN_{g'n'}\\- - - -\end{matrix}\right] + Y + T$$

T-36 is similar to T-35 except that here the insert string contains a verb following the initial nominal and, in the transformation, allows no replacive pronoun.[6] This is shown in the following:

M: $\underset{R}{\text{sa-tadrusu}} + \underset{S}{\text{'albintu}} + \underset{T}{\text{fii bayruuta}}$ — 'The girl will study in Beirut.'

---

[6]Informants have attested to the legitimacy of a replacive pronoun in this context though no examples of such have been found. If allowed, T-35 and T-36 could then be collapsed into a single rule, the insert being nomv + NOM' + Y, and the resultant being as in T-35.

I: 'albintu + zaarat-naa 'amsi — 'The girl visited us yesterday.'
X + Y

M, I ⇒ sa-tadrusu + 'albintu + 'allatii + zaarat-naa 'amsi
R + S + REL.PRN + Y
+ fii bayruuta — 'The girl who visited us yesterday (in Beirut) will study.'
+ T

Inasmuch as the LOC fii bayruuta would, in this context, be most probably interpreted as a constituent of the insert string (indicated by the parentheses and gloss of the example), the TIME and the subject nominal would be preferably inverted, resulting in the following:

sa-tadrusu fii bayruuta 'albintu 'allatii zaarat-naa 'amsi — 'The girl who visited us yesterday will study in Beirut.'

If the constituent representing W in the matrix string, 'albintu, were indefinite, the resulting construction would be:

sa-tadrusu fii bayruuta bintun zaarat-naa 'amsi — 'A girl [who] visited us yesterday will study in Beirut.'

T-37:

Matrix: Same as T-35.

Insert: $X + \begin{bmatrix} \text{accv} \\ \text{genv} \end{bmatrix} + \text{NOM}' + Z$, where $X \neq$ 'inna ...; and NOM = NOM'

$Y + \text{NOM}' + Z$

Matrix, Insert ⇒ $R + S + \begin{bmatrix} \text{REL.PRN}_{g'n'} \\ - - - \end{bmatrix} + Y + \text{PRN}_{g'n'} + Z + T$

T-37 provides for the embedding of an insert string in which NOM' is not the subject (i.e., NOM' occurs in the context of a preceding

accusative or genitive case marker). In this context the replacive pronoun becomes obligatory. Also, not specifically provided for above, there is a very strong statistical preference for moving the constituent containing the replacive pronoun as close as possible to its antecedent, though with the restrictions that it does not precede the verb of its own clause if such is present and that it does not cross the boundary of the clause of which it is a constituent (e.g., 'anna, 'inna, 'an, maa, etc.). Examples follow:

M: Ø + 'albintu + fii miṣra 'The girl + [is] in Egypt.'
R + S + T

I: taktubu li- + 'albinti + 'uxtu-hu 'His sister + writes to +
Y + W' + Z the girl.'

M, I ⟹ Ø + 'albintu + 'allatii + taktubu la- + haa + 'uxtu-hu
R + S + REL.PRN + Y + PRN + Z

+ fii miṣra 'The girl who his sister writes to
+ T [is] in Egypt.'

Of course, the insert string above was set up to reflect the proper word order of the embedded clause, the PREP.P li-'albinti 'to the girl' occurring in a pre-subject position but post-verbally. If the matrix string contained an indefinite subject, the constituents would have been reversed by T-19, and it would thus appear as fii miṣra bintun 'In Egypt [there is] a girl.' Replacing NOM by the indefinite bintun, we would have:

M, I ⟹ fii miṣra bintun taktubu la-haa 'uxtu-hu

'In Egypt [there is] a girl who his sister writes to.'

Another example, this time with NOM' in the insert string a constituent

of an embedded 'an-CL, is the following:

M: 'a^{c}ṭaytu-hu + 'alkitaaba + ∅ 'I gave him + the book.'
R + S + T

I: ḥaawaltu 'an 'aqra'a + 'alkitaaba + ∅ 'I tried to read + the book.'
Y + NOM' + Z

M, I ⇒ 'a^{c}ṭaytu-hu + 'alkitaaba + 'allaðii + ḥaawaltu 'an + 'aqra'a- + -hu + ∅
R + S + REL.PRN + Y ... ... + PRN +Z+T

'I gave him the book which I had tried to read (it).'

Analogously to the previous example, if we replace the definite 'alkitaaba 'the book' by the indefinite kitaaban 'a book', we would have:

M, I ⇒ 'a^{c}ṭaytu-hu kitaaban ḥaawaltu 'an 'aqra'a-hu

'I gave him a book [which] I had tried to read (it).'

PS rule 27 (Section 2.4) rewrote V-tr$_3$ into six different subsets, depending on the form of COMPL which the particular subset took. The remaining transformations in this section will provide for the embedded COMPL constructions. For a few of these transformations one example with the structural description will be given; for further examples, see the discussion under PS rules 27 and 28.

T-38:

Matrix: T + V-tr$_{3.1.1}$ + U + COMPL + W
X + COMPL + W

Insert: nomv + NOM$_{def}$ + nomv + NOM'$_{indef}$
nomv + Y + nomv + Z

$$\left.\begin{matrix}\text{Matrix}\\ \text{Insert}\end{matrix}\right\} \Rightarrow X + Y + \text{accv} + Z + W$$

T-38 provides for a construction of the form 'subject nominal + predicate nominal' to be embedded as the COMPL of V-$tr_{3.1.1}$ (verbs such as <u>ᶜayyana</u> 'to appoint', <u>'ixtaara</u> 'to choose', etc.). NOM' is obligatorily indefinite in this context. An example is given in the following:

M: 'alšaᶜbu 'intaxaba + COMPL + ∅ 'The people elected + COMPL.'
X + COMPL + W

I: 'alšayxu + ra'iisan 'The senator [is] president.'
(nomv + Y) (nomv + Z)

$$\left.\begin{matrix}M\\ I\end{matrix}\right\} \Rightarrow \text{'alšaᶜbu 'intaxaba} + \text{'alšayxa} + \text{ra'iisan} + \emptyset$$
$$X + Y + (\text{accv} + Z) + W$$

'The people elected the senator president.'

In this form of COMPL, where the insert predicate nominal is required to be indefinite, any possessive or 'relational' characteristic will be expressed by the indefinite nominal plus an 'adverb of relation' <u>li-</u> plus a nominal, as <u>'alšaᶜbu 'intaxaba-hu ra'iisan la-hu</u> 'The people elected him [as] their president.'

<u>T-39</u>:

Matrix: $T + V\text{-}tr_{3.1.2} + U + \text{COMPL} + W$
$X + \text{COMPL} + W$

Insert: $\text{nomv} + \text{NOM}_{\text{def}} + \text{nomv} + \text{NOM'}_{\text{def}}$
$\text{nomv} + Y + \text{nomv} + Z$

$$\left.\begin{matrix}\text{Matrix}\\ \text{Insert}\end{matrix}\right\} \Rightarrow X + Y + \text{accv} + Z + W$$

The only difference between T-38 and T-39 is that the predicate nominal (NOM') is definite here. Only two verbs have been noted with this possibility, sammaa 'to call, name' and 'i^{c}tabara 'to consider':

M: sammaa 'al'abu + COMPL + ∅ — 'His father named + COMPL.'
X + COMPL + W

I: 'ibnu-hu + 'ahmad — 'His son [is] Ahmad.'
(nomv + Y) (nomv + Z)

M, I ⇒ sammaa 'al'abu + 'ibna-hu + 'ahmad + ∅
X + Y + (accv + Z) + W

'The father named his son Ahmad.'

T-40:

Matrix: T + V-tr$_{3.2}$ + U + COMPL + W
X + COMPL + W

Insert: nomv + NOM$_{def}$ + nomv + (pred)ADJ
nomv + Y + nomv + Z

Matrix, Insert ⇒ X + Y + accv + Z + W

The insert string is here recognized as a 'subject nominal + predicate adjective', but otherwise quite similar to the preceding two transformations:

M: ya^{c}rifu 'alwafdu + COMPL + ∅ — 'The delegation knows + COMPL.'
X + COMPL + ∅

I: 'almabda'u + muhimmun — 'The principle [is] important.'
(nomv + Y) (nomv + Z)

M, I ⟹ ya^{c}rifu 'alwafdu + 'almabda'a + muhimman + ∅
X + Y + (accv + Z) + W

'The delegation knows the principle [is] important.'

No 'topic-comment' complements have been found, though they have been elicited, as in the following example:

ta^{c}tabiru 'alḥukuumaTu 'alqaraaraaTi muwaafaqan ^{c}alay-haa — 'The government considers the resolutions agreed upon.'

T-41:

Matrix: T + V-tr$_{3.3}$ + U + COMPL + W
X + COMPL + W

Insert: nomv + NOM ± AUX + VP
nomv + Y + Z

Matrix, Insert ⟹ X + Y + Z + W

T-41 embeds a 'subject-verb' construction as the COMPL of V-tr$_{3.3}$ with the subject of the insert string becoming the object of V-tr$_{3.3}$. There are at least two subsets here, only informally identified, the first of which takes a COMPL with an 'impf + VP' sequence only (e.g., ja^{c}ala 'to make', wada^{c}a 'to let'), and the second in which there is no such restriction (e.g., ra'aa 'to see'). Examples of both are given, but without the structural description:

M: ja^{c}ala + COMPL — 'He made + COMPL.'

I: 'anaa 'adrusu — 'I am studying.'

M, I ⟹ ja^{c}ala-nii 'adrusu
'He made me study.'

M: 'albintu ra'at + COMPL — 'The girl saw + COMPL.'

I: 'uxtu-haa qad jaa'at — 'Her sister had come.'

M, I ⟹ 'albintu ra'at 'uxta-haa qad jaa'at
'The girl saw her sister had come.'

T-42:

Matrix: T + V-tr$_{3,4}$ + U + COMPL + W
X + COMPL + W

Insert: $\begin{bmatrix} Q_1 \\ Q_2 \end{bmatrix}$ + Y

Matrix, Insert ⟹ X + $\begin{bmatrix} Q_1 \\ Q_2 \end{bmatrix}$ + Y + W

T-42 provides for the embedding of Q_1 or Q_2 interrogatives as COMPL constructions. Only two verbs have been noted with this option, <u>^{c}arafa</u> 'to know' and <u>sa'ala</u> 'to ask', though it seems entirely reasonable to assume that others allow this option as well. Examples only are given:

yuriiduuna 'an ya^{c}rifuu hal katabta la-haa — 'They want to know if you wrote to her.' (lit: '... know, did you write to her?')

sa'altu limaaðaa tadrusu hunaa — 'I asked why you are studying here.'

T-43:

Matrix: nomv + (subj)NOM + T + V-tr$_{3,5}$ + U + COMPL + W
X + COMPL + W

Insert: nomv + (subj)NOM' + Y + VP + Z, where NOM = NOM'

Matrix
Insert
$\Rightarrow$ X + v.n. + VP + Z + W

This final transformation of this section embeds a verbal noun phrase (VNP) as the COMPL of the V-tr$_{3.5}$ verbs:

Matrix:	'ustaaðu-ka 'anhaa + COMPL	'Your professor finished + COMPL.'
Insert:	'ustaaðu-ka qara'a 'aljariidaTa	'Your professor read the newspaper.'

M
I
$\Rightarrow$ 'ustaaðu-ka 'anhaa qiraa'aTa 'aljariidaTi
'Your professor finished reading the newspaper.'

This then would allow the reapplication of certain of the preceding transformations, as e.g., T-19, resulting in:

'anhaa 'ustaaðu-ka qiraa'aTa 'aljariidaTi (same translation)

3.4 Negative and Interrogative Morphophonemics and Affix Transformations

The final set of transformations map, first, the symbol NEG into the correct set of negative words (T-44 through T-47), and secondly the symbols Q_1, Q_2, and Q_3 into the proper question words (T-48, T-49, and T-50; see earlier, T-9, T-10, and T-11, Section 3.2, for examples). Finally, the transformations attaching the verbal stem-mood markers and case markers to the proper constituents will be given (T-51 and T-52).

These are all obligatory wherever the structural description (the left-hand member of the transformation here) fits.

The set of NEG mappings is given with examples and explanation following:

$$\underline{\text{T-44}}: \quad X + \text{NEG} \pm \text{pv}_1 + \text{perf} + Y \Rightarrow X + \left\{\begin{matrix} \underline{\text{maa}} + \text{perf} \\ \underline{\text{lam}} + \text{jussv} \end{matrix}\right\} + Y$$

$$\underline{\text{T-45}}: \quad X + \text{NEG} + \left[\begin{matrix} \text{subjnc} \\ \text{impv} \end{matrix}\right] + Y \Rightarrow X + \underline{\text{laa}} + \left[\begin{matrix} \text{subjnc} \\ \text{jussv} \end{matrix}\right] + Y$$

$$\underline{\text{T-46}}: \quad X + \text{NEG} + \left[\begin{matrix} \text{---} \\ \text{pv}_2 \end{matrix}\right] + \text{impf} + Y \Rightarrow X + \left[\begin{matrix} \left\{\begin{matrix} \underline{\text{maa}} \\ \underline{\text{laa}} \end{matrix}\right\} + \text{impf} \\ \left\{\begin{matrix} \underline{\text{sawfa}}\ \underline{\text{laa}} + \text{impf} \\ \underline{\text{lan}} + \text{subjnc} \end{matrix}\right\} \end{matrix}\right] + Y$$

$$\underline{\text{T-47}}: \quad X + \text{NEG} + \left[\begin{matrix} \text{nomv} \\ \text{EQN}_2 \end{matrix}\right] + Y \Rightarrow \underline{\text{maa}} + X + \left[\begin{matrix} \text{nomv} \\ \text{EQN}_2 \end{matrix}\right] + Y$$

In the context of the following 'perfect' stem-mood marker (with or without pv_1, qad), the NEG may be mapped into maa plus the 'perfect' marker, or lam plus a 'jussive' marker. This is indicated in the following with the affirmative given on the left and the negative counterparts on the right:

'iḥtafaẓuu bi-'alkutubi	⇒ maa 'iḥtafaẓuu bi-'alkutubi (or: lam yaḥtafiẓuu ...)
'They kept the books.'	'They didn't keep the books.'
zaarat miṣra	⇒ maa zaarat miṣra (or: lam tazur ...)
'She visited Egypt.'	'She didn't visit Egypt.'

When NEG occurs in the context of a following 'subjunctive' marker (thus far in the grammar, this could only be following the subordinating particle 'an), the NEG is rewritten as laa:

... li-'an yuðii^{c}a-haa gadan ⇒ ... li-'an laa yuðii^{c}a-haa gadan

'... in order that he announce it tomorrow.' '... in order that he not announce it tomorrow.'

On the other hand, in the same rule, T-45, if NEG occurs in the context of a following 'imperative' marker, NEG is rewritten as laa plus a 'jussive' marker (see examples under T-13, Section 3.2).

When NEG occurs in the context of a following 'imperfect' stem-mood marker, without an intervening pv_2 (sa- or sawfa), NEG is rewritten as maa (indicating a negation of present time) or laa (which is not so limited), with no change in the stem-mood marker:

tatlubu min-hu kitaaban ⇒ maa tatlubu min-hu kitaaban

'She is requesting (will request) a bock from him.' 'She is not (now) requesting a book from him.'

or: ⇒ laa tatlubu min-hu kitaaban

'She is not requesting (will not request) a book from him.'

On the other hand, if pv_2 is present, then NEG may be rewritten as either sawfa laa plus an 'imperfect' marker, or lan plus a 'subjunctive' marker, both indicating a negation of future action:[7]

sa-yaštarikuuna fii 'al'ijtimaa^{c}i ⇒ sawfa laa yaštarikuuna fii 'al'ijtimaa^{c}i

'They will participate in the meeting.' 'They will not participate in the meeting.'

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[7]The only example of sawfa laa found to date is in FA.144.

or: ⇒ lan yaštarikuu fii 'al'ijtimaa^{c}i
(same)

Finally, a NEG in the context of a following 'nominative' case marker or a constituent of EQN_2 (i.e., as the negation of a 'non-verbal' equation), is moved to sentence initial position and rewritten as <u>maa</u>. This form of negation is not as common, nor as preferable, as <u>laysa</u> (see T-7, Section 3.2):

^{c}inda-naa 'imtiḥaanun gadan
'We [will] have an examination tomorrow.' ⇒ maa ^{c}inda-naa 'imtiḥaanun gadan
'We [will] not have an examination tomorrow.'

haaðaa 'alṭaalibu ṭawiilun
'This student [is] tall.' ⇒ maa haaðaa 'alṭaalibu ṭawiilun
'This student [is] not tall.'

The counterparts with <u>laysa</u> would be the following:

laysa ^{c}inda-naa 'imtiḥaanun gadan — 'We will not have an examination tomorrow.'

laysa haaðaa 'alṭaalibu ṭawiilan — 'This student is not tall.'

The following set of transformations mapping Q_1, Q_2, and Q_3 into the interrogative words have been amply illustrated under T-9, T-10, and T-11 in Section 3.2. Consequently, the rules will be given here with a minimum of comment:

<u>T-48</u>: $Q_1 \Rightarrow \left\{\begin{matrix}\text{'a-} \\ \underline{\text{hal}} \\ \text{?}\end{matrix}\right\}$

$$\underline{\text{T-49}}\text{:}\quad Q_2 + \begin{bmatrix} \text{TIME} \\ \text{LOC} \\ \begin{Bmatrix} \text{MAN} \\ \text{(pred)ADJ} \end{Bmatrix} \\ \text{PURP} \end{bmatrix} \Rightarrow \begin{bmatrix} \underline{\text{mataa}}\ \text{'when?'} \\ \underline{\text{'ayna}}\ \text{'where?'} \\ \underline{\text{kayfa}}\ \text{'how?'} \\ \underline{\text{limaaðaa}}\ \text{'why?'} \end{bmatrix}$$

The Q_3 mappings will be indicated in steps. Note that the mappings into 'ayy- 'which?' and kam 'how much, how many?' are based in part on an intuitive rather than formal analysis of phrases and are subject to revision.

T-50.a: $Q_3 + \text{PRN}_{3\text{gn;pers}} \Rightarrow$ man 'who?'

T-50.b: $Q_3 + \text{NOM}_x \Rightarrow$ maa(ðaa) 'what?' where x = indefinite and/or non-personal.

T-50.c: $Q_3 + \text{NOM}_{\text{def;gn}} \pm$ min-P, where min-P is a PREP.P functioning as a partitive postnominal modifier.

$$\Rightarrow \underline{\text{'ayy-}}\begin{Bmatrix} \text{m} \\ \text{g'} \end{Bmatrix} + \text{genv} + \begin{Bmatrix} \text{NOM}_{\text{indef}} \pm \underline{\text{min-P}} \\ \text{NOM}_{\text{def;g'n'}} \end{Bmatrix}$$

where: g = g'; n = n' only if n ≠ sg.

or: $\Rightarrow$ INDEF + 'ayy-g'

T-50.d: $Q_3 + \begin{bmatrix} \text{Quantifier} + \underline{\text{min-P}} \\ \text{Quantifier} + \text{NOM}_n \end{bmatrix}$, where min-P is as above, T-50.c.

$$\Rightarrow \underline{\text{kam}} \pm \begin{bmatrix} \underline{\text{min-P}} \\ \text{accv} + \text{NOM}_{\text{indef;sg}} \end{bmatrix}$$

The latter pair of mappings will be illustrated very briefly:

Q_3 + haaðihi 'alka'su min 'almaa'i	'Q_3 + this glass of water'
⇒ 'ayyatu ka'sin min 'almaa'i	'which glass of water?'
⇒ 'ayyaTun	'which (one)?'
Q_3 + haaðihi 'alkutubu	'Q_3 + these books'
⇒ 'ayyu kutubin	'which books?'
⇒ 'ayyu 'alkutubi	'which of the books?'
⇒ 'ayyaTun	'which (ones)?'
Q_3 + xamsaTun min 'alṭullaabi	'Q_3 + five of the students'
⇒ kam min 'alṭullaabi	'how many of the students?'
⇒ kam	'how many?'
Q_3 + xamsu banaatin	'Q_3 + five girls'
⇒ kam bintan	'how many girls?'
⇒ kam	'how many?'

If, in a grammar of MWA nominalizations, it proves correct to derive certain 'iḍaafaT constructions from a partitive min-P (prepositional phrase with min 'of; from' as the preposition), as in the following set of examples, the above mappings into 'ayy- and kam could presumably be somewhat simplified:

'al'aṭwalu min 'al'anhuri 'the longest of the rivers'	⇒ 'aṭwalu 'al'anhuri 'The longest of the rivers'
baᶜḍun min 'alṭullaabi 'some of the students'	⇒ baᶜḍu 'alṭullaabi 'some of the students'
jamiiᶜun min-kum 'all of you'	⇒ jamiiᶜu-kum 'all of you'

The final pair of transformations, T-51 and T-52, attach first the stem-mood markers to the immediately following verbs, and then the case markers to the immediately following nominals (with provision for deleting the case markers in the context of following particles):

T-51: $Y + aff_1 + V\text{-}x + Z \Rightarrow Y + (V\text{-}x + aff_1) + Z$

where aff_1 = perf, impf, subjnc, jussv, impf, ptcp, or v.n.

T-52: $X + aff_2 + \begin{bmatrix} Y \\ PRT \end{bmatrix} + Z \Rightarrow X + \begin{bmatrix} (Y + aff_2) \\ PRT \end{bmatrix} + Z$

where aff_2 = nomv, accv, genv; Y = NOM, VN, PTCP, ADJ;

and PRT = 'anna, 'inna, 'an, man, maa, ...

CHAPTER 4

CONCLUSIONS

One of the questions arising from the foregoing grammatical statements is how, if at all, the present grammar supersedes traditional accounts of the clause or sentence structures of written Arabic. This can be answered in part by a brief characterization of the system of sentence classification, or parsing, used by the Arab grammarians and, for the most part, followed by western grammars of written Arabic as well.[1]

Arab grammarians have traditionally classified written Arabic sentences on the basis of a 'slot-and-filler' model, with the slots being the linear position. This is written in formula form as the following:

$$\pm \quad 1 \quad + \quad 2 \quad + \quad 3$$

Ignoring slot 1 for the moment, slot 2 can have a verb or a nominal occurring in it. If a verb occurs, the sentence is a 'verbal sentence' (jumlaT fiʿliiyaT), and if a nominal, the sentence is a 'nominal sentence' (jumlaT 'ismiiyaT). Thus it is the filler of slot 2 which

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[1] Inasmuch as this is a characterization, there are inevitably distortions because of the necessity of simplification and generalization. It is not the intention here, however, to depreciate either the quality or the extent of the grammarians' work.

becomes the primary means of classifying the sentence-type.

If the sentence is a 'verbal sentence', then slot 3 may contain the subject nominal (faaCil), the object nominal (mafCuul bi-hi), or whatever else may be required or allowed within the particular context. The structure of the 'verbal sentence' may thus be summarized in the following manner:

± 1	+ 2	+ 3
	Verb (fiCl)	Subject, ... (faaCil)
	yadrusu	'alṭaalibu hunaa

'The student is studying here.'

On the other hand, if the sentence is a 'nominal sentence', the filler of slot 2 is given the functional label mubtada' (functionally 'sentence-initial nominal', but literally 'beginning') and the filler of slot 3 is given the functional label xabar 'predicate'. Slot 3 may then have several different fillers: (a) a nominal (either a noun or adjective); (b) certain constructions indicating time or location (ẓarf zamaan or makaan); (c) a prepositional phrase (jaarr wa-majruur); (d) a verbal sentence as above; or (e) another nominal sentence. These are illustrated in the following:

± 1		+ 2	+ 3	
		Nominal (mubtada')	Predicate (xabar)	
(a)		'alṭaalibu	kariimun	'The student [is] generous.'
(b)		'alṭaalibu	ᶜinda-ka	'The student [is] with you.'
(c)		'alṭaalibu	fii 'albayti	'The student [is] in the house.'
(d)		'alṭaalibu	yadrusu hunaa	'The student is studying here.'
(e)		'alṭaalibu	ᶜinda-hu ṣadiiqu-ka	'The student, with him [is] your friend.'

Both of these sentence-types may then be modified by two sets of items: the 'inna-class of particles ('inna wa-'axawaatu-haa) or the kaana-class of verbs (kaana wa-'axawaatu-haa). These will not be illustrated here except to say that these two classes occur in slot 1.

At this point it is fair to point out certain weaknesses in the foregoing. First, note the 'verbal sentence' and compare it with example (d) of the 'nominal sentences'. There is, between these two examples, a simple, statable transformational relationship of order inversion, something that the Arab grammarians are forced to obscure by their system of parsing. In the 'verbal sentence', 'alṭaalibu is the faaᶜil (subject), but in the 'nominal sentence' the mubtada'. Likewise, the function of the verb is classified differently.

Secondly, note example (e) of the 'nominal sentences', one which we have labelled in our grammar a 'topic-comment' sentence, i.e.,

transformationally derived in the following fashion:

ṣadiiqu-ka ᶜinda 'alṭaalibi	⇒ (+T-15, T-16, T-20)	'alṭaalibu ᶜinda-hu ṣadiiqu-ka
'Your friend [is] with the student.'		'The student, your friend [is] with him.'

Finally, note the following pair, the second being a 'topic-comment' transformation of the first:

'abuu zayd jaa'a	⇒ (+T-15, T-16, T-19)	zayd jaa'a 'abuu-hu
'Zayd's father came.'		'Zayd, his father came.'

Both of these would be classified identically, i.e., as 'nominal sentences' (_'abuu zayd_ and _zayd_ as the _mubtada'_ respectively) with a _xabar_ ('predicate') consisting of a 'verbal sentence' (_jaa'a_ 'he came' in the first, and _jaa'a 'abuu-hu_ 'his father came' in the second), this despite the obvious difference in the internal structure of the sentence (more clearly seen perhaps when the 'topic' is feminine and is obviously not cross-referenced to the following verb as subject, as _kariimaT jaa'a 'abuu-haa_ 'Kariima, her father came.').

On the other hand, TG theory has required a more explicit type of grammar which exploits the notion of 'relationship' as fully as possible, as can be seen in the following:

> ... the minimal requirements for a grammatical description of a natural language are that it describe [1] precisely what the sentences of a language are and [2] that it say precisely what structure each has. In other words, a grammar must be an explicit formal device which enumerates all and only the well formed strings and which _automatically_ assigns to each sentence a correct structural description . . . showing what elements the sentence contains, their relations to each other, the relations of the sentence to other sentences, etc.[2] [Brackets mine, JAS]

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[2]Paul Postal, _Constituent structure: A study of contemporary models of syntactic description_ (Bloomington, Indiana, 1964), pp. 3-4.

Assuming the legitimacy of these claims, and with the realization that no grammatical description will meet them absolutely, the following generalizations may be made with respect to the grammar as presently formulated:

First, the notion of (transformational) relationships, coupled with the theoretical requirement of 'simplicity' (see Section 1.3, and also below), provides a different basis of sentence classification than that of the Arab grammarians, namely a primary dichotomy between 'equational' and 'non-equational' sentences, each set having a number of subsets and sub-subsets depending on the degree of detail desired and summarized in the following manner (see Sections 2.3 and 2.4):

(1) Equational sentences:

  (a) 'Verbal equational' (e.g., with the verbs kaana, laysa, 'aṣbaḥa, maa zaala, etc.); and

  (b) 'Non-verbal equational' (with no copular verb).

(2) Non-equational sentences:

  (a) 'Intransitive' (not allowing a passive transformation);

  (b) 'Minus-object transitive' (having an impersonal passive transformation); and

  (c) 'Plus-object transitive' (where the object 'becomes' the subject under the passive transformation).

This set of constructions, the 'kernel' set, is posited with the subject

nominal in sentence-initial position for the above mentioned reason of simplicity in the overall grammatical statement. These are thus logically prior to any transformationally derived constructions (with no historical or statistical implications intended). By a simple set of transformations, the subject nominal in the context of a following verb may be deleted or the order inverted, thus resulting in verb-initial sentences (the grammarians' 'verbal sentences'). Furthermore, the 'topic-comment' constructions are describable in terms of a pair of straightforward transformations. In this regard the relationships between these constructions is made an explicit part of the grammar and the criterion of 'simplicity' thus, in part, satisfied.

Secondly, because of this theoretical requirement of 'simplicity', certain generalizations within the grammatical system have been drawn together into a single set of statements, e.g., the statement of concord (holding for clausal concord relationships as well as phrasal, and, with seemingly anomolous concord relationships in constructions as 'alqaraaraatu 'almuwaafaqu ᶜalay-haa 'the resolutions [which were] agreed upon'), the relationship between the 'verbal equationals' and 'non-verbal equationals', the relationships between the various subsets of the verb phrase (VP), and the very straightforward set of statements concerning the negative words.

And finally, by writing a formal and explicit grammar, a number of the underlying formal mechanisms of MWA syntax have been clarified, including the structure of the auxiliary and the nominals, as well as the items mentioned above.

This is not to say that the present grammar is the ultimate word on MWA clause structures by any means. A number of problems have been

encountered, both in the linguistic theory underlying the description and in the description itself, which have gone unsolved. Perhaps the most serious problem is in regard to the ordering of the transformational rules.[3] It was necessary under the interrogative transformation (T-11, Section 3.2) to resort to an informal statement of the rather common interrogative construction with the replacive pronoun (e.g., maa hiya haaðihi 'alkalimaTu 'What [is] this word?') which reflects a transformational order of 'topic-comment' followed by the 'Q_3 interrogative'. On the other hand, constructions such as 'alrajulu maaðaa yadrusu hunaaka 'The man, what is he studying there?' reflect just the reverse ordering. Arbitrarily, the latter has been explicitly accounted for and the former noted only informally. Also, under the same transformation, the interrogative word kam 'how many, how much?', when occurring as subject, automatically assigns markers of 3,m,sg to the verb which it dominates, as in the following:

xamsu sanawaatin maḍat ᶜalay-ka fii 'alqudsi 'Five years passed over you in Jerusalem.' (i.e., 'You spent five years ...')	⇒	kam sanaTan maḍaa ᶜalay-ka fii 'alqudsi 'How many years passed over you in Jerusalem?'

In like manner, this was mentioned informally but not explicitly accounted for. In addition, the general problem of allowing certain of the transformations in Section 3.2 to reapply after a number of the embedding transformations of Section 3.3 was mentioned at a number of points in transit, a problem which TG theory, in its more recent statements, has

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[3]Cf. Robert B. Lees, The grammar of English nominalizations (Bloomington, Indiana, 1960), pp. 53-58.

presumably handled more adequately.

In addition, with respect to the use of Tagmemic theory as mentioned in Section 1.1, footnote 1, this writer found that Tagmemic theory, as presently formulated, could not provide the basis for the simpler and more explicit grammatical statement, though this is not to negate the value of the 'slot-and-filler' type of display, nor a number of the heuristic insights provided by Tagmemicists.

In summary, this grammatical statement provides the most formal, explicit, and simple statement of this portion of MWA syntax to date. That it will be modified in the light of new insights into the nature of language and/or from the efforts of individual researchers is beyond question, though, in the meantime, it will provide a framework for continuing research into the grammatical system of written Arabic.

APPENDIX 1

SYMBOLS AND ABBREVIATIONS

accv	accusative case marker
ADJ_1, ADJ_2	Adjective subclasses
ADV	Adverbial (Time, Locational, Manner, Purpose)
ASP_1, ASP_2	Aspect constituents of the Auxiliary
$ASPECT_{a,b,c}$	Sub-constituents of ASP_1, ASP_2
attr	attributive
AUX	Auxiliary constituent of the Predicate
CL	Clause
'an-CL 'anna-CL haal-CL 'inna-CL maa-CL man-CL REL.CL	Subsets of Clauses, marked by specific characteristics (e.g., 'an, 'anna, etc.)
COMPL	Clause embedded as the complement of $V\text{-}tr_3$
coll	collective
d	dual
DEF	Definite determiner
DEM.PRN	Demonstrative Pronoun
DET	Determiner

DIR	Directional adverbial
EQN_1, EQN_2	Equational constituents of the Predicate
fut	future (constituent of TPR)
g	gender
genv	genitive
'idaafaT	A phrase consisting of two or more nominals syntactically linked by deletion of all but the final determiner and the assignment of genv case markers to all but the first nominal
impf	imperfect stem-mood marker
impv	imperative stem-mood marker
INT	Adverb of Interest
INDEF	Indefinite determiner
jussv	jussive stem-mood marker
LOC	Locational adverbial
MAN	Manner adverbial
n	number
N	Noun
N_{+R}	'plus rationality' Noun
N_{-R}	'minus rationality' Noun
N_{coll}	'collective' Noun
N_{pers}	'personal' Noun
N_{ev}	'event' Noun
NEG	Negative
NOM	Nominal
nomv	nominative case marker
NP	Noun Phrase
NUCL	Nucleus of clause
OBJ (obj)	Object

OBJ_2	Second Object
p	person
past	past (constituent of TPR)
perf	perfect stem-mood marker
pers	personal
pl, pl-snd, pl-brk	plural, sound plural, broken plural
PN, (PN_1, PN_2)	Proper Noun (and subclasses)
PRED (pred)	Predicate
PREP.P	Prepositional Phrase
PRN, PRON	Personal Pronoun
PRT	Particle
ptcp	participial stem-mood marker
PURP	Purpose adverbial
pv_1	pre-verbal$_1$ (<u>qad</u>)
pv_2	pre-verbal$_2$ (<u>sa-</u>, <u>sawfa</u>)
QT	'Quotation'
REL	Adverbial of Relation
REL.PRN	Relative Pronoun
+R, -R	'Plus Rationality', 'minus Rationality'
SC	Structural Change (in transformation)
SD	Structural Description (in transformation)
sg	singular
SUBJ (subj)	Subject
subjnc	subjunctive stem-mood marker
T	Transformation
TIME	Time adverbial
(topic)	topic in a 'topic-comment' construction

TPR	Temporal Point of Reference in the Auxiliary
v.n.	verbal noun stem-mood marker
VP	Verb Phrase
VP-in	intransitive Verb Phrase
VP-tr	transitive Verb Phrase
V-aux	auxiliary subclass of verbs
V-in	intransitive subclass of verbs
V-k	single verb <u>kaana</u>
V-lys	single (defective) verb <u>laysa</u>
V-tr	transitive subclass of verbs
$\emptyset$	Zero
--→	'is rewritten as'
⇒	'is transformed to'
X/__Y	'X in the context XY
X/Y__	'X in the context YX'
+	'present in the string'
±	'optionally present in the string'
-	'obligatorily absent in the string'

APPENDIX 2

EXAMPLES FROM CORPUS

In the following, examples with location in the corpus will be given. For constructions commonly occurring, i.e., for which there is no particular need for justification, no examples will be given. On the other hand, for those transformations or postulated constructions which represent the limits of the grammatical system as postulated here, examples will be provided (the exceptions will be those instances where informant reaction rather than corpus examples were the source of the grammatical formulation). References will be abbreviated as noted in Section 1.3.

Auxiliary

CAR IV.8.73
wa-laakinna 'al'aqdaara kaanat qad 'a^{c}addat li-'alθa'ri
'... however, the fates had prepared for blood-revenge.'

ZR.9.13
... 'anna 'al'udabaa'a 'alqudamaa'a kaanuu yaktubuuna ...
'... that the ancient writers were writing ...'

CAR I.209.4
'inna 'alhukuumaTa ... takuunu qad fa^{c}alat ðaalika ...
'The government ... will have done that ...'

CAR II.4.32
fa-qad kunnaa nuḥaaribu fii filisṭiina
'We had been waging war in Palestine ...'

CAR I.203.10
... wa-sa-naraa 'iðaa kaana sa-yuktabu la-hu 'alnajaaḥu fii 'aasiyaTa ...
'And we shall see if success was going to be written (fated) for it in Asia ...'

CAR IV.12.5
... fa-qad kaana jaalisan ᶜalaa maqᶜadan xašabiiyin ...
'... he was sitting on a wooden chair ...'

CAR IV.3.24
wa-laa nazaalu muhaafiẓiina ᶜalaa haaðihi 'alᶜaadaTi
'... and we still keep this custom ...'

CAR I.134
... 'anna 'albayaana mu'allifun min θamaanii ṣafaḥaatin ...
'... that the report [is] composed of eight pages ...'

ZR.226.31
... dumuuᶜin 'anta mursilu-haa
'... tears [which] you [are] their sender.'

ZR.107.2
... wa-hum mufariquuna 'albilaada
'... while they [were] leaving the country ...'

CAR IV.4.31
... kaanat 'almuraajilu laa tazaalu taglii fii 'alšarqi 'alᶜarabiiyil
'... The cauldrons were still boiling in the Arab East, ...'

T-2

FA.95
... 'an tuballiga salaam-ii li-'aljamiiᶜi.
'... that you send my regards to all.'

FA.130
mataa ballaga-ka xabara 'istiqlaali 'alwizaaraTi?
'When did he communicate [to] you the news of the cabinet's resignation?'

CAR.37.26
... wa-qad 'aᶜṭaa-hu 'iiyaa-haa
'... and he had given him it ...'

T-3

CAR I.134
... 'allajnaTu ... 'allatii ᶜuhida 'ilay-haa bi-waḍᶜi 'albayaanⁱ ...
'... the committee ... which there was a commission to it to draft the statement ...'

---

[1]This quite rare three verb sequence is not accounted for in the auxiliary. Originally included on the basis of informant reaction, it was changed, but this example found too late to change back.

ZR.194.17
... wa-'ustugniya ᶜan 'albawwaabi — '... and [there] was a dispensing with the gatekeeper.' (i.e., 'the gatekeeper was dispensed with.')

T-4

ZR.16.17
hal haaðaa baladun yuskanu — '[Is] this a country [which] is lived in?'

FA.106
maᶜa man šuuhida 'aḥmad yatajawwalu šawaariᶜa bayruuta — 'With who was Ahmad seen walking around the streets of Beirut?'

ZR.63.24
xuyyila 'ilay-ya 'anna-naa ... — '[It] seemed to me that we ...'

T-7

ZR.42.33
lastu 'araa 'amalan ... — 'I don't see [any] hope ...'

CAR IV.78.167
wa-laakin-naa lasnaa bi-majnuunayni! — 'But we two aren't mad!'

ZR.70.3
ðakartu 'an laysa bi-hi 'aḥadun siwaa jiddaT-ii — 'I thought that no one was in it except my grandmother.'

T-9

CAR IV.22.11
ḥattaa saᶜiidaT tabkaa? — 'Even Saiida is crying?'

CAR IV.43.2
ṣaḥiiḥun 'anna 'ibna-ki tazawwaja min 'almadiinaTi? — '[It's] true that your son married from the city?'

CAR 48.44
'ibtada'ta tahzilu maᶜ-ii? — 'You've begun joking with me?'

ZR.172.48
fa-hal-laa tašabbahtu 'anaa bi-waalid-ii — 'And haven't I imitated my father?'

CAR IV.35.16
'a-huwa kaana yalᶜabu fii 'aljunainaTi — 'Was he playing in the garden?'

FA.144
'a-maa sami^{c}tum haaðihi 'alqiṣṣaTa — 'Didn't you hear this story?'

ZR.62.11
'a-fii šuglun ^{c}an-naa huwa ḥaqqan — '[Is] he really too busy for us?'

T-10

CAR IV.71.40
ðahaba 'ayna — 'He went where?'

T-11

CAR IV.77.153
taquulu maaðaa — 'You said what?'

CAR IV.73.73
'astanzilu waaḥidaTan min maaðaa — 'I should bring down one of what?'

CAR IV.71.54
maa taquulu — 'What are you saying?'

FA.150
maa 'allaðii ja^{c}ala-ka ta'baa 'al^{c}amala ma^{c}a-hu — 'What [is that] which made you refuse to work with him?'

CAR I.58
^{c}alaa maaðaa ya^{c}taqidu 'almursilu 'anna 'almursala 'ilay-hi muwaafaqun — 'On what does the sender believe that the recipient [is] agreed?'

CAR IV.48.45
bintu man hiya ... — 'Whose daughter [is] she ...?'

FA.49
li-man haaðaa 'alraadyuu — 'Whose [is] this radio?'

CAR I.162
man hum 'a^{c}daa'u 'alwizaaraTi 'al judadu — 'Who [are] the new members of the cabinet?'

FA.129
fii 'ayyi 'alquruuni jarat 'alḥuruubu 'alṣaliibiiyaTu — 'In which centuries did the Crusades take place?'

FA.12
'ayya lugaTin yatakallamu 'al^{c}arabu — 'Which language do the Arabs speak?'

CAR I.108
'ayyaTa marḥalaTin daxala 'almašruuᶜu — 'Which stage did the project enter?'

CAR IV.45.22
... kam sahira ᶜinda-ka min šabbin — '... how many young men attended social gatherings at your home?'

CAR I.178
kam sanaTan la-hu min alxibraTi ... — 'How many years of service [does] he have ...?'

Heywood and Nahmad, 312
'ibnu kam sanaTan 'anta — 'A son of how many years [are] you?' (i.e., 'How old are you?')

T-13

CAR IV.73.80
daᶜ 'almalikaTa taquulu — 'Let the queen speak!'

CAR IV.59.79
'utrukii-hi 'anti — 'You (f,sg) leave it!'

FA.110
laa tatruk 'algurfaTa ... — 'Don't leave the room!'

T-14[2]

ZR.96.50
... li-yuḥibba 'almadiinaTa man šaa'a — '... Let whoever will, love the city.'

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[2]WR.II.36.C provides a pair of counter-examples to the present negative imperative formulation, though the source is not known:

laa yattaxiðu 'almu'minuuna 'alkafiiriina 'awliyaa'a — 'Let not the faithful take unbelievers as friends!'

fa-laa naᶜud — 'and let us not return!'

T-15

CAR II.16.7
'ammaa 'alyawma wa-qad jaa'a ḥaazi-raanun fa-qad xaabat jamii^{c}u tilka 'al'aamaali, ...

'As for today, since June has come, all of those hopes have been frustrated, ...'

CAR IV.49.51
... 'ammaa fii bayti-haa fa-tuṭ^{c}imu 'alnaasa bi-qaanuunin

'... as for in her house, she feeds the people by (an) ordinance.'

ZR.96.50
wa-'ammaa 'anaa fa-'inn-ii 'uḥibbu 'alqaryaTa

'... and as for me, I love the village.'

CAR IV.80.191
wa-'ammaa 'al^{c}aqlu fa-maaðaa yu^{c}ṭii-nii

'... and as for reason, what will it give me?'

ZR.9.11
'ammaa 'alša^{c}bu ... fa-lam yuḥissa haa'ulaa'i bi-him

'As for the people ... these have not noticed them.'

T-16

CAR I.198
^{c}inda-maa bada'at 'alkabsuulaTu duxuula jawwi 'al'arḍi maaðaa 'a^{c}lana 'alraa'idu

'When the capsule began entering the earth's atmosphere, what did the astronaut announce?'

CAR II.18.4
... 'anna duwala 'al^{c}aalami ^{c}inda-haa muhimmaTaani

'... that the countries of the world, they have two tasks ...'

CAR IV.70.20
kullu haaðaa ra'at-hu ^{c}aynaa-ya min qablu

'All of this, my two eyes saw it before.'

CAR IV.16.10
... fa-huwa huwa 'alrajulu ...

'... and he, he [is] the man ...'

CAR II.17.16
... 'anna 'alma^{c}rifaTa laysa la-haa «qaaduumiiyaT»

'... that knowledge, it doesn't have a shortcut.' (i.e., '... that there is no short-cut to knowledge.')

ZR.16.14
... 'anna-ka 'anta, ḥattaa 'anta, tastaṭii^{c}u 'an ...

'... that you, you, even you, would be able to ...'

CAR II.68
θalaaθaTu mašruuᶜaatin bada'a majmaᶜu 'allugaTi 'alᶜarabiiyaTi bi-albaḥθi fii-haa munðu ...

'Three projects, the Arabic language Academy began discussing them during ...'

FA.40
'altaᶜliiqu ᶜalaa 'al'axbaari yatluu-hu ᶜalay-kum maḥarriru-naa ...

'The commentary on the news, our editor will read it to you ...'

CAR IV.21.3
wa-haaðaa 'aldaw'u 'al'urjuwaaniiyu ... laᶜalla-hu ḍaw'u 'alqamari ...

'and this crimson light ... perhaps it [is] the moon's light ...'

ZR.62.6
'alθarθara, nanfii bi-haa

'... the chattering, we banish it from ourselves ...'

CAR II.17.2
... 'anna dawlata-naa ᶜalay-haa 'an taᶜmala kaθiiran ...

'... that our country, [it is] encumbant upon it to work a lot ...'

CAR IV.78.173
wa-'anta, 'a-laa taᶜtaqidu fii ṣiḥḥaTi ᶜaql-ii

'And you, don't you believe in the scundness of my mind?'

T-18

ZR.3.38
wa-bayna-maa kaana huwa yaṣᶜadu 'ilaa maqᶜadi-hi kuntu 'anaa 'atarajjalu.

'And while he was climbing into his chair, I was getting down.'

ZR.10.26
... wa-tamkuθu hiya fii 'al'ardi

'... and <u>it</u> will dwell in the ground.'

ZR.18.38
... bayna-maa saᶜidtu 'anaa 'ilaa gurfaT-ii ...

'While <u>I</u> climbed to my room ...'

CAR IV.61.5
... ka-'anna-hum lam ya'tuu hum ...

'... as though <u>they</u> didn't come ...'

CAR IV.79.178
... bi-'anna-hum 'inna-maa salimuu hum min 'aljanuuni ...

'... that <u>they</u>, they only have escaped the madness ...'

CAR I.202.4
... 'alduwalu 'al'uurubiiyaTu ... 'aṣbaḥat madᶜuuwaTan hiya 'ilaa taqdiimi ...

'... the European states ... they became invited to present ...'

CAR IV.59.72
'iðhabii 'anti

'You (f,sg) go!'

CAR IV.22.11
law šaribtu min maa'i-haa 'anaa ...

'If I had drunk from its water, ...'

FA.95
'a-mustaᶜiddun 'anta li-'ijtiyaazi-hi[3]

'[Are] you prepared to pass it?'

CAR IV.43.4
maġšuušaTun 'anti

'You (f.sg) [are] deceived!'

T-19, T-20

ZR.10.29
'aṣbaḥa kullu haa'ulaa'i yaqra'uuna

'All of those (people) began reading ...'

ZR.63.23
... fa-'axaðat sayaaratu-naa tuhaddi'u min sayri-haa ...

'... and then our car began to slow down from its trip.'

CAR IV.25.33
mataa tušriqu ᶜalaa quraa-naa šamsun jadiidaTun ...'

'When will a new sun rise over our our villages ...?'

ZR.17.24
... wa-yadxulu 'algurfaTa fii kulli ṣabaaḥin xaadimaTaani li- ...

'... and two servant girls (i.e., maids) would enter the room each morning to ...'

CAR.2.14
... 'an takuuna la-hu nafsi-hi 'alkalimaTu 'alᶜulyaa fii maṣiiri-hi

'... that it itself would have the supreme word in its destiny.'

ZR.62.8
wa-laa yakaada yaṭwii-hi 'albaabu ...

'And the door scarcely folds him ...' (i.e., 'closes behind him.')

---

[3] Cf. also FA.95.144, and WR.II.65.D.

T-21

ZR.9.3[4]

fa-qad kaana 'alhukmu fii 'al'umami 'alqadiimaTi tatawallaa-hu tabaqaTun sagiiraTun hawla 'almaliki 'aw 'al'imbaratuur

'Authority (rule) in the ancient nations, a small class around the king or emperor used to take charge of it ...'

JZ-9/64,p.7

wa-baqiya ðikru Šaksabiir yahtafilu bi-hi watanu-hu wa-tahtafilu bi-hi ma^{c}a-hu jamii^{c}u 'al'awtaani

'And the memory of Shakespeare, his homeland honors it and all of the countries honor it with it (his homeland).'

T-22

CAR II.5.46

'inna 'allaðii yahdaθu la-naa hunaa suuraTun min ...

'[That] which is happening to us here [is] a picture of ...'

ZR.77.21

na^{c}am 'inna haaðaa 'alša^{c}ba 'allaðii nahsibu-hu jaahilan la-ya^{c}lamu 'ašyaa'an kaθiiraTan

'Yes, this people whom we assume to be ignorant know many things.'

ZR.101.10

wa-'inna-naa la-natahaddaθu 'ið ra'aynaa ...

'And we conversed since we saw ...'

T-23

McCarus and Rammuny, p.238[5]

wa-'inna-hu yuujadu ta^{c}liimun muxtalatun ^{c}inda-hum fii 'aljaami^{c}aTi

'And coeducation is found with them (i.e., they have ...) in the University.'

T-24

See references in text, Section 3.2.

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[4] Note also ZR.14, Exercise 4.

[5] Ernest N. McCarus and Raji M. Rammuny, First level Arabic: Elementary Arabic for secondary schools (Ann Arbor, 1964).

T-25

ZR.159.45
wa-kunnaa yaa 'ibnaT-ii fii haaðaa 'alzamani laa nanᶜamu bi-kahrabaa'in

'And we were, oh daughter, in that time, not living in luxury with electricity ...'

T-29[6]

CAR II.2.23
... li-'anna-hu qad gurrira bi-him fii filisṭiina

'... because [there] had been a risking of their lives in Palestine.'

QZ.-11/64-p.47
... 'anna-hu kaanat hunaaka ᶜaa'ilaTun faqiiraTun ...

'... that a poor family was there ...'

CAR IV.48.45
ka-'anna-hu maa ᶜinda-haa ᶜilmun ...

'As though she doesn't have any knowledge ...'

T-33

CAR I.202
... 'ilaa 'an takuuna barli-maanaatu 'alduwali 'almuwaqqiᶜaTi qad ṣaddaqat ᶜalaa 'al'ittifaaqi

'... until the parliaments of the signatory countries will have ratified the treaty.'

CAR I.101
... baᶜda 'an ᶜuqidat ᶜiddaTu 'ijti-maaᶜaatin ...

'after a number of meetings had been held ...'

ZR.203.40
fa-huwa yaquulu maa yaᶜtaqidu-hu ...

'And he says what he believes (it) ...'

CAR IV.78.159
'aᶜrifu maa turiidu 'an taquula

'I know what you want to say.'

ZR.10.32
maa laysa waaḍiḥan laysa faransiiyan

'What is not clear is not French.'

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[6] Cf. also ZR.30, Exercise 4.

ZR.9.8

... wa-bi-maa yajibu ᶜalay-him min 'alwaajibaati 'alsiyaasiiyaTi ...

'... and what is encumbant upon them of political duties ...'

ZR.101.17

... li-'aqifa ᶜalaa maa 'astaṭiiᶜu 'alwuquufa ᶜalay-hi min 'anbaa': 'almawqifi

'... in order to understand what I am able to understand (it) of the news of the situation.'

ZR.70.10

wa-bayna-maa 'anaa saa'irun ...

'and while I [was] walking ...'

T-34

CAR IV.12.8

... min-man ẓanna-hum 'aṣdiqaa'a-hu min 'almuwaaṭiniina ...

'... from those of the country-men he thought (they) [were] his friends ...'

CAR IV.12.4

... 'ilaa 'ayyi man fataḥa famma-hu

'... to whichever person opened his mouth.'

ZR.17.34

... naẓara 'ilay-ya naẓaraTa man lam yafham

'... he looked at me with the look of one [who] hadn't understood.'

ZR.201.17

... wa-fii ṣadr-ii 'alxawfu min-man 'atakallamu lugata-hum ...

'... and in my heart [was] the fear of those [who] I spoke their language ...'

CAR IV.12.4

... fii xammaaraTi yušaaribu 'ayyan yalqaa-hu

'... in a tavern he would drink with whoever met him.'

ZR.9.7

... fa-laa najidu 'ayyaTa ᶜinaayaTin bi- ...

'... and we don't find any regard to ...'

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