Syntax of the Verb Phrase of Colloquial Egyptian Arabic: a Transformational Study

by

Hilary Wise

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Abstract

The thesis is a description of some aspects of the syntax of present-day spoken Cairene Arabic, using the transformational-generative model of grammar developed by Noam Chomsky. The Introduction reviews briefly work already done on Egyptian Arabic and describes the grammatical model to be used. The first chapter provides the basic phrase structure rules of the grammar, with a brief explanation of the principal categories and formatives they introduce.

Subsequent chapters examine in detail some of the transformations required to produce the surface structure of the language, such as nominalisation of verbs, passivisation, and pronominalisation.

Particular attention is paid to transformations involving the verb, and problems of aspect, tense and modality are discussed.

The Appendix outlines rules of nominal and verbal concord, and a brief lexicon is included.

Acknowledgements

I wish to thank my supervisor, Dr. J. E. Buse for his constant help and advice throughout my three years with the Linguistics Department at the School of Oriental and African Studies, and also Professor C. E. Bazell, for many useful comments on my work and stimulating discussions of more general theoretical interest. Warmest thanks, too, to Dr. Neil Smith, now of the Department of Linguistics, S.O.A.S.; his guidance both in matters of practical detail and broader problems of transformational theory has been invaluable.

As any linguist working outside his native language will know, sensitive informants are of paramount importance. It would be impossible to list all those Egyptians who have sat through countless sentences, accepting, rejecting, correcting and commenting with astonishing patience and even enthusiasm. Among the most forbearing I must pay hommage to Mohammad Emany and his wife, Nihad, Ezzat Essayyid Ragab, Afaf Elmenoufy, Adel Mosharrafa and Musa Elnuseir.

Needless to say, none of the above are responsible for any failings of the present work.

Autobiographical note

The writer was born and brought up in Manchester, where she attended primary and secondary school. She read French at Bedford College, University of London, and then registered for postgraduate study in the Department of Linguistics of the School of Oriental and African Studies, at the same time taking a one-year course in Classical Arabic. After a year's fieldwork in Cairo 1966/67, which was spent principally in acquiring a reasonable competence in spoken Arabic, she returned to work on the syntax of Egyptian Arabic with the cooperation of Egyptians in London and with two additional short trips to Cairo. At the moment she is teaching at Queen Mary College, University of London.

CONTENTS

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INTRODUCTION

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This study attempts a partial description of colloquial Egyptian or rather Cairene Arabic, the majority of my informants having been born and brought up in the capital. The problem of what constitutes "colloquial" speech cannot be fully resolved for any dialect of Arabic, due to the all-pervading influence of the literary language. I have therefore decided on the possibly unreliable but necessary device of accepting only data which native speakers themselves feel to be entirely natural to everyday situations and avoiding literary, political or technical discourse, where "classicisms" tend to creep in.

An interesting analysis could no doubt be made of the different "registers" of Egyptian Arabic, either as separate "états de langue", or perhaps as processes operating on the lowest register of speech. Haim Blanc (1) sets up such registers, but on a pan-Arabic basis, for the purpose of providing a framework for his analysis of the speech of a group of Arab speakers from different countries. He takes "plain colloquial" and "standard classical" as the two end points of a scale, on which classicising and colloquial, dialectal

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(1) Haim Blanc 'Stylistic variations in spoken Arabic: a sample of interdialectal educated conversation' 1960.

influences operate respectively, the mid register being termed "semi-literary" or "elevated colloquial". This is, by and large, the register that emerges as the speech of the four Arabs taking part in the experiment.

The analysis carried out by W. B. Bishai (1) is again concerned with inter-dialectal Arabic, but of a rather higher register - what would probably be termed "modified Classical" on Blanc's scale. He takes the classical language as his norm, and lists various colloquialisms found in the speech of delegates from Egypt, Syria, Iraq and Tunisia, at the levels of syntax, lexis and phonology.

Studies restricted to the higher registers of purely Egyptian Arabic include those by:

- R. S. Harrell (2), who points up the strong influence of the colloquial phonological system on the spoken "modified Classical" register;
- N. Kamel (3), who draws conclusions of sociological and political significance from a collocational, contextual study of lexis in newspaper articles on political topics;
- K. M. A. Bishr (4): a collocational and syntactic study of the language of newspaper headlines. The categories he refers to seem

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(1) 'Modern Inter-Arabic': Journal of the American Oriental Society; vol. 86, no. 3, 1965.
(2) 'A Linguistic Analysis of Egyptian Radio Arabic': 1960.
(3) 'Political Jargon in Contemporary Egypt': Ph.D. London 1953.
(4) 'Egyptian Newspaper Headlines'; M.A. London 1952.

largely those of traditional Classical grammar. The register is again literary, though perhaps rather lower than that with which Kamel is concerned, colloquial forms apparently being fairly widely used in reports of street accidents, murders, etc.

At the phonological level, a thorough analysis of colloquial Egyptian Arabic has been carried out by R. S. Harrell (1), and there is also a brief comparative study of the phonology of Egyptian Arabic and American English (2), principally for teaching purposes.

At the grammatical level the most comprehensive studies produced to date are the two text books by T. F. Mitchell (3), which give a condensed but accurate account of the language. His analysis provides much useful information expressed in fairly informal terms, with the aim of being readily accessible to students with no special knowledge of linguistics.

The thesis of H. M. Aboul Fetouh (4) is a study of the morphemes of colloquial Egyptian Arabic (henceforward referred to as CEA) - their phonemic shape, classification into root, stem and affix,

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(1) 'The Phonology of Colloquial Egyptian Arabic', 1957.
(2) 'A Contrastive Study of Egyptian Arabic and American English: the Segmental Phonemes' by W. Lehn and W. R. Slager; Language Learning vol.IX, 1 and 2.
(3) 'An Introduction to Egyptian Colloquial Arabic', 1956, and 'Colloquial Arabic' ('Teach Yourself' series) 1962.
(4) 'A Morphological Study of Egyptian Arabic'; Ph.D. Texas 1961.

and distribution.

In 1962 Dawood ElSayyid produced a detailed study of the parts of speech of Alexandrian Arabic (differing only in detail from Cairene), basing his classification on morphological criteria (1). The theses of Saad Gamal ElDin (2) and Hanna Morcos Hanna (3) cover very similar ground, both being based on the immediate-constituent model of grammar, although they do include some elementary transformations, principally as a kind of discovery procedure - "useful...in resolving ambiguities and deciding the status of certain structures" (G. ElDin). Like D. ElSayyid, they both set up word classes on largely inflectional grounds; they then sketch transformations operating on strings analysed in terms of immediate constituents (although the structural description allotted to a string on which any particular transformation may operate is not explicitly delimited). Both singulary and generalised transformations are permitted, and in a full description the resulting T-marker would have to be semantically interpreted, as well as the underlying strings. No mention is made of the nature and composition of the lexicon.

It must be stressed that the above is by no means intended as criticism of forerunners in the field. But clearly, with the

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(1) 'The Part of Speech System and the Grammatical Categories of Egyptian Colloquial Arabic', Ph.D. Cornell, 1962.
(2) 'A Syntactic Study of Colloquial Egyptian Arabic', Ph.D. Texas, 1961
(3) 'The Phrase Structure of Egyptian Colloquial Arabic', Ph.D. Cornell, 1962.

rapid development of new insights and techniques of the last five to ten years, there is ample scope for a reassessment of the handling of material, in transformational-generative terms.

The present work seeks in particular to explore problems of tense, aspect and modality in CEA, as yet only touched upon by other writers, and to set up transformations operating on the verb phrase, demonstrating their effect on the verb itself and on other categories within the verb phrase.

The model adopted follows more or less closely that proposed in Chomsky's 'Aspects' (1), with some modifications which have been suggested in more recent publications and discussions, and confirmed by my own observations. It is not my intention to engage in a lengthy justification of transformational grammar - it has been done far more ably and fully than is possible in a study such as this (2). References will however be given to relevant works to amplify points of theoretical interest, and in some cases alternative solutions will be offered.

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(1) N. Chomsky, 'Aspects of the Theory of Syntax', 1965.
(2) See, inter alia, E. Bach, 'An Introduction to transformational Grammars', 1964, N. Ruwet, 'Introduction à la grammaire générative', 1968, N. Chomsky, 'Syntactic Structures', 1957, 'Topics in the Theory of Generative Grammar', 1966.

Nor do I intend to discuss hypotheses concerning the universality of the base, and possibly of parts of the transformational subcomponent, although whether the evidence contained in this thesis tends to confirm or refute such hypotheses will of course be of primary interest to many readers. I hope simply to present the material with sufficient clarity that the reader may draw his own conclusions as to the possible universality of the categories and processes described. In the course of this work I test some of the constraints proposed as universals by Ross (1), although an investigation of any depth would itself require a separate thesis.

Following Chomsky's conception of the base component of a grammar, we subdivide the base into:

(a) the phrase structure subcomponent, consisting of

i) context-free rewrite rules (generating strings of grammatical formatives and lexical categories) followed by

ii) context-sensitive rewrite rules generating complex symbols and

iii) context-free rewrite rules subcategorising a lexical category according to inherent syntactic features (2); and

(b) the lexicon, an unordered set of lexical items which substitute

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(1) J. Ross 'Constraints on variables', M.I.T. Ph.D. thesis, 1967.
(2) The PS rules are clearly sequential in a trivial sense, in that a symbol cannot be expanded until it has been introduced.

for the complex symbols and subcategories generated by (a), according to a lexical insertion rule (1).

Information provided by the lexicon must include:

1) the phonological 'spelling' of the item

2) the major lexical category to which it belongs

3) inherent syntactic features

4) the maximal syntactic environment in which it may occur

5) the specification of any idiosyncratic behaviour relating to the transformations it may or may not undergo

6) a 'dictionary definition' containing all semantic information relevant to the item

7) a set of 'morpheme structure conditions', formalising what items may or may not occur in terms of their phonological make-up; also canonical restraints on the form of certain word-classes.

Strictly speaking, parts 1), 6) and 7) of the lexicon are beyond the scope of this thesis, but they must necessarily be touched upon, in discussing the range of the other subsections of the lexicon. For instance, in the case of verbs, 1) should specify the consonantal root e.g. 'D-r-b', together with the morphological subcategory of

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1) See 'Aspects' p.84. Chomsky later states (p.112) that "the lexical rule need not be stated in the grammar since it is universal and... thus has the status of a convention determining the interpretation of the grammar, rather than the status of a rule of the grammar."

the verb determining the 'vocalic pattern', with or without affix, of the stem, and concomitant vocalisation, wherever this is not predictable (e.g. for class 2 verbs, vocalisation is always predictable - 'CaaCiC', whereas for class 1 it is variable ; 'CVCVC'). A very general semantic interpretation may be given for the consonantal root wherever possible e.g. 'D-r-b' - 'hit', 'b-y-D' - 'white'. Each individual entry will of course require further semantic interpretation, but the lexicon as a whole can be simplified by the use of lexical redundancy rules, by which certain morphological structures will have certain semantic implications, unless otherwise stated in the lexical entry. (For instance, class 2 verbs (transitive) will have the implication 'reciprocal' unless the verb is marked negatively '-reciprocal'; for further discussion see chapter on pronouns.)

I shall return to a rather more detailed discussion of the base after sketching some of the more general properties of the grammar.

The transformational subcomponent operates on the strings produced by the base - or rather on the branching trees underlying them - mapping them into acceptable surface structures by means of the deletion, insertion and permutation of elements (1). It will be noted later that I have taken two of the traditional 'derived forms'

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(1) For the full range of operations transformational rules may perform see E. Bach op.cit. p.70. These may all be expressed as combinations of the two operations of adjunction and substitution.

or morphological subclasses of the verb as being transformationally derived - the 'causative' and 'passive' forms. The causative can operate only on class 1 verbs, the passive only on classes 1, 2 and 3. These and other conditions will have to be specified in the transformation in question. I adopt Chomsky's criteria (1) for setting up a transformation rather than expanding the base - i.e. :

a) the transformation must be a productive process, operating fairly freely in the language and

b) there must be a regular, predictable semantic relationship between the two structures.

I have excluded as transformations the other 'derived forms' of the verb largely on grounds of incompatibility with b).

In this thesis I am assuming, according to the theory as proposed by Katz and Postal (2) and Chomsky (3), that transformations are without semantic effect. In a recent series of lectures (4) Chomsky suggested that the semantic interpretation of some surface structures is necessary, since certain differences of meaning are not easily expressible in terms of differences of deep structure, whereas quite simple generalisations can be made at surface level. Although I recognise

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(1) 'Remarks on Nominalisation' - lecture at University College, London; November, 1967.
(2) 'An Integrated Theory of Linguistic Descriptions'; 1964.
(3) 'Topics in the Theory of Generative Grammar' Ch. 3; 1964.
(4) At University College, London; May 1969.

the need to provide for such surface interpretation in a complete grammar of a language, I am concerned here with the basic grammatical relations defined by the deep structure rather than with the very subtle modal implications of some of the transformations cited by Chomsky.

The former distinction of singulary and generalised transformations is no longer recognised; the initial category 'S' recurs in the base, and the transformational rules are applied cyclically, from the most deeply embedded structure upwards. I have already noted that the semantic 'projection rules' (1) operate on the base component alone, and that all transformations are either obligatory operations, triggered by an element or elements in the base, or optional operations which cannot be said to affect the meaning of the sentence in any way. The status of the latter type is clearly different from that of the former. Some transformations in CEA, such as topicalisation (2) assume the presence in deep structure of a trigger-element such as 'Emphatic'. But it is often very difficult to say whether an apparently optional transformation is stylistically motivated in some way, dependent perhaps on the presence of some particular lexical item, or on some feature of preceding discourse (as is generally the case with

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(1) See Katz and Postal, op.cit., for fuller discussion of these rules.
(2) See chapter on 'Prepositional predicates and indefinite subjects' for a sketch of this transformation.

pronominalisation), or is indeed completely arbitrary and without stylistic or semantic import (as appears to be the case with the complementiser-deletion transformation (1)). Nor can we set up a sharp line of demarcation between grammatical and ungrammatical. Certain transformations may be more acceptable to speakers than others, or it may be that certain combinations of transformations prove unacceptable.

It should be clear from the above that the set of grammatical sentences includes the set of acceptable sentences, but is not coextensive with it; in other words, it is quite possible to imagine a sentence which is grammatically correct but which is unacceptable to speakers (e.g. an extremely long sentence, or one with a large number of clauses embedded one within another). To exclude such sentences from the grammar would complicate enormously the rules of the syntactic component.

It is not yet clear how the cline of acceptability can be built into a complete description of the language; but the concept might be further refined by the introduction of 'degrees of acceptability', which would of course only be associated with optional transformations. (I should stress here that the notions of 'grammaticality' or 'acceptability' are quite distinct from that of 'grammaticalness' as used by Chomsky (2). He is concerned with the detailed specification of

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(1) See chapter on 'NP complements and verbal nouns'.
(2) 'Degrees of Grammaticalness' - paper in 'The Structure of Language' - eds. Katz and Fodor; 1964.

selectional restrictions - which I shall discuss later in connection with the form of the lexicon.) Transformations may also be marked as producing more or less acceptable structures if used in conjunction with certain other transformations.

When formalising transformations I shall use the terms 'structural index' (SI) - which specifies the structures on which the transformation can operate - and 'structural change' (SC) - which indicates the change effected by the transformation. The structural index will generally consist of a string of grammatical categories and variables, with subindices or added conditions indicating the underlying structure. I shall indicate only informally the degree of acceptability of the transformation in question. Unless otherwise stated, it will produce fully acceptable sentences.

In accordance with the generally accepted aim of transformational grammars, this work seeks to generate 'all and only the grammatical sentences of the language' (subject to the limitations on the scope of the thesis as stated below). However it has been suggested (1) that a complete grammar should provide also for the generation of connected discourse (e.g. operations involving the treatment of new and repeated items, resumptive concord of identical nominals across sentence boundaries, co-ordinating elements etc.). While recognising

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(1) Inter alia, by Z. Harris 'Discourse Analysis', Language 28, 1952.

the need for such rules, I think it very possible that they could be formulated in terms of relatively minor modifications to rules already required for the generation of S, rather than by a drastic revision of the existing syntactic component. In other words, all the basic grammatical relations are to be found within the sentence, the most crucial constraints operating in discourse being semantic.

I shall be making some use of the notion of 'illocutionary force' proposed by Boyd and Thorne (1), but with rather basic modifications. I should say first that I accept Lyons' notional definition of mood as being that which "marks the attitude of the speaker towards what he is saying" - the simple statement being considered the unmarked class of sentence (2). While in English mood is generally realised in surface structure by the 'modal auxiliaries', in CEA it is variously realised by -

- forms of the auxiliary 'kaan' (also the carrier of tense)
- the form of the main verb itself (e.g. the 'subjunctive' - 'yiruuh' - 'let him go')
- verbal participles, derived from the predicate in deep structure (3) (e.g. 'laazim arawwah' - 'I must go home' (lit. 'it is necessary that I go home')).

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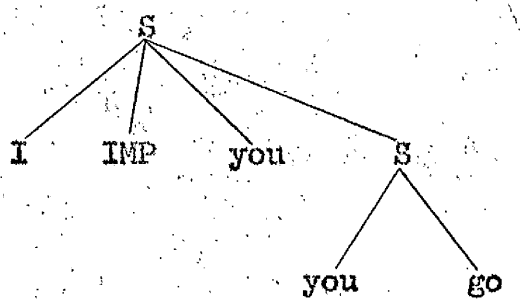
(1) 'The Deep Grammar of Modal Verbs', Journal of Linguistics, Vol. 5, 1. April 1969.
(2) 'An Introduction to Theoretical Linguistics' p.307 ff; 1968.
(3) See chapter on 'NP complements and verbal nouns'.

- a modal verb (e.g. '?idir' - 'be able')

For all modally marked sentences, Boyd and Thorne propose a deep structure of "two (or more) sentential elements, the first carrying the illocutionary potential of the sentence, the second what might be termed its 'propositional content'". Hence one deep structure of 'you will go' can be represented by



However, I consider it unnecessary to state in formal terms that the speaker is the first person, and that the verb in the first sentential element must be in the non-progressive present tense. This can surely be taken as inherent in the semantic readings of all markers of modality. Similarly, I can find no formal justification for considering questions 'commands to say' in deep structure, although the readings of 'Q' and 'I command you to say whether...' may share many, perhaps all, semantic features. In other words, I find it unacceptable to set up deep structure carriers for all the semantic features of modal markers. I allow a presentential category 'PreS' to generate modal markers not realised as separate lexical items (i.e. not realised as 3) or 4) above) - such as 'Subjunctive', 'Hypothetical' or 'Q' (the latter being realised by intonational features or lexical replacement.

The 'generative semantics' brand of transformational grammar, discussed at length by Chomsky in his recent London lectures (1), requires that sentences having the same semantic interpretation have the same deep structure; or rather, no separate syntactic level is recognised; the semantic representation is translated directly into surface structure via the transformational component. It follows that the underlying base structures, expressing every aspect of the meaning of the sentence, will be extremely abstract and complex, and also that the transformations will be called upon to perform much more complex operations, including the substitution of lexical items (e.g. 'close...with a key' will be optionally replaced by 'lock' etc.) (2). In the grammatical model I am using, (more or less what Chomsky calls the 'standard theory'), lexical consistency is required throughout a transformation. Also, there must be independent syntactic justification for setting up a presentential category such as 'Predictive', in addition to the tense category 'future' (3) i.e. we wish to distinguish the two sentences:

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(1) His arguments are further amplified in an unpublished paper 'Deep structure, surface structure and semantic interpretation' 1969, obtainable from the Indiana University Linguistics Club.
(2) For some discussion of the generative semantics approach, see J. D. McCawley, 'The role of semantics in a grammar', contribution to 'Universals in Linguistic Theory' eds. Bach and Harms 1968, and G. Lakoff, 'Generative Semantics' 1969, unpublished paper from Indiana University Linguistics Club.
(3) See chapter on 'Tense and sequence of tenses'.

1. 'ʕizzat fi beet ilbunn dilwa?ti'
'Ezzat is in the coffee shop now'

2. 'ʕizzat ħaykuun fi beet ilbunn dilwa?ti'
'Ezzat will be in the coffee shop now'

- but in terms of modality rather than tense.

At this point further explanation should be given of the types of rules found in subcomponent a) of the base, and for the composition of the lexicon b). The rules of a) ii) subcategorise a major lexical category according to the different categorial environments in which it may occur; rules a) iii), according to inherent syntactic features such as (±Masculine), (±Human) etc. Chomsky includes also context-sensitive rules which rewrite onto the verb inherent features of subject and object nouns. That is, he excludes as ungrammatical such sentences as

i) sincerity may admire the boy

ii) the harvest was clever to agree

iii) John solved the pipe

on the grounds that they violate these selectional restrictions (1). McCawley (2) points out that:

"... in reality, an enormous range of features would be needed to express the full range of selectional restrictions to be found in

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(1) 'Aspects' Chapter 2, 2.
(2) J. D. McCawley, 'Concerning the base component of a transformational grammar' - Foundations of Language, Vol 4, no. 3, August 1968.

English..." - such as those operating in sentences like:

*'I ate three phonemes for breakfast'

*'my hair is bleeding'

*'that electron is green' etc.

In this study I shall permit in the base the rewriting of only those inherent features that are of a truly syntactic significance - that is, that correlate with grammatical features elsewhere in the language. Hence it is necessary in CEA to include in the subcategorisation of the noun at least the features: (±Human), (±Masculine), (±Product) and (±Pair), principally to explain peculiarities of nominal concord(1). Provisional rules for the subcategorisation of the noun could be expressed as follows:

N ⟶ N [CS]

[CS] ⟶ ±Masculine, ±Human

-Human ⟶ ±Product

-Product ⟶ ±Pair

Redundancy rules akin to those operating in the phonological matrices will make it unnecessary to state inherent syntactic features which occur in a 'hierarchic sequence' (2) - i.e. those which dominate later features and are therefore predictable.

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(1) See Appendix for full justification of features.
(2) Chomsky 'Aspects' p.164 ff.

Hence we can mark '?ahwa' - 'coffee' as (-Masculine, +Product) in the lexicon, without actually specifying (-Human). I exclude those features (e.g. (±Animate)) which in CEA are of relevance only to the semantic interpretation; i.e. those which may lead to incompatible readings in the operation of the semantic projection rules but will not affect the grammaticality of strings generated by the base. In other words, I shall adopt Chomsky's original proposal (1) in accepting as grammatical sentences such as i) - iii) above. It follows that rules of the type

$$V \longrightarrow [CS] \;/\; \alpha\, Aux \_\_\_ (Det\ \beta)$$

will not be required in the base (2).

Turning to other subsections of the lexicon, it is obvious that the information given in b) 2) is redundant, being predictable from 3) and 4); I include it simply as a convenience, to save one referring to the rewrite rules of the base. With reference to subsection 4) of the lexicon, Chomsky's suggestion that, in the case of the verb, the context should be limited to VP is further elaborated by McCawley (3). He suggests that it may well be a general condition on the grammar to subcategorise a node in terms of its 'sister nodes' alone ("two

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(1) 'Syntactic Structures' pp. 15, 16. Chomsky himself rejects the proposal later in the book.
(2) 'Aspects' p.107.
(3) 'Concerning the base component of a transformational grammar'.

nodes are said to be sisters if they are directly dominated by the same node"). Hence the rule introducing a complex symbol "must directly follow the rule which introduces the category being subcategorised". "But", he points out, "if both the content of the rule and its place in the ordering are completely predictable, then everything about the rule is predictable, which means that there is no reason for it to appear at all." So unless we find it necessary in practice to subcategorise in terms of non-sister nodes, we can simplify the base by omitting rules of the type a) ii). Examples come to mind of verbs which are, for instance, restricted in their ability to occur with manner and purpose adverbials - e.g. 'cost', 'resemble' etc. However, noting that this restriction is common to comparable verbs of unrelated languages, it seems quite possible that such restrictions represent a general condition on all languages, semantic rather than syntactic in nature. The same is no doubt true of non-lexical categories liable to certain cooccurrence restrictions; for instance, the non-occurrence of the presentential category 'subjunctive' with 'past' is due to the incompatibility of their respective readings, as it is impossible to order or require someone to have done something in the past. If this kind of generalisation cannot be made, then it will be necessary to 'filter out' the non-occurring sequences by means of the structural index of the relevant transformation.

Considering now the remaining subsection of the lexicon which comes

within the scope of this thesis, it must be decided how much information is to be included about the transformations in which an item may participate. Taking as axiomatic Chomsky's proposal (1) that "all properties of a formative that are essentially idiosyncratic will be specified in the lexicon", I shall specify only the minority class of items, whether it be positively or negatively. Hence the verb 'idda' - 'give' will be marked (-T Passive) because it belongs to morphological class 1, is marked (___ NP) (i.e. is transitive), but nevertheless does not undergo the passive transformation. Referring again to Chomsky's criterion (a) for setting up a transformation, we must assume that it will be a widely productive process, and that specification in most - perhaps all - cases will therefore be negative. It may also be that some items must be specified as undergoing a transformation either obligatorily or optionally in contrast with the majority of items fulfilling the conditions on the structural index.

In the case of optional as against obligatory adjuncts to the verb (e.g. (___ NP) or (___ Loc)), it is not clear whether these should be specified as optional in the lexicon by a convention which allows (___ ±NP) to mean just that, or to allow only positive specification,

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(1) 'Aspects' p. 87, - though the notion of the idiosyncratic nature of the lexicon is not original to Chomsky. See, inter alia, Bloomfield ('Language' 1933).

then mark the verb as undergoing optional deletion in subsection 5) of the lexicon. I incline to the former approach, as the latter is likely to conflict with the criterion of idiosyncracy applicable to 5) as just stated above. The former will mark a deep structure difference between verbs such as 'miɸi' - 'go, leave', taking an optional locative, and 'sikin' - 'live', which takes an obligatory locative. It also raises the interesting question as to whether there is any semantic difference between 'miɸi' (___ Loc) and 'miɸi' (___); if it could be shown that there is such a difference they would be entered as separate items, or more probably, as sub-items with certain syntactic and semantic features in common.

The phrase structure and transformational subcomponents constitute the principal subject matter of the present work. The lexicon included in the Appendix is a word list consisting of items taken from examples used in the text, rather than a lexicon in the technical sense outlined above. The majority of the items listed are verbs, with the syntactic subcategory to which they belong, some information about their transformational peculiarities, and English gloss.

The technique used with informants was primarily one of asking them to accept, reject, or comment on sentences devised by the writer. This was found to be far more satisfactory than relying on tape-recorded data; although a useful starting-point for ideas, and an additional check on informants, such data was obviously inadequate

in not containing a great deal of the information I required; it was also unreliable in that free conversation often included what the speakers themselves recognised as ungrammatical sequences, on hearing the tapes played back.

Phonological and morphological preliminaries

I shall be using throughout the phonemic transcription which is basically that devised by Mitchell (1), though the limited resources of the non-phonetic typewriter necessitate somewhat clumsy orthographic modifications. The inventory of phonemes is as follows:

Consonants:

/t/ : voiceless dental plosive

/d/ : voiced dental plosive

/T/ : voiceless velarised dental plosive

/D/ : voiced velarised dental plosive

/s/ : voiceless alveolar fricative

/z/ : voiced alveolar fricative

/S/ : voiceless velarised alveolar fricative

/Z/ : voiced velarised alveolar fricative

/k/ : voiceless velar plosive

/g/ : voiced velar plosive

/ŝ/ : voiceless palato-alveolar fricative

/ʔ/ : glottal stop

/q/ : voiceless uvular plosive

/x/ : voiceless uvular fricative

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(1) T. F. Mitchell: Op. cit.

/ɣ/ : voiced uvular fricative

/b/ : voiced bilabial plosive

/f/ : voiceless labio-dental fricative

/m/ : voiced bilabial nasal

/n/ : voiced dental nasal

/l/ : voiced dental lateral

/r/ : voiced alveolar flap

/h/ : voiceless glottal fricative

/ḥ/ : voiceless pharyngal fricative

/ʕ/ : voiced pharyngal fricative

/y/ : voiced palatal semi-vowel

/w/ : voiced bilabial semi-vowel

Notes:

One may also include /ǯ/ - voiced palato-alveolar fricative - and /v/ - voiced labio-dental fricative - as marginal phonemes occurring only in foreign borrowings e.g. /ruuǯ/ - 'lipstick' and /karavaṬṬa/ - 'tie'. /ɣ/ - voiced velarised dental lateral - is also marginal in that it occurs only in the lexical item /aɣɣaah/ - 'God'; similarly, perhaps the velarised counterparts of /m/ and /r/ should be recognised as phonemes because of the 'emphatic', velarised quality of words containing them. In many lexical items /q/ is a reflex of /ʔ/ in a higher register of speech; e.g. we find both /iʕtaqad/ and /iʕtaʔad/ - 'be sure'. In other items, only /ʔ/ is possible e.g. /ʔamal/ - 'hope',

and in others, only /q/ e.g. /qarya/ - 'village'.

Vowels:

/i/ : front, half-close spread

/e/ : front, mid to half-close spread

/a/ : front open

/u/ : back half close-rounded

/o/ : back mid to half close rounded

Notes:

Length is distinctive in CEA, in both consonants and vowels, and is represented by a doubling of the letter. However this distinction is only utilised phonemically with the vowels /i/, /a/ and /u/; /e/ and /o/ are always long in open, stressed syllables, though short allophones occur.

I do not intend to discuss stress and syllable structure or features of elision and assimilation; they have been treated at length elsewhere (1), and my purpose is simply to provide an unambiguous representation of the grammatical forms which constitute the subject-matter of this thesis. For instance, I shall not represent the elision of unstressed vowels which occurs in normal discourse, where this

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(1) T.F. Mitchell op. cit. and 'Prominence and Syllabication in Arabic': BSOAS vol. XXIII part 2, 1960.

Also R. S. Harrell 'The Phonology of Colloquial Egyptian Arabic': American Council of Learned Societies, New York 1957.

tends to obscure the boundaries of morphemes and words under discussion. Although it seems to me more satisfactory to treat the phenomenon of velarisation or 'emphatisation' as a prosodic feature of the syllable or word, I follow here the more traditional course of representing it as a distinctive feature of the individual consonant, for the sake of typographical simplicity.

It is hoped that the following remarks on the morphology of CEA will be helpful to readers with no knowledge of Arabic.

Most lexical items are built up out of a system of triconsonantal roots, mapped onto a vocalic pattern, with or without affixes. There is often, though not always, a semantic link between items possessing the same root. For instance, taking the time-honoured example of 'k-t-b', associated with the notion 'write', we find such forms as

'katab' - 'he wrote'

'maktab' - 'desk, office'

'maktaba' - 'library'

'kaatib' - 'clerk, scribe'

'kitaab' - 'book'

'maktuub' - 'written' etc.

And derived from 'd-r-s' - 'study, learn':

'daras' - 'he studied'

'madrasa' - 'school'

'mudarris' - 'teacher'

'dars' - 'lesson' etc.

Nouns and adjectives inflect for number, the plural being marked either by suffixation or by change in the vocalic pattern e.g. 'kutub' - books', 'mudarrisiin' - teachers. Nouns also inflect for dual number, marked by the addition of the suffix '-een' to the singular e.g. 'kitaabeen'- 'two books' and 'mudarriseen' - 'two teachers'. Gender - either masculine or feminine - is inherent in the noun, and is exhibited in concord features of verbs and adjectives etc; the feminine is often overtly marked in the noun by the suffix '-a' e.g. 'mudarrisa' - 'teacher 'fem)'.

Verbs may be classed morphologically according to their vocalic pattern and prefixes and infixes. I recognise ten basic classes, which are listed in the chapter on noun phrase complements and verbal nouns. Finite verbs inflect for number, gender and person; the gender distinction is realised only in the second and third persons singular. This patterning is exactly mirrored by that of the personal pronouns, which occur either as independent forms or as enclitics suffixed to verbs, prepositions etc.:

	Independent		Enclitic	
	Sg.	Pl.	Sg.	Pl.
1st.	ana	ihna	-ni	-na
2nd. m.	inta	intu	-ak	-ku(m)
2nd. f.	inti		-ik	
3rd. m.	huwwa	humma	-u	-hum
3rd. f.	hiyya		-ha	

Every morphological class of verb exhibits two basic vocalic patterns - in the case of class 1 : CVCVC and VCCVC, which we shall call complete and incomplete respectively, and which act as the stem for prefixes and suffixes denoting number, gender, person, tense etc.

Both verbal and nominal concord are discussed in some detail in the Appendix.

Notational Conventions

The notation used below in the phrase structure rules is as follows:

'——→' is an instruction to replace the symbol on the left of the arrow by that on the right.

Braces '$\left\{\begin{matrix}\ldots\\\ldots\end{matrix}\right\}$' indicate an (exclusive) choice between the vertically listed symbols.

Symbols contained in round brackets '(...)' are optional.

Since it is a general constraint on the form of the grammar that a symbol cannot be replaced by zero in the phrase structure rules, if all the symbols to the right of the arrow are enclosed in round brackets then at least one of them must be chosen.

Square brackets '[...]' are used to enclose inherent syntactic features on lexical categories.

An asterisk before an example marks the example as unacceptable. A question mark marks an example as only marginally acceptable, or as acceptable to some speakers and not to others.

(The English translations given are fairly free, unless otherwise indicated.)

The tree-diagrams provided to illustrate the underlying structure of a sentence, or clarify the operation of a transformation are often given in a schematic form; relevant parts are shown in some detail, whereas sections not under discussion are abbreviated to block form (see Chapter one, example 1).

CHAPTER ONE

Phrase Structure of CEA

Although the scope of this thesis is in principle limited to the expansion of the verb phrase, the highly articulated and interdependent nature of the rules of the grammar makes it necessary to take into account phrase structure and transformational rules outside this immediate range, in greater or lesser detail. I have therefore provided a sketch of the phrase structure of the sentence as a whole; in later chapters I shall formulate in some detail transformations operating within the verb phrase, and outline others of more marginal significance.

My first chapter is concerned with a preliminary justification of the categories and features presented in the phrase structure rules given below and of their relative ordering, with some remarks on cooccurrence restrictions.

Phrase Structure Rules

1 $S \longrightarrow \text{Conj } S^{n}$

2 $S \longrightarrow (\text{PreS})\ \text{NP} + \text{Pred}$

3 $\text{PreS} \longrightarrow (\text{Hypo}) \begin{Bmatrix} (\text{Q}) \\ (\text{Imp}) \end{Bmatrix} \left(\begin{Bmatrix} \text{Subjunctive} \\ \text{Predicative} \end{Bmatrix} \right)$

4 Pred ⟶ (preverb)(Neg)(Tense) { PredP / VP } (Adv)

5 Adv ⟶ (Loc)(Time)(Purpose)(Condition)(Reason)

6 VP ⟶ (Aspect) V (Degree)(Intensifier)(Manner)(Benefactive)(Instrumental)

7 PredP ⟶ { (zayy)NP / Adj (Degree)(Intensifier) / Loc / Time / PrepP }

8 V ⟶ Vb { (S) / ((Prep)NP) } { (Loc) / ((Prep)NP) }

9 Aspect ⟶ { continuous / habitual }

10 Tense ⟶ (past)(future)

11 Intensifier ⟶ Int^n

12 PrepP ⟶ Prep + NP

13 Conj ⟶ { wi / aw / laakin }

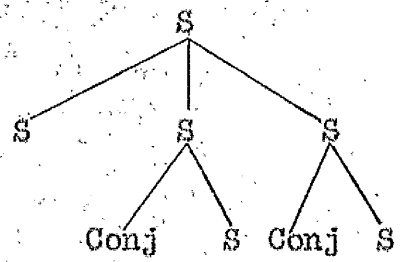
14 NP ⟶ { (Det) N (S) / S }

15 N ⟶ N [±Def / ±Human / ±Masc / ±Pair / ±Product]

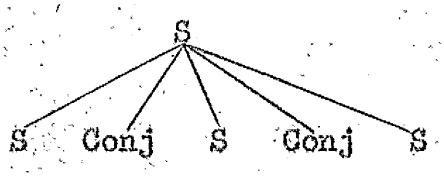
16 Vb ⟶ Vb [±Dynamic]

* * *

The first PS rule provides for the coordination of an infinite number of sentences. One of the coordinating conjunctions - 'wi' ('and'), 'laakin' ('but'), 'aw' (1) ('or') - will be assigned to each S by a transformational rule which constituent-adjoins (2) the ~~the~~ conjunction to every S except the first. This ensures that the conjunction forms a constituent with its following S, producing structures of the type:



rather than:



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(1) 'walla' if cooccurring with 'Q' or 'Neg'
(2) Constituent adjunction (also known as Chomsky adjunction) entails the creation of a new node identical with the node to which an element is to be adjoined, so that the new node directly dominates the other two. Hence in this diagram

A has been constituent-adjoined to B.

Alternatively, it would be possible to obtain the correct structure directly from the PS rules, by substituting for rule 1 the two rules:

i) S ⟶ S^n

ii) S ⟶ Conj Z

In either case, we require a convention which states that the conjunction chosen must be the same for each sentence, or rather that 'wi' and 'laakin' can cooccur freely, but that 'aw' cannot occur with either of these (1).

The first rule also allows for a hierarchical 'layering' of conjoined sentences (2); that is any S chosen by a first application of the rule may itself be expanded into an infinite number of sentences. A recursive rule of this type is needed to explain the ambiguity of a sentence like

1. 'ħansaafir iskindriyya wi ħaninzil fi lukanDa aw ħanruuħ 9and 'we'll go to Alexandria and we'll stay in a hotel or we'll

TanT farduuS'
visit Aunt Fardus'

which may have the underlying structure

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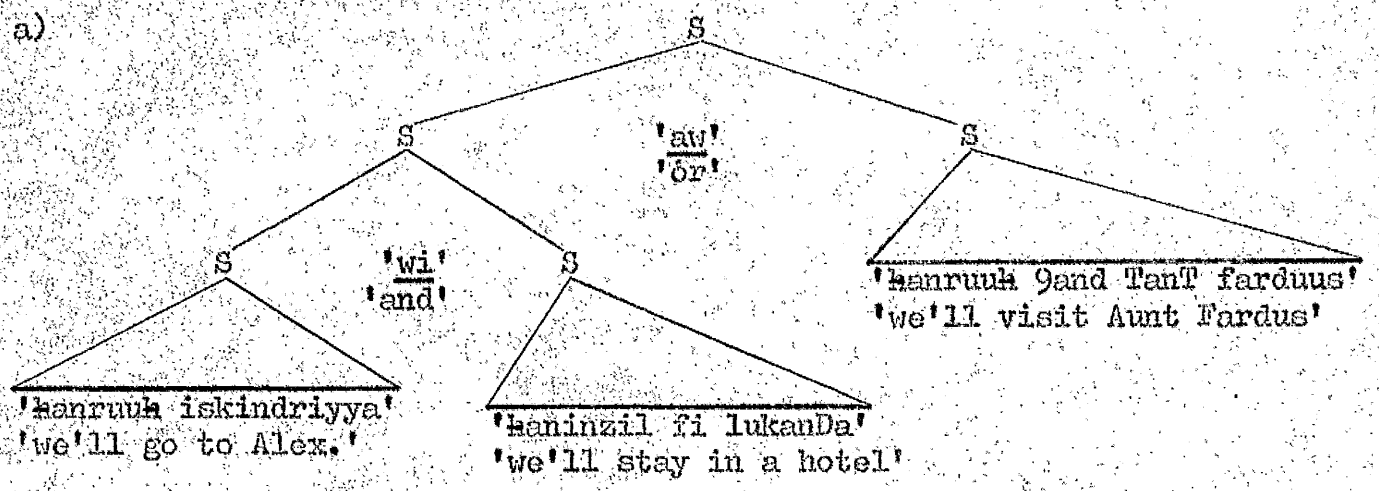
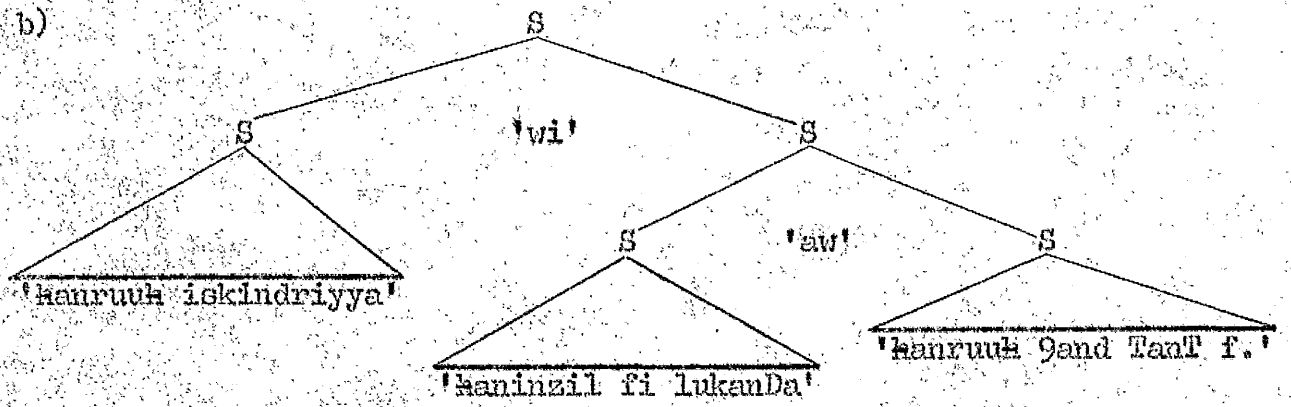
(1) This restriction could be more simply stated if, as seems likely, 'laakin' is not introduced in the base, but is taken as the surface realisation of 'wi' ... +Neg in the deep structure.
(2) For the concept of layering in coordinated sentences I am indebted to Dr. R. Hudson of University College, London.

a)



or

b)



(1)

The restriction on the choice of conjunction of course applies only to any one layer. The first PS rule thus avoids the excessive structuring which would be imposed by a rule of the form

$$S \longrightarrow S\ (+S)$$

and allows as much or as little layering as is required.

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(1) I leave indeterminate the domination of the conjunctions in these examples, in order to simplify the diagrams and demonstrate more clearly the layering involved.

There is evidence to suggest that the PS rules should generate conjoined noun phrases and adjectives, as well as conjoined sentences. For instance, we would not wish to derive

1. 'idda kull filuusu li Hussein wi 9aTiyya'
   'he gave all his money to Husein and Atiya'

2. 'fustaanha ?azra? wi ?axDar'
   'her dress is blue and green'

from conjoined sentences in the deep structure, as this would entail logical contradiction in the semantic component.

PreS

In the introduction I touched on the problem of modality, proposing a number of presentential categories which act as trigger elements in the generation of modally marked sentences. The question marker Q may be chosen by itself, or in conjunction with the other presentential elements - 'Hypothetical' and either 'Subjunctive' or 'Predictive'.

The polar type of question, requiring a yes/no answer must be distinguished from the type of question which replaces some lexical category by an appropriate Q-substitute. For instance, if Q is assigned by a transformational rule to a (+Human) noun, the surface form 'miin' ('who') is produced; if it is assigned to N(-Human), 'eeh' ('what') results. It seems that the lexical category being replaced must always be nominal. It might possibly be left to the morphophonemic rules to convert for instance 'Q + Reason' from 'li'

(preposition 'for') + 'eeh' to the surface form 'leeh' - 'why'. But as this kind of low-level rule could not operate on other categories (e.g. 'Q + Manner' --> 'izzaay' - 'how') it is probably better to derive all such Q-words from underlying dummy nominals such as 'way', 'reason' etc.

It will be noted that handling replacement questions in this way entails a meaning-changing transformation - and one moreover which may be applied an indefinite number of times to the same sentence e.g:

3. 'miin ɓaaf miin feen?'
'who saw whom where?'

An alternative solution is to generate a Q-marker as an optional element of every NP and allow the replacement transformation to take place whenever it occurs.

The surface exponent of the polar question is an end-rise intonation, whereas the intonation of a replacement question does not differ from that of a corresponding declarative sentence.

Rhetorical questions must be distinguished from the polar and replacement types on both semantic and formal grounds. Semantically, a rhetorical question does not ask for information, but rather makes an emphatic statement. Its intonation pattern is similar to that of the polar question, though usually with a higher pitch sustained throughout, and a higher rise at the end. This similarity of intonation,

together with the native speakers' intuitions on the subject, are the sole justification for classing this type of sentence as a question at all. It could perhaps be more appropriately interpreted as the realisation of a different pre-sentential category, such as 'Emphatic', instead. The rhetorical question in fact implies the negative of its declarative form; hence we find

4. 'miʃ ?ultilak kida?'
'didn't I tell you so?'

implying 'of course I told you'.

Apart from the intonational difference, it is important to note the special rule required for such sentences when undergoing the negative placement transformation. Briefly, the negative particle 'ma-ʃ' may function either as a prefix-suffix combination, or as a unified particle 'miʃ', depending on the pronominal or verbal form to which it is attached. For example, with the future form of the verb, only the unified particle occurs -

5. 'miʃ hansaafir bukra'
'we shan't leave tomorrow'

whereas with the complete form of the verb the prefix-suffix combination is used -

6. 'makatabʃ iggawaab'
'hu did not write the letter'

7. 'maruhtiʃ ilmadrasa innaharda?'
'didn't you go to school today?'

However, if the complete form of the verb occurs in a rhetorical question, the unified particle may be used, as in example 4. If 4 were a polar question (i.e. if the speaker had actually forgotten whether he had told the addressee or not), the sentence would take the form

8. 'ma?ultilakʃ kida?'

A possible explanation is that in rhetorical questions the negative particle in fact belongs to a separate sentential element and hence is only optionally available for the transformation which assigns the prefix-suffix combination to the complete form of the verb. Such an analysis is supported by the fact that it is possible to negate an entire sentence, which may be preceded by the complementiser 'inn' - 'that' (1). E.g:

9. 'miʃ inni miʃ 9aawiz aʃuufu'
'it isn't that I don't want to see him'

Since the complementiser is optionally deletable in many instances, it seems feasible to suppose that deletion is obligatory in rhetorical questions.

The positive (negative-implying) rhetorical question shares the same intonation pattern as its negative counterpart, and has the option

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(1) For further discussion of the complementiser, see section on NP complements.

of the introducer 'wi' or 'huwwa' (1); e.g. -

10. 'huww ana hindi?'
'(lit.) am I Indian?' (i.e. 'do you take me for a fool?')

11. 'w ana ?ultilak tiruuh?'
'did I tell you to go?'

'Hypothetical' is a modal category which will be examined in some detail in our chapter on conditional sentences. Syntactically, it is required to generate those conditional sentences which undergo a transformation adding the feature 'Complete' to the verb of the apodosis and/or the protasis. Semantically, it makes more remote the possibility of the fulfilment of the condition.

'Subjunctive' is to be interpreted as the speaker ordering or requiring that the action of the predicate be performed (that is, it can occur only with a verbal predicate). It is also restricted to occurrence with the non-past form of the verb, unmarked for aspect. It is in fact identical with the unprefixed incomplete form of the verb, although it is quite distinct semantically. We can contrast the use of incomplete form of the verb, unmarked for tense or aspect - what we may call the 'dramatic present' - with its use as the

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(1) It would be interesting to check whether the use of the sentence conjunction 'and' to introduce rhetorical questions is a universal feature of languages possessing such a conjunction. It does appear to apply to CEA, English, French, modern Greek and Nupe, taking a very small and random sample.

subjunctive:

12. 'yiruuh hinaak wi mayla?ihaaʃ!'
'he goes there, and then he doesn't find her!'

13. 'yiruuh fi daʃya!'
'let him go to hell!'

'Q' and 'Subjunctive' are both underlying presentential categories in such sentences as:

14. 'a?9ud hina?'
'am I to sit here?'

15. 'yi9mil ?eeh?'
'what is he to do?'

The semantic interpretations of the imperative (Imp) and the subjunctive will be very similar, if not identical. The morphological forms by which these categories are represented in the surface structure are also very alike. One might then be tempted to derive the imperative from the subjunctive by an optional additional transformation applying only to the second person of the verb, which would delete the initial person prefix 'ti-'. E.g. 'tiruuh' ⟹ 'ruuh' - 'go!' (Sing.), 'tu?9udu' ⟹ 'u?9udu' - 'sit!' (pl.).

Any person of the imperative/subjunctive may be optionally prefixed by 'ma-' - in which case the above deletion transformation cannot apply. E.g. we find 'matruuh!' but not *'maruuh!'. The prefixed and unprefixed forms appear to be practically synonymous, although it has been suggested that the former is perhaps more polite. Neither

deletion of the personal prefix nor 'ma-' prefixation can take place with any person of the verb if the category 'Neg' is also present; in other words, the negative prefix-suffix combination can only be assigned to the incomplete form of the verb: hence 'matruhʁ!' - don't go!' but not *'maruhʁ!' or *'mamatruhʁ!'

But despite the morphological and semantic similarities between the imperative and subjunctive, we must regard them as separate deep structure categories since Q can cooccur with the latter but not with the former. Hence the possibility of examples 14 and 15 above but not

16. *'u?9ud hina?'
'are you to sit here?'

17. *'i9mil ?eeh?'
'what are you to do?'

Our reasons for recognising the presentential category Predictive in addition to the future tense are set out in the chapter dealing with tense and sequence of tenses, under 'Uses of the future'. It is realised, like the future, by prefixing 'ha-' to the incomplete form of the verb or the auxiliary 'kaan'. But differences of semantic interpretation and of cooccurrence possibilities with time adverbs make it necessary to set up two quite separate categories.

Turning now to the re-write of Predicate, we see that the only

obligatory element will be either PredP or VP. The choice at this point corresponds to the 'verbal/non-verbal sentence' dichotomy of traditional grammar.

It will be noted that Tense is an optional category; its absence will be interpreted as 'present time', thus obviating the need for an extra symbol in the phrase structure rules, and its consequent obligatory deletion in the surface structure. The prefix 'bi-', preceding the incomplete form of the verb, is often taken to be the realisation of the present tense. However I take it to be the exponent of aspect - either habitual or continuous, as in

18. 'biyiktiblu dilwa?ti'
'he is writing to him now'

and

19. 'biyiktiblu kulli gum9a'
'he writes to him every week'

Use of the verb unmarked for tense or aspect is comparatively rare, apparently occurring in main clauses only as the above-mentioned 'dramatic present'. For reasons which will be discussed in the chapter on tense, the incomplete form of the verb can be considered unmarked, and would be entered as such in the lexicon. In non-verbal sentences there is no surface realisation of the present tense: e.g. -

20. 'Sahbi filbeet'
'my friend is in the house'

21. 'ilbint gamiila'
'the girl is beautiful'

Preverb is a category covering a small number of time adverbs which occur before PredP or VP, although they can optionally shift to the post-PredP or -VP position; e.g. 'ʔaḥyaanan' - 'sometimes', 'tamalli' - 'always', 'ʕadatan' - 'usually'. Some preverbs (e.g. 'ʔabadan' - never') are restricted to occurrence with 'neg'. Such restrictions will be noted in the lexical entries of these items. As most of the preverbs can also occur post-Aux, this might possibly prove to be a more satisfactory deep structure position. It is difficult to say which, if either, is the more favourite position. If anything, it seems that the simple preverb prefers the post-Aux position, and those occurring with 'neg' the pre-Aux (1).

Neg

The generation of 'Neg' and that of 'Q' present rather similar problems; since practically any element can be negated should 'Neg' be optionally generated with every category in the deep structure, or should we allow a transformation which will attach 'Neg' to any one of the categories in the sentence? The latter solution certainly seems more simple and economical, though it would obviously mean allowing meaning-changing transformations.

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(1) It is worth noting the special status of comparable adverbs of frequency and probability in English - usually pre-verbal and post-Aux.

The placing of the negative particle 'ma-ø' as a continuous or discontinuous morpheme (e.g. 'miø haykuun' but 'makanø') will be carried out by transformational rules, which will also provide for optional placings such as 'miø biyiktib'/'mabiyiktibø'. (As far as I can determine, the latter alternatives are of no semantic significance, and both are equally acceptable in Cairene Arabic, although other Egyptian dialects may favour one or the other.)

It seems that the neg-placement transformations will take place rather late in the ordered rules of the transformational subcomponent - certainly after those effecting the surface realisation of the presentential elements and tense and aspect categories, and after the pronominalising transformations (to allow for the discontinuous negative with pronouns standing alone - e.g. 'mahiyyaaø' - 'not she' - and suffixed to a verb or to a preposition, which may consist of one or two words (e.g. 'matahtuuø'- 'not under it', and 'ma foo? minnuuø' - 'not above it')).

The categories subsumed under Adv or 'sentence adverbial' - locative, time, purpose, conditional and reason, are variously realised in surface structure as single nominals (e.g. 'hina' - 'here', 'bukra' - tomorrow); prepositional phrases (e.g. 'ba9d iDDuhr' - 'in the afternoon', 'filbeet' - 'at home', '9aøaan xaatri' - 'for my sake'); and clauses derived from the latter (i.e. where the NP of the prepositional phrase is expanded as S instead of N or N + S

e.g. 'ba9d ma ʃuftu' - 'after I saw him', 'law yinzil talg' - if it snows', 'li?innu ma9anduuʃ filuus' - 'because he has no money' etc.).

In so far as the five are freely permutable with one another their ordering here is somewhat arbitrary. In fact ordering seems to depend more on the stylistic factor of length than on the underlying categories involved; clauses tend to follow single nominals or phrasal adverbials.

More than one of each of these categories may appear in the surface structure of a sentence. Gamal ElDin (1) implies preferance for a hierarchic structure in the case of time adverbs, with those of more 'general' reference followed by the more 'specific', giving as evidence the example of 'bukra iSSubh' - 'tomorrow morning' - which is preferred to 'iSSubh bukra'. This example is rather misleading, as it is a more or less idiomatic expression, which has come to be treated as a single item, only one syllable carrying primary stress. Taking a rather more neutral example: both 'min sanateen fiSSeef' and fiSSeef min sanateen' - 'in the summer two years ago' - are equally acceptable.

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(1) Op. cit. p.82.

I therefore prefer to treat these adverbials not as recursive categories forming a hierarchic structure, but rather as resulting from conjoined sentences, with subsequent deletion of identical material.

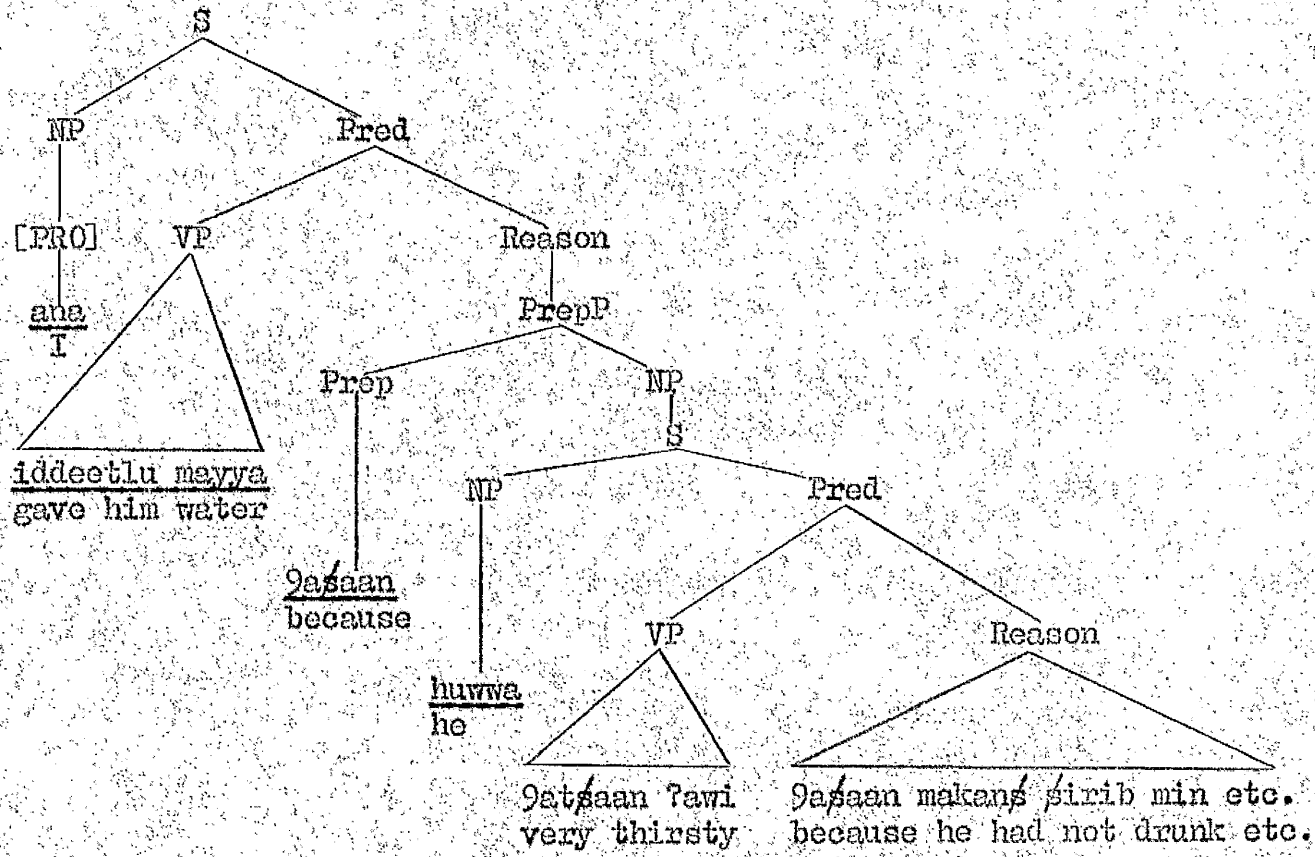
I would propose a similar analysis for sentences containing more than one Loc e.g. 'fi qarya suǧayyara fi maSr' or 'fi maSr fi qarya suǧayyara' - 'in a small village in Egypt'. (This first example is structurally ambiguous, as it may be derived, not only from two conjoined sentences but also from an embedded relative clause - 'which is in Egypt'. In CEA indefinite relative clauses are unmarked in much the same way as indefinite nouns. Indeed the definite relative pronoun 'illi' may be considered an extension of the definite article 'il-'. See below for a more detailed analysis of embedded sentences generated from NP.)

There may of course be embedding in clauses dominated by Adv, where the second occurrence of Adv is dominated by Adv in the next sentence up e.g.

22. 'iddeetlu mayya 9aʃaan kaan 9atʃaan ?awi 9aʃaan makanʃ
'I gave him water because he was very thirsty because he

ʃirib min yomeen'
had not drunk for two days

which can be represented in a simplified form as



'Locative' immediately dominated by Adv must be distinguished from 'Locative' which is one of the re-writes of PredP. As we have already noted, the sentence adverbial locative is freely permutable with the other sentence adverbials, and they may all be optionally preposed to the beginning of the sentence. Such preposing is not possible with the PredP-dominated locative although it may permute with sentence adverbials as in

23. 'huwwa kaan min di?ii?a figgineena'
'he was a moment ago in the garden'

although the preferred position is definitely with the locative in

initial position in the predicate:

24. 'huwwa kaan figgineena min di?ii?a'

Similar rules apply to Time immediately dominated by PredP as distinct from the sentence adverbial Time; e.g.

25. 'ramaDaan fiSSeef issanaadi'
'Ramadan is in summer this year'

is preferred to

26. 'ramaDaan issanaadi fiSSeef'.

I have included PrepP as a re-write of PredP to allow for prepositional phrases which can in no way be considered locatival - for example 'DiDD' - 'against', 'min ǧeer' - 'without' and the 'possessive' prepositions (which may also be used as non-possessives) - '9and', 'ma9a' and 'li'. The latter will have to be formally separated from other prepositions as they participate in special transformations, notably preposing; this is optional in the case of definite nominal subjects, and obligatory with indefinite ones. E.g. both

'ilfiluus ma9aaya' - 'I have the money

and 'ma9aaya ilfiluus'

are allowable, but only 'ma9aaya filuus' - '' have money'. These transformations will be more fully formulated in the section dealing with indefinite subjects.

Further syntactic justification for the separation of Loc from PrepP in the predicate phrase is found in the different possibilities of Q replacement. In all prepositional phrases (from Loc or not) the NP can be replaced by '?eeh' - 'what' or 'miin' - 'who', the preposition being retained unchanged. But there is the further possibility in the case of locatival prepositional phrases (obligatory for one-word adverbials) of Q replacement with 'feen' - 'where'. E.g. -

'haTTu 9ala ?eeh?' 'what did he put it on?' or 'haTTu feen?' 'where did he put it?'

Or one can simply regard the latter as the Q replacement form for an unspecified dummy form of Loc.

'zayy' - 'like' - + NP could perhaps be included under PrepP, although, apart from the obvious semantic link, placing it as an optional element before NP simplifies the statement of selectional restrictions.

'Degree' provides for the generation of comparative and superlative adjectives. The comparative can be formed either by an internal vocalic change in the adjective or by the addition of comparative adverb 'aktar' - 'more'. Hence from 'kibiir' - 'large' we can form 'akbar' or 'kibiir aktar' - 'larger'. 'Degree' should probably be expanded to include a prepositional phrase - 'min NP' - 'than NP', as there is always a further participant as a standard of comparison, even if this is not overt in the surface structure of the sentence.

'Degree' modifies verbs in much the same way as it does adjectives; but only 'aktar' can be used, with a following prepositional phrase.

'Intensifier' covers a class of adverbs like '?awi', 'giddan', 'xaaliS', 'kitiir' - 'extremely', 'very (much)' etc. which modify both adjectives and verbs (see chapter on verbal nouns for discussion of selectional restrictions). As will be seen from rule 11, it is possible to have an infinite number of intensifiers strung together without conjunctions. The rule is not recursive - i.e. a different symbol is introduced on the righthand side of the rule, - to prevent the kind of layering which can be produced by a rule like no. 1.

As our PS rules now stand, 'Degree' and 'Intensifier' are generated quite separately.

But the same selectional restrictions appear to hold between both 'Degree' and 'Intensifier' and the feature 'relative' of the verb or adjective. In fact it may prove more economical to express 'Intensifier' and 'Degree' as the expansion of a higher category such as 'Extent' e.g.:

Extent ⟶ (Degree)(Intensifier)

where one or both may be chosen.

If both categories are chosen, 'Intensifier' must be realised as 'kitiir' or the prepositional phrase 'bi kitiir' e.g.:

27. 'hiyya aḥla bi kitiir'
'she is much more beautiful'

It must be noted that if both categories are chosen, then 'Intensifier' modifies not just the preceding adjective or verb, but also the category 'Degree'. The only way of expressing this in the PS rules would be to include Adj and Degree (or V and Degree) as re-writes of a single higher category. Then one possible re-write of PredP would be ⟶ AdjP (Intensifier), and AdjP would then be re-written ⟶ Adj (Degree).

'aktar', 'kitiir' and 'aktar bi kitiir' may occur after a non-relative verb, but will then be interpreted as adverbs of frequency e.g.:

28. 'fiSSeef biʕuum aktar'
'in summer he swims more (often)'

29. 'fiSSeef biʕuum kitiir'
'in summer he swims a lot'

30. 'fiSSeef biʕuum aktar bi kitiir'
'in summer he swims much more (often)'

If a verb is ambiguous, in that it may possess the features +relative or -relative, +dynamic (such as 'ḥabb' - 'love'), then the intensifier 'kitiir' may be interpreted in terms of extent or frequency. Hence the ambiguity of:

31. 'biyḥibbaha kitiir'
'he loves her very much/often'

Turning to the expansion of VP, we have already touched on the optional category 'Aspect'. Examples 18 and 19 demonstrate that both 'habitual' and 'continuous' are realised by the prefix 'bi'. Why then recognise two separate aspects? It appears that the prefix may optionally be deleted in its habitual use, which must therefore be formally distinguished from the continuous. Under 'habitual' we can subsume the notions of 'repeated actions' and 'actions of timeless validity' as in:

32. 'iZZuhuur bitfattah fiṛṛabii9'
'flowers bloom in the spring'

33. 'issukkar biyduub filmayya'
'sugar dissolves in water'

34. 'ilmakana di bitigsil naDiif'
'this machine washes clean'

35. 'Saalih saliim biyil9ab zift'
'Salih Salim plays very badly'

36. 'biti9gibak maSr?'
'do you like Egypt?' (lit. 'does Egypt please you?')

In the above five examples the prefix 'bi-' may be omitted with no change in the meaning. Deletion is not possible however in the following examples:

37. 'muhammad biyi9mil ?eeh? biyiktib risaala'
'what's Muhammad doing? He's writing a thesis'

38. 'hiyya bitu?9ud hinaak min sa9teen'
'she has been sitting there for two hours'

The same deletion rule applies if aspect is chosen in conjunction with the past tense:

39. 'kaan biyitfarrag 9alattiliviziɔon lamma ʃuftu'
'he was watching television when I saw him'

(no deletion possible); but

40. 'kaan biyzuurhum kull gum9a'
'he used to visit them every week'

(deletion of 'bi-' optional).

The morphophonemic rules required to produce the surface forms of all combinations of tense and aspect are set out at the end of the chapter on tense.

'Manner' is generally realised as a prepositional phrase - either the preposition 'bi' + abstract noun e.g. 'bi sur9a' - 'quickly' (lit. 'with speed'), or 'bi' + 'dummy' noun e.g. 'ʃakl', 'Tariiʔa' ('way') + adjective e.g. 'bi ʃakl taani' - 'in a different way'. Selectional restrictions hold between 'Manner' and the feature ±Dynamic of the verb; i.e. 'Manner' cannot occur with a verb marked -Dynamic, or stative e.g. 'yihimm' - 'be important', 'yilzam' - 'be necessary'.

'Benefactive' is realised as a prepositional phrase, the most common prepositions used being 'li' '9aʃaan' and '9alaʃaan', translatable as 'for' or 'on behalf of' etc. e.g.:

4. 'miʃ ha9mil kida li waahid taani'
'I won't do it for anyone else'

This category will only provide for what Halliday terms 'process-oriented benefactives'; his 'goal-oriented benefactives' will be generated as one of the prepP's dominated by V, with verbs like 'idda' - 'give', 'dafa9' - 'pay', 'raDD' - 'reply'. The preposition used in the latter case is generally 'li', although some verbs require other prepositions e.g. 'xad...min' - 'take...from', 'rama 9ala' - 'throw...at' etc.

Some verbs may take both types of benefactive, hence the ambiguity of

42. 'iktibli gawaab'
'write a letter to/for me'

If both types are realised in one sentence, and neither NP of the two prepositional phrases is realised as a pronoun, then '9a∫aan' or '9ala∫aan' is more likely to be used with the VP-dominated benefactive e.g.:

43. 'katabt gawaab li suha 9a∫aan axuuya'
'I wrote a letter to Suha for my brother'

The only selectional restriction holding between the verb and the (process-oriented) benefactive is that the verb must contain the feature +Volitional; hence the impossibility of

44. *'biti9rifli faransaawi'
'she knows French for me'

'Instrumental' is realised by a prepositional phrase, with 'bi' as the preposition e.g.:

45. 'fatah ilbaab bi miftaah'
'he opened the door with a key'

46. '?atalitu bi issikiina di'
'she killed him with this knife'

If the subject is a PRO-form (1) the instrumental may take its place, in much the same way as the passive transformation transfers the object to subject position e.g.:

47. 'ilmiftaah fatah ilbaab'
'the key opened the door'

48. 'issikiina di ?atalitu'
'this knife killed him

However this transformation cannot operate with all verbs and instruments e.g.:

49. 'akal ilmakaroona bi ʃooka'
'he ate the macaroni with a fork'

but

50. *'iʃʃooka akalit ilmakaroona'
'the fork ate the macaroni'

In the above example the transformation would bring about the violation of a selectional restriction operating between the verb and its subject.

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(1) For further discussion of PRO-forms see chapter on the passive.

As with the expansions of 'Adv', the ordering of the VP-dominated post-verbal modifiers discussed above is somewhat arbitrary. They permute fairly freely with one another, with the proviso that pro-nominalised forms can be shifted to immediately after the verb - in fact must be if the preposition preceding the pronoun is 'li' (as in example 42). Unlike the categories subsumed under 'Adv', these can only prepose if they are strongly stressed (for notes on the topicalisation transformation see chapter on indefinite subjects).

The rule which expands V as Vb ((Prep)NP)((Prep)NP) is discussed, with examples of all the possible types of verbal adjuncts, in the chapter dealing with noun phrase complements. The same chapter justifies our optional expansion of NP as S. The other possibility - NP ⟶ (Det)N(S) - is to allow for the generation of restrictive relative clauses. 'Det' covers prenominal modifiers such as 'kull' - 'each', 'every', 'ayy' - 'any', 'anhu' - 'which', and the demonstratives 'da, di dool' - 'this, that', which are placed after post-nominal modifiers by a transformation.

The final rules re-write noun and verb as complex symbols consisting of a series of syntactic features. I discuss the syntactic implications of the nominal features in the section of the Appendix dealing with nominal concord.

CHAPTER TWO

Pronouns: Simple, Reflexive and Reciprocal

* * *

I have found it necessary to deal with pronominalisation at a fairly early stage, as it is a process of relevance to later chapters, especially those concerned with the passive and with relative clauses. Also, the analysis of reciprocal verbs attempted here would be impossible without considering at the same time reciprocal pronouns and their place in the pronominalising process as a whole.

Two main problems face the linguist when it comes to the analysis of pronouns of different types; i) are they to be generated directly by the base rules or transformationally derived? ii) what is their precise environment and how is it to be specified?

The faikly widely eccepted approach, and that adopted here, is to take simple and reflexive pronouns as transformational substitutions for more fully specified NPs (1). The conditions imposed on the simple

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(1) In CEA a choice is made in the third person between three concord sets, on the basis of underlying syntactic features of number, gender, humanness etc. - see Appendix on nominal concord.

pronominalisation transformation in English, originally proposed by Lees and Klima (1) and presented in a somewhat revised form by Jackendoff (2) appear to be identical with those required for CEA. These specify that:

(a) $NP_1 = NP_2$ i.e. the two noun phrases must be referentially identical and

(b) NP_1 is to the left of NP_2 or NP_2 is dominated by an S subordinate to the S immediately dominating NP_1 (assuming that NP_2 is the noun phrase to be pronominalised) (3).

This allows for anaphoric substitution in connected discourse, and also in sentences embedded to the left of NP_1 e.g.:

1. 'iggaZZaar illi kaan gaSSaha ragga9 ilfilluus lissitt'
'the butcher who had cheated her gave the woman back the money'

The transformation itself can be expressed thus:

SI: $X + NP_1 + Y + NP_2 + Z$ OPT

1 2 3 4 5 ⟹

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(1) 'Rules for English Pronominalisation'; Language vol.39 no.1, 1963.
(2) 'An Interpretive Theory of Pronouns and Reflexives'; MIT paper (unpublished) January 1968.
(3) R. W. Langacker's notion of 'command'('Modern Studies in English' Eds. Reibel and Schane 1969) - "node A commands node B if neither node dominates the other, and if node B is dominated by the first node S above A" - is useful for delimiting the bounds of many transformational operations. It can be used here instead of the second part of condition (b); i.e. we can say simply "...or NP_1 commands NP_2".

SC: 1 + 2 + 3 + 4 + 5
[+Pro]

where 'Pro' is an instruction to delete all features except number, gender, humanness and inherent duality from the node to which it is attached.

It seems that a much more restricted environment must be set up for reflexive pronouns; essentially, the transformation can only operate on coreferential NPs within the same simplex S (1). In surface structure terms, it consists of replacing the second NP by the abstract noun 'nafs' - 'self' or 'ruuh' - 'soul', followed by the possessive enclitic pronoun of the appropriate concord set. (A T-rule is in any case required to convert pronouns in construct with any other noun to the enclitic possessive form. In practice these will differ from the enclitic pronouns attached to verbs only in the first person singular:

cf ﴿Darab + ni﴾ and ﴿kitaab + i﴾

'he hit me' 'my book'

where ﴿ ﴾ represent word boundaries and + morpheme boundaries.)

The structural change for the reflexive transformation can obviously be simplified by ordering T-Reflexive before T-Pronom., which will

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(1) The notion 'simplex sentence' can be formalised as that of 'double command', according to Langacker; i.e. instead of saying that two nodes 'belong to the same simplex sentence' we can say that they 'command one another'. Op. cit.

then operate also on the output of the previous T-rule. T-Reflexive can be formulated as:

SI: $X + NP_1 + Y + NP_2 + Z$ OPT ⟹

1 2 3 4 5

SC: 1 + 2 + 3 + 'Nafs' 4 + 5

together with the conditions of coreferentiality and restricted environment stated above (1).

T-Pronom. will then produce:

$$X + NP_1 + Y + \text{'Nafs'}\ NP_{2\,[+Pro]} + Z$$

giving sentences like

2. 'ilxaddaam biyluum nafsu'
'the servant blames himself'

3. 'Rawlit timawwit nafsaha'
'she tried to kill herself'

As we see from the last example, the personal pronoun is optionally deletable in subject position. The cyclic application of transformations, from the most deeply embedded sentence upwards, explains the occurrence of reflexive pronouns where there is no identical NP

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(1) We are not directly concerned here with the 'nominal reinforcement' use of the reflexive pronoun e.g. in such sentences as 'hiyya nafsaha ?alitli kida' - 'she herself told me so', though it is possible that some emphatic element will trigger the copying of an identical NP, which will then undergo T-Reflexive and T-Pronom.

in the surface structure of the same clause e.g. in

4. 'idda imraatu filuus 9 aṣaan tiʃtiri fustaan li nafsaha'
'he gave his wife some money to buy a dress for herself'

the subject of the purpose clause 'imraatu' - 'his wife' has been pronominalised and deleted after T-Reflexive has operated on the clause.

It would be convenient if we could generate via our T-Reflexive rule the nominal constructs expressing coreferentiality with a preceding NP, since the same abstract noun 'nafs' is used (1).

E.g. 'nafs ilhikaaya' 'the same story' and 'nafs ilbeet' 'the same house'

But to do this we would have to extend the environment of the transformation - in fact to that already given for T-Pronom. in condition (b). Then T-Pronom. would operate on NP_2 only in the 'simplex S' environment, to produce sentences like examples 2 and 3. Elsewhere, 'pro' will substitute for 'nafs + NP_2'. E.g.

5. *'ilbint ʔalitli innu kaan xaal nafs ilbint'
*'the girl told me that he was the same girl's uncle' ⟹

6. 'ilbint ʔalitli innu kaan xaalha'
'the girl told me that he was her uncle'

But pronominal substitution will be optional in more remote environments

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(1) Though not 'ruuh'. Nor can 'ruuh' be used in nominal reinforcement.

such as conjoined sentences - i.e. where neither node 'commands' the other. So that either

7. 'ʃaaf ilbint fiʃʃaari9 wi ba9d yomeen ?aabil nafs ilbint
'he saw the girl in the street and two days later he met the
fi hafla'
same girl at a party'

8. 'ʃaaf ilbint fiʃʃaari9 wi ba9d yomeen ?aabilha fi hafla'
'he saw the girl in the street and two days later he met her at a party'

are acceptable.

So far we have taken coreferentiality to be a necessary condition on the above T-rules; however it has been pointed out that coreferentiality is not necessarily to be equated with morphological identity. It seems that two NPs may be coreferential given the identity of certain semantic and syntactic features; the question is complex and conditions on coreferentiality will not be investigated here (1).

Jackendoff, referring primarily to the paper by Lees and Klima, had noted various inadequacies which arise from considering simple and reflexive pronouns as being substituted for more fully specified NPs

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(1) Jackendoff op. cit. p.16. He draws attention to what he calls 'pronominal epithets', which can be used coreferentially with another NP if they are reduced in stress e.g.; 'Joe was so weak that the poor chap would hardly walk'. Similar epithets can be used coreferentially in CMA e.g. 'il9abiiT' - 'the fool', 'ilgalbaan' - 'the poor thing', 'ibn ikkalb' - 'the bastard' etc.

by the transformational subcomponent. Among other problems he mentions the apparent inconsistency of the behaviour of the so-called 'picture nouns' in English - an anomaly mirrored by the behaviour of similar nouns in CEA. Generally, the 'simplex S' condition on reflexives supports the view that nominal constructs are derived from an embedded S; i.e. it is possible to have

9. 'bint il9umda ʔatalit nafsaha'
'the daughter of the mayor killed herself'

but not

10. *'bint il9umda ʔatalit nafsu'
*'the daughter of the mayor killed herself'

Sentences like

11. 'irraagil ʔallu ḥikaaya 9an nafsu'
'the man told him a story about himself'

are ambiguous, since either the subject or indirect object can fulfill the structural conditions for NP_1, and the reflexive can refer back to either. However, if an S is embedded to produce a noun in construct with 'ḥikaaya', the above interpretations are no longer possible:

12. *'irraagil ʔallu ḥikaayit ilbint 9an nafsu'
*'the man told him the girl's story about himself'

The only possibility is a reflexive coreferential with the embedded noun:

13. 'irraagil ʔallu ḥikaayit ilbint 9an nafsaha'
'the man told him the girl's story about herself'

Other examples come to mind which are not explainable in terms of the environmental restrictions proposed above e.g.

14. 'gaabit ʃanTa ma9aaha'
'she brought a bag with her'

but not

15. *'gaabit ʃanTa ma9a nafsaha'
*'she brought a bag with herself'

And

16. 'haTTeet ilgaTa 9alaaya'
'I put the blanket over me (lit.)'

but

17. ?'haTTeet ilgaTa 9ala nafsi'
'I put the blanket over myself'

While the above undoubtedly indicate a weakness in the analysis of reflexive pronouns, I feel that a full discussion of the fairly radical modification to the base proposed by Jackendoff is beyond the scope of this thesis (1). Obviously, a more detailed specification of the environment for reflexive pronominalisation is required.

The use of non-reflexive pronouns in sentences like:

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(1) He suggests that pronouns are generated directly by the PS rules, and explains the property of coreferentiality by rules of semantic interpretation operating on the derived structure. A defect of his solution is that it generates a vast number of non-sentences e.g. 'Yourself killed him', which have to be filtered out later.

18. 'ilbint di ma9andahaaʃ filuus'
'this girl has no money' (lit. 'this girl is not with her money')

is due to the fact that 'money' is the indefinite subject in deep structure, and pronominal substitution takes place when 'ilbint' - 'the girl' is obligatorily preposed, leaving a place-marking pronoun following the preposition '9and', as part of the series of 'indefinite subject' transformations (1). The same transformation is required when a NP is preposed in a thematically marked sentence e.g.:

19. 'irraagil da maʃuftuuʃ ?abl kida'
'(lit.) that man I have not seen him before'.

Similar place-marking pronouns are required after passive phrasal verbs and in relative clauses - both of which are dealt with in later chapters.

* * *

There is another type of pronominal substitution found only with plural and conjoined NPs; this is realised by the reciprocal particle 'ba9D', optionally followed by the enclitic pronoun (2) e.g. in sentences like:

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(1) See later chapter on 'Prepositional predicates and indefinite subjects'.
(2) Not to be confused with the quantifier 'ba9D', followed by a NP or an enclitic pronoun, meaning 'some of' e.g.

'iʃtiri ba9Duhum' - 'buy some of them'

or 'ba9D ikkubbayaat maksuura' - 'some of the glasses are broken'

20. 'ikkutub foo? ba9D(uhum)'
'the books are on top of one another'

21 'raaku issinima ma9a ba9D(uhum)'
'they went to the cinema together (lit. with one another)'

22. 'Darabna ba9D(ina)
'we hit one another'

23. 'bitisma9u ba9D(uku)?'
'can you hear one another?'

The structural index given by Lees and Klima (1) for the reciprocal transformation appears to be identical with that of the reflexive, except that the NPs involved must be plural. Since the SI for the reflexive transformation does not specify number, this would imply that the reflexive and reciprocal constructions are synonymous in the plural, which is clearly not so; contrast

'ʃaafu nafsuhum' and 'ʃaafu ba9D'
'they saw themselves' 'they saw one another'

Our analysis must in some way account for the fact that sentences like 22 must have the interpretation

24. 'ana Darabtu wi huwwa Darabni'
'I hit him and he hit me'

In fact we could take the conjunction of these two sentences as representing the underlying structure, with normal reduction of identical material, conjunction of the two NPs, and substitution

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(1) Op. cit.

of the reciprocal particle + pronoun, given the identity of the two sentences in every respect except for the permutation of their NPs.

Another possible solution is to introduce into the phrase structure a feature 'Reciprocal', which will be taken by the semantic component as an instruction to re-read a sentence 'X Darab Y' as 'Y Darab X'. Note that a condition of the reciprocal transformation is the non-coreferentiality of the NPs involved, although they may be morphologically identical.

When more than one complex or plural NP is present in the surface structure of a reciprocal sentence, the possibilities for ambiguity are obvious. Consider sentences

25. 'iddu ikkutub liba9D'
'they gave the books to one another'

26. '9aadil wi farhaana ?addimu Saalih wi nadya li ba9D'
'Adel and Farhana introduced Salih and Nadia to one another'

27. 'il?awlaad SallaTu ikkilaab 9ala ba9D'
'the boys set the dogs on one another.

All three are structurally ambiguous although only the latter two are semantically so, since they do not violate semantic selectional restrictions. 27 can be derived from the deep structure corresponding to

27 (a). 'ilwalad$_1$ SallaT ikkilaab 9ala ilwalad$_2$'
'the boy$_1$ set the dogs on the boy$_2$'

or

27(b). 'il?awlaad SallaTu ikkalb$_1$ 9ala ikkalb$_2$'
'the boys set the dog$_1$ on the dog$_2$'

The problem remains: at what point in the phrase structure rules should 'Reciprocal' be introduced, and how are we to specify the NPs on which the transformation is to operate? One could generate 'Reciprocal' as an optional feature of every NP, rather as Q-markers are generated to trigger the operation of T-Q-Replacement. The structural change of the transformation would conjoin the second marked NP to the first, substituting for the second the reciprocal particle followed by an identical complex NP. E.g., operating on the deep structure of 27(b), it will produce a string like

⟹ 'il?awlaad SallaTu ikkalb wi ikkalb 9ala ba9D ikkalb wi ikkalb'

A later T-rule would convert morphologically identical conjoined singular NPs to the plural (or dual) form, and T-Pronom. would supply the enclitic pronoun to give

⟹ 'il?awlaad SallaTu ikkilaab 9ala ba9Duhum'

According to this solution, T-Reciprocal can be formulated as follows:

SI: X + NP$_1$ + Y + NP$_2$ + Z — OBL
1 2 3 4 5 ⟹

SC: 1 + 2 wi 4 + 3 + 'ba9D' 2 wi 4 + 5

Conditions:

- NP_1 and NP_2 command one another
- both NPs contain the feature +Reciprocal
- NP_1 and NP_2 are non-coreferential.

The disadvantage of this analysis is that it will generate a large number of non-sentences, since there is no formal way of limiting the number of features [+Reciprocal] generated in a sentence. This means that the T-rule will have to filter out sentences when the feature is attached to more or less than two separate nodes in a simplex S. Moreover, there is no formal means of relating reciprocal sentences with the corresponding conjoined non-reciprocal sentences such as example 24.

Therefore I am inclined to opt for our original solution, which takes reciprocal sentences to be the result of the conjunction of two (or more) sentences, with the deletion of identical material:

SI: $T + NP_1 + U + NP_2 + W + wi + X + NP_3 + Y + NP_4 + Z$ OPT ====⇒
1 2 3 4 5 6 7 8 9 10 11

SC: 1 + 2 wi 4 + 3 + 'ba9D 2 wi 4 + 5

Conditions:

- $2 \neq 10$ and $4 \neq 8$
- $T = X$, $U = Y$, $W = Z$
- 2 and 4 are not coreferential

- 2 and 4 command one another, and 8 and 10 command one another.

Either an optional T-rule will be needed to delete the second occurrence of '2 wi 4', or this part of the above T-rule will have to be marked optional. If the second occurrence is not deleted, T-Pronom. will operate to produce the enclitic pronoun following 'ba9D'.

* * *

An inherently reciprocal relationship exists between the subject and object of certain verbs (1); e.g.

28. '9izzat Saalih 9ayda'
'Ezzat made it up with Aida'

automatically implies also '9ayda Salhit 9izzat', just as

29. 'ana ?abiltu fissaari9'
'I met him in the street'

implies 'huwwa ?abilni fissaari9' - 'he met me in the street'.

Such verbs can be marked in the lexicon with the feature [+Reciprocal]; or, if the structural index for T-Reciprocal is met, the transformation will operate normally, to produce sentences like 30 and 31:

30. '9izzat wi 9ayda Salhu ba9D(uhum)'
'Ezzat and Aida made it up'

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(1) Nearly all of which belong to morphological class 2.

31. 'iHna ʔabilna baʕD(ina) fiʃʃaari9'
'we met in the street'

On the above evidence these verbs appear to function syntactically just like ordinary transitive verbs such as 'ʃaaf' - 'see', or 'habb' - 'love'; it could be argued that they are not in fact a separate syntactic class and that the additional readings required for 28 and 29 are due to a semantic feature with no syntactic correlates. However, I feel justified in separating these verbs as a distinct syntactic class, in the light of parallel formations which do not exist for other transitive verbs, and on the basis of internal syntactic evidence. Our evidence is as follows:

i) no passive form of these verbs exists; either we must consider this to be purely idiosyncratic in every case, or, as is clearly preferable, we must relate it in some way to an inherent feature common to all the verbs - in this instance, [+Reciprocal];

ii) there exist identical plural verb forms, only 'it-'-prefixed, which must receive a reciprocal interpretation, and not a passive as might be expected e.g.:

32. '9izzat ʃaakil 9ayda'
'Ezzat fell out with Aida'

and

'9izzat wi 9ayda itʃaklu'
'Ezzat and Aida fell out'

33. 'raasil Sahbu
'he corresponded with his friend'

and

'itraslu'
'they corresponded'

34. 'it?abilna fiʃʃaari9'
'we met in the street'

iii) there exist also 'it-'-prefixed phrasal verbs (the preposition always being 'ma9a' - 'with') which appear to be synonymous with the unprefixed, non-phrasal forms, and like them can undergo the reciprocal transformation; e.g.:

35. '9izzat itʃaakil ma9a 9ayda' (cf 32)

and

'9izzat wi 9ayda itʃaklu ma9a ba9D'

36. 'itraasil ma9a Sahbu' (cf 33)

and

'itraslu ma9a ba9D'

It is difficult to decide to what extent one should attempt to relate the above verbal forms via transformations; for instance, should both or either ii) or iii) be derived from the unprefixed form? Or should ii) and iii) be related to one another transformationally, but be kept separate from the unprefixed form?

The neatest solution appears to be the use of a lexical redundancy rule, which will assign the feature [+Reciprocal] to any class 2 verb

with the strict subcategorisation (___ NP) (1) or to any class 5(b) verb with the strict subcategorisation (___ Prep NP), where the preposition supplied by the lexicon is 'ma9a' (2). Under this analysis, ii) can be derived from iii) by deletion of the object noun phrase - a transformation needed elsewhere in the grammar. But class 2 verbs will have to be marked (-Object-deletion) since they cannot undergo this transformation; e.g. - *'?abilna' - 'we met', or *'rasilna' - 'we corresponded'. Alternatively, iii) could be derived from class 2 verbs by an optional transformation adding the prefix 'it-' and the preposition 'ma9a'. Object deletion would operate as before to produce ii). Given the non-occurrence of the unprefixed form for some items in our paradigm (see example sheet at end of chapter), I have adopted the former approach.

The feature 'Reciprocal' appears to be optional with some verbs; i.e. they will have to be marked [±Reciprocal] in the lexicon (see sheet). Hence 'itraaDu' can be taken as the deleted form of 'itraaDu ma9a ba9D' - 'they came to an agreement', or as the passive form of 'raaDa' [-Reciprocal] - 'they were satisfied' (e.g. 'bi gineeh' - 'with a pound'). Conversely, some verbs will have to be marked [+Reciprocal],

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(1) So the rule will not apply to class 2 phrasal verbs e.g. '?aamin bi' - 'trust', 'gaawib 9ala' - 'reply'.
(2) Nor will it apply where the preposition is other than 'ma9a' - e.g. 'iddaafi9 9an' - 'defend'.

which do not belong to the above-mentioned morphological classes e.g. 'ʃibih li' - 'resemble'.

It has already been noted that no unprefixed forms are available for some reciprocal verbs of class 5(b) e.g. 'itʃaatim ma9a' - 'exchange insults with', 'itfaahim ma9a' - 'come to an understanding with', though there is sometimes a corresponding non-reciprocal verb of another morphological class (usually class 1); e.g. 'ʃatam' - 'insult', 'fihim' - 'understand'. These will be classed together in the lexicon. I have not found any clear example of a full paradigm of verbs of classes 1, 2 and 5(b), except possibly 'silih' - 'improve', and marginally 'li9ib' - 'play', which has a corresponding class 2 form 'laa9ib' - 'play with' (someone), though the class 5(b) counterpart 'itlaa9ib ma9a' is hardly used in the reciprocal sense, and is rejected altogether by some speakers. I do not include on the example sheet class 1 verbs which, although formed from the same consonantal root, have quite a different semantic interpretation, and must be entered separately in the lexicon e.g. 'xana?' - 'choke', 'na?ar' - 'knock, chop'.

Reciprocal verbs: examples

Class: 1	2	5(b)
	+Reciprocal	
-	?aabil - meet	it?aabil (ma9a) - meet
-	raasil - correspond with	itraasil (ma9a) - correspond with
Silih - improve	Saalih - make it up with	itSaalih (ma9a) - make it up with
-	xaani? - quarrel with	itxaani? (ma9a) - quarrel with
-	naa?ir - wrangle with	itnaa?ir (ma9a) - wrangle with
fihim - understand	-	itfaahim (ma9a) - come to an understanding with
ʃatam - insult	-	itʃaatim (ma9a) - exchange insults with
-	Saadif - meet by chance	itSaadif (ma9a) - meet by chance
-	ʃaakil - fall out with	itʃaakil (ma9a) - fall out with
-	saawi - equal	itsaawi (ma9a) - equal
-	9aakis - argue with	it9aakis (ma9a) - argue with
li9ib - play	laa9ib - play with	
	†Reciprocal	
-	raaDa - satisfy, come to an agreement with	itraaDa (ma9a) - be satisfied or come to an agreement with
-	ħaarib - attack, go to war with	ithaarib (ma9a) - be attacked or go to war with

CHAPTER THREE

The Passive

* * *

According to the grammatical model outlined in our introduction, a transformational relationship holds between two sentences if it can be shown that in every case the semantic as well as structural relationship can be postulated for a large number of pairs. Note that we speak of the same semantic 'relationship' holding between pairs of sentences; in the original transformational model this did not necessarily mean a relationship of identity. But Katz and Postal (1) propose the inclusion in the deep structure of a dummy element which will trigger the operation of the transformation and also carry the semantic interpretation - if any - of the relationship. (In other words, what was considered an element of meaning attributable to the transformation itself has now been placed in the phrase structure subcomponent, thus obviating the need for semantic interpretation of the surface structure (2).)

Some transformations, such as the causative, show quite a clear meaning difference; compare such pairs as:

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(1) Op. cit.
(2) Unless, of course, one takes into account the kind of surface structure interpretation proposed by Chomsky in his 1969 Shearman Memorial Lectures in London.

'ilkalb miʃi' 'the dog walked'	and	'maʃʃa ilkalb' 'he walked the dog'
'il?akl barad' 'the food got cold'	and	'barrad il?akl' 'he made the food get cold'

The semantic interpretation of the underlying trigger-element 'passive' is rather less clear. (If the transformation is in fact quite without meaning, there is no point in having a deep structure trigger-element at all - though it seems likely that all transformations entail some difference of meaning in a broad sense, to include features of emphasis, style, register, etc.)

Facts of surface structure in active sentences and their corresponding passives are as follows:

- the subject or agent of the active is always unexpressed in the passive;
- the goal or object of the active sentence must be identified with the subject of the passive;
- the passive form of the verb is equivalent to the active preceded by the prefix 'it-' or 'in-' (1).

The first fact can be explained by allowing the structural index of the transformation to specify that the subject NP must be an indefinite

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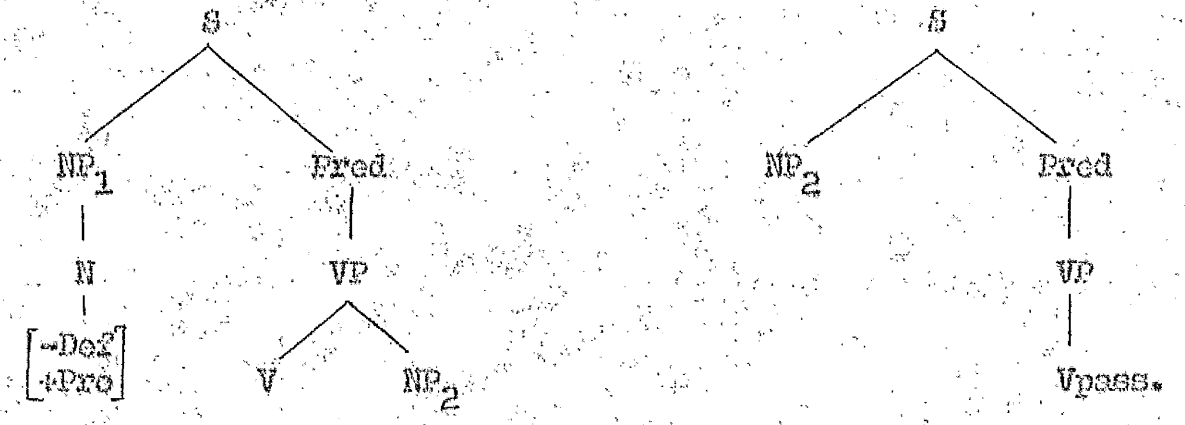
(1) i.e. class 5 verbs - see chapter on verbal noun. One may marginally include class 6 verbs, which form a passive by internal vocalic change in educated speech.

pro-form (1) which is subsequently deleted; i.e. it will be interpreted by the semantic component as an indefinite agent, but will not appear in the surface structure. The object NP will be shifted to subject position by the operation of the transformation, and the verb prefixed.

So the deep and surface structures can be roughly represented thus:



If further specification of NP_1 as either + or -Human takes place, then lexicalisation of NP_1 will follow, and active sentences with indefinite pronominal subjects are produced:

1. 'ḥanga/ḥadd fakkarni bi ilmaaDi'
   'something/one reminded me of the past'

2. 'ḥanga/ḥadd saaʕidu fi ʃuġlu'
   'something/one helped him in his work'

3. 'ḥanga/ḥadd kasar ilkubbaaya'
   'something/one broke the glass'

---

(1) In a full grammar, [±Pro] should be included as a nominal feature in PS rule 15.

Such sentences are accepted by native speakers as close paraphrases of their corresponding passives:

1(a). 'ana itfakkart bi ilmaaDi'
'I was reminded of the past'

2(a). 'huwwa itsaa9id fi ʃuglu'
'he was helped in his work

3(a). 'ikkubbaaya inkasarit'
'the glass was broken'

It is possible that the transformation is triggered by an element 'Emphatic' attached to the object NP. This would point to the passive being a variant of the series of topicalisation transformations (1) which prepose stressed items e.g.:

4. 'ilbint di maʃuftihaaʃ ?abl kida'
'I haven't seen <u>that girl</u> before'

5. 'ʃiik ?awi issitt di'
'that woman is <u>very smart</u>'

However, it appears that emphasis in a passive sentence can be on the process involved as much as on the subject, which may well be pronominalised or deleted altogether e.g.:

6. 'inbaa9 bi 9aʃara gineeh'
'it was sold for ten pounds'

7. 'inkatab bi sur9a'
'it was written quickly'

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(1) See beginning of chapter on 'Prepositional predicates and indefinite subjects' for very brief discussion of topicalisation.

So rather than the presence of any emphatic element, we must postulate the demotion of the agent NP, with possible concomitant topicalisation of the object. This of course fits in well with our specification of the subject as an indefinite pro-form, and with the speakers' intuitions as to the near-synonymity of 1 - 3 and 1 - 3(a).

The structural index of the transformation will have to specify which verbs are available for transformation - i.e. that they must belong to one of the unaffixed morphological classes 1, 2 or 3. It must also indicate which post-verbal NPs may be transferred to subject position. It is clear that the term 'object' or 'goal', which we have been using rather loosely so far to delimit the class of 'transitive' verb, is not sufficient to explain the different varieties of post-verbal nominals which enjoy different relationships with the verb, and in some cases undergo different transformations.

We find, for instance, that the passive may apply to verbs taking direct objects in the traditionally understood sense e.g. 'akal' - 'eat', 'ʃaaf' - 'see', 'kasar' - 'break' etc., and also to 'phrasal verbs' - verbs followed by a preposition which is supplied in the lexical entry for the verb e.g. '?aamin bi' - 'have faith in', 'baalig fi' - 'exaggerate', 'dawwar 9ala' - 'look for' etc.. The passive can also apply to (V-dominated) locative NPs; note that where a preposition precedes the NP to be shifted to subject position,

whether its source be a locative prepositional phrase or a phrasal verb, a place-marking pronoun is left as an enclitic following the preposition e.g.:

8. 'ilmawDuu9 itbaalig fiih'
'the matter was exaggerated'

9. 'ilkitaab iddawwar 9aleeh fi kulli hitta'
'the book was looked for everywhere'

10. 'issinima itraah laha'
'(lit.) the cinema was gone to'

11. 'iʃʃaari9 da mayitmiʃiiʃ fiih billeel'
'(lit.) that street is not to be walked in at night'

This implies a copying of the post-verbal noun to subject noun position, followed by the application of the pronominalising transformation. Nouns directly following the verb, without an intervening preposition must in some way be exempted from this type of pronominalisation, either by transferring them direct in the first place, rather than copying them, or alternatively deleting the second occurrence of the noun, rather than pronominalising it.

In some cases the locatival preposition (1) can be deleted; e.g.

12. 'raaħ issinima'
'he went to the cinema'

13. 'sikin ilbeet da'
'he lived in that house'

The passive must be ordered after this 'locative-deletion' transformation, to permit the formation of corresponding passive sentences (2):

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(1) It seems that the preposition in question must always be 'fi' or 'li'. Verbs allowing prep. deletion (such as 'raaħ' - 'go', 'daxal' - 'enter', 'sikin' - 'live', 'waSal' - 'arrive', 'Tili9' - 'go up (into)' etc.) must be marked in the lexicon as undergoing this optional transformation. There appears to be no correlation between this feature of syntactic behaviour and any semantic feature of the verb. For instance, neither 'itmaʃʃa' - 'go for a walk', nor '?a9ad' - 'sit' can undergo the transformation. Some verbs may appear to take locative-deletion, but there is then a clear difference of meaning, and we should perhaps regard them as verbs with two distinct subcategorisations, e.g.:

'miʃyit fiʃʃaari9'
'she walked in the street'

'miʃyit iʃʃaari9 fixamas da?aayi?'
'she walked (the length of) the street in five minutes'

'9aam finniil'
'he swam in the Nile'

'9aam inniil'
'he swam (across) the Nile'

'gireet filmidaan'
'I ran (about) in the square'

'gireet ilmidaan kullu'
'I ran (right across) the square'

(2) For peculiarities of concord associated with passive verbs, see appendix on verbal concord.

14. 'issinima itraahit'

15. 'ilbeet da itsakan'

The passive may also operate on what Halliday (1) terms 'circumstantial' elements e.g. the noun phrases in such sentences as:

16. 'naTT ilHeeTa'
'he jumped the wall'

17. 'saafir masaafa Tawiila'
'he travelled a long distance'

18. 'miSi itneen kilumitr fi nuSS saa9a'
'he walked two kilometres in half an hour'

giving:

16(a). 'ilHeeTa itnaTTit'

17(a). 'masaafa Tawiila itsafrit'

18(a). 'itneen kilumitr itmaSu fi nuSS saa9a'

Fillmore (2) distinguishes 'resultative' complements - e.g. as in:

19. 'katab kitaab'
'he wrote a book'

20. 'bana beet'
'he built a house'

- from direct objects on semantic and formal grounds. Although one is intuitively aware of a different semantic relation holding between the verb and noun in the case of both the 'circumstancial' and the 'resultative', as opposed to the direct object, it is difficult to distinguish

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(1) 'Notes on transitivity and theme' Journal of Linguistics, 1967.
(2) Op. cit.

them according to any syntactic criteria. The sole syntactic justification offered by Fillmore in support of his 'resultative' category (and one which can be applied equally to 'circumstancials') is that the verb in question cannot be replaced by the 'dummy' phrasal verb 'do to' - in CEA '9amal fi'. E.g., a possible answer to

21. '9amal ?eeh filHeeTa?'
'what did he do to the wall'

is not

22. 'naTTaha'
'he jumped it'

just as a possible answer to

23. '9amal ?eeh fi ilkitaab?'
'what did he do to the book?'

is not

24. 'katabu'
'he wrote it'

I am doubtful whether this single test - possibly semantic rather than syntactic in nature - is sufficient to justify setting up a separate deep structure category in either case.

However, I feel it is necessary to distinguish a different category in such sentences as:

25. 'Darabu Darb gaamid'
'he gave him a good beating'

26. 'maat moota ʃanii9a'
'he died a dreadful death'

27. '?a9ad ?a9da Tawiila'
'he sat for a long time'

28. 'ibtasam ibtisaama murra'
'he smiled a bitter smile'

The verbs in the above examples cannot be replaced by '9amal fi'; the passive transformation cannot apply, the NP cannot be pronominalised, nor can it be contrasted with any other, as Fillmore's 'resultatives' can e.g.:

29. 'katab kitaab, mi≠ risaala'
'he wrote a book, not a thesis'

Nor can the nominal cleft transformation be applied. (A nominal cleft sentence is one in which the marked NP has been moved out to the right, leaving a place-marking pronoun in non-subject position; the sentence is introduced by the relative particle 'illi' (1) and the extraposed NP may be preceded by 'huwwa'.) Hence

30. 'illi biyiktibu (huwwa) kitaab'
'what he is writing is a book'

and

31. 'illi iddahuulu (huwwa) gineeh'
'what he gave him was a pound'

but not

32. *'illi ibtasama ibtisaama murra'
'what he smiled was a bitter smile

---

(1) See chapter on 'Relative clauses'.

or

33. *'illi maatha moota ʕanii9a'
'what he died was a terrible death'

The nominal in such sentences is often, though not always, the verbal noun (1), or its 'countable' form (2). In many cases either the verbal noun or its 'countable' form may be used e.g.

34. 'Pa9ad Pu9aad Tawiil'

or

35. 'Pa9ad Pa9da Tawiila'
'he sat for a long time/had a long sit'

36. 'sakat sukuut mufaagi?'

or

37. 'sakat sakta mufag?a'
'he fell suddenly silent'

38. 'Darabu Darb gaamid'

or

39. 'Darabu Darba gamda'
'he gave him a good beating'

Where only one resultative is possible, it is usually the countable form.

It is difficult to determine whether there is any difference of meaning in the above pairs of sentences. The general reaction of native speakers

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(1) See chapter on 'NP complements and verbal nouns'. In examples 25-26 'Darb' is a verbal noun, and 'moota' a countable form of the VN 'moot'.
(2) Often the VN plus the feminine suffix '-a'.

is that the 'countable' form refers to one specific period of time of definite length, whereas the VN is more 'general' or 'abstract', so that in

40. 'biynaam noom Tayyib'

the verb would be interpreted as habitual

'he sleeps well'

but in

41. 'biynaam nooma Tayyiba'

it would more probably be interpreted as continuous, and refer to a specific occasion:-

'he is having a good sleep'

The 'countable' form may also occur in the plural e.g.:-

42. 'maat 9aʃar mootaat'
'he died ten deaths (i.e. narrowly escaped death ten times)'

43. 'ʔa9ad ṗa9daat Tawiila'
'(lit.) he sat long sittings'

It is significant that, adding little to the semantic content of the verb phrase, the nouns must be modified by an adjective to produce fully acceptable sentences; in other words, they have rather the status of carriers for further modification of the verb, and function more like the noun in 'Manner' adverbials than a direct object. It may be that we can derive such NPs from 'Manner' by an optional transformation which substitutes the 'abstract noun' corresponding to the verb (and which will be entered as such in the lexicon) for the 'dummy' noun of manner

discussed in chapter one. The preposition 'bi' would have to be deleted, and permutation with other post-V adjuncts would no longer be possible.

Alternatively, the rewrite of V could be expanded to include an additional category, which we may call 'resultative'. Then verbs in the lexicon would be subcategorised according to their cooccurrence with the category, which would be listed after the verb. A lexical redundancy rule would allow 'resultative' to take the same form as the verbal noun, unless otherwise stated.

We might also categorise as 'resultatives' the nouns in such VPs as 'xad baalu' - 'he took care' and 'xad rahtu' - 'he rested/took his ease', since the same transformational restrictions apply; i.e. they cannot be passivised, '9amal fi' cannot replace the verb, and the nominal cleft cannot be applied:

44. *'illi xadu kaan baalu'
'what he took was care'

45. *'illi xadha kaan rahtu'
'what he took was his ease'

But, contrary to examples 25-28, all the semantic content of the complex in the above type of resultative is carried by the noun, which cannot be further modified.

Hence resultatives will have to be excluded from the structural index of passive transformation, which may be formulated as follows:

SI: W + $\begin{bmatrix}+\text{Pro}\\-\text{Def}\end{bmatrix}$ N + X + [Vb + (prep) NP + Y] + Z
V V
9
OBL ⟹

1 2 3 4 5 6 7 8

SC: 1 + 6 + 3 + 4 + 5 + 6 + 7 + 8
(pass) [+Pro]

Conditions:

- 6 is not immediately dominated by 'resultative'

- 9 and 2 command one another

In a full formulation a second structural change will have to be specified whereby, if 5 is not present, the second occurrence of 6 is omitted. Alternatively, the transformation may be left as it stands, and a further transformation will delete the pronoun unless it is preceded by a preposition. The source or (5) 6 is not relevant to the transformation, as long as it is within the rewrite of V. Note however that it must immediately follow 4, with no intervening variable. This means that with a verb like 'mana9' - 'forbid', with two alternative strict subcategorisations (___ (NP_1) (9an NP_2)) or (___ (NP_2) (min NP_1)), two passives can be formed, the nearest NP being shifted to subject position in each case:

46. 'issagaayir itmana9it 9an irraagil'
'cigarettes were forbidden to the man'

47. 'irraagil itmana9 min issagaayir'
'the man was forbidden cigarettes'

Likewise 'faDDa' ~ 'empty' (___ (NP_1) (min NP_2)) or (___ (NP_2) (min NP_1)) may form two passives:

48. 'il?ulla itfaDDit milmayya'
'the jug was emptied of the water'

49. 'ilmayya itfaDDit mil?ulla'
'the water was emptied from the jug.

In our PS rules we have included 'Instrumental' in the rewrite of VP. We find however that the passive can apply also to instrumental prepositional phrases, e.g.:

50. 'ilma9la?a di mayittakliiʃ biiha'
'this spoon is not for eating with'

51. 'il?alam inkatab biih'
'the pen was written with'

Either we must extend the environment of the passive transformation beyond the rewrite of V to include 'Instrumental', while excluding other categories immediately dominated by VP such as 'Manner', and the sentence adverbials, or we can modify the PS rules to include 'Instrumental' as a rewrite of V. I am inclined to favour the latter course, since our inclusion of 'Instrumental' as a rewrite of VP was originally only weakly motivated, by its favonrite surface-structure position.

It must be noted that some verbs belonging to classes 1-3, although possessing the appropriate strict subcategorisation, cannot undergo the passive transformation (e.g. 'idda' - 'give'). Since this peculiarity appears to correlate with no other semantic or syntactic feature it must simply be recorded in the lexical entry of the verb.

It should also be noted that not all verbs occurring in the surface structure with the prefix 'it-' or 'in-' can be considered transforms of an underlying active verb, and must often be entered separately in the lexicon as class 5 verbs e.g. 'ittafa?' - 'agree', 'itgawwiz' - 'marry'.

We cannot leave the subject of the passive transformation without touching on a set of class 5 verbs which exhibits systematic ambiguity. For instance, 'ithassin' can be interpreted as either the passive of 'hassin' - 'make better, improve', with an indefinite agent implied - 'it was improved'; or, with no external agent implied at all - 'he/it improved'; cf. 'itlaxbaT' - 'he/it was confused (by something/one)' or 'he/it became confused', 'itgannin' - 'he was driven mad', or 'he went mad', 'it?addim' - 'he/it was put forward' or 'he/it made progress', 'itgawwiz' - 'he was married' (e.g. 'by force') or 'he got married' (1).

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(1) This form is in fact triply ambiguous, since it must be entered separately in the lexicon with the strict subcategorisation (___ NP), as well as being transformationally derived from 'gawwiz' (___ NP (liNP)).

It is quite possible to form the imperative of this set of verbs e.g.:

52. 'ithassin fi duruusak!'
'do better at your lessons!'

53. 'matitlaxbaT$kida!'
'don't get so mixed up'!

Whether the verb is interpreted as the passive proper or what we shall call the 'pseudo-passive' depends on whether the process requires an external agent or not; e.g.

54. 'il9asaakir itlammu fi ilmidaan'
'the soldiers (were) gathered in the square'

can be interpreted as either, whereas in

55. 'il-fawla itlammit'
'the strawberries were gathered'

only the passive is possible.

Our problem is how to delimit the set of verbs for which both interpretations are available, and how to indicate this meaning difference. It seems to me that the possibility of a pseudo-passive interpretation depends on the presence of a semantic feature of the verb, akin to Jespersen's 'Conclusive' distinction (1). According to his analysis, 'conclusive' verbs denote actions confined to a single moment, with the implication of a final aim e.g. 'write', 'hit' etc., whereas 'non-conclusive' verbs denote feelings or actions 'not begun in order to be finished'. Or, rather than a specific semantic feature of the verb,

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(1) O. Jespersen: 'A Modern English Grammar' Vol. IV, Chap. 7.

we may simply say that the pseudo-passive interpretation can be assigned in addition to the passive if no external agent is required. Either way, the question appears to be purely semantic in CEA, although in Classical Arabic a separate morphological subclass was often used for 'pseudo-passives'(1) - i.e. the semantic distinction was made overt, morphologically for at least some verbs.

It is not always easy to decide whether a class 5 verb is in fact a pseudo-passive or simply an intransitive verb which should be entered separately in the lexicon. Additional or different semantic features may be present, which would run counter to our assertion that transformations should be without semantic effect e.g.:

a)- 'itma∕∕a' - 'he/it was walked'; 'he went for a walk'

b)- 'itSawwar' - 'he/it was pictured, photographed'; 'he imagined'

c)- 'itnaa?i∕' - 'he/it was discussed'; 'he discussed'

a) appears to be a possible candidate for the pseudo-passive but b) and c) are much more doubtful (2).

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(1) We find for example Classical Arabic 'nabbah' and CEA 'nabbih' - 'make aware'. In Classical the passive is 'nubbih' and the pseudo-passive 'ta∕nabbah', both of which are realised at 'itnabbih' in CEA. Cf. Classical 'quddim' and 'taqaddam' corresponding to CEA 'it?addim', and 'ħussin' and 'taħassan' corresponding to 'itħassin'

(2) Parallel formations are again found in Classical Arabic: 'Sawwar' - 'picture, photograph', 'Suwwir' - its passive, 'taSawwar' - 'imagine'; 'naaqa∕' - 'discuss', 'nuuqi∕' - its passive, 'tanaaqa∕' - 'discuss'.

CHAPTER FOUR

The Causative

* * *

Morphological subclass 3 of the verb (1) has the form CVCCVC; i.e. it is like class 1, except that the second radical is geminate and the vowels are either CaCCaC or CaCCiC.

A brief examination of such pairs as:

	(a)	(b)
1.	'ilmudarris zi9il' 'the teacher got angry'	'ilwalad za99al ilmudarris' 'the boy made the teacher angry'
2.	'ikkalb mi$i' 'the dog walked'	'ma$$a ikkalb' 'he walked the dog'
3.	'ittaman gili' 'the price increased'	'ilba??aal galla ittaman' 'the grocer increased the price'
4.	'maat min sana' 'he died a year ago'	'kadd mawwitu min sana' 'someone killed him a year ago'

will convince us that (b) demonstrate the classic causative construction, in which the object of the transitive verb must be identified with the subject of the corresponding intransitive. I intend to treat the relationship as a process in which (b) are derived from (a), which

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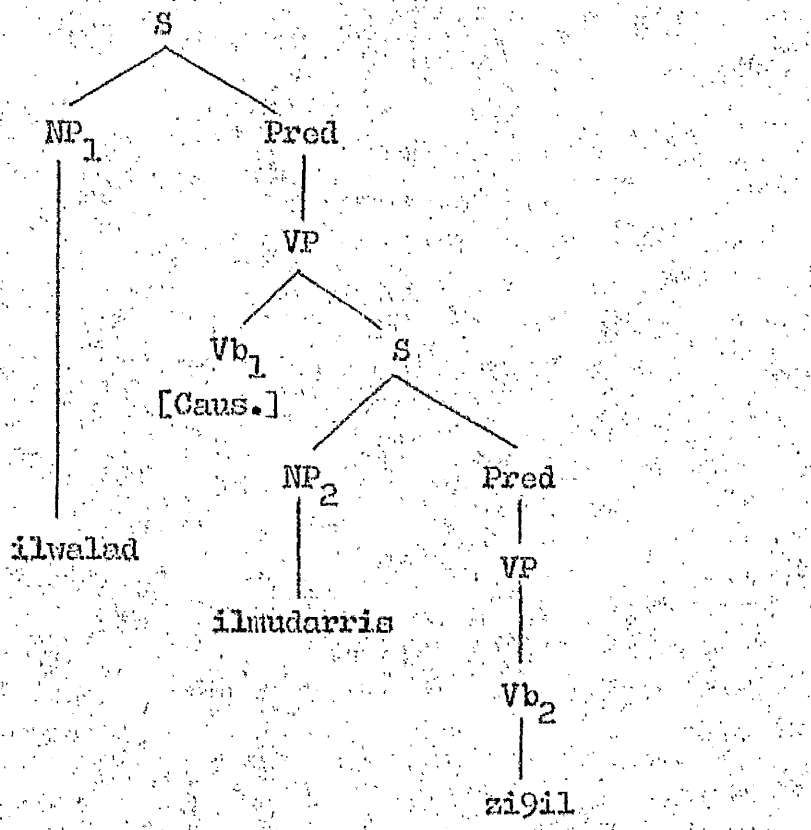
(1) See chapter on verbal nouns.

are embedded in a sentence whose main verb is marked by the feature [+Causative]. So 1(b) will have the (simplified) deep structure:



The transformation will involve the transference of the feature 'Causative' to the second Vb, which the morphophonemic rules will convert to a class 3 verb, and the placing of NP_2 after the verb. This morphological process can only apply to class 1 verbs (1); however, an analytic causative is available to verbs of all classes

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(1) Exceptions may be the pairs 'i⁄tagal' - 'work' (intrans.) and '⁄aggal' - 'employ' or 'work' (trans.) and 'saafir' - 'travel' and 'saffar' - 'make travel'. These verbs would have to be marked in the lexicon as undergoing the causative transformation. It will be assumed that all class 1 verbs will undergo the transformation unless marked to the contrary. Note that not every class 3 verb with a corresponding class 1 verb can be considered a causative; e.g. 'fattah' - 'throw open' (usually with plural obj.) and 'fatah' - 'open' (trans.).

(including 1 and 3) in the form of the verb 'xalla' - 'let, make', which may be entered in the lexicon with the inherent feature [+Caus], and can therefore be substituted for Vb_1. In the case of 1(b) this would give the alternative surface realisation:

5. 'ilwalad xalla ilmudarris yiz9al'
'the boy made the teacher angry'

The analytic alternative to 2(b) would be:

6. 'xalla ilkalb yimśi'
'he made the dog walk'

(The verb in the embedded sentence is unmarked for tense, mood and aspect, as is common in embedded sentences of many different types (1)).

The causative is an infinitely recursive process, as indicated by the phrase structure rules; that is, the embedded S may contain a verb with the feature 'Causative' plus S, and so on. The morphological causative may clearly operate only once, so that in a sentence such as 7, with three embedded causatives, we find two occurrences of the analytic type with the verb 'xalla', followed by the morphological causative:

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(1) However, after 'xalla' the verb in the embedded sentence may optionally have the tense of the main verb written on to it, if the tense is past. i.e. synonymous alternatives to examples 5 and 6 are:
5(a) 'ilwalad xalla ilmudarris zi9il'
and 6(a) ''xalla ilkalb miśi'
It may well be that the tense-copying transformation proposed in our chapter on 'Tense and the sequence of tenses' could be extended to provide for the generation of such sentences.
See next chapter for comments on the form of the verb in NP-dominated embedded sentences.

7. 'ʕizzat xalla ʕaida tixalli ilwalad yimaʃʃa ilkalb'
'Izzat made Aida make the boy walk the dog'

In this chapter it is with the morphological or synthetic causative that we are principally concerned.

Examples 1-4(a) are all one-place, intransitive verbs; the causative can equally well operate on two-place verbs - e.g. -

	(a)	(b)
8.	'irraagil fihim ilmuʃkila' 'the man understood the problem	'M. fahhim ilmuʃkila lirraagil' 'M. explained the problem to the man
9.	'ilfallaah ʃaal issabat' 'the peasant carried the basket	'M. ʃayyil issabat lilfallaah' 'M. made the peasant carry the basket
10.	'il?awlaad liʕibu koora' 'the children played football'	'laʕʕab koora li?awlaadu' 'he made his children play football

The direct object of (a) remains the direct object of the causative sentence, while the original subject becomes an indirect object, preceded by the preposition 'li' - 'to, for'. We find also a set (c) of sentences corresponding to (b) above, in which the indirect object precedes the direct, and takes no preposition:

(c)

8. 'M. fahhim irraagil ilmuʃkila'
'M. explained the problem to the man'

9. 'M. ʃayyil ilfallaah issabat'
'M. made the peasant carry the basket'

10. 'laʕʕab ?awlaadu koora'
'he made his children play football'

Before discussing in detail the ordering of participants following the causative we should revise one or two points of our analysis so far, in the light of additional semantic information. We have been assuming that the synthetic or morphological causative and the analytic causative (with 'xalla') are in all cases synonymous. It is true to say that one interpretation of the morphological causative is always synonymous with the analytic causative, but native speakers have pointed out a second interpretation, which does not appear to be shared by the semantic reading of 'xalla' - that of 'help to'. Hence another interpretation of 9(b) is: 'M. helped the peasant carry the basket'. Cf:-

11. 'ʁaTTaTha issabat 9al?arD'
'he made/helped her put the basket on the ground'

12. 'Talla9u 9ala iʃʃagara'
'he made/helped him climb the tree'

The likeliest interpretation of any particular occurrence will depend both on the context and on other semantic features of the verb involved.

So if we wish to abide by our axiom that transformations are without semantic effect, we cannot retain 'xalla' as an alternative realisation of Vb[+Causative]. However, we can retain [Causative] as a feature on a dummy verb in the matrix S, to trigger the causative transformation. It is useful to retain the node Vb rather than generate 'Causative' as a trigger-category, since in a full grammar it would be necessary to write the tense and aspect of the matrix verb onto that of the

embedded sentence and also to state selectional restrictions holding between the verb and adverbial modifiers such as 'Manner' etc. 'xalla' will simply be subcategorised in the lexicon as taking a sentential complement (1). The semantic component will indicate that 'xalla' and 'Causative' share at least one semantic feature.

Returning to our examples 8-10, any semantic distinction to be made between (b) and (c) would appear to be thematic in nature; i.e. (b) focuses attention on the indirect rather than the direct object (2). Sentences with the indirect object with 'li', preceding the direct object are generally considered thematically slightly odd, and unless the indirect object is given strong contrastive stress, will be corrected to (b) (3). I am not concerned with the generation of sentences like:

13. 'M. fahhim lirraagil ilmuškila'
'M. explained the problem to the man'

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(1) See next chapter.
(2) See M. Halliday, 'Transitivity and theme' part II, JL.
(3) Comparing briefly verbs like 'idda' - 'give', 'warra' - 'show' 'wadda' - 'send', '?addim' - 'offer', we find exactly parallel constructions to (b) and (c) e.g. -
'idda ilfiluus lilmuwaZZaf' and 'idda ilmuwaZZaf ilfiluus'
'he gave the money to the employee' and 'he gave the employee the money'
This tends to support Lyons' view ('Introduction to Theoretical linguistics' Chap. 8) that such verbs are derived from an ergative construction in the DS.A 'generative semantics' approach would probably take 'šaaf' - 'see' as the source of 'warra'; the causative form 'šawwif' exists but is hardly used.
The (c) construction is far less common in CEA than in English; e.g. it cannot operate with verbs such as 'katab' - 'write', 'ba9at' - 'send', 'saab' - 'leave', '?aal' - 'tell'. Adjuncts with 'li' with these verbs must be generated in post-verbal position by the PS rules.

14. 'M. ʃayyil lilfallaah issabat'
'M. made/helped the peasant to carry the basket'

15. 'idda lilmuwaZZaf ilfiluus'
'he gave the employee the money'

16. '?addim lilbint ilhidiyya'
'he offered the girl the present'

since this study is devoted primarily to thematically unmarked sentences (1).

The position is rather different with pronominal forms. E.g.

17. 'fahhimlu ilmuʃkila'
'he explained the problem to him'

with 'li' + the indirect object preceding the direct object is thematically unmarked.

However, if both the direct and indirect objects are pronominalised, the direct object always precedes:

18. 'fahhimhaalu'
'he explained it to him'

19. 'ʃayyilhuulu'
'he made him carry it'

Since enclitic pronouns cannot carry any marked thematic choice this may be considered the basic, unmarked ordering of the direct

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(1) The above are unmarked if the direct object noun phrase is complex. E.g. 'fahhim lirraagil ilmuʃkila illi makanʃ fihimha' 'he explained to the man the problem he hadn't understood'.

and indirect objects in the surface structure (1).

Leaving aside for the moment the question of resultatives, we can use the terms direct and indirect object as surface structure labels, direct object indicating a NP directly following the verb and indirect object a NP preceded by the preposition 'li' which follows the direct object, and both being immediately dominated by V. The correct surface ordering can be generated by two basic transformations (ignoring for the moment the thematic variant (c)), effecting the operations:

	DS		SS
1)	Subject	⟹	Indirect object (+ prep 'li')
2)	Subject	⟹	Direct object

2) only applies if the surface DO position is not already filled by a direct object from the deep structure; it operates both on underlying intransitive verbs and transitive verbs of which the object

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(1) Ross (op. cit.) discusses in some detail the relative ordering of complex, simple and pronominalised NPs which form part of the VP. To explain e.g. the high acceptability of 'they elected the young man president' and 'they elected president the man who was under forty-five' compared with ?'they elected president the young man' and ?'they elected a man who... president' he suggests a general 'output condition' to the effect that 'if a sentence contains an unpermuted complex NP near the end of its VP, the acceptability of the sentence is lowered'. This obviates the need for restating conditions on a variety of transformations involving the permutation of post-verbal constituents, such as direct and indirect objects. I have not investigated fully the applicability of Ross' condition to CEA, but a superficial examination of the data suggests that a similar, if not identical condition will be needed.
It would certainly explain the relatively low acceptability of ?'fahhim ilmuškila illi makanš fihimha lirraagil' as against the example in footnote (1) on the preceding page.

has been deleted; e.g.:

'ilkalb mi∅i 'the dog walked'	⟹	'ma∅∅a ilkalb' 'he walked the dog'
'irraagil fihim (haaga)' 'the man understood (something)'	⟹	'fahhim irraagil' 'he explained to the man'

These rules can be formalised as follows:

T-Causative

1)

SI:	W +	NP +	X +	Vb [+Caus]	+ [NP	+ [Vb	+ NP]	+ Y]	+ Z	
					S	V	V	S		
	1	2	3	4	5	6	7	8	9	⟹ OBL
SC:	1	2	3	6 [+Caus]	7	'li' +	5	8	9	

Conditions: 7 is not dominated by 'Resultative'.

The structural index of 2) will be identical to that of 1), except that 7 is not present; the structural change will simply move 5 to a position immediately following 6:

T-Causative

2)

SI: W + NP + X + Vb + [NP + Vb + Y] + Z
[+Caus] S S
1 2 3 4 5 6 7 8 OBL ⟹

SC: 1 2 3 6 5 7 8 (1)
[+Caus]

It is possible to visualise a modification of 2) which would allow for the generation of (c); i.e., we could let the structural change of 2) take place, given the structural index of 1), in the presence of the appropriate thematic feature. On the other hand, we require a transformation to delete the preposition 'li' and permute the two post-verbal participants after the 'giving' verbs discussed briefly above in this chapter - unless of course we were to adopt the more 'generative' semantics' approach of considering the verbs as deriving from causatives. I tend to favour putting the latter verbs

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(1) The resultative does not behave like the direct object of the verb in that sentences like:
'nayyimit il?awlaad nooma Tayyiba'
(lit.) 'she made the children sleep a good sleep',
with the DS subject of the embedded verb immediately following the causative verb in the surface structure, are much preferred to sentences like:
?'nayyimit nooma Tayyiba lil?awlaad',
which some speakers would not accept at all. If we wish the latter to be excluded from the grammar, we must allow them to undergo T²Causative 2) but not T-Causative 1) (as we have in fact done) or we must allow them to undergo T-Causative 1) and make 'li'-reduction obligatory or at least highly preferable.

directly in the lexicon, in the absence of parallel non-causative verbs with the same consonantal root (1).

So we can set up a further transformation to operate either on the output of 1) above, or on the output of the PS rules, in the case of the 'giving' verbs:

T-'li'-reduction

SI: W + NP + X + Vb + NP + li + NP + Y
1 2 3 4 5 6 7 8 ⟹ OPT

SC: 1 2 3 4 7 5 8

Conditions: 4, 5 and 6 are all dominated by V.

Note that only T-Causative 2) and neither T-Causative 1) nor T-'li'-reduction can operate if the embedded verb is phrasal; i.e. if a preposition is present between 6 and 7 in the structural index of 1). In other words, the only possible ordering of participants after a causative phrasal verb is: (DS) subject + direct object (preceded by preposition); e.g.: -

20. 'dahhikt iTTalaba 9ala ilmudarris'
'I made the students laugh at the teacher'

but neither

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(1) Verbs like 'katab' etc will have to be marked in the lexicon as not undergoing this particular transformation (T-'li'-reduction).

21. *'dakkikt 9ala ilmudarris liTTalaba'

nor

22. *'dakkikt iTTalaba ilmudarris'

(22 will block because the preposition in the sentence must be 'li' to comply with the structural index.)

In the case of 'give'-type verbs, it seems the passive transformation must be ordered before T-'li'-reduction, since only direct objects can be transferred to subject position. E.g. we find:

23. 'iʃʃaay it?addim lilbint'
'the tea was offered to the girl'

but not

24. *'ilbint it?addimit iʃʃaay'
'the girl was offered the tea'

25. 'ilhidiyya itwaddit li Sakbi'
'the gift was sent to my friend'

but not

26. *'Sakbi itwadda ilhidiyya'
'my friend was sent the gift'

and

27. 'ilxaatim itwarraali'
'the ring was shown to me'

but not

28. *'ana itwarreet ilxaatim'
'I was shown the ring'

However, most speakers allow both passives in the case of causative verbs; i.e. the passive can apply both before and after 'li'-reduction; to produce e.g.

29. 'issabat it∫ayyil lilbint'
'the girl was made to carry the basket' (with 'basket' as subject)

and

30. 'ilbint it∫ayyilit issabat'
'the girl was made to carry the basket' (with 'girl' as subject)

31. 'fuul it?akkil lil?awlaad'
'ful was fed to the children'

and

32. 'il?awlaad it?akkilu fuul'
'the children were fed ful'

This is the only difference in syntactic behaviour that I have found between causative-derived two-place verbs and those given in the lexicon.

Complications arise when we come to the passivisation of causative phrasal verbs. According to the present formulation and ordering of transformations, the passive would operate on a sentence like 20 to produce the ungrammatical

20.a) *'iTTalaba indahhiku 9ala ilmudarris'
'the students were made to laugh at the teacher

It seems we must complicate the conditions imposed on the passive transformation by adding a condition to the effect that if a verb is

marked [+Causative] and is followed by prepositional phrase dominated by V, then the transformation blocks.

We noted on page 95 (footnote 1) that 'not every class 3 verb with a corresponding class 1 verb can be considered a causative', giving 'fattah' - 'throw open' as an example. This, and verbs like 'kassar' - 'smash' must simply be entered separately in the lexicon. In the case of many class three verbs it is rather more difficult to decide whether they should be put in the lexicon or derived via the causative transformation. For instance, we find the pairs 'waSal' - 'arrive' and 'waSSal' - 'accompany to one's destination', and 'raah' - 'go' and 'rawwah' - 'take home'; these might be loosely considered causatives, but there are clearly in each case additional semantic features - the notion of a specific destination, and that of 'going with', rather than interpreting them simply as 'making or helping someone arrive, and go' respectively. In addition, there is the problem of defining the set of class 1 verbs on which the causative may operate. As will be seen from the lexicon, this appears to be a rather arbitrary matter; i.e. I have been unable to discover any syntactic or semantic feature common to those class 1 verbs not undergoing the transformation. Nevertheless I am inclined to believe that the non-occurrence of certain causatives is due to semantic restrictions; asked to accept or reject causatives of the type

33. ?'da??a?ha ilbaab'
'he made her knock on the door'

speakers reacted with 'you just wouldn't want to use it' rather than with incomprehension or total rejection. It is therefore a moot point whether such verbs should in fact be included as grammatical; but it does point to the causative transformation being fairly freely applicable in the language, and suggests that the class of causative verbs is an open one.

CHAPTER FIVE

Noun Phrase Complements and Verbal Nouns

* * *

In this chapter I shall explain my reasons for introducing S as a re-write of NP, and also discuss the inclusion of S in the expansion of VP. I shall show how these embedded sentences can be realised as finite clauses introduced by the complementiser 'inn', and sometimes by a nominalisation of the main verb of the embedded sentence.

It is clear, for instance, that a formal relationship exists between the following pairs of sentences:

1. (a) 'ʃagga9tu 9ala innu yaakul'
'I encouraged him to eat'

   (b) 'ʃagga9tu 9ala il?akl'
lit. 'I encouraged him to eating (verbal noun)'

2. (a) 'ana mu9tamid 9ala innak tisa9idni'
'I'm depending on you to help me'

   (b) 'ana mu9tamid 9ala musa9ditak liyya'
'I'm depending on your helping me'

3. (a) 'inn Mamduuh yisuu? wi huwwa 9ayyaan biyn9rvizni'
'for Mamduh to drive when he's ill makes me nervous'

(b) 'suwaa?it Mamduuh wi huwwa 9ayyaan biynervizni'
'Mamduh's driving when he's ill makes me nervous'

4. (a) 'inn ilbanaat yiʃrabu xamra 9eeb'
'for girls to drink liquor is shameful'

(b) 'ʃurb ilbanaat lilxamra 9eeb'
'girls' drinking liquor is shameful'

5. (a) 'inn waaḥid yinaam barra xaṭar'
'for one to sleep outside is dangerous'

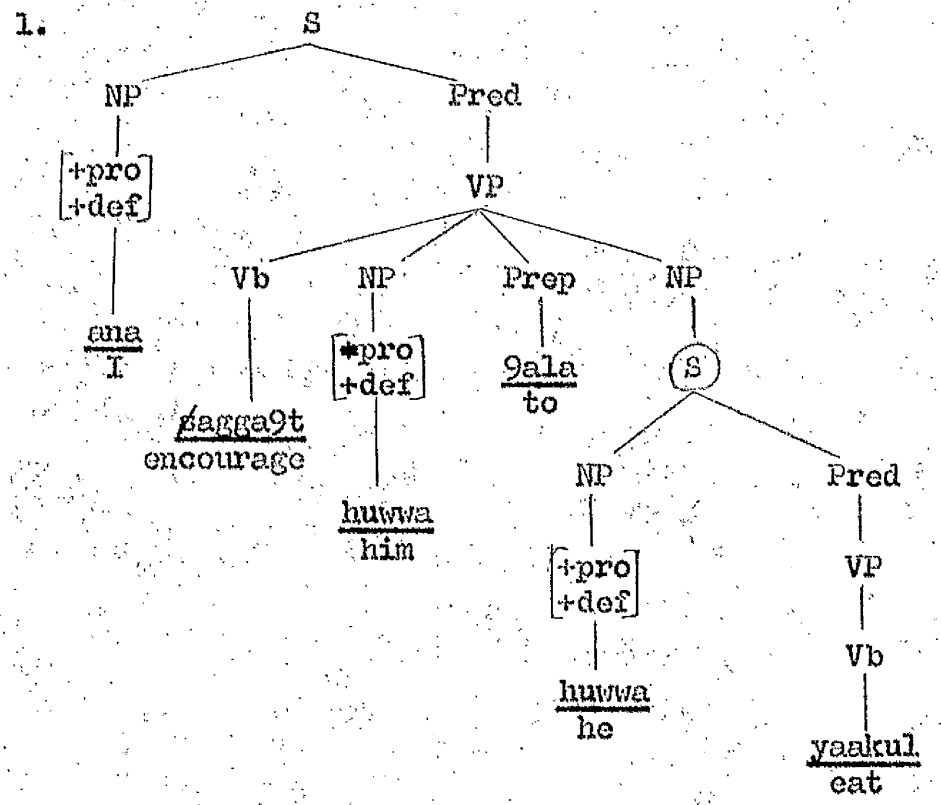
(b) 'innoom barra xaṭar'
'sleeping outside is dangerous'

6. (a) 'iḥna waafi?na 9ala innu yiigi ma9aana'
'we agreed that he should come with us'

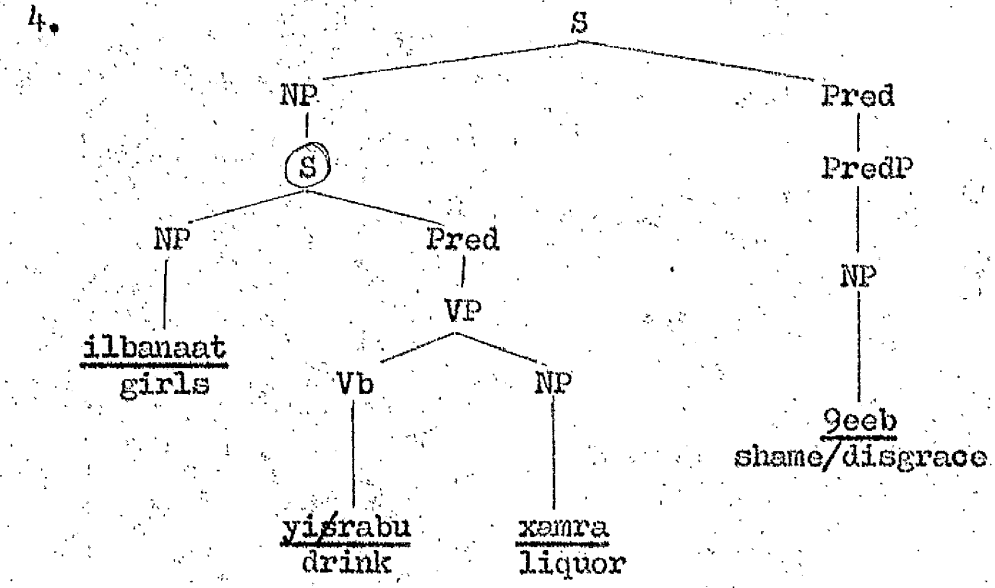
(b) 'iḥna waafi?na 9ala migiyyu ma9aana'
'we agreed on his coming with us'

The same participants and modifying categories are present in both members, but in (a) there is a finite verb inflected to agree with the subject NP and unmarked for tense and aspect, whereas (b) contains instead a noun formed from the same consonantal root as the finite verb. The fact that sentences 1 - 6 (a) and (b) are synonymous and that a predictable syntactic relationship holds between the two strongly suggests that they should be assigned identical deep structures. I propose the following (much simplified) deep structures for sentences 1, 4 and 6:

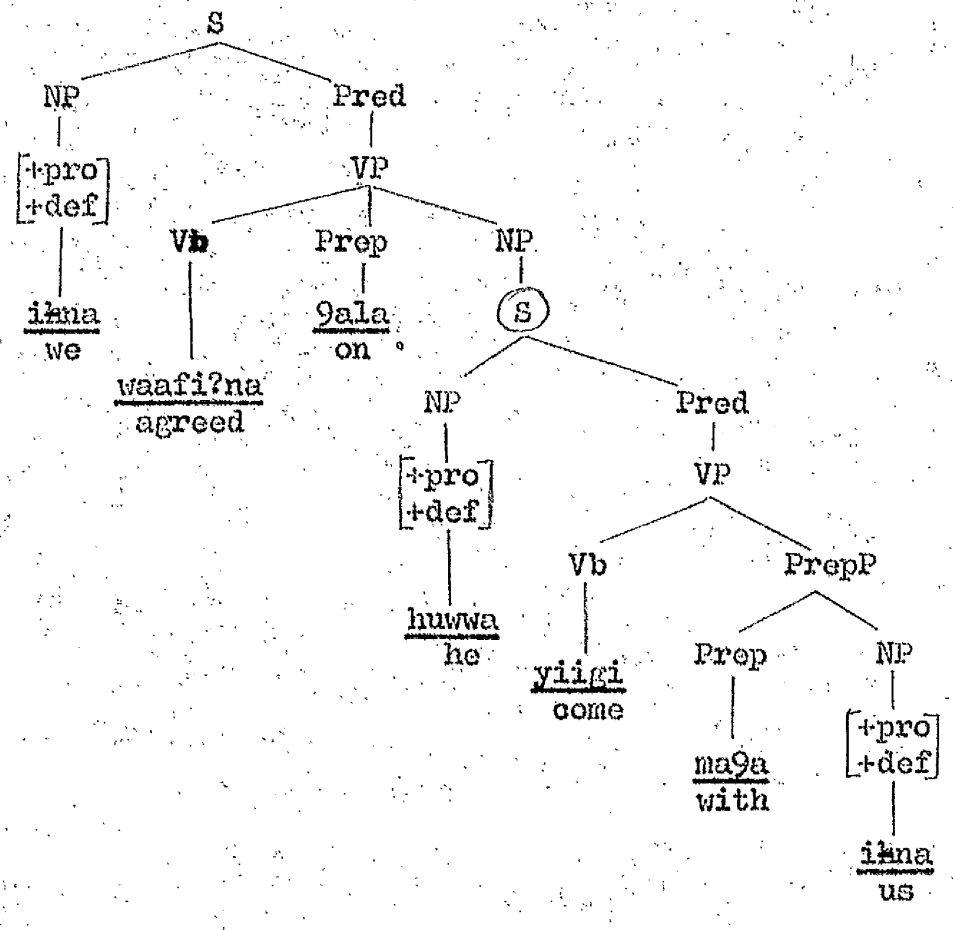
1.


S
NP
Pred
+pro
+def
VP
Vb
NP
Prep
NP
ana
I
ʔarraʕt
encourage
*pro
+def
ʕala
to
S
huwwa
him
NP
Pred
+pro
+def
VP
huwwa
he
Vb
yaakul
eat

4.


S
NP
Pred
S
PredP
NP
Pred
NP
VP
ilbanaat
girls
Vb
NP
ʕeeb
shame/disgrace
yiʃrabu
drink
xamra
liquor

6.



In each case the circled S is dominated by a NP, on the grounds that the constituent dominated by the S can for many purposes be treated as a NP. For instance, the whole clause can pronominalise:

'ʃagga9tu 9aleeh'
'I encouraged him to it'

'waafi?na 9aleeh'
'we agreed on it'

The nominal cleft can apply:

'illi ʃagga9tu 9aleeh huwwa innu yaakul'
'what I encouraged him to was to eat'

'illi biynervizni huwwa innu yisuu? wi huwwa 9ayyaan'
'what makes me nervous is for him to drive when he's ill'

'illi xaTTar huwwa inn waaHid yinaam barra'
'what is dangerous is for one to sleep outside'

An NP-dominated S in object position can passivise:

'innu yiigi ma9aana itwaafi? 9aleeh'
'that he should come with us was agreed upon'

S introduced as a re-write of NP must be distinguished from that directly dominated by VP - what I shall call verbal complements. Such complements do not pronominalise, nor can the passive or nominal cleft apply. However, it must be admitted that the distinction is a somewhat doubtful one, principally because there are so few candidates for the class of verb taking verbal complements. The only verbs which run counter to all the above criteria for NP-domination are: '?idir' - 'be able', '?a9ad' and 'fiDil' - 'keep' (reiterative) and 'xalla' - 'let, make' (1). Note that the subject of all these verbs, except 'xalla' must be coreferential with that of the embedded S. With 'xalla', the subjects must be non-coreferential (2). One might ask why 'xalla' should be subcategorised (___ S) rather than (___ NP + S), with the subject of the embedded S identical with the object NP of the main

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(1) Nor do verbal nouns corresponding to these verbs exist.
(2) Except when 'xalla' is in the imperative, and the predicate of the embedded S does not contain a finite verb e.g.:-
'xalliik maaSi (active participle)!'
'keep walking!'
but not *'xalliik timSi'

verb. Evidence against this is to be found in the absence of a passive of 'xalla'; e.g. it is not possible to form

*'ikkalb itxalla yaakul'

from

'(ħadd) xalla ikkalb yaakul'
'(someone) made the dog eat' (1)

Another possible candidate is 'ħaawil' - 'try', which, while not conforming to the above criteria, has a corresponding verbal noun and can be followed by a verbal noun, unlike the other verbs taking verbal complements. E.g. -

'ħaawil ilmaʃy'
'he tried walking/to walk'

but *'mayi?darʃ ilmaʃy'
'he can't walk' (2)

In future I shall refer to the NP-dominated complement as NP Comp; in subject position (see examples 3, 4 and 5) the S will always be dominated by NP, and will be referred to as sentential subject.

Although the phrase structure rules give S as a possible expansion of NP it is obvious that not all NPs can be rewritten as S. A

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(1) There is a class 5 phrasal verb with the same root:- 'itxalla 9an' - 'abandon'.

(2) But we do find 'mayi?darʃ 9almaʃy'. I prefer to keep this phrasal form separate from the non-phrasal, since native speakers recognise a slight meaning difference: '?idir 9ala' - 'be capable of, up to, something' i.e. positive effort on the part of the subject is implied. If we decided that they were in fact synonymous, there would then be some grounds for treating '?idir' as a verb taking a NP Comp, with optional deletion of the preposition.

selectional feature of the verb - probably ±Abstract - will determine whether a sentential subject or NP Comp is possible. So a sentence like

'(inn) ilbint sa9iida'
'(that) the girl is happy'

whose dominating NP will be marked +Abstract will block as sentential subject to a predicate like 'axdar' - 'green', though not as NP Comp to a verb like 'Zann' - 'think' which has the selectional feature (___+Abstract).

The full range of NP Comps can be generated by the PS rule no. 8

V ⟶ Vb ((Prep) NP) ((Prep) NP)

- omitting for simplicity's sake that part of the rule which will generate verbal complements and locatives. Examples of different complement-types are:

Vb + NP - '9irif' - 'know', 'Zann' - 'think'

Vb + Prep + NP - 'simi9 bi' - 'hear of', 'istaa? min' - 'resent', 'Sammim 9ala' - 'insist on'.

Vb + NP + Prep + NP - 'ħasad ħadd 9ala ħaaga' - 'envy someone something', 'hanna ħadd 9ala ħaaga' - 'congratulate someone on something', 'aqna9 ħadd bi ħaaga' - 'persuade someone of something' (1).

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(1) Alternative strict subcategorisation features are often available to verbs of this type e.g. we find both 'wa9ad ħaaga li ħadd' and 'wa9ad ħadd bi ħaaga' - 'promise someone something'; also 'mana9 ħaaga 9ala ħadd/ħadd min ħaaga' - 'forbid something to someone'.

Vb + Prep + NP + Prep + NP - 'ʤaSab 9ala ħadd fi ħaaga' - 'force someone to something', 'samaħ liħadd bi ħaaga' - 'allow someone something'.

Given that the selectional restrictions are observed, the NPs of the above types can be rewritten as S. Of the logically possible combinations I have found no verbs requiring the strict subcategorisation (___PrepNP + NP) or (___NP + NP) (1). It is generally, though not always, the case that verbs select the second NP of (Prep)NP + PrepNP as taking the feature +Abstract.

* * *

The complementiser 'inn' which introduces NP complements does not appear in the deep structure as it is without semantic effect, but is introduced by an obligatory transformation. Deletion of the complementiser, and also of a preceding preposition, will be discussed later.

I should first mention the alternative complementiser 'koon', which has the form of the verbal noun of the auxiliary 'kaan', and is largely interchangeable with 'inn'. After some verbs, however, it seems that 'inn' is much preferred, though the amount of idiolectal variation here makes it virtually impossible to propose a general rule. Verbs

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(1) The PS rule should therefore be modified to: V ---→ ((Prep)NP) (Prep NP)) so that a preposition is obligatory before a second NP.

taking verbal complements are preferred without a complementiser, though some speakers allow 'inn' after '?idir', 'ħaawil' and 'xalla'. No speaker allowed 'koon' after these verbs, and 'inn' is also preferred before many NP Comps; for instance, most speakers find the following examples with 'koon' doubtful or unacceptable:

*'ana 9aawiz koonak tisa9idni'
'I want you to help me

? 'madiretʃ koonu kaan 9ayyaan'
'I wasn't aware that he was ill'

while allowing

'Sammimt 9ala koonu yu?9ud filbeet'
'I insisted that he stay at home'

'koon waaħid yinaam barra xaṭar'
'for one to sleep outside is dangerous'

'masadda?tiʃ koonu kaan sara? ilfiluus'
'I didn't believe that he had stolen the money'

The only approximate semantic correlation appears to be that 'koon' is usually possible with complements denoting a fact or action, but is less acceptable or impossible with modally marked complements e.g. *'9aawiz koon...' - 'want that...', *'atmanna koon...' - 'hope that...'. Obviously further detailed research is required before a more definite statement can be made. At present the choice of complementiser must be marked in the lexicon as an idiosyncratic syntactic feature of the verb (1). Another alternative is the compound complementiser

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(1) The only general syntactic rule appears to be that 'koon' is always acceptable with non-extraposed sentential subjects, such as 4 and 5 (a) above.

'koon inn', which appears to have the same distribution as 'koon'. The enclitic pronoun may be attached either to the latter member of the compound, or to both e.g.:

'koon innak' or 'koonak innak'
'that you'

I shall now turn to the transformations required to produce the surface structures of sentences containing NP Comps and sentential subjects.

The introduction of the complementiser has been informally described above. It may be formalised in the following transformation:

T - Complementiser Placement

SI: $X + \underset{NP}{[S]} + \underset{NP}{Y}$

1 2 3

$\xrightarrow{OBL}$

SC: 1 'inn' + 2 3

This will introduce the complementiser before NP complements and sentential subjects, though not before verbal complements, or relative clauses, which are generated either by conjunction (non-restrictive) or by the PS rule NP ⟶ N (S) (restrictive); in other words, relative clauses will not fulfill the structural index of the transformation. (For the sake of clarity, I have referred only to 'inn',

though conditions could obviously be added to the T-rule to allow for 'koon' and the compound complementiser.)

The following sets of synonymous sentences must clearly be derived from the same deep structure:

7. (a) 'innu yizuur axuuh waagib 9aleeh'
lit. 'that he visit his brother is beholden upon him'

(b) 'waagib 9aleeh innu yizuur axuuh'

(c) 'waagib 9aleeh yizuur axuuh'

8. (a) 'innu ta9baan baayin 9aleeh'
lit. 'that he is tired appears upon him' i.e. 'he appears to be tired'

(b) 'baayin 9aleeh innu ta9baan'

(c) 'baayin 9aleeh ta9baan'

9. (a) 'inni aruuħ iskindriyya miʃ mumkin'
'for me to go to Alexandria is not possible'

(b) 'miʃ mumkin inni aruuħ iskindriyya'

(c) 'miʃ mumkin aruuħ iskindriyya'

(b) can be derived from (a) by extraposing the sentential subject to the end of the matrix clause. This can be formalised as follows:

T - Extraposition

SI: X + ['inn' + S] + Pred + Y
S S

1 2 3 4 5 OPT ⟹

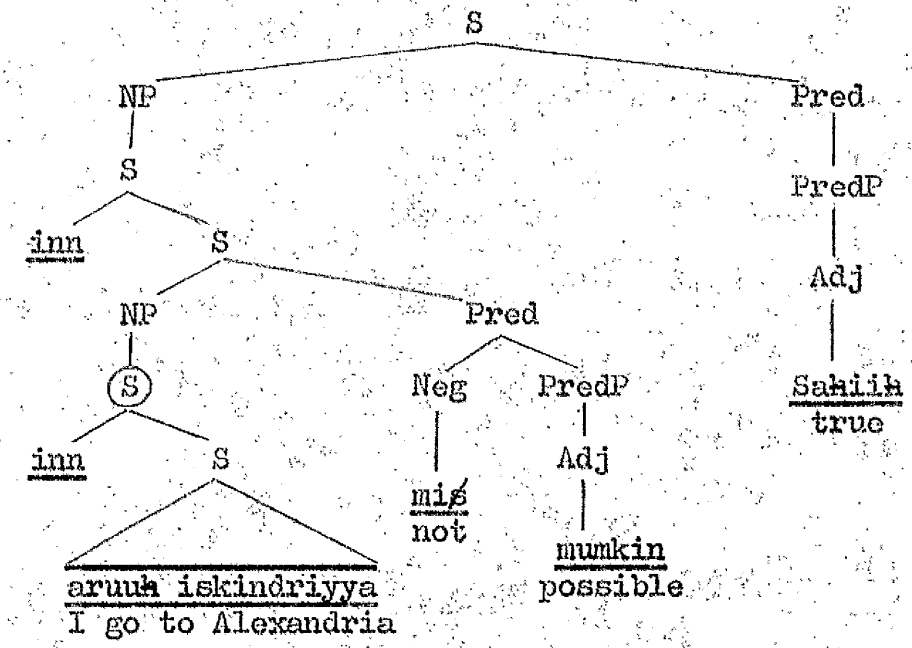
SC: 1 4 2 3 5

This transformation must be cyclically applied, from the most deeply embedded sentence upwards, to prevent the generation of sentences like:

*'inn miš mumkin Sahiih inni aruuh iskindriyya'
'that it is not possible is true that I go to Alexandria'

which would result from the extraposition of the circled NP node in 10. to the right of the highest Pred node:

10.



Two cyclic applications of T-Extraposition, first to the circled node, and then to the higher NP node, will give the grammatical sentence:

'Sahiih inn miš mumkin inni aruuh iskindriyya'
'it is true that it is not possible that I go to Alexandria'

Generally speaking the non-extraposed versions of sentences like 7, 8 and 9 above, although perfectly acceptable to the native speaker, are less used than their extraposed counterparts. Furthermore, 7, 8 and 9 (c) are more favoured than either (a) or (b) - i.e.

after deletion of the complementiser 'inn'.

T - Complementiser Deletion

SI: X + Y + 'inn' + Z

1 2 3 4 OPT ⟹

SC: 1 2 Ø 4

Conditions: 2 is dominated by 'pred' and ≠ Prep

This condition will ensure that 'inn' is not deleted in subject position, and also that it is not deleted if immediately preceded by a preposition. Further conditions will have to be placed on this transformation, to prevent deletion of the complementiser in sentences like:

11. 'dahaʃni innu geh 9anduku'
'it surprised me that he came to your house'

12. '?arrafni inn kull aSHaabi nisyu 9iid milaadi'
'it disgusted me that all my friends forgot my birthday'

13. 'mayhimmiʃ innu miʃ mawguud'
'it doesn't matter that he's not here'

It seems that deletion is always possible when there is identity between the subject or object of the matrix and the subject of the embedded clause; e.g.:-

14. 'ana 9aawiz (inni) arawwah'
'I want to go home'

15. 'da9eetu (innu) yifuut 9andina'
'I invited him to drop in'

16. 'raggeetu (innu) yismaħli'
'I begged him to forgive me'

However, the identity condition alone is not enough, since it would not permit sentences like 9 (c), nor 18 and 19 -

17. 'Sammimna yu?9ud ma9aana'
'We decided he should stay with us'

18. 'ana 9awzaak timši'
'I want you to go'

19. 'aħibbak tit9aššaa 9andina kulli yoom'
'I'd like you to dine with us every day'

In the last two examples the enclitic pronoun '-ak' originates in the embedded clause, and is only attached to the main verb after deletion of the complementiser. This is again an area of considerable personal variation among native speakers, and a more precise formulation of this transformation will have to await more detailed investigation.

Optional deletion of a preposition before an 'inn' clause must precede the above transformation. That is, we find sentences

20. (a) 'wafi?t 9ala inni aruuħ'

(b) 'wafi?t inni aruuħ' 'I agreed to go'

(c) 'wafi?t aruuħ'

but not

(d) *'wafi?t 9ala aruuħ'

(b) can be produced by the operation of

T - Prep Deletion

SI: X + Prep + 'inn' + Y

1 2 3 4

OPT ⟹

SC: 1 ∅ 3 4

Conditions: 2 and 3 are dominated by V.

This condition will prevent deletion of prepositions outside the immediate rewrite of V, e.g. those preceding adverbial clauses of reason etc. E.g.

21. 'ma?ultiš Haaga li?inni kunt nisiit ismu'
'I didn't say anything because I had forgotten his name'

is not reducible to

*'ma?ultiš Haaga inni kunt nisiit ismu'

The fact that 'inn' is included in the structural index of the transformation will prevent deletion before the verbal noun; i.e. we can have -

22. (a) 'ista?t min innu waSal min ġeer izni'
'I resented that he arrived without my permission'

(b) 'ista?t innu waSal min ġeer izni'

(c) 'ista?t min wuSuulu min ġeer izni'
'I resented his arriving (verbal noun) without my permission'

but not

(d) *'ista?t wuSuulu min ġeer izni'

The passive transformation must precede both T-Comp.Deletion and T-Prep.Deletion; otherwise sentential subjects without complementisers would be produced e.g.:

23. (a) *'miʃ ħayirga9 it?alli'
lit. 'that he will not return was said to me'

from

(b) '(ħadd) ?aal miʃ ħayirga9'
'(someone) said he will not return'

and the passive of phrasal verbs with sentential complement would not retain the preposition + place-marking pronoun. E.g.

24. (a) *'inni a?9ud filbeet itwaafi?'
'that I stay in the house was agreed'

will be produced instead of

(b) 'Inni a?9ud filbeet itwaafi? 9aleeh'.

Note that, if extraposition takes place with a passive phrasal verb, such as that in the above sentence, the sentential subject is not extraposed beyond the place-marking pronoun, but actually replaces it. E.g. we find

(c) 'itwaafi? 9ala inni a?9ud filbeet'
'it was agreed that I should stay in the house'

but not

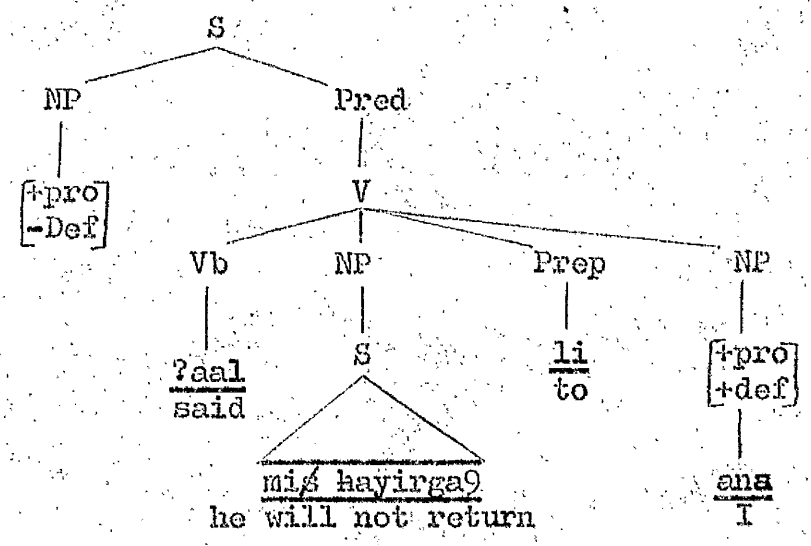
(d) *'itwaafi? 9aleeh inni a?9ud filbeet'

The following trees exemplify the changes in structure effected by the above transformations. E.g.

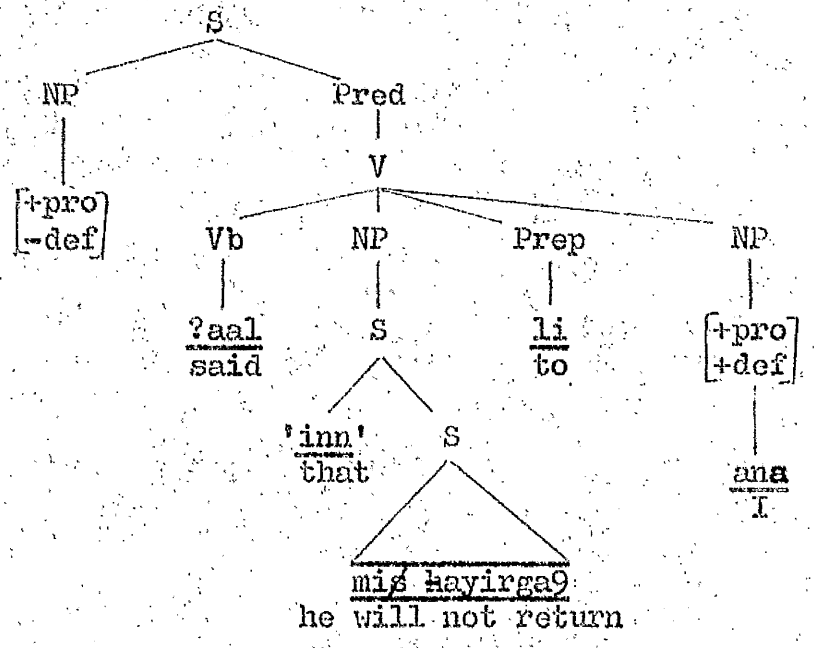
25. 'it?alli miʃ ħayirga9'
lit. 'it was said to me he will not return'

will be generated via: (ignoring all but the immediately relevant transformations)

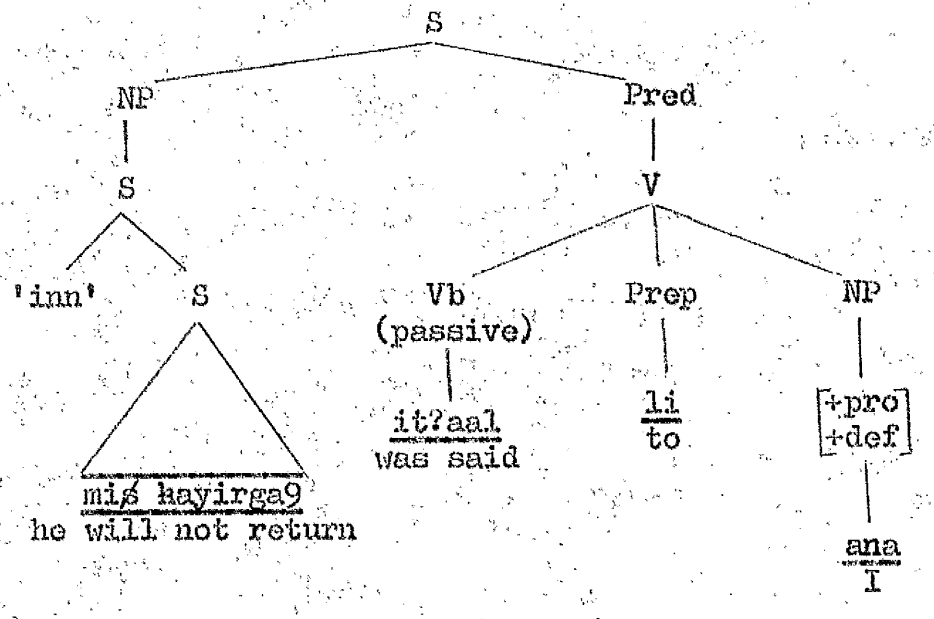
i) Deep structure:



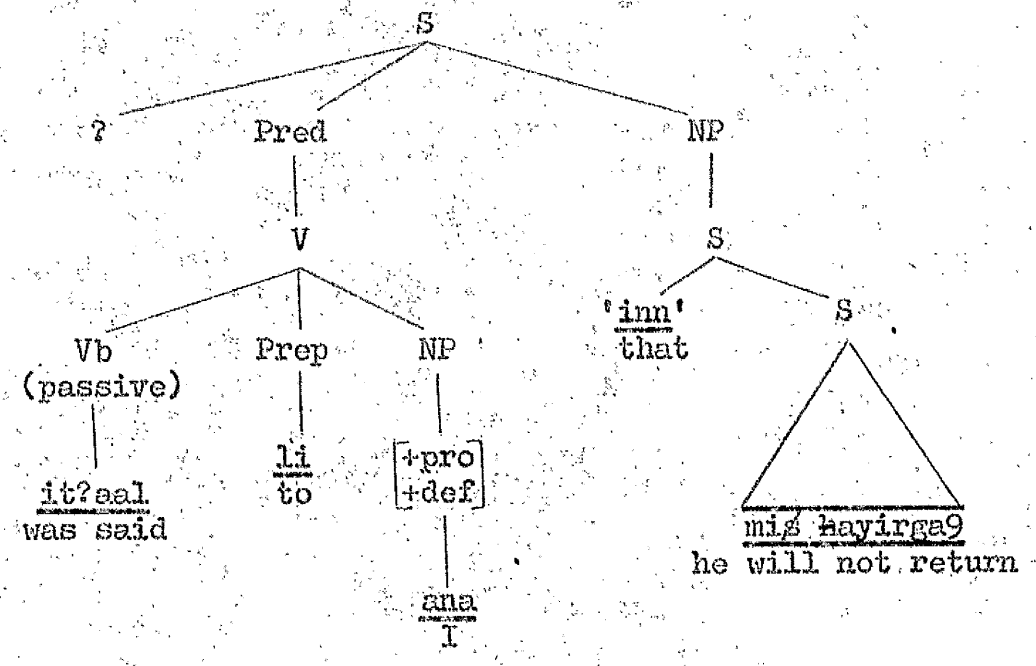
ii) T - Complementiser Placement



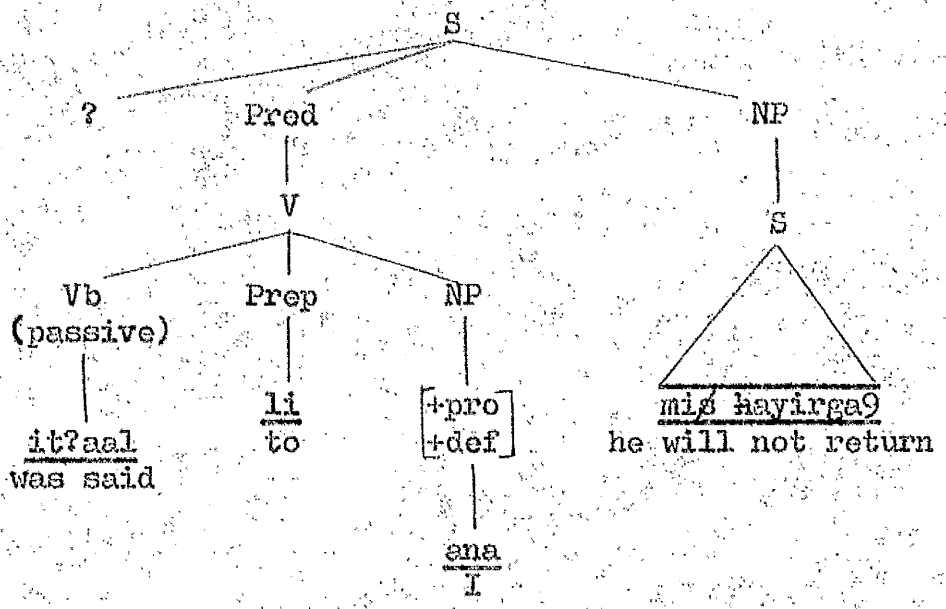
iii) T - Passive:



iv) T - Extraposition:



v) T - Complementiser Deletion:



It will be noted that the structural change of T-Extraposition moves the whole NP node round the predicate. An alternative solution would be to move only the S which it dominates, leaving the NP as a dummy filler which will pronominalise and then be deleted. The problem with this solution is that if a pronoun 'da' - 'it, that' does take the place of the extraposed sentential subject, then the intonation pattern will be changed, with a fall on the last stressed syllable of the predicate which may be followed by a slight pause. In other words, it will match the intonation pattern of thematically marked sentences like

'hiyya ħilwa ?awi, ilbint di'
'she is very beautiful, that girl'

where the subject is moved out to the right for emphasis, leaving a

place-marking pronoun; i.e. a similar transformation will be required if the subject is being topicalised, but this should not be confused with T - Extraposition, in which the extraposed subject is not emphasised.

However, a subject NP node should be retained, in the light of a further transformation which can operate after T - Extraposition. This is the transfer of the subject of the extraposed sentence to subject position in the main clause - a process we may call 'it-replacement'. If this is applied to the following sentences:

26. 'waagib 9aleeh yistanna'
'(lit.) it is beholden upon him to wait'

27. 'miʃ mumkin a9mil kida'
'(lit.) it is not possible that I do so'

28. 'it?aal inn ilbint maatit min sana'
'it was said that the girl died a year ago'

29. 'itZann inn ilmaSaani9 iggidiida tizawwid il?intaag'
'it was thought that the new factories would increase production'

30. 'it9araf inn iTTalaba mifallisiin'
'it was known that the students were bankrupt'

we get:

26. (a) 'huwwa waagib 9aleeh yistanna'

27. (a) 'ana miʃ mumkin a9mil kida'

28. (a) 'ilbint it?aal innaha maatit min sana'

29. (a) 'ilmaSaani9 iggidiida itZann innaha tizawwid il?intaag'

30. (a) 'iTTalaba it9araf innuhum mifallisiin'

These do not seem to be examples of topicalisation, as the NP in subject position is not felt to be emphasised in any way. Note that the main verb does not agree with the new subject; the 'unmarked' concord set is used.

'it-replacement' is not possible with all extraposed sentential subjects; e.g. it cannot operate on:

31. 'miʃ muhimm innu miʃ mawguud'
'it does not matter that he is not here'

to produce

*'huwwa miʃ muhimm innu miʃ mawguud'

nor on

32. 'Saḥiiḥ inni maʃuftuuʃ min zamaan'
'it is true that I have not seen him for a long time'

to produce

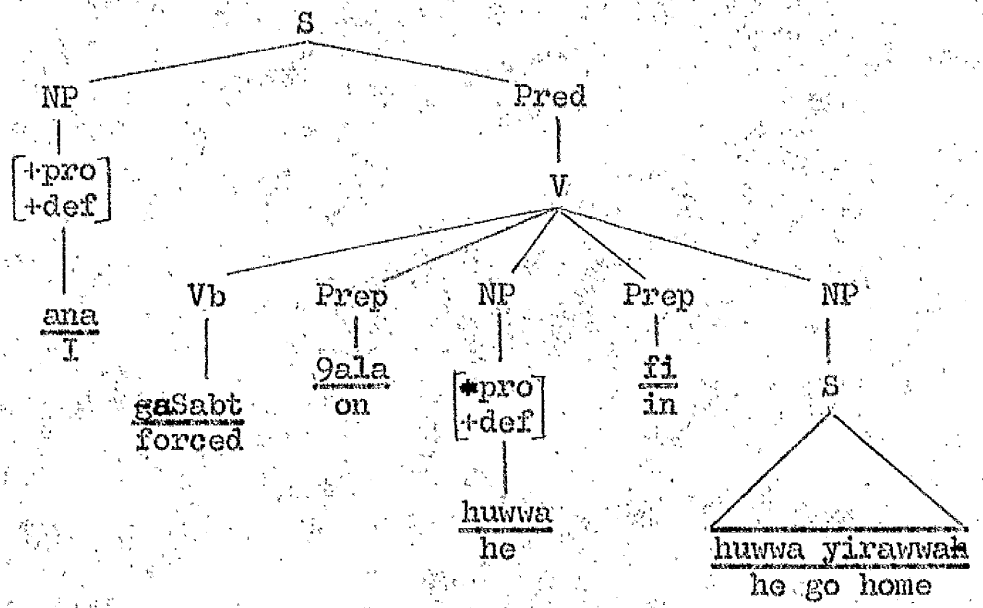
*'ana Saḥiiḥ inni maʃuftuuʃ min zamaan'

The conditions limiting the scope of this transformation have yet to be determined.

The operation of T-Prep.Deletion, which was not needed for 25, can be exemplified in the generation of

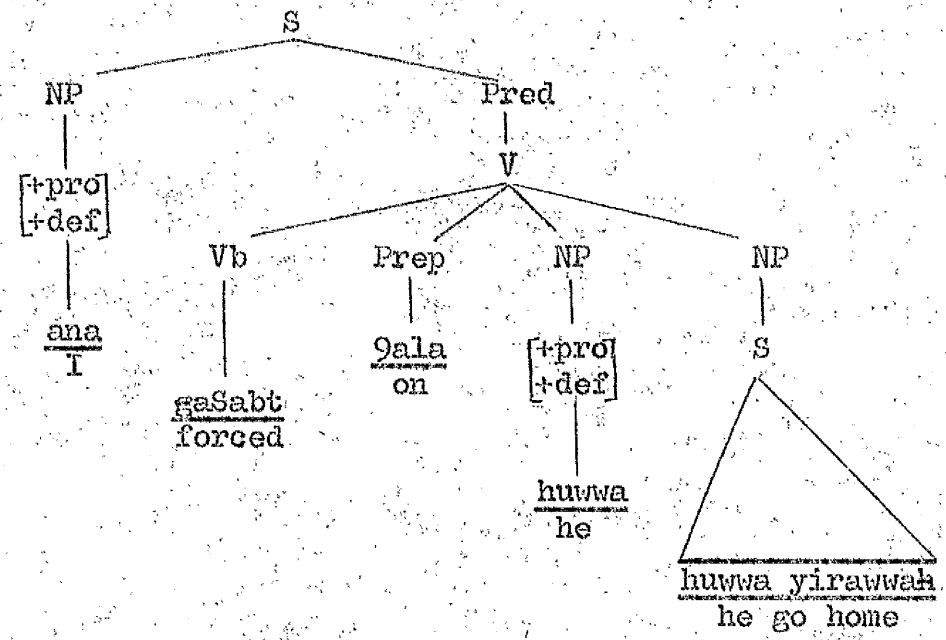
33. 'gaSabt 9aleeh yirawwaḥ'
'I forced him to go home

i) Deep structure:



ii) T - Complementiser Placement: as for 25.

iii) T - Prep.Deletion:



iv) T - Complementiser Deletion: as for 25.

* * *

So far, I have been concerned only with the complements of verbs, but it seems that a few nouns, too, must be classed as taking sentential complements; for instance, nouns like 'fikra' - 'idea', 'ħikaaya' - 'story', 'ħaala' - 'eventuality', and 'furSa' - 'chance', may be followed by an embedded sentence introduced by the complementiser 'inn', in which case they inflect for the construct state. (Such 'nominal complements' could be generated by the Ps rule NP ⟶ N(S), so that nouns such as the above would be subcategorised (___ (S)) in the lexicon.) E.g.:

34. 'iddaali furSit inni aʃuuf irra?iis'
'he gave me the chance of seeing the president'

35. 'fikrit inn ilbint tisaafir li waħdaha miʃ kwayyis'
'the idea of a girl travelling alone is not nice'

36. '?eeh ħikaayit innu 9ayyaan 9ala Tool?'
'what's (this) story of his being ill all the time?'

37. 'fi ħaalit inni at?axxar, matistanniiiʃ'
'in the event of my being late, don't wait for me'

Most speakers would not allow deletion of the complementiser. Some allowed parallel sentences, in which the noun was overtly marked for definiteness, and did not inflect for the construct; but they tended to prefer the above version to:

34 (a) 'iddaali ilfurSa inni aʃuuf irra?iis'

35 (a) 'ilfikra inn ilbint tisaafir liwaħdaha miʃ kwayyis'

36 (a) '?eeh ilħikaʃaya innu 9ayyaan 9ala Tool'

37 (a) 'filħaala inni at?axxar, matistanniiiʃ'

I turn now to sentences like 1 - 6 (b); i.e. those containing a verbal noun. It is clearly desirable to consider the verbal noun complex as an embedded sentence, since deriving it from a head noun plus a great variety of optional categories which are normally found in finite clauses would be both extremely complex and redundant (1).

In this section I shall describe informally the transformations operating on the various categories of the embedded S, with more detailed reference to the immediate participants of the verb phrase (i.e. those immediately dominated by V).

But before outlining these transformations I should make a few preliminary remarks on the internal form of the verbal noun itself. This is predictable to a limited extent from the morphological subclass of the underlying verb. The following list is by no means intended to be exhaustive; it simply indicates the more frequently

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(1) This S will also be dominated by NP, according to the criteria proposed for NP complements.

occurring canonical forms of the verbal noun corresponding to the subclass in question. I have not included the 'weak' and 'hollow' subtypes of class 1 (1), nor have I specified the possible variations of vocalisation for all classes of verb (2). Where there is more than one possibility I have simply supplied a cover symbol for V.

VERB	VERBAL NOUN
1) CVCVC	CVCC, CiCaaCa, CuCuuC, CaCaCaan, CaCaC
e.g. ʃirib - drink, katab - write, waSal - arrive, simi9 - hear, zi9il - get angry	e.g. ʃurb, kitaaba, wuSuul, sama9aan, za9al
2) CaaCiC	CaCaC, muCaCCa
e.g. saafir - travel, ħaawil - try, ʔaabil - meet	e.g. safar, muħawla, muʔabla
3) CaCCVC	taCCiiC, CaCaaC
e.g. za99al - make angry, kallim - speak, 9ayyaT - weep	e.g. taz9iil, kalaam, 9ayaaT
4) iCtaCaC	iCtiCaaC
e.g. igtama9 - gather	e.g. igtimaa9
5) a) inCaCaC	inCiCaaC
e.g. inbaSat - be pleased	e.g. inbiSaat

(1) 'Weak' verbs being those whose underlying form contains a semi-vowel w or y as third radical, and 'hollow' verbs having a semi-vowel as second radical.
(2) For a detailed study of the verb forms of CEA, see A. Gabir: 'Phonology of the verbal piece in Cairene Arabic', Ph.D. University of London, in preparation.

b) inCaaCiC	taCaaCuC, muCaCCa
e.g. itfaahim - come to an agreement, it?aabil - meet	e.g. tafaahum, mu?abla
c) inCaCCVC	taCaCCuC
e.g. it?addim - progress, itxarrag - graduate	e.g. ta?addum, taxarrug
6) istaCCVC	istiCCaaC
e.g. ista9lim - inquire	e.g. isti9laam
7) iCCaCC	iCCiCaaC
e.g. ihmarr - grow red, iswadd - grow black	e.g. ihmiraar, iswidaad
8) CaCCVC	CaCCaCa
e.g. waɸwiɸ - whisper, karkib - confuse, baSbaS - ogle	e.g. waɸwaɸa, karkaba, baSbaSa (1)

In some cases one verb has more than one verbal noun e.g. 'simi9' - 'hear' has both 'sama9aan' and 'sama9'; 'ɸaal' - 'carry' has both 'ɸiyaala' and 'ɸeel'. Conversely, two verbs may share one verbal noun; for instance, there is only one form 'kalaam' for 'kallim' and 'itkallim' - 'speak', which may be considered + or -Reciprocal.

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(1) I have not included as a separate class verbs of the form aCCaC, primarily because they generally belong to a higher register of speech. The only ones I could find belonging to the register under discussion are 'aqna9' - 'persuade', 'anZar' - 'warn', and 'arfaS' - 'crouch, curl up'.

Although I have given two possible forms for the verbal noun of class 3 verbs, it seems that those class 3 verbs which are the result of the causative transformation can only take the 'taCCiiC' form, whereas non-causatives may take either. It should be noted that, of class 7 verbs, all those taking the 'iCCiCaaC' form are 'colour' verbs e.g. 'ibyaDD' - 'grow white', 'izra??' - 'grow blue' etc.. Note also that verbal forms 5 a) - c) appear in the lexicon i.e. they are not those derived from the passive of classes 1, 2 and 3, since the nominalising transformation will be ordered before the passive, and hence will not apply to it.

We must now concern ourselves with the operations necessary to reorder elements of the embedded sentence under the nominalising transformation.

The verbal noun effects the neutralisation of tense, aspect and mood. They are also frequently not represented in corresponding finite embedded clauses - see examples 1 - 6(a). It is difficult to say whether the verbal noun should be considered the surface representation of only the unmarked verb, or also the neutralised form of a marked verb such as those which occur in the following sentences:

3. (c) 'inn M. biysuu? wi huwwa 9ayyaan biynervizni'
'that M. is driving when he's ill makes me nervous'

4. (c) 'inn ilbanaat biyiʃrabu xamra 9eeb'
'inn ilbanaat kaanu biyiʃrabu xamra 9eeb'
'that girls drink liquor is shameful'
'that girls used to drink liquor is shameful'

6. (c) 'iHna Sammimna 9ala innu Hayiigi ma9aana'
'we insisted that he will/would come with us'

I prefer the latter course, since semantic interpretations 3, 4 and 6 (c) (and others) can be placed on the sentences with the verbal noun - i.e. the verbal noun can be multiply ambiguous.

All types of time adverbial can occur with the verbal noun. E.g.:-

38. 'wuSuulak issaa9a xamsa dahaSni'
'your arriving at five o'clock surprised me'

39. 'ana muntaZar bi safaru bukra'
lit. 'I am expecting his setting off tomorrow'

Adverbials of manner, reason, purpose, place, preverbs etc. can also occur freely with the verbal noun, together with the immediate nominal participants of the VP - subject, direct and indirect object, benefactive and resultative. E.g.:-

40. 'fiih maani9 min ?u9aadi 9ala ikkursi da?'
'is there any objection to my sitting on this chair?'

41. 'Surbak tamalli lilwiski hayxalliina nifallis'
'your always drinking whisky will make us bankrupt'

42. 'wafi?t 9ala tamSiyyit ilwalad likkalb kulli yoom'
'I agreed to the boy's walking the dog every day'

43. 'Darb issittaat, Hatta bi Zahra, mamnuu9'
'beating women, even with a flower, is forbidden'

44. 'istagrabt min sukuutu sakta mufag?a'
'I was surprised at his suddenly falling silent'
'(lit. I was surprised at his falling silent a sudden silence)'

However, the adverbials Time, Loc and Reason cannot appear before the verbal noun; i.e. sentences like:

45. *'imbaariħ wuSuulak ħayidhaɣhum kulluhum'
'yesterday your arriving will surprise them all'

46. *'filmaT9am gidalna 9an ilħisaab za99al iggarsoon'
'in the restaurant our arguing about the bill made the waiter angry'

(where 'filmaT9am' belongs to the embedded rather than the main clause) are ungrammatical. It seems therefore that the nominalisation transformation must apply before that which optionally preposes such adverbials. The verbal noun in fact always appears as the left-most element in the surface structure of the embedded S, with the following exceptions:

The preverb 'tamalli' can be retained in its preverbal position i.e. 41 has the variant

'tamalli ɣurbak lilwiski ħayxalliina nifallis'

and a native speaker gave

47. 'tamalli taɣgillak lirradiu ħayxaSSaru'
'your always playing the radio will ruin it'

as a perfectly acceptable example of a preverb + verbal noun. Other preverbs in this position, however, appear to be less acceptable or impossible e.g.:-

48. *'9aadatan mirwaaħak issinima yoom issabt...'
'your usually going to the cinema on Saturday...'

49. *'aħyaanan ?u9aadu figgineena...'
'his sometimes sitting in the garden...'

The category 'Neg' (discussed briefly in Chapter One) is realised not by the prefix-suffix combination 'ma-ʃ' but by the particle '9adam' preceding the verbal noun e.g.:-

50. '9adam libs ilbalTu fiʃʃita yisabbib ilbard'
'not wearing an overcoat in winter leads to colds'

51. '9adam ħuDuuru 9eeb kibiir'
'his not being present is most shameful'

When 'Neg' occurs with the preverb 'lissa' (see Chapter One) the latter remains in its preverbal, pre-Neg position:

52. 'lissa 9adam kalaamu liyya ?arrafni'
'his not yet speaking to me disgusted me'

But other preverbs habitually occurring with 'Neg' cannot remain in this position e.g.:-

53. *'?abadan 9adam tafkiiru fiiha biyza99alha'
'his never thinking of her made her angry'

To be grammatical, '?abadan' must be placed after 'tafkiiru' or 'fiiha'.

* * *

Manner adverbials can either be retained as such e.g.:-

54. 'maʃyak bisur9a kida ?illit zoo?'
'your walking fast like that is ill-mannered'

or the verbal noun can be modified by the corresponding adjective - in this case 'sarii9' - 'fast' i.e.:-

54. (a) 'maʃyak issarii9 etc...'

Since Manner can be derived from an abstract noun e.g. 'Tarii?a', 'ʃakl' - 'way', 'manner', modified by an adjective, this optional transformation would consist simply of the transfer of the adjective to the verbal noun, and deletion of the dummy nominal. There exists a small group of adjectives which can act as manner adverbials without supporting dummy nominal e.g.:- 'bitilbis ʃiik' - 'she dresses well' cf. 'issitti di ʃiik ?awi' - 'that woman is very chic'; 'Darabu gaamid' - 'he hit him hard' cf. 'iDDarba kaanit gamda' - 'the beating was severe'; 'bitur?uS baladi' - 'she dances in the native fashion' cf. 'lahgithum baladi ʃuwayya' - 'their accent is a bit low-class'. They will be marked in the lexicon as +Manner, and when they occur in a prepositional phrase of which the head noun is also marked +Manner, the noun and preposition will be optionally deleted.

A more difficult problem arises with the category 'Intensifier' in the nominalisation transformation. As we have seen, this is introduced by the phrase structure as a modifier of a certain class of adjectives and verbs, that is, verbs and adjectives implying a relative scale of values (1) - 'important', 'big', 'pretty' etc., 'love', 'hate', 'get angry', 'differ' etc., whereas verbs and adjectives such as 'square', 'wooden', 'dance', 'know' etc. imply no such scale. This is obviously

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(1) What Jespersen (op. cit.) terms 'relative' as opposed to 'absolute'.

the syntactic correlate of a universal semantic feature, but it is difficult to see why such a category cannot be retained under nominalisation. One possible solution is to set up a class of intensifying adjectives, which would transfer from a dummy noun 'Extent' or 'Degree' to the verbal noun in much the same way as the modifiers of 'Manner'; i.e. 'kibiir' - 'great', 'ɸidiid' - 'violent', 'gaamid' - 'hard' will replace the adverbial intensifiers '?awi', 'xaaliS', 'kitiir' - 'very (much)', 'extremely' etc. Syntactic support for this analysis is given by the fact that both such modifiers, adjectival and adverbial, have the same Q-replacement form - '?addi ?eeh' - lit. 'as far as what?', 'to what extent?'. So we find both

'zi9il xaaliS' 'he got extremely angry'	and	'huwwa Tawiil ?awi' 'he is very tall'

corresponding to the questions

'zi9il ?addi ?eeh?' 'how angry did he get?'	and	'huwwa Tawiil ?addi ?eeh?' 'how tall is he?'

and

'za9alu ɸidiid' 'his anger is extreme'	and	'Tuulu kibiir' 'his height is great'

corresponding to

'za9alu kaan ?addi ?eeh?' 'how great was his anger?'	and	'Tuulu ?addi ?eeh?' 'what is his height?'

* * *

Turning now to the NPs most closely associated with the verb, we can state informally the following rules for one- and two-place verbs:

i) The subject of the verb must follow immediately the verbal noun, and is in construct with it (see chapter on indefinite subjects and prepositional predicates for discussion of the construct state). E.g.:-

55. (a) 'ilmuwaZZaf ħaawil yiwa??af il9arabiyya'
'the employee tried to stop the car'

becomes

(b) 'muħawlit ilmuwaZZaf yiwa??af il9arabiyya...'
'the employee's trying to stop the car...'

ii) The direct object of the verb remains the same, or, optionally, takes the preposition 'li' e.g.

56. (a) 'ilbint ʃiribit xamra'
'the girl drank liquor'

becomes

(b) 'ʃurb ilbint (li)ilxamra'
'the girl's drinking liquor'

and

57. (a) 'hiyya nisyit ilma9aad'
'she forgot the appointment'

becomes

(b) 'nasyaanha (li)ilma9aad'
'her forgetting the appointment'

These rules operate equally on three-place verbs (i.e. those referred to in Chapter Four, of which the indirect objects can be permuted with the direct objects, - the few verbs of giving and sending - and all those verbs derived from two-place verbs + Causative), with the following stylistic proviso: that the left-most 'li' of the nominalised construction of causative origin should be deleted to produce fully acceptable sentences. E.g.:-

58. (a) 'takkiilha ilfuul lil?awlaad'
'her feeding 'fuul' to the children'

from 'wakkilit ilfuul lil?awlaad'
'she fed 'fuul' to the children'

is much preferred to

58. (b) 'takkiilha lilfuul lil?awlaad'

just as

59. (a) 'taʃyiilna issabat lilbint'
'our making the girl carry the basket'

from 'ʃayyalna issabat lilbint'

is preferred to

59. (b) 'taʃyiilna lissabat lilbint'

This cannot be explained entirely on the grounds of the incompatibility of two juxtaposed prepositional phrases with the same preposition, since the same speakers allowed as perfectly acceptable -

60. 'tawriyyitha liSSuwar li?ibrahiim'
'her showing the pictures to Ibrahiim'

61. 'kitabtak ligawaab lilmuHaami'
'your writing a letter to the lawyer'

62. 'ʃiraaya likaravaTTa liSaHbi'
'my buying a tie for a friend'

- in which we have two 'li'-phrases, 60 being derived from a non-causative three-place verb and 61 and 62 from two-place verb + benefactive. In other words, the lower acceptability of 58 and 59 (b) stems from the transformational history of the sentence rather than from purely surface phenomena. I shall not attempt to suggest how this particular stylistic constraint should be built into a fuller grammar of CEA.

For the purposes of this study I shall consider 58 and 59 (b) as fully grammatical, and formalise the nominalisation transformation as follows:-

T - Verbal Noun

SI: $U + [_{S} W + NP + Y + V + (NP) + X]_{S} + Z$

1 2 3 4 5 6 7 8

OPT ⟹

SC: 1 2 4 5 3 (li+ 6) 7 8
[Nom]

Conditions: 2 = PreS or Ø

3 and 5 command one another

The brackets round 6 signify that 6 is not an essential part of the structural index, but if it is present, the structural change is obligatory for this part of the transformation. A later transformation will optionally delete the 'li' in this position. If 3 is unspecified, as in the DS of passive sentences, the transformation can still take place, but then the 'li' is obligatorily deleted. The structural index prevents the re-ordering of an NP from the end of a different embedded clause e.g.:-

63. *(a) 'irraagil illi ʃaaf Darb ilhadsa lisawwaa? ittaks'

from

(b) 'irraagil illi ʃaaf ilhadsa Darb$_a$ sawwaa? ittaks'
'the man who saw the accident hit the taxi driver'

instead of

(c) 'Darb irraagil illi ʃaaf ilhadsa lisawwaa? ittaks'
lit.'the man who saw the accident's hitting the taxi driver'

We must allow for a variable between 3 and 5 to provide for categories such as Neg and Preverb. No variable is present however between 5 and 6; this means that if V is a phrasal verb, the bracketed part of the structural change cannot take place, as a preposition will be present and the structural index will not be fulfilled. E.g.:-

'i9tamad 9ala Sahbu'
'he depended on his friend'

will give

'i9timaadu 9ala Sahbu'
'his depending on his friend'

but not

*'i9timaadu liSahbu'

This constraint is well illustrated by the verbs which share a single verbal noun, when one verb is phrasal and the other not, e.g. '?aabil' and 'it?aabil ma9a' - 'meet'. We expect, and find, that either 'li' or 'ma9a' can occur with the verbal noun. E.g.:-

mu?ablitu { ma9a / li } irra?iis (←--- it?aabil ma9a irra?iis)
(←--- ?aabil irra?iis)

'his meeting the president'

Alternatively, we could allow li-adjunction to take place, even with phrasal verbs, and then have obligatory, instead of optional deletion of the 'li' (1).

In a full formulation of this transformation it should be stated that if a VN is formed from a verb with a following resultative, then deletion of 'li' is obligatory, or the transformation must be modified so that the structural change does not insert it in the first place.

---

(1) If Fillmore's hypothesis that every deep structure case (i.e. syntactic relation) is typically marked by a particular preposition is correct, then 'li' would appear to be the preposition marking the objective case in CEA; this is generally deleted in the surface structure, but can be retained after nominalisation, unless a surface preposition is supplied, which then takes precedence over the deep structure case marker.

Hence we find that the following are only possible if the 'li' is omitted:

*'dikku li dikka 9alya'
'his laughing loudly (lit. a loud laugh)'

*'?u9aadu li ?a9da Tawiila'
'his sitting for a long time (lit. a long sit)'

In Chapter Three it was pointed out that sometimes the verbal noun is used as resultative, sometimes its 'countable' form, and sometimes either can be used. In the later case, a meaning difference was often discernible, the verbal noun being associated with habitual aspect of the main verb, and the 'countable' form with a single action or event. It should be noted that the 'countable' form may often be substituted for the verbal noun, with a similar difference in meaning e.g.:-

64. '?a9ditu figgineena za99alitha'
'his sitting in the garden (on one occasion) annoyed her'

and

65. '?u9aadu figgineena za99alha'
'his sitting in the garden (habitually) annoyed her'

So it may be that the 'countable' form is simply a VN derived from a verb unmarked for habitual aspect. Hence we have the possibility of four different combinations of VN + resultative e.g.:-

66. (a) 'duxuulu daxla bayxa' (VN + result. (countable))
'his entering in a stupid way'

(b) 'duxuulu duxuul baayix' (VN + result. (VN))

66. (c) 'daxlitu daxla bayxa' (VN (countable) + result.(countable))

(d) 'daxlitu duxuul baayix' (VN (countable) + result.(VN))

67. (a) 'noomu nooma kwayyisa' (VN + result.(countable))
'his sleeping well'

(b) 'noomu noom kwayyis' (VN + result. (VN))

(c) 'nomtu nooma kwayyisa' (VN (countable) + result.(countable))

(d) 'nomtu noom kwayyis' (VN (countable) + result.(VN))

68. (a) 'dihku dihka 9alya' (VN + result.(countable))
'his laughing loudly'

(b) 'dihku dihk 9aali' (VN + result.(VN))

(c) 'dihkitu dihka 9alya' (VN (countable) + result.(countable))

(d) 'dihkitu dihk 9aali' (VN (countable) + result. (VN))

This full range of possibilities does not appear to be available to all verbs, and even when it is, the combination (d) of a verbal noun of the 'countable' form followed by a resultative in the form of the verbal noun, is much less acceptable than the rest to the majority of speakers, if not totally rejected by them.

In this chapter, I mentioned that the VN of a causative verb is always the 'taCCiiC' form. If a causative verb is followed by a resultative, it is sometimes possible to transfer the feature + Causative to the ~~feature + Causative to the~~ resultative so that we find

69. 'wa??afu taw?iif Tawiil' (result.(VN + Caus.))
'lit.he made him stand a long standing'

end

70. 'wa??afu taw?iifa Tawiila' (result.(countable + Caus.))

as well as

71. 'wa??afu wu?uuf Tawiil' (result.(VN))

and

72. 'wa??afu wa?fa Tawiila' (result.(countable))

Note that the causative form of the resultative is not possible unless the main verb is causative. Hence we cannot have:

*'wi?if taw?iif(a) Tawiil(a)'
'he stood a long standing'

T - Verbal Noun can apply to examples 69-72, and, like example 64, may take the 'countable' form, giving in all eight possible combinations of VN + resultative.

However, this is an area of the grammar where there is a good deal of personal variation among informants; combinations such as VN(+Caus.) + result. (countable + cause) were often felt to be clumsy or stylistically unacceptable. Generally speaking, the operation of T - Causative followed by T - Verbal noun, when the verb in question is followed by a resultative, seems to lead to the production of less favourite sentences.

CHAPTER SIX

Relative Clauses

* * *

One of the phrase structure rules allows for the generation of S as part of the noun phrase:

NP ----→ N + (S)

This is to account (inter alia) for restrictive relative clauses of the type found in examples 1-4:-

1. 'miʃ 9aarif irraagil illi iʃtiri il9arabiyya'
   'I don't know the man who bought the car'

2. 'feen ilmuwaẐẐaf illi kallimtu imbaariħ?'
   'where is the clerk I spoke to yesterday?'

3. 'biyaklu ʔakl maluuʃ Ta9m xaaliS'
   'they eat food which has no taste at all'

4. 'ʔabilt raagil kaan hirib min issign'
   'I met a man who had escaped from prison'

These must be distinguished from non-restrictive relative clauses, with which there is generally a pause, before and after the clause, and a different intonation pattern (1). Given that the deep structure

---

(1) Instead of falling intonation throughout, there is a slight end-rise at the end of the nominal and at the end of the embedded clause:

(commas mark off the embedded clause).

is the place in which grammatical relations are made explicit, and that one clearly wishes to distinguish the defining function of the restrictive clause from the more tenuous connection of the non-restrictive, I propose to derive the latter from a conjoined sentence. Semantically, it simply adds information to the nominal in the matrix S, whereas the former not only adds information, but also reduces the scope of reference of the nominal.

The conjoined sentence is transferred to post-nominal position by an optional transformation, roughly of the form:

$$\begin{array}{ccccc} N_1 + X + S & \Longrightarrow & N_1 + \ , S \ , + X \\ 1 \quad 2 \quad 3 & & 1 \quad 2 \quad 3 \end{array}$$

where N_1 recurs in S and where 3 and the S dominating 1 command one another. In a fully formulated transformation conditions would have to be placed on the variable X; for instance, it cannot dominate S, since the transformation cannot operate if a restrictive relative clause is already present.

Clearly, one of the conditions for any type of relativisation is the identity of the head noun and a noun in the embedded (or conjoined) S. The noun in the relative clause is pronominalised, unless it is the subject of the clause, in which case it is deleted. For instance, there is no 'place-marking' pronoun in examples 1 and 4, but in 2 a

pronoun replaces the direct object following the verb, and in 3, the noun forming part of a prepositional phrase. This pronominal replacement will be effected by the pronominalisation transformation (Chapter Two), so that in fact the only transformations required specifically for full relative clauses are (a) that which shifts the conjoined S to post-nominal position and (b) that which deletes the pronoun in subject position in the relative clause:

T-Subject-Deletion

SI: $W + N_1 + [\underset{S\ [pro]}{N_1} + X] + Y$ $\xrightarrow{OBL}$

1 2 3 4 5

SO: 1 + 2 + $\emptyset$ + 4 + 5

where 2 + 4 is dominated by NP.

Following a definite noun, both restrictive and non-restrictive relative clauses are introduced by 'illi' (see examples 1 and 2), which must be regarded as a marker of definiteness, like the definite article 'il-', rather than a relative pronoun. After an indefinite head noun there is no such marker (see examples 3 and 4).

After the subject deletion transformation, an optional transformation must be introduced to reduce full relative clauses by deleting 'Tense', if the predicate of the embedded clause consists of an adjective or

participle (1). After a definite noun, the adjective or participle will be prefixed by the article 'il-', and will remain unmarked after an indefinite noun. Hence the choice of 'il-' or 'illi' is a morpho-phonemic question; [+Definite], which will be copied from the noun onto all modifying elements, will be realised as the prefix before nouns, adjectives and participles, and as the particle 'illi' elsewhere. For example, if the reduction transformation is not applied, sentences like 5 and 6 are produced, whereas if the transformation is applied, 7 and 8 would result:

5. 'warraani iSSaniyya illi kaanit mifaDDaDa'
'he showed me the tray which was inlaid (with silver)'

6. 'ilbint illi kaanit nayma kaanit xaddaama fi beet il?ustaaz'
'the girl who was sleeping was a servant in the professor's house'

7. 'warraani iSSaniyya ilmifaDDaDa'
'he showed me the inlaid tray'

8. 'ilbint innayma kaanit xaddaama fi beet il?ustaaz'
'the sleeping girl was a servant in the professor's house'

The Transformation cannot operate if the adjective or participle is modified by any category other than 'Intensifier' e.g.

9. 'ilbint illi kaanit nayma 9al?arD kaanit xaddaama'
'the girl who was sleeping on the ground was a servant'

but not

---

(1) See later chapter for derivation of participle from finite verb.

10. *'ilbint innayma 9al?ard kaanit xaddaama'
'the girl sleeping on the ground was a servant'

And both

11. 'warraani iSSaniyya illi kaanit galya ?awi'
'he showed me the tray which was very expensive'

and

12. 'warraani iSSaniyya ilgalya ?awi'
'he showed me the very expensive tray'

This restriction must be built into the structural index of the transformation:

T Rel-Reduction

SI: $W + N + Y + [_{S}\ \text{Tense} + Z + (\text{Int})\ ]_{S} + R$

1 2 3 4 5 6 7 $\xRightarrow{OPT}$

SC: $1 + 2 + 3 + \emptyset + 5 + 6 + 7$

Conditions: 5 = adjective or participle

In a fully formulated transformation, it must be specified that the tense of the embedded clause be either 'present' (unmarked) or identical with that in the matrix S.

Reduced relative clauses must not be confused with reduced contemporaneous clauses, though it seems likely that, with some modification of the structural index, the same transformation can be used in both cases (see chapter on tense). The two may be closely related semantically, and in some instances structurally ambiguous. For example

13. 'ʃuft bint maʃya fiʃʃaari9'
'I saw a girl walking in the street'

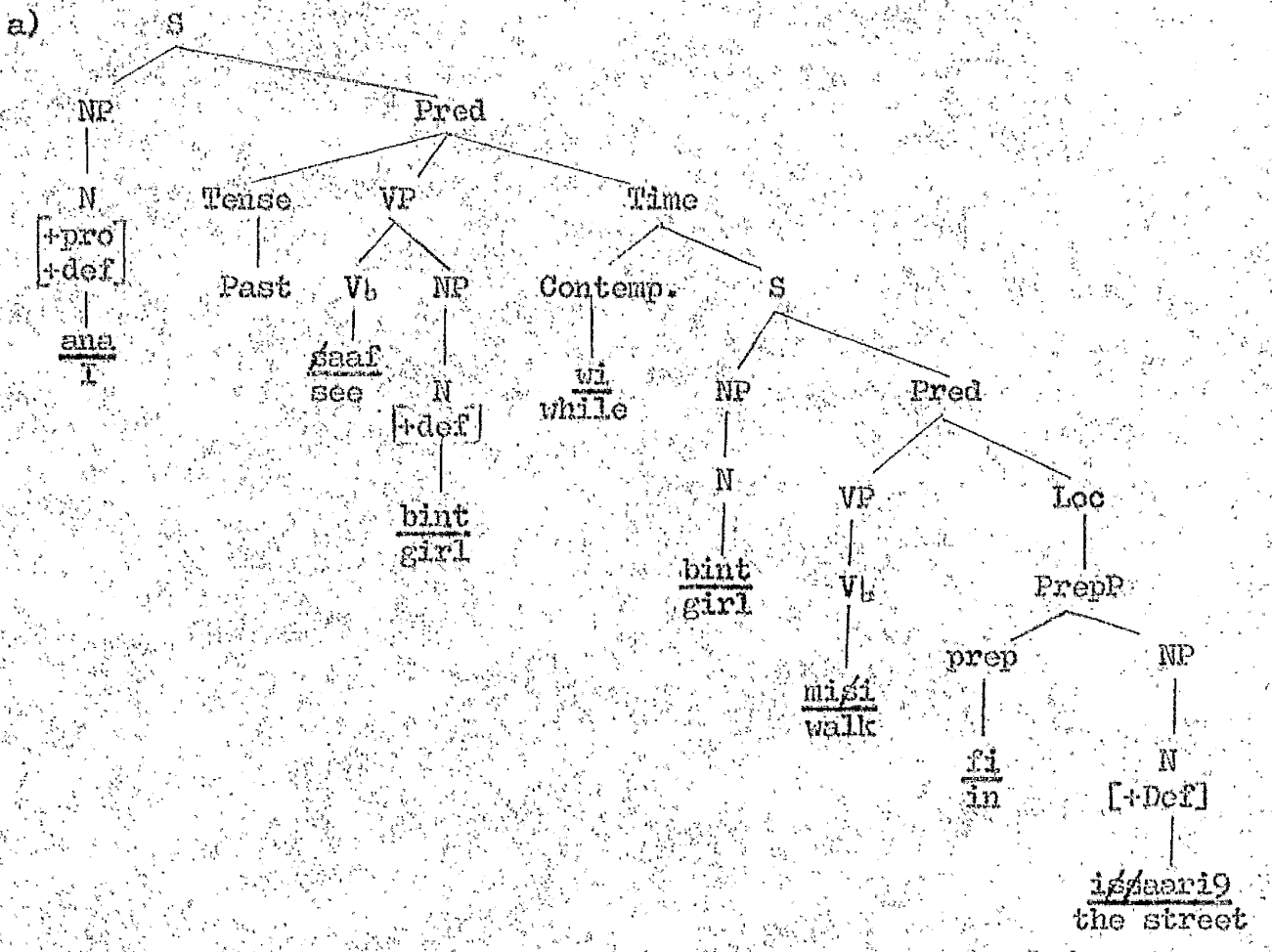
may have two deep structures corresponding to

a) 'ʃuft bint wi hiyya (kaanit) maʃya fiʃʃaari9'
'I saw a girl as she was walking in the street'

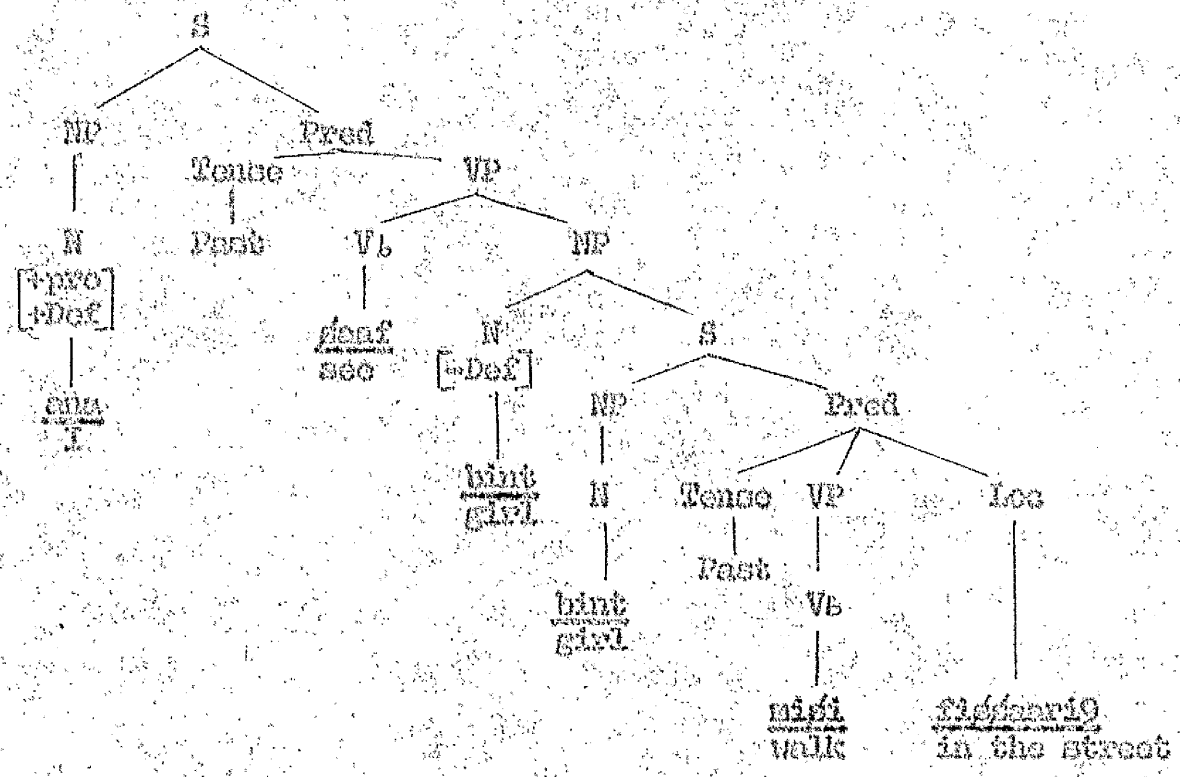
and

b) 'ʃuft bint kaanit maʃya fiʃʃaari9'
'I saw a girl who was walking in the street'

a)



b)



However, this type of ambiguity can only occur after an indefinite head noun. E.g.

14. 'ʃuft ilbint maʃya ʃiʃʃaariʕ'
'I saw the girl walking in the street'

can only have an underlying contemporaneous clause, not a relative clause, in its deep structure. It is clear from 15 and 16 that a relative clause modifying a definite noun must be introduced by 'illi', since in 15 the clause follows a noun in subject position and in 16 the main verb is stative and cannot cooccur with a contemporaneous time clause:

15.(a) 'iṭṭalaba illi min maṣr waṣalu yoom ilxamiis'
'the students from Egypt arrived on Thursday'

(b)*'iṭṭalaba min maṣr waṣalu yoom ilxamiis'

16.(a) 'ana ʕaarif ilmudarrisa illi labsa iswid fiswid'
'I know the teacher dressed all in black'

(b)*'ana ʕaarif ilmudarrisa labsa iswid fiswid'

'Stacking' of adjectives must be provided for; that is to say, a relative clause or adjective may modify the head noun only, or the head noun plus another modifier. It may be stated in the structural index of a transformation applying to a restrictive relative clause that there is identity of the whole preceding NP, including modifying adjective or adjectives. Alternatively, the modifying relative clauses may be conjoined in the deep structure, and specify only identity of the noun. Hence

17. 'ilbint illi gamiila wi illi ʃaTra'
'the girl who is beautiful and who is intelligent'

may be reduced to

a) 'ilbint illi gamiila wi ʃaTra'

or, applying T Rel-Reduction,

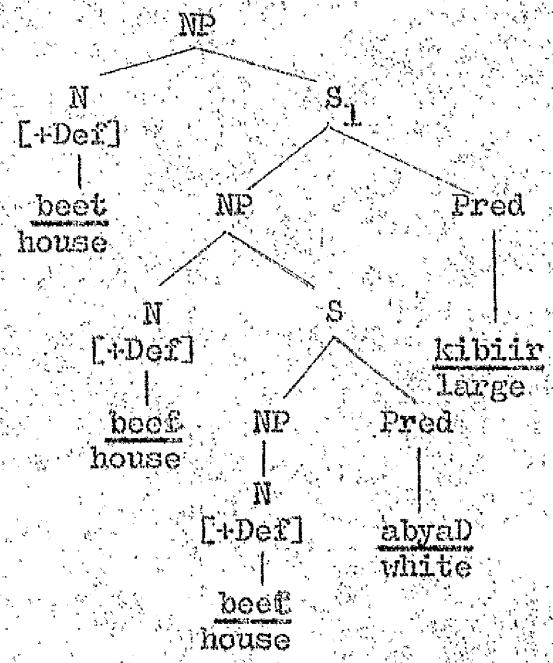
b) 'ilbint iggamiila wi iʃʃaTra'

Whereas a NP like

18. 'ilbeet il?abyaD ikkibiir'
'the large white house'

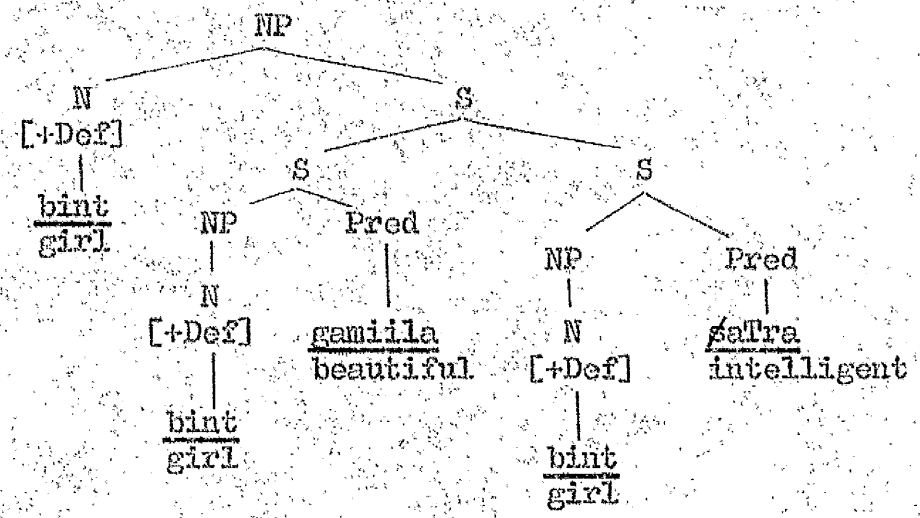
with no conjunction may have a deep structure of the form:

i)



Whereas 17 will have the deep structure:

ii)



in which the modifiers are embedded at the same level.

In i), if the subject deletion and rel-reduction transformations are applied only to the nodes dominated by S_1, the sentence

'ilbeet il?abyaD kibiir'
'the white house is large'

will result.

I mentioned in Chapter One the possibility of generating conjoined adjectives in the PS rules. Otherwise the only way to derive

'fustaan axDar wi abyaD'
'a green and white dress'

would be from a NP containing two conjoined embedded sentences -

'ilfustaan axDar wilfustaan abyaD'
'the dress is green and the dress is white'

which would be ruled deviant by the semantic projection rules, as consisting of contradictory statements. Alternatively, one could have two possible semantic interpretations, which would allow for adjectives referring to only part of the head noun.

So far only relative clauses modifying nouns have been considered. Non-restrictive relative clauses can also modify entire clauses:

19. 'nisi 9iid milaadha, illi ?arrafha xaaliS'
'he forgot her birthday, which upset her terribly'

This would imply that the main clause in question is dominated by NP, and that an identical, NP-dominated S has been deleted from subject position in the relative clause. If T Subject-Deletion is not applied, sentence 20 would result:

20. 'nisi 9iid milaadha, wi innu nisi 9iid milaadha 9arrafha xaliS'
'he forgot her birthday, and (the fact) that he forgot her birthday upset her terribly'

Late T-rules must re-order adjectives after the noun, so that any adjectives of nationality immediately follow it, or the noun or nouns in construct with it; e.g. -

21. '?uTn maSri 9aZiim'
'fine Egyptian cotton'

22. 'Tabbaax yunaani 9aguuz'
'old Greek cook'

and not ?*'?uTn 9aZiim maSri'

or ?*'Tabbaax 9aguuz yunaani'

It is difficult to know whether the 'material' nouns which immediately follow the head noun should be considered adjectives for this purpose, and hence be included in the latter transformation, or whether they represent a special case of the construct. Morphologically, they behave more like adjectives, in that the head noun does not inflect, and the feature [+Definite] is written onto the material noun and head noun alike. E.g. - a 'true' construct:

23. 'karavaTTit ilmudiir'
'the manager's tie'

and a 'material construct':-

24. 'ikkaravaTTa ilHariir'
'the silk tie'

Elsewhere in the grammar we obviously want to classify these modifiers as nouns, and on the principle of economy we would wish to avoid setting up a special overlapping class, solely to account for this structure.

The grounds for regarding it as a special type of construct are (a) it must follow the noun immediately; (b) there are corresponding prepositional phrases, such as we find with 'true' constructs:

25. 'ilkaravaTTa min ilhariir'
'the tie is (made) of silk'

cf 26. 'ilkaravaTTa li ilmudiir'
'the tie is (belonging) to (or for) the manager' (1)

While the latter type is reduced to a construct by the usual processes of subject and rel-deletion, together with deletion of the preposition and the definite marker on the head noun, and inflection of the head noun, the former requires deletion of the preposition, but undergoes the T-rule which writes the feature [+Def] onto all modifiers.

Another transformation will be needed to place the demonstrative adjective - 'da, di, dool' (2); this must follow reduced relative clauses, and <u>may</u> follow non-reduced restrictive relatives. Hence we find:

---

(1) These prepositional phrases are more acceptable if the NP after the preposition contains more lexical padding. E.g.:
'ikkursi da min xaʃab ilward'
'this chair is (made) of rosewood'
is 100% acceptable whereas
(?) 'ikkursi da min xaʃab'
'this chair is (made) of wood'
is slightly odd. C.f.:-
'ʃanTitha min gild ittimsaah'
'her bag is of crocodile skin'
as opposed to:-
'ʃanTitha min gild'
(?) 'her bag is of leather'

(2) Very briefly, 'da' follows the masculine singular noun, 'di' the feminine singular, and 'dool' the plural. (See appendix on nominal concord for more precise specification of concord sets).

27. 'ilbeet iSSugayyar illaziiz da'
'that sweet little house'

but not *'ilbeet da iSSugayyar illaziiz' (1)

And both

28. 'ilhikaaya illi simi9taha di'
'that story that I heard'

and

29. 'ilhikaaya di illi simi9taha'

The placing of the demonstrative before or after the non-reduced clause appears to be dependent on the length and complexity of the clause, and may be subject to the kind of output condition proposed in Chapter Four.

I have already mentioned briefly the universal constraints proposed by Ross in his thesis (2). The question of their applicability to CEA is too complex to be investigated here in any detail, but the examples below will illustrate how some of his principle constraints do appear to apply to relative clauses in CEA. For instance, the Complex NP Constraint states that: "No element of a constituent of a NP which modifies the head noun can be questioned or relativised". This means in effect that the noun identical to the head noun cannot be embedded in another relative clause. Hence if 30 is embedded in a NP, the noun 'ilhaakim' - 'the judge' cannot be relativised, as in 31:-

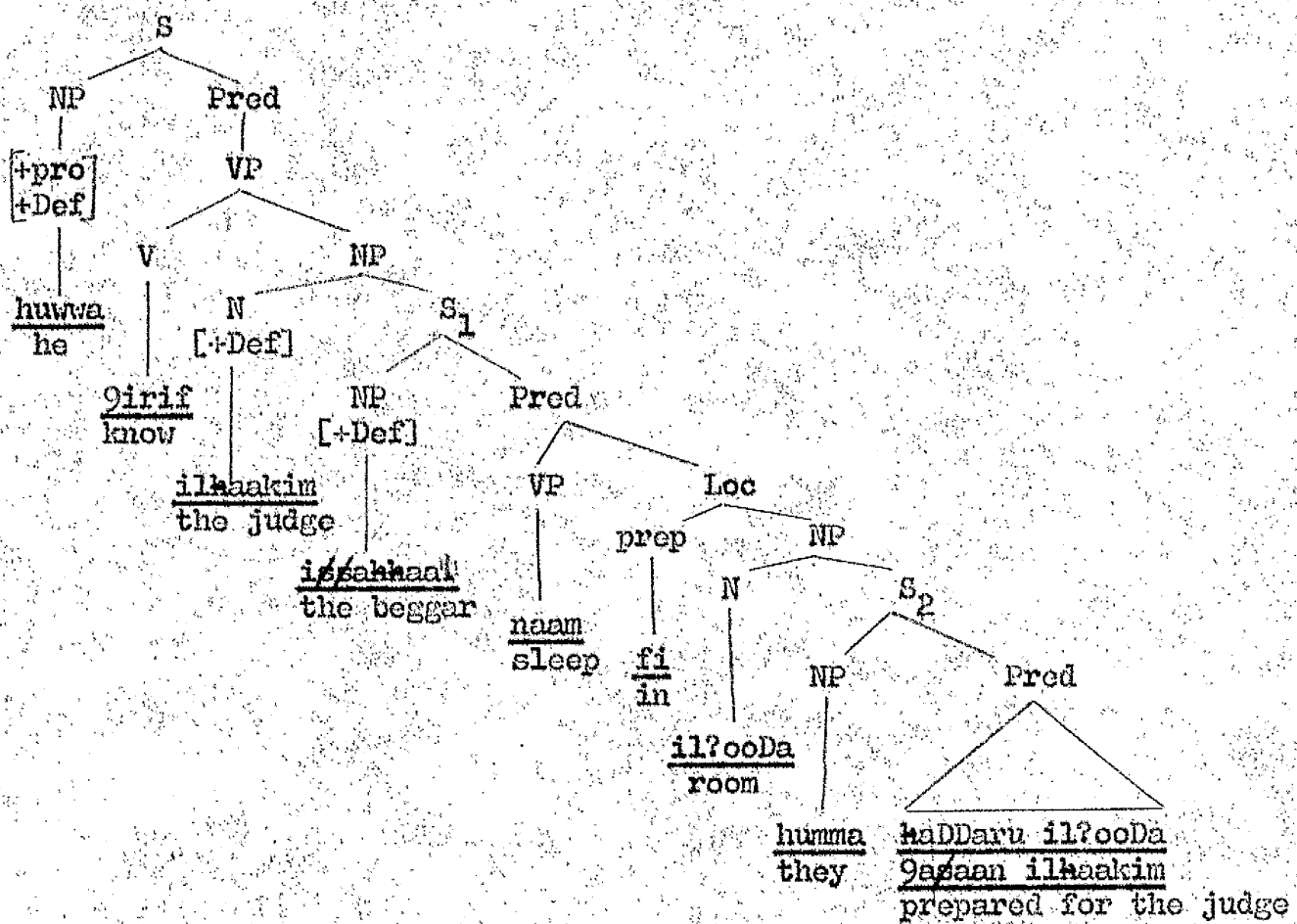
---

(1) The demonstrative may follow either of the modifiers, i.e.
'ilbeet iSSugayyar da illaziiz'
is also possible.
(2) Op. cit.

30. 'iʃʃaHHaad naayim fil?ooDa illi ħaDDaruuha 9aʃan ilħaakim'
'the beggar is sleeping in the room that they prepared for the judge'

31. 'ʔ9aarif ilħaakim illi iʃʃaHHaad naayim fil?ooDa illi ħaDDaruuha 9aʃaanu'
'he knows the judge for whom the beggar is sleeping in the room that they prepared'

In other words, the noun to be relativised must cooccur in the first sentence down - S_1 - in the DS tree below:



This means that none of the transformations normally applying to relative clauses - subject deletion, reduction and assignment of the definite particle, can take place unless the identical noun belongs

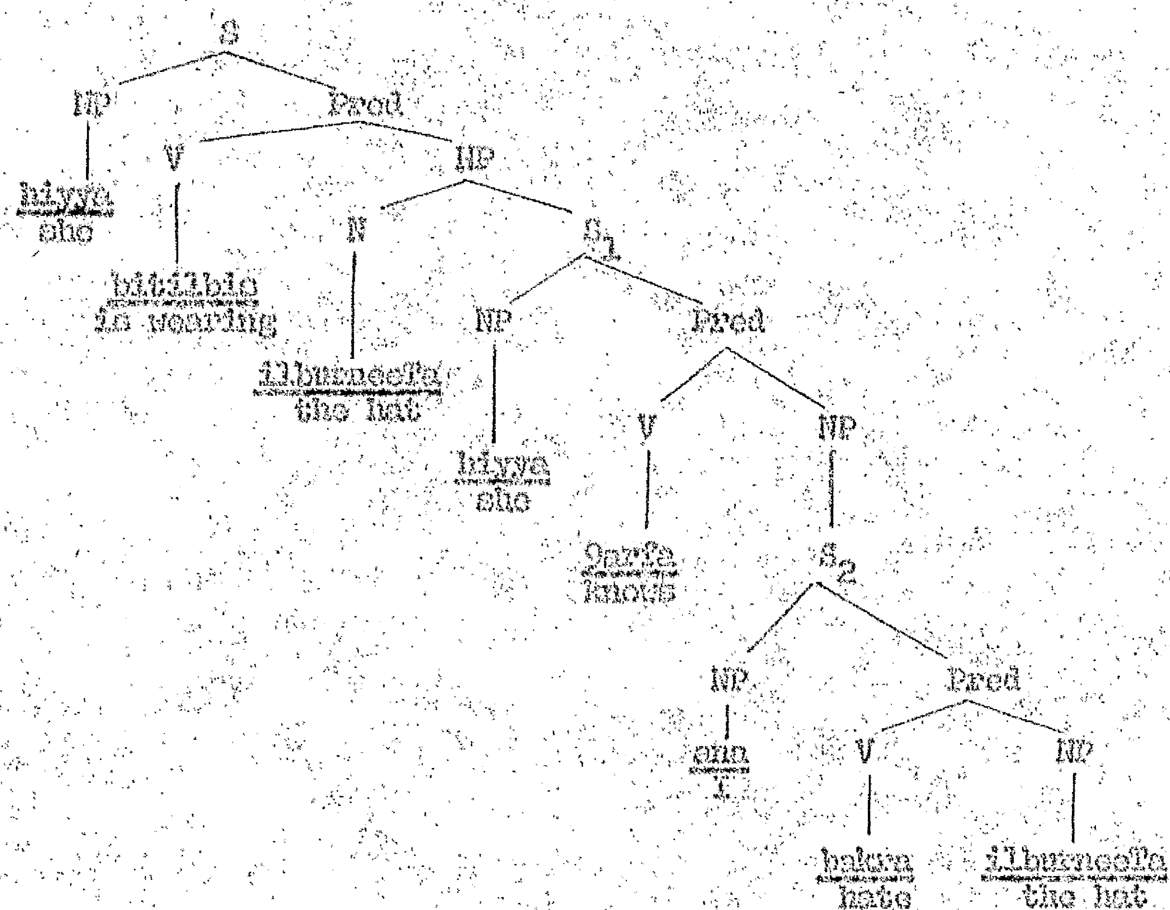
to S_1. Since this is a universal constraint, it need not be stated separately in the structural indices of the transformations concerned.

Note that the constraint does not apply to nouns in a sentence dominated by NP but not modifying a head noun (S_2 below). E.g. speakers of CEA find fully acceptable sentences like:

32. 'bitilbis ilburneeTa illi 9arfa inni bakrahha'
'she is wearing the hat that she knows that I hate'

33. 'da ilfilm illi ?ultilak inn Mohammad šaafu xamas marraat'
'that's the film I told you Mohammad has seen five times'

32 will have a DS of the approximate form:



The Coordinate Structure Constraint states, essentially, that no element in conjunct in a coordinate structure may be questioned or relativised. This means that in English neither of the NPs in the coordinated clauses

'my brother sold the horse and bought the car'

can be questioned or relativised. So that

*'I saw the car that my brother sold the horse and bought'

is ungrammatical. Ross uses this constraint as a test for coordinate structures; e.g. he suggests that VPs like 'go and buy' are not coordinate since it is possible to question or relativise the object of 'buy' - e.g.

'What did you go and buy?'

as opposed to truly coordinate VPs like 'feel thirsty and drink' - so that

*'What did you feel thirsty and drink?'

is ungrammatical.

However, it seems that this constraint is not operative in CEA - possibly because, unlike English, CEA uses place-marking pronouns instead of shifting the pronoun out to the beginning of the clause. Hence we find

34. 'ʔuft il9arabiyya illi axuuya baa9 ilḥuSaan wi iʔtaraaha'
'I saw the car that my brother sold the horse and bought

and

35. 'da il9uud illi Mohammad biyganni agaani baladi wi biyi9zif 9aleeh'
'this is the lute that Mohammad sings popular songs and plays'

Since the constraint does not apply in CEA it is not possible to use it as a test for coordinate structures. The fact that no conjunction is used after the verbs '?aam' - lit. 'get up' and 'raah' - 'go' as in

36. 'ruht iʃtareet fustaan'
'I went and bought a dress'

may or may not be significant. One expects, and finds, that relativisation of the object NP is possible:

37. 'da ilfustaan illi ruht iʃtareetu'
'that's the dress I went and bought'

Whether these verbs are coordinate or not in deep structure, they must be distinguished from sequences like:

38. 'ruht aʃtiri fustaan'
'I went to buy a dress'

in which the second verb is in the unmarked form, as is often the case in subordinate clauses; it may well be that such VPs originate as adverbial clauses of purpose in the deep structure.

The Sentential Subject Constraint states that: 'Grammatical sentences containing an internal NP which exhaustively dominates S are unacceptable, unless the main verb of that S is a gerund' (i.e. unless T-Verbal Noun has applied, in CEA). This means that a sentence like 39 cannot occur as a complement to a verb, as in 40, unless the sentential subject has

been extraposed as in 41, or T Verbal Noun has been applied, as in 42, since NP_2 would then be internal to the sentence (see tree diagram below):

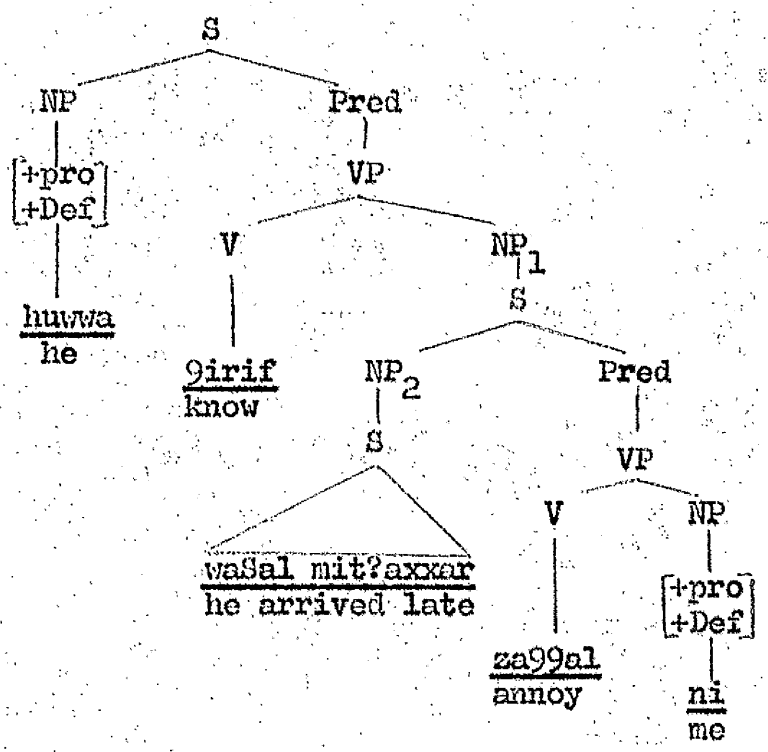
39. 'innu waSal mit?axxar za99alni'
'that he arrived late annoyed me'

40. *'huwwa 9aarif inn (inn)u waSal mit?axxar za99alni'
'he knows that that he arrived late annoyed me'

41. 'huwwa 9aarif inn za99alni innu waSal mit?axxar'
'he knows that it annoyed me that he arrived late'

42. 'huwwa 9aarif inn wuSuulu mit?axxar za99alni'
'he knows that his arriving late annoyed me'

40.



It follows that no noun in a non-extraposed sentential subject can be relativised, as this would make the dominating NP internal.

CHAPTER SEVEN

Tense and Sequence of Tenses

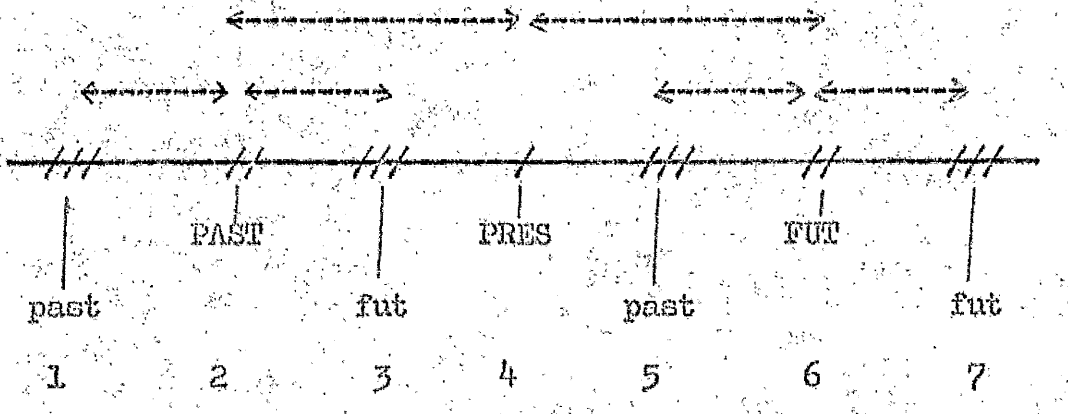
* * *

I have in this chapter to deal with the vexed problem of a suitable framework in which to set the tense system of the language, and the generation of all tense forms by phrase structure rules and transformations. Deictic elements such as tense, personal pronouns, certain adverbs of time and place etc. always present particular difficulties since they express relations in time or space between the speaker and other objects or events. Tense is a particularly thorny problem as it is very difficult - if not impossible - to deal with time relations without becoming involved at the same time with modal and aspectual considerations; that is, with the speaker's attitude to the events in question, and the quality, so to speak, of the action (whether reiterative, continuous, habitual, etc.), as opposed to the point of time, relative to the speaker, at which the event or action is situated.

Here I shall attempt to describe the tense system primarily in this latter, purely punctual sense, while commenting on those areas where tense intersects with aspect and mood. I do not claim that the

framework I propose, although traditionally accepted (1), is necessarily universal - i.e. that all tense systems are expressible in terms of it; it simply seems to fit the data more adequately than any other I was able to devise.

Time can be represented as a linear sequence on which we can mark the point of utterance, from which the speaker can look forwards or backwards, to the future or past (to the right and left respectively, on our diagram). In addition, he may wish to refer to a past, future, or present event in relation to another event which precedes, follows, or is contemporaneous with it. Such a system can be represented by the seven-point scale below, although as we shall see, only six are in fact utilised in CEA:



Points 1, 3, 5 and 7 can be considered secondary tenses in that they are dependent on the primary tenses 2 and 6.

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(1) E.g. as proposed by W. E. Bull in 'Time, tense and the verb' and by Jespersen in his 'Essentials of English Grammar'.

Before proposing how these different tenses should be generated, a brief digression on the surface forms of the verb is in order. All finite verb forms in CEA consist of the consonantal (usually tri-consonantal) root, mapped onto either the 'complete' or 'incomplete' vocalic pattern. For instance, in class 1 verbs we find the complete form CVCVC (e.g. 'fihim' - 'understood') and incomplete VCCVC (e.g. 'ifham' - 'understand'). Here I am using the terms 'complete' and 'incomplete' simply to refer to the forms in question, free from any aspectual connotation. I am not concerned at this point with the prefixes and suffixes denoting number, gender and person.

The prefixes 'bi-' and 'ha-' can be associated with the incomplete stem, or the stem can occur by itself. In addition, the auxiliary 'kaan' - 'be' - itself occurring in both complete and incomplete forms (the latter again being prefixable by 'bi-' or 'ha-') - can precede either form of the lexical verb. As we noted in the first chapter, the prefix 'bi-' always indicates either habitual or continuous aspect, and hence will not be of primary relevance here. Nor am I concerned with those combinations of auxiliary and verb which are exponents of modal categories.

Taking 'katab' - 'write' as a model, we find the following forms in the tense system (those with the auxiliary will be referred to as 'complex' tenses):

SIMPLE:

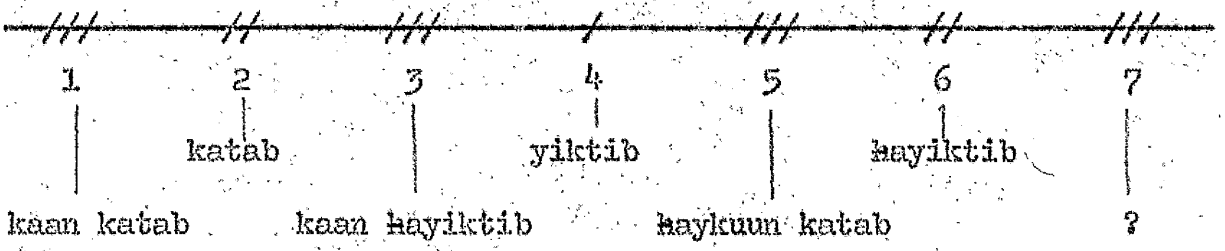
i	katab	-	'wrote', 'has written'
ii	yiktib	-	'writes'
iii	hayiktib	-	'will write'

COMPLEX:

iv	kaan katab	-	'had written'
v	haykuun katab	-	'will have written'
vi	kaan hayiktib	-	'was about to write'

It will be seen from our PS rules that complex tenses iv and v cannot be generated directly, as tense is expanded only as past, future or past and future (present being the unmarked choice). This is because these complex tenses imply a relation with another point in time, even if the latter is not made overt in the surface structure of the sentence. I intend therefore to generate these tenses via a transformation dependent on the presence of some other time marker. For example: 'kaan waSal' - 'he had arrived' always implies 'before another event in the past' e.g. '?abli ma ʃuftu' - 'before I saw him', and 'hakuun xallaSt' - 'I shall have finished' also implies 'before another event', this time in the future e.g. '?abli ma yiwSal bukra' - 'before he arrives tomorrow'. However, the tense at point 3 on the scale below 'kaan hayiktib' - 'he was going to write' does not imply the presence of any other time marker, and presents a number of additional problems which will be

reviewed and dealt with at the end of this chapter under notes on the future. We can provisionally assign the above tenses to the time scale as follows:



There is no tense corresponding to point 7. Jespersen states (1) that 'after-future (our point 7) may be left out of account as having practically no grammatical expression'. He does not elaborate on this remark and it is not clear whether he intends it to apply solely to English, or to be of more universal import, but it would seem to fit the facts of many European languages, and CEA.

Leaving till later discussion of complex tense vi, the grammar must first select one of the three primary tenses. We have noted the advantage of taking the present as being the unmarked form of the verb; it is this form which occurs in embedded sentences in which the tense is indeterminate, and in non-verbal sentences there is no surface realisation of the present. 'Present' may be used in the structural indices of transformations, but this is not technically necessary and is included simply in the interests of clarity of presentation.

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(1) Op. cit. p.231

One of the three types of time-marker may then be selected independently of the tense, indicating whether the event or action in the main clause is located before, after or contemporaneously with another event or action, giving nine possible combinations in all. The last type of time-marker may be taken as the unmarked member of the trio; i.e. the time-marker will be contemporaneous unless otherwise stated. Alternatively, all three will be possible re-writes of the sentence adverbial 'Time':

$$\text{Time} \longrightarrow \left\{ \begin{matrix} \text{Before} \\ \text{After} \\ \text{Contemp} \end{matrix} \right\} + \text{NP}$$

The NP may be realised as one of the time adverbs such as 'bukra' - 'tomorrow', 'imbaarih' - 'yesterday'; alternatively, it may be re-written as S, in which case the complementiser 'ma' is usually supplied. (T - Complementiser-Placement of Chapter five could be modified to include this.) The time adverbs will be marked in the lexicon for compatibility with the tense of the verb in the main clause, and time conjunctions for substitutability for the above time-markers B, A and C. (For instance, both conjunctions 'lamma' and 'wi' - 'when' must be marked +C.)

The range of verb forms we have given on the time scale is in fact very much simplified. There are a large number of additional complex

tenses which may be considered variants of those given, dependent like them on the presence of a time-marker. Below I shall show how most of the complex tenses in both the main and subordinate clauses can be generated by two essentially simple transformational rules. Then I shall review those verb forms not covered by these rules, and suggest how the rules could be modified to incorporate them.

One transformation is dependent on the selection of the time-marker, and the other on the tense in the main clause. The former consists of writing the formative 'complete' onto the verb of the main clause or of the subordinate time clause; the latter, in copying the tense of the main verb onto that of the subordinate clause. Both transformations will in most cases be optional.

The presence of the time-marker B will be taken as an instruction to add 'Complete' to the main verb, and the presence of A, as an instruction to add 'Complete' to the verb of the subordinate clause. No formative is added to either clause of a sentence containing the 'unmarked' member, C.

To illustrate:

past + V_1 + B + V_2, where V_1 is the main verb, is optionally re-written as past + comp + V_1 + B + V_2 e.g.:-

1. 'ʔuftu ʔablima yiwSal'
'I saw him before he arrived'
⟹ (optionally)

2. 'kunt ʃuftu ʔablima yiwSal'
'I had seen him before he arrived'

The second transformation optionally copies the original tense of V_1 onto V_2, giving, in the above example:

past + V_1 + B + past + V_2 -

3. 'ʃuftu ʔablima waSal'
'I saw him before he arrived'

Or, if both transformations apply:

past + comp + V_1 + B + past + V_2

4. 'kunt ʃuftu ʔablima waSal'
'I had seen him before he arrived'

As many speakers are doubtful about the acceptability of 3., and all prefer 4., we may have to place a condition on the transformations that the second applies optimally only if the first has already applied. This is also true of other combinations of tense and time-marker.

Now let us tentatively formulate these transformations and run through all the combinations of simple and complex tenses that they produce:

T - Tense-Sequence 1

(a)

SI: U + tense + W + V + X + [B + Y] + Z
(Time, Time → 9)

1 2 3 4 5 6 7 8

OPT ⟹

SC: 1 2 3 comp 4 5 6 7 8

Conditions: 9 and 4 command one another;

3 = Aspect or $\emptyset$

(b)

SI: R + tense + U + V + W + [A + X + V + Y] + Z
Time ——— 11 ——— Time

1 2 3 4 5 6 7 8 9 10 OPT ⟹

SC: 1 2 3 4 5 6 7 comp 8 9 10

Conditions: 11 and 4 command one another;

3 = Aspect or $\emptyset$

T - Tense-Sequence 2

SI: P + tense + R + V + U + [{B, A, C} + W + X + V + Y] + Z
Time ——— 12 ——— Time

1 2 3 4 5 6 7 8 9 10 11 OPT ⟹

SC: 1 2 3 4 5 6 7 2 8 9 10 11

Conditions: 12 and 4 command one another;

8 = comp or $\emptyset$

The latter condition is to ensure that 'tense' is copied immediately to the left of 'comp', should T - Tense-Sequence 1 (b) have already applied.

We have already seen how these transformations will apply to a verb in the past tense, with time-marker B. Let us now take past + time-marker A:

Rule 1(b) appears to be obligatory in this case; i.e. we do not find

5. *'ʔuftu ba9dima yiwSal'
'I saw him after he arrived'

only 6. 'ʔuftu ba9dima waSal'

Rule 2 will apply optionally, giving

7. 'ʔuftu ba9dima kaan waSal'

Since past + V and comp + V will result, after application of the morphophonemic rules, in identical forms, it is impossible to tell from this evidence alone whether 6 is the result of the application of T1(b) or T2 (when the option of T1(b) has not been taken).

past + C:

Rule 1 does not apply.

Rule 2, operating on

8. 'ʔuftu wi huwwa figgineena'
'I saw him while he (was) in the garden'

and

9. 'xaragt wi huwwa biybuSS min iʔʔibbaak'
'I went out as he (was) looking from the window'

give

10. 'ʔuftu wi huwwa kaan figgineena'

and

11. 'xaragt wi huwwa kaan biybuSS min iʃʃibbaak'

There appear to be two subtypes of contemporaneous time clause; a) that where the scope of one of the clauses extends in time beyond that of the other; i.e. where one of the clauses contains a non-verbal predicate or a verb with continuous aspect (e.g. examples 8 and 9) (1); b) that in which the time span in the two clauses are identical. If they are also punctual (non-continuous and non-habitual) then the conjunction 'lamma' must be used, and rule 2 is obligatory e.g.

12. 'wi?i9 fiiha lamma ʃaafha'
'he fell for her when he saw her'

but not

13. *'wi?i9 fiiha lamma yiʃuufha'

Future + A:

e.g.:- 14. 'haagi 9anduku ba9dima axallaS'
'I'll come to your place when I've finished'

Rule 1 gives

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(1) It is clearly a selectional restriction on some verbs that they cannot take the continuous aspect, at least in the sense of a single uninterrupted action. Bull (op.cit.) notes that there are two types of event - i) instantaneous, so that it cannot be verbalised till afterwards and ii) durational, so that it can be verbalised while still in progress. This explains the reiterative interpretation of e.g. 'is flashing' (n.b. not continuous). It seems that in both English and CEA 'reiterative' is a purely semantic feature of the verb phrase and is never distinguished syntactically. It can probably be best regarded as an alternative interpretation of the category 'continuous'; depending on the semantic features of the verb in question either of both interpretations may be taken.

15. 'haagi 9anduku ba9dima xallaSt'

(non-favourite for many speakers - for more acceptable forms, see revised rules).

Rule 2, applying in isolation, gives

16. 'haagi 9anduku ba9dima haxallaS'

and in conjunction with rule 1:

17. 'haagi 9anduku ba9dima hakuun xallaSt'

Future + B:

e.g.:-

18. 'haddiilak ilfiluus ?ablima tudxul'
'I'll give you the money before you come in'

Rule 1 gives:

19. 'hakuum iddeetlak ilfiluus ?ablima tudxul'

Rule 2, applied in isolation, or in conjunction with rule 1 produces forms which are unacceptable to some speakers:

20. ?'haddiilak ilfiluus ?ablima hatudxul'

21. ?'hakuum iddeetlak ilfiluus ?ablima hatudxul'

Future + C:

e.g.:-

22. 'hatSuufu wi huwwa figgineena'
'you will see him when he is in the garden'

and

23. 'hayiwSal wi ana baakul'
'he will arrive when I'm eating'

Rule 1 does not apply.

Rule 2 applies to non-verbal sentences if the conjunction 'lamma' is used, and to verbal sentences with either 'wi' or 'lamma':

24. 'ħaṭʃuufu lamma ħaykuun figgineena'

25. 'ħayiwSal {wi / lamma} ana ħakuun baakul'

Present + A:

e.g.:-

26. 'baruuħ 9andi Suha ba9dima aakul' (1)
'I go to Suha's after I have eaten'

Rule 1 would give a sentence some speakers find unacceptable (see revised rules for the more acceptable forms):

27. ?'baruuħ 9andi Suha ba9dima akalt'

Rule 2 does not apply, or rather has no effect since 'Present' is realised as zero.

Present + B:

e.g.:-

28. 'ba?uum ?ablima tigibli ʃaay'
'I get up before she brings me tea'

Rule 1 would produce

29. '?umt ?ablima tigibli ʃaay'

which is unacceptable for the meaning intended here, but the form

---

(1) Or 'ba9dima baakul'. In 26 the habitual morpheme has been deleted. Note this cannot be done with the continuous e.g. in 31 in the time clause - *'... wi ana aʃtagal'.

30. '(b)akuum ?umt ?ablima tigibli ʃaay'

i.e. consisting of incomplete + auxiliary + complete + V is quite acceptable.

Rule 2 does not apply.

Present + C:

e.g.:-

31. 'ma biykallimniiʃ illa wi ana baʃtagal'
'he only talks to me when I'm working'
(lit. 'he does not talk to me except when I'm working')

Neither rule applies.

It may be helpful to list the above combinations, followed by the additional forms which must be incorporated by modification of the transformational rules. We shall then see how these modifications also help to explain the unacceptability, or lesser acceptability of some of the examples already given.

Past + A

* past + V + A + (incomp) + V

past + V + A + comp + V

past + V + A + past + comp + V

- no additional forms

Past + B

past + V + B + (incomp) + V

past + comp + V + B + (incomp) + V

past + comp + V + B + past + V

? past + V + B + past + V

- no additional forms.

Past + C

past + V + C + (incomp) + V

past + V + C + past + V

- no additional forms.

Future + A

fut + V + A + (incomp) + V

? fut + V + A + comp + V

fut + V + A + fut + V

fut + V + A + fut + comp + V

Additional forms:

fut + V + A + incomp + comp + V

e.g.:-

32. 'haagi 9anduku ba9dima akuun xallaSt'
I'll come to your place when I've finished

Future + B

fut + V + B + (incomp) + V

fut + comp + B + (incomp) + V

? fut + V + B + fut + V

(?) fut + comp + V + B + fut + V

Additional forms:

fut + V + B + incomp + comp + V

e.g.:-

33. 'ħaddilak ilfiluus ʔablima tikuun daxalt'
'I'll give you the money before you come in'

fut + comp + V + B + incomp + comp + V

e.g.:-

34. 'ħakuun iddeetlak ilfiluus ʔablima tikuun daxalt'

fut + comp + V + B + fut + comp + V

e.g.:-

35. 'ħakuun iddeetlak ilfiluus ʔablima ħatkuun daxalt'

Future + C

fut + V + C + (incomp) + V

(?) fut + V + C + fut + V

- no additional forms.

Present + A

pres + V + A + (incomp) + V

? pres + V + A + comp + V

Additional forms:

pres + V + A + incomp + comp + V

e.g.:-

36. 'baruuħ ʕandi Suha baʕdima (b)akuun akalt'
'I go to Suha's after I have eaten'

Present + B

pres + V + B + (incomp) + V

* comp + V + B + (incomp) + V

Additional forms:

pres + incomp + comp + V + B + (incomp) + V

e.g.:-

37. '(b)akuun ?umt ?ablima tigibli ɬaay'
'I have got up before she brings me tea'

pres + incomp + comp + V + B + incomp + comp + V

e.g.:-

38. '(b)akuun ?umt ?ablima (bi)tikuun gabitli ɬaay'

pres + V + B + incomp + comp + V

e.g.:-

39. 'ba?uum ?ablima (b)tikuun gabitli ɬaay'

Present + C

pres + V + C + (incomp) + V

- no additional forms.

It will be noted that additional machinery is required to cope with the non-past tenses. In the B-clauses we have the added option of incomp + comp, onto which tense may also be written. Incomp may also be written onto the main verb of B-marked sentences, if the tense is non-past.

These forms can be generated by

(a) introducing a new T-rule initially which writes 'incomp' onto both the time clause and main clause where the tense is not 'past', though in fact this will apply vacuously to the main clause, except in the case of present + B.

(b) by modifying rule 1(a) so that 'comp' is written optionally onto the time clause as well as the main clause.

Rule (a), if not obligatory, is at least preferred by the majority of speakers - e.g. 36 is preferred to 27 and 32 to 15. The following set of rules will then incorporate the additional material:

T - Tense-Sequence 1

SI: R + tense + U + V + W + [{B, A, C} + X + V + Y] + Z
(Time ... Time = 11)

1 2 3 4 5 6 7 8 9 10

OBL ⇒

SC: 1 2 3 incomp 4 5 6 7 incomp 8 9 10

Conditions: as for T - Tense-Sequence 1(b) above; also, where 2 is not past.

Note : Optional for some speakers.

T - Tense-Sequence 2(a)

SI: R + tense + U + V + W + [B + X + V + Y] + Z
(Time ... Time = 11)

1 2 3 4 5 6 7 8 9 10

OPT ⇒

SC: 1 2 3 (comp) 4 5 6 7 (comp) 8 9 10

Conditions: as for T - Tense-Sequence 1(b) above;

the second 'comp' may only be written in where 2 = present or future.

The brackets signify that either or both options may be taken.

T - Tense-Sequence 2(b):

- essentially the same as our original T - T-s 1(b), but with variables added to allow for the possibility of 'incomp' before the verb; 'comp' will be added after this in the time clause. By making somewhat complex conditions on T - T-S 2(a) (revised), we could in fact incorporate this transformation: briefly, by including A in 6 and not allowing the first 'comp' if A was chosen.

T - Tense-Sequence 3:

- essentially the same as our original T - T-S 2, which optionally copies the tense of the main clause onto the verb of the time clause. T - Tense-Sequence 2(b) is obligatory if the tense is past - i.e. a sequence like

40. *'kallimtu ba9dima yiwSal'
'I spoke to him after he arrived'

with the unmarked form of the verb in the time clause is not possible.

The operation of the above T-rules can be demonstrated by means of an

example containing the underlying categories 'future + B' e.g.

41. 'haysaafir ?ablima tiwSal ilbeet'
'he will leave before she reaches the house'

In 41 none of the optional transformations have applied. T - T-S 2(a), taking only the first 'comp' will give:

42. 'haykuun saafir ?ablima tiwSal ilbeet'

taking only the second:

43. 'haysaafir ?ablima tikuun waSalit ilbeet'

and taking both:

44. 'haykuun saafir ?ablima tikuun waSalit ilbeet'

T - T-S 1 must be obligatory, since we do not find:

45. *'haykuun saafir ?ablima waSalit ilbeet'

nor

46. *'haysaafir ?ablima waSalit ilbeet'

It seems that T - T-S 3 can only apply optimally if T - T-S 2(a) has already applied in its entirety; i.e. 47 is fully acceptable, but 48, 49 and 50 are less so:

47. 'haykuun saafir ?ablima hatkuun waSalit ilbeet'

48. ?' " " " hatiwSal ilbeet'

49. ?'haysaafir ?ablima hatkuun waSalit ilbeet'

50. ?' " " hatiwSal ilbeet'

The morphophonemic rules, linking the strings of formatives produced by these T-rules to their surface representation will be proposed in

outline at the end of this chapter, after a brief discussion of the time conjunctions and of the future tense, with or without 'past'.

* * *

Time Conjunctions

I have used primarily three conjunctions in this chapter - 'ba9dima' as an exponent of A, '?ablima', of B, and 'wi' of C; C is sometimes realised, as we have noted, by 'lamma'. 'Lamma' must also be recognised as an exponent of A, since it can occure in sentences like

51. 'harawwah lamma akuun xallaSt ʃugli'
'I'll go home when I've finished work'

But it is not entirely interchangeable with 'ba9dima' since 52 is ungrammatical:

52. *'rawwaht lamma kunt xallaSt'
'I went home when I had finished'

'?amma' is another time-marker, interchangeable with 'lamma' (1).

I have in this chapter tried to reduce the discussion of sequence of tenses to its most basic elements by avoiding as far as possible aspectual ('non-vector', in Bull's terminology) considerations. However, it seems that these could be incorporated into the general framework without too much difficulty. A, B and C have been shown

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(1) 'lamma' and '?amma' are also markers of modality, close, if not identical in meaning with the subjunctive, when they are followed by the unmarked/subjunctive form of the verb e.g.:
'lamma albis!' - 'Just let me get dressed!'

to be independent of the selection of both the tense and aspect of the main verb. If, however, the habitual aspect occurs with the main verb, an habitual aspect-marker can be taken independently of the time-markers discussed above. This is realised as a clause introduced by the conjunction 'kullima' - 'whenever' in which the verb must take the habitual aspect. T - T-S 3 will apply, as to the time-marker clauses. 'Toolma' - 'as long as', 'while', can cooccur with either continuous or habitual aspect in the main clause.

'li gaayitma' - 'until' can be classed as an alternative exponent of B, (sentences containing it undergo the same transformations), with the added implication that the action of the main clause continues up to the point at which the action of the time clause begins.

It is possible that C-clauses introduced by 'wi' are the source for sentences like

53. 'waSal ta9baan'
'he arrived tired'

and

54. 'israbu suxn'
'drink it hot'

for which there are 'wi'-clause variants -

'waSal wi huwwa ta9baan'
'he arrived when/and he was tired'

'israbu wi huwwa suxn'
'drink it while it's hot'

A condition for this type of reduction would appear to be coreferentiality of the subject of the 'wi' clause and one of the participants of the main clause. This explains the ambiguity of a sentence like:

55. 'xuɸɸ issiriir naDiif Zariif'
'get into bed nice and clean'

which may have the deep structure which will also underlie

56. 'xuɸɸ issiriir wi inta naDiif Zariif'
'get into bed when you are nice and clean'

or

57. 'xuɸɸ issiriir wi huwwa naDiif Zariif'
'get into bed when it is nice and clean'

Less obviously

58. 'ɸuftu fiɸɸaari9'
'I saw him in the street'

may correspond to

59. 'ɸuftu wi huwwa fiɸɸaari9
'I saw him when he was in the street'

or the locative 'fiɸɸaari9' may simply be a sentence adverbial generated by PS rule 5.

Such reduction naturally recalls that of relative clauses, particularly since we have derived non-restrictive relative clauses from coordinated sentences. It may be that C-clauses are a special case of coordinated sentence, in which the event happens to be contemporaneous with that in the preceding sentence. (Note that this is not the same as 'identity

of tense' in the two clauses - which would be interpreted sequentially, with the event in the first sentence taking place before that in the second). This might in turn suggest that all time clauses are in fact derived from coordinated structures, with a free choice of tense in both clauses. This would of course entail extending the PS rules in order to generate all the complex tenses; the conjunction would then have to be chosen on the basis of compatibility of the two sets of tense and aspect. Such cooccurrence restrictions would be extremely complicated to set up, and a large number of non-sentences would have to be filtered out. For these reasons I prefer to retain at least A and B as re-writes of a sentence adverbial Time, while leaving open the status of C.

* * *

Uses of the Future

So far we have considered only the purely temporal uses of the simple future, but our discussion of tense cannot be closed without touching on other uses which are modal rather than temporal and suggesting how these could be incorporated into the grammar. It has been noted (1) that what is accepted as part of the tense system of a language indicating future time also very often carries modal implications.

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(1) Lyons, inter alia, (op. cit.).

In CEA the future of the auxiliary may be used to make a prediction about present or past events, with no reference to future time e.g.:

60. 'laazim arawwaḥ; ḥaykuun biyintaẓirni dilwa?ti'
'I must go home; he will be waiting for me now'

61. 'ḥaykuun xallaṣ iʃʃugl da imbaariḥ
'he will have finished that work yesterday'

Note that the verb form in 61 is identical with that produced by the presence of the time-marker B, but in the latter case only a future time adverbial would be compatible with the tense, not a past, as in 61. In the light of this evidence we have set up a pre-sentential category 'Predictive' which will receive a separate semantic interpretation, and will not effect the operation of the sequence of tenses transformations or the selection of time adverbials.

A rather different problem arises in explaining the 'volitional' use of the future e.g.:

62. 'ḥatiigi maʕaana, walla tifaDDal tu?ʕud filbeet?'
'will you come with us, or do you prefer to stay at home?'

There seem to be no syntactic reasons for providing a separate deep structure category of volition, and since the future form of the verb is consistently ambiguous between future time and volition (provided of course that the verb itself is +Volitional), it would evidently be more satisfactory to state this in the semantic interpretation of

'Future' than to set up another category as we have had to do for the predictive use (1).

It will have been noticed that one complex tense is generated by the PS rules - past + future. No relation with another event in time is implied, as with tenses 1 and 5. On analogy with the other complex tenses one would expect the first formative alone to indicate the primary tense of the verb, and hence the time adverbials that are compatible with it. However, we find that both past and future time adverbials are compatible with tense 3 e.g.:

63. 'kaan kayzurna bukra'
'he was going to visit us tomorrow'

and

64. 'kaan kayzurna imbaariH'
'he was going to visit us yesterday'

This may be considered a true compound tense, in that two overt tense markers are present, with two possibilities of compatible time adverbial. A sentence containing 'past + future' will be able to undergo any transformation for which the structural index specifies either past or future tense. The reason for the non-occurrence of doubly complex tenses which one might expect as a result of this - such as

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(1) Note that the 'general law' use of the English future has no parallel in CKA. So that 'issukkar kaydumb filmayya' does not mean 'sugar will dissolve in water' but rather 'the (specific) sugar will dissolve in (the) water' (i.e. at some time in the future).

65. *'kunt kunt ʔaktiblaha ʔablima safrit'
'I had been going to write to her before she left'

- will be explained in the morphophonemic rules outlined below.

* * *

Morphophonemic rules

Although this thesis is concerned primarily with the phrase structure rules and earlier transformational rules, it may be helpful to demonstrate informally how the often complex strings of formatives produced as exponents of tense and aspect are to be realised by late T-rules which can for convenience be labelled morphophonemic, though it does not seem there is any justification for setting up a distinct level. These can be best demonstrated by example. We have seen how our sequence of tense rules produce strings like

(a) fut + incomp + comp + V (e.g. 44, main clause)

(b) past + cont + V (e.g.'kaan biyiktib' - 'he was writing')

(c) incomp + comp + V (e.g. 43, time clause)

Basically two operations are needed to group the formatives into words; firstly, the formatives are paired off, starting from V and working to the left, giving -

(a) fut incomp + comp V

(b) past + cont V

(c) incomp + comp V

A later rule will transform 'comp + V' to the CVCVC form of the verb, and 'incomp + V' to the VCCVC form. Since we have chosen the latter as the unmarked form in the lexicon anyway, it seems that the latter operation is vacuous. 'Continuous', 'habitual' and 'future' will be re-written as prefixes which will be assigned to the unmarked form of the verb. 'Past + V' will produce the same form as 'comp + V'.

The second rule provides for the insertion of the auxiliary 'kaan/ yikuun' as a carrier for any formative not linked by the above rule to the lexical verb. So in (a), 'fut + incomp + aux' will give us (vacuously) the incomplete form of the auxiliary prefixed by 'ha-', followed by the complete form of the verb 'haykuun katab'. The auxiliary carries the past formative in (b), giving 'kaan biyiktib' and the unprefixed incomplete in (c), giving 'yikuun katab' (1).

It will be remembered that 'incomp' was introduced into the main clause of sentences with a non-past tense and time-marker in order to account for the verb form in sentences like 37 and 38, and into the time clause to account for it as a (preferred) variant to 'comp' by itself (i.e. 32 as opposed to 15). One may either allow deletion of 'incomp' or optional re-writing of 'incomp + comp + V' as CVCVC in the appropriate circumstances. Similarly, it appears that 'comp +

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(1) This second rule will of course be used in non-verbal sentences as well, to produce the surface realisations of 'past' and 'future'.

incomp' may be re-written as the complete form, whether this is done by the morphophonemic rules or by earlier deletion of 'incomp'. Hence 'past + habitual' can be realised as 'kaan biyiktib', or, after deletion of the prefix, either 'kaan yiktib' or 'katab' (1). 'Future + habitual' is realised only as 'hayiktib'; i.e. deletion appears to be obligatory if the tense is future.

It has been noted that forms like

*'kaan kaan hayiktib'

do not occur, although our PS and T-rules will produce strings like: 'past + comp + fut + V'. Some conditions must therefore be placed on our second morphophonemic rule, in order that 'left-over' formatives be neutralised or filtered out in some way. The need for such a filtering device will be made even clearer in the next chapter.

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(1) It is interesting to note that a similar phenomenon occurs in English, even at this surface level; the continuous aspect is realised by the marked '-ing' form of the verb, whereas the habitual takes the unmarked form of the verb, which is also used for a purely punctual, non-aspectual action.

CHAPTER EIGHT

Conditional Sentences

* * *

Our PS rules produce both the sentence adverbial 'Conditional' and the pre-sentential category 'Hypothetical'. The former is the source of the protasis of a conditional sentence. The function of the latter is difficult to define in precise terms, although clearly recognised by native speakers as implying a 'less likely or possible' condition. In other words, it is introduced to distinguish a sentence like

1. 'law yinzil talg bukra ħa?9ud filbeet'
   'if it snows tomorrow I shall stay at home' (non-hypothetical)

from

2. 'law nizil talg bukra ħa?9ud filbeet'
   'if it were to snow tomorrow I should stay at home'

(It must be stressed that the English translations given in this chapter can only be very approximate.)

The problem before us is that of determining the full range of verb forms possible in both the apodosis and protasis of both hypothetical

and non-hypothetical sentences, and assigning to the protasis the correct conjunction.

The sentence adverbial 'Conditional' is re-written as PrepP, which is re-written as Prep + NP, the NP being re-written as S. It seems that in the case of 'Conditional' the NP is obligatorily re-written as S, unless one considers NP's and S's introduced by 'fi ħaala' - 'in case of, in the event of' as conditional. E.g. - 'fi ħaalit ħarii?a...' - 'in case of fire...' or preceding S, with the complementiser 'inn' - 'fi ħaalit innu yiwSal ?abl issaa9a talaata' - 'in the event of his arriving before three o'clock...'.

There are however grounds for considering the conditional conjunctions as being derived from preposition + complementiser. In negative protases e.g. 'law makuntiʃ ibni...' - 'if you were not my son...', instead of assigning Neg to the verb or auxiliary, it may be attached to the conjunction 'law' giving 'lawla'; in which case the complementiser 'inn' is also required e.g. 'lawla innak kunt ibni...'. But 'lawla' can also be used as a preposition with a following NP e.g. 'lawla ?illit ilfiluus' - 'if it weren't for the lack of money...' (1). One can explain the conjunctions 'iza', 'inn' and 'law' as a product of

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(1) Speakers were not aware of any meaning difference existing between 'law' + Negative and 'lawla inn' + Positive.

Prep + Complementiser, or as the result of the obligatory deletion of the complementiser. The latter is probably more satisfactory, given the occurrence of 'law inn'; i.e. with 'law' deletion is optional.

Returning now to the central problem of generating all possible combinations of verb forms in conditional sentences; we must first distinguish what we may call 'pseudo-conditional' sentences from true conditionals. I have in mind as pseudo-conditionals sentences like:

3. 'law ?ult kida imbaariħ, miś ħakallimak taani'
'if you said that yesterday, I shall not speak to you again'

4. 'law rawwaħt min geer mat?ullu, ħayiz9al'
'if you went home without telling him, he will be angry'

In such sentences, the event or action of the apodosis is not directly dependent on the event or action of the protasis, as in true conditionals, but rather on the truth value of the condition; so that 3 and 4 could be rephrased as true conditionals by making the content of the protasis subordinate to 'it is true that...' e.g. 'if it is true that you said that yesterday...' etc.

Although this real-pseudo distinction is probably best stated in the semantic component, and it would be unnecessarily cumbersome to generate them separately in the base, I am here concerned primarily with true conditionals.

Taking the most usual kind of non-hypothetical condition - e.g. example 1 - it is clear that the verb of the protasis, although unmarked, must be interpreted as future tense. It seems that all (true) non-hypothetical conditions must refer to non-past time, whereas conditional sentences in which the time-reference is past must always be hypothetical.

It seems likely that at least two degrees of hypotheticalness will have to be recognised, irrespective of the primary tense of the apodosis.

We have noted that Hypothetical is a pre-sentential category; essentially, it is realised by the formative 'Complete', written onto either or both of the clauses of the conditional sentence. For a further degree of hypotheticalness the process is repeated. However, both operations are subject to certain conditions. There are eight logically possible combinations of protasis and apososis, if 'Complete' is written onto either or both clauses, twice:

Protasis	Apodosis
Comp	-
Comp	Comp
-	Comp
Comp + Comp	-
Comp + Comp	Comp

Protasis	Apodosis
Comp	Comp + Comp
-	Comp + Comp
Comp + Comp	Comp + Comp

Conditions on the Hypo-assignment transformation will in fact rule out a number of these. The transformation can be formalised as follows:

T - Hypo-Assignment

SI: $R + Hypo + U + tense + W + \underbrace{[X + tense + Y]}_{10} + Z$

$S \qquad\qquad S$

1 2 3 4 5 6 7 8 9

OBL

SC: 1 ø 3 (Comp) 4 5 6 Comp 7 8 9

Conditions: 2, 4 and 10 command one another

10 is dominated by 'Conditional'

The bracketing indicates that the formative 'Complete' is obligatory in the protasis but optional in the apodosis (this option has not been taken in example 2). Before following through this transformation we should first investigate non-hypothetical conditions more fully.

It has been noted that, although referring to future time, the protasis is not usually marked with the future formative. Speakers will allow e.g.

5. 'ħatta law ħat?uul ilħa?ii?a, miʃ ħaysadda?ak'
'even if you tell the truth he won't believe you'

but much prefer

6. 'ħatta law ti?uul... etc.'

We must therefore allow for the (preferred) deletion of the future in the protasis of non-hypothetical conditions. If, however, 'Complete' is written onto the protasis by T - Hypo-Assignment, the future is obligatorily deleted. Hence we find

7. 'iza kunt tiʃufha bukra, sallimli 9aleeha'
'if you were to see her tomorrow, give her my greetings'

but not

8. *'iza kunt ħatʃufha... etc.'

Another possible realisation of 'Hypo' in the protasis is (as in example 2) the simple complete, rather than complete of the auxiliary and incomplete of the lexical verb e.g.:

9. 'iza ʃuftaha bukra, sallimli 9aleeha'

If 'Complete is written onto the apodosis, the future is again obligatorily deleted e.g.

10. 'ħatta law kunt ti?uul ilħa?ii?a, makanʃ yisadda?ak'
'even if you were to tell the truth he wouldn't believe you'

but not *'...makanØ haysadda?ak' - at least with this meaning. In the apodosis however there is no possibility of the simple complete form of the verb e.g.

11. *'hatta law kunt ti?uul ilha?ii?a, masadda?akØ'

We are faced with the same morphophonemic problem that arose in generating complex tenses in the last chapter - i.e. at what point is the formative 'incomplete' introduced and deleted? The simplest solution would be to write it onto the protasis and the apodosis before any of the other conditional transformations operate, where the primary tense of the apodosis is non-past. It would no doubt be possible to incorporate this transformation in T - Tense-Sequence 1 (revised) by modifying the structural index and conditions slightly. The morphophonemic rule which was used in the previous chapter to collapse 'Comp + incomp' to 'Comp' will also be required to operate in the protasis of sentences like 7 to procude sentences like 9.

Note that the future deletion transformation cannot operate if the future is preceded by past - i.e. if it is part of the compound tense.

T - Future Deletion

SI: U + [W + X + Fut + Y] + Z
(S ... S = 7)

1 2 3 4 5 6

OBL ⟹

SC: 1 2 3 Ø 5 6

Conditions: 3 ≠ past

and: (a) 7 is dominated by 'Conditional' (i.e. is the protasis). This is optional for some speakers if 3 ≠ Comp (i.e. the clause is not hypothetically marked).

or: (b) 4 commands and is commanded by a node 'Conditional' (i.e. is in the apodosis) and 3 = Comp (i.e. the clause is hypothetically marked).

Thus the transformation cannot apply in the apodosis of 12, but does in the protasis:

12. 'kunt ħaagi ma9aaku bukra, law ilgaww yiTla9 kwayyis'
'I was going to come with you tomorrow, if the weather turned out fine'

The structural change of T - Hypo-Assignment states that 'complete' cannot occur in the apodosis unless it also occurs in the protasis. However some sentences marked 'Complete' in the apodasis only were accepted as quite natural, while others so marked were rejected. I have been unable to discover the controlling factor. E.g.:

13. 'law ana miʃ fa?iir, kunt addiik xamsiin gineeh'
'if I weren't poor I would give you fifty pounds'

and

14. 'law iggaww hina kwayyis, kaanit tib?a ilħayaah mumti9a'
'if the weather here were good, life would be fine'

with 'Comp' in the apodosis but not the protasis, were accepted, whereas sentences like:

15. *'law tiigi hina bukra, kunt ti?aabil irrayyis'
'if you came here tomorrow, you would meet the boss'

16. *'law yinzil talg, makuntiʃ axrug milbeet'
'if it snowed I wouldn't leave the house'

- with 'Comp' in the apodosis only, were rejected. On the other hand, sentences were found with 'Comp' in the protasis only which were unacceptable e.g.:-

17. *'lawla innak kunt ibni, ħa?ullak ilħa?ii?a'
'if you weren't my son, I would tell you the truth'

18. *'law ikkora il?arDiyya kaanit musaTTaħa, miʃ ħasaafir bilmarkib'
'if the world were flat, I wouldn't travel by boat'

To be acceptable, the above two sentences must have 'Comp' written onto the apodosis.

It seems therefore that T - Hypo-Assignment will have to be modified, and that some additional parameter will be required. The above examples suggest that if the condition is unrealisable as well as hypothetical (e.g. 17 and 18), then 'Comp' must be written onto the apodosis and may also be written onto the protasis. But a great deal of material would have to be examined and tested before any more precise statement could be made.

It will have been noticed that in the examples so far only 'law' has been used introducing protases onto which 'Complete' has not been

written. 'iza' and 'inn', on the other hand, can be used only with protases which are marked for hypotheticalness. For instance, there are three possibilities in 19, but only 'law' is acceptable in 20:

19. iza / 'inn / law } nizil talg bukra, makuntiʃ axrug milbeet'
'if it snowed tomorrow I wouldn't leave the house'

20. 'law yinzil talg bukra, miʃ ħaxrug milbeet'

We have already noted that if the time-reference of a conditional sentence is past, the category 'Hypothetical' must be associated with it. Given the bracketing in the structural change of T - Hypo-Assignment (i.e. that if 'Complete' is assigned to the apodosis, it must also be assigned to the protasis), we should expect 'Complete' to be written onto both clauses when the tense of the apodosis is past. This is in fact what we find, in such sentences as:

21. 'iza kaan fihim ilmuʃkila, makanʃ itkallim bi ʃakl da'
'if he had understood the problem he would not have spoken in that way.'

22. 'law kaan nizil talg imbaariħ, kunt ?a9adt filbeet'
'if it had snowed yesterday, I would have stayed at home'

23. 'ħatta law kunt ?ult ilħa?ii?a, makanʃ sadda?ak'
'even if you had told the truth, he would not have believed you'

In the above examples the exponents of 'Complete' (the auxiliary 'kaan'), and 'past' (the lexical verb) are quite apparent. However, in sentences where one would expect two realisations of the complete

formative - one from 'past' and one from 'Complete', introduced by T - Hypo-Assignment - we find only one. E.g.:

24. 'law kaan biyʃhat lamma ʃuftu imbaarih, ʃunt iddetlu filuus'
'if he had been begging when I saw him yesterday, I would have given him money'

25. 'iza kaan hina imbaarih, kaan daafi9 9annak'
'if he had been here yesterday, he would have defended you'

26. 'iza kunt ibni, kunt iddetlak kull illi 9andi'
'if you were/had been my son, I would have given you all I have'

The morphophonemic rules outlined at the end of the last chapter suggest that some kind of neutralisation operates when 'past' and 'complete' are paired together by the first rule. This proposal is certainly strengthened by evidence from conditional sentences. In non-verbal sentences 'ba?a, yib?a' - 'be, become' can perhaps be regarded as an additional auxiliary, acting as carrier to the right-most formative e.g. as in example 14, or:

27. 'iza makanʃ maat, kaan ba?a ra?iis
'if he hadn't died, he would have been/become president'

In 27 'ba?a' carries 'past', and in 14 'tib?a' carries 'incomplete' which we have seen must be written onto the apodosis of non-past conditions.

It has already been shown (example 12) that the compound tense 'past + future' can occur in the apodosis of non-hypothetical sentences; in such cases the future tense must be considered primary. However, it

can also refer to past time, and occur with a protasis containing 'complete + past':

28. 'kunt ħaagi ma9aaku imbaariħ, law iggaww kaan Tili9 kwayyis'
'I would have been going to come with you yesterday, if the weather had turned out fine'

Here one would expect 'complete + past + future' in the apodosis, and it must be assumed that neutralisation has again taken place.

/So far we have been concerned with only one degree of hypotheticalness. This could possibly be subdivided into two lesser degrees, depending on whether 'Complete' were chosen for one or both clauses; this I shall not attempt to do, as speakers do not have well-defined intuitions on the matter. However, we can definitely distinguish a further degree of hypotheticalness, which we may term 'super-hypothetical' e.g. in sentences like:

29. 'ħatta law kunt geet bukra, makuntiø ʃuft irra?iis'
lit. 'even if you had come tomorrow, you wouldn't have seen the president'

in which the time-reference is clearly future, but the surface form is 'complete + complete'. This can be obtained by applying future deletion; then a presentential category of super-hypotheticalness will be taken as an instruction to apply T - Hypo-Assignment twice. This can clearly only operate on future, rather than past, as neutralisation would occur in every case, with 'complete + complete + past'.

As many of the above examples have demonstrated, 'Conditional', like other sentential adverbs, can be preposed to the beginning of the sentence. If this is done, it is possible to prefix the apodosis by what we can call a 'resumptive particle' - which is the incomplete form of 'ba?a, yib?a', in the unmarked concord set e.g.:

30. 'iza 9amalt kida, yib?a miʃ ħakallimak taani'
'if you do that, then I'll never speak to you again'

It may also be used at the beginning of a sentence with no overt protasis, rather like a marker of logical implication between preceding discourse and the sentence that follows:

31. 'yib?a ma9anduuʃ filuus xaaliS'
'that means he has no money at all'

The complete form of 'yib?a' - 'ba?a' - is used in much the same way, but usually at the end of the sentence:

32. 'ma9anduuʃ filuus xaaliS ba?a'
'he has no money at all, then'

* * *

CHAPTER NINE

Prepositional Predicates and Indefinite Subjects

* * *

This chapter is concerned with (a) all sentences of which the subject is marked '-Definite', and (b) all those sentences which contain 'PrepP' as a rewrite of 'PredP'.

I have already referred in passing to topicalisation transformations; briefly, these consist of moving one of the constituents - usually a noun phrase - out to either the beginning or end of the sentence, leaving behind a place-marking pronoun (see chapter on pronominalisation). E.g. topicalising 'irraagil da' - 'that man' in 1, we produce 2 and 3 by left- and right-shifting respectively:

1. 'ʃuft irraagil da fiØØaari9'
2. 'irraagil da, ʃuftu fiØØaari9' 'I saw that man in the street'
3. 'ʃuftu fiØØaari9, irraagil da'

One must assume some trigger-element in the topicalised NP, which will both trigger the transformation and provide the semantic reading - something like 'Emphasised' which will account for the meaning difference between examples 2 and 3, and 1. The left-shifting

transformation could be modified to cater for sentences containing no emphatic trigger-element but in which some constituent is nevertheless moved out to initial position - notably sentences with possessive prepositional phrases as predicates.

I shall first take sentences with indefinite subjects:

(a) Indefinite subject transformations

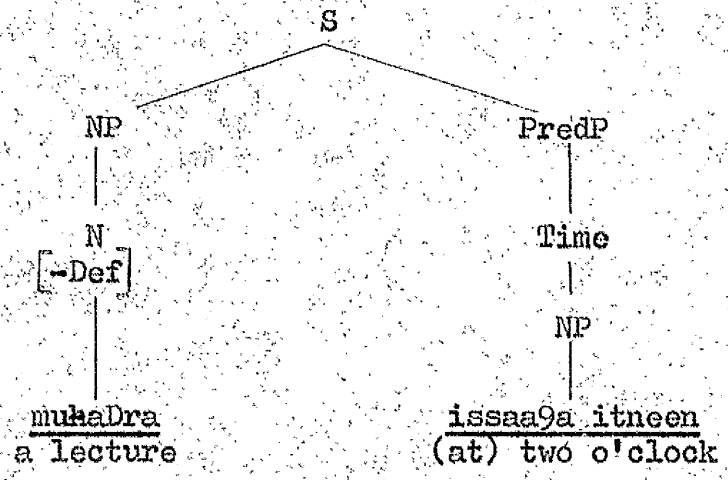
In this section I propose to derive the surface structure of sentences like

4. 'fiih muhaDra issaa9a itneen'
'there is a lecture at two o'clock'

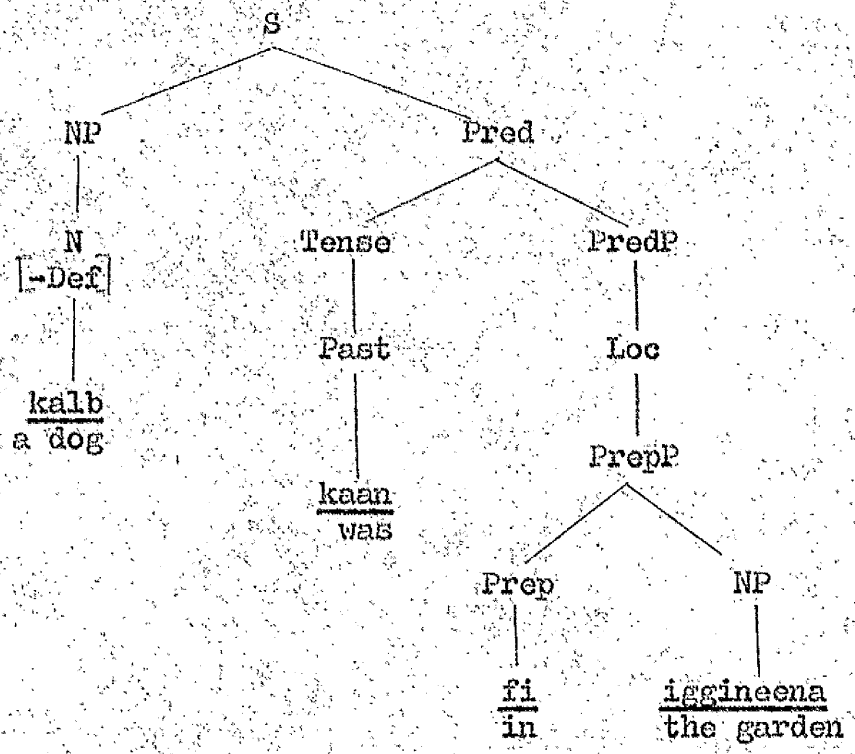
5. 'Kaan fiih kalb figgineena'
'there was a dog in the garden'

from corresponding deep structures of the form:

4.



5.



In informal terms, the surface structure is produced by the preposing of 'Neg' and 'Tense', which are followed by 'fiih' - the preposition 'fi' + the pronoun of the unmarked concrod set. 'Preverb' is also preposed. 'Neg' is attached to the auxiliary tense-carrier 'kaan/ yikuun' (if it is present); otherwise to 'fiih'. E.g.:-

6. 'makanʃ fiih kalb figgineena'
'there wasn't a dog in the garden'

7. 'miʃ haykuun fiih wa?t'
'there won't be time'

8. 'mafiiʃ fayda'
'it's no use'

The transformation may be provisionally formalised as follows:

T - 'fiih'-placement

SI:	X +	$[_{NP}$ N$_{[-Def]}$ +	Y $]_{NP}$ +	(preverb) +	(Neg) +	(Tense) +	PredP +	Z
	1	2	3	4	5	6	7	8

$\overset{OBL}{\Longrightarrow}$

SC: 1 5 6 'fiih' 4 2 3 7 8

A similar solution could be proposed for verbal sentences with indefinite subjects such as

9. 'kaan fiih raagil biybii9 balah barra'
'there was a man selling dates outside'

10. 'fiih hadd 9aayiz yikallimak'
'there is someone (who) wants to speak to you'

Note that, for such sentences, 'fiih'-placement is optional, since we find also:

11. 'raagil kaan biybii9 balah barra'
'a man was selling dates outside'

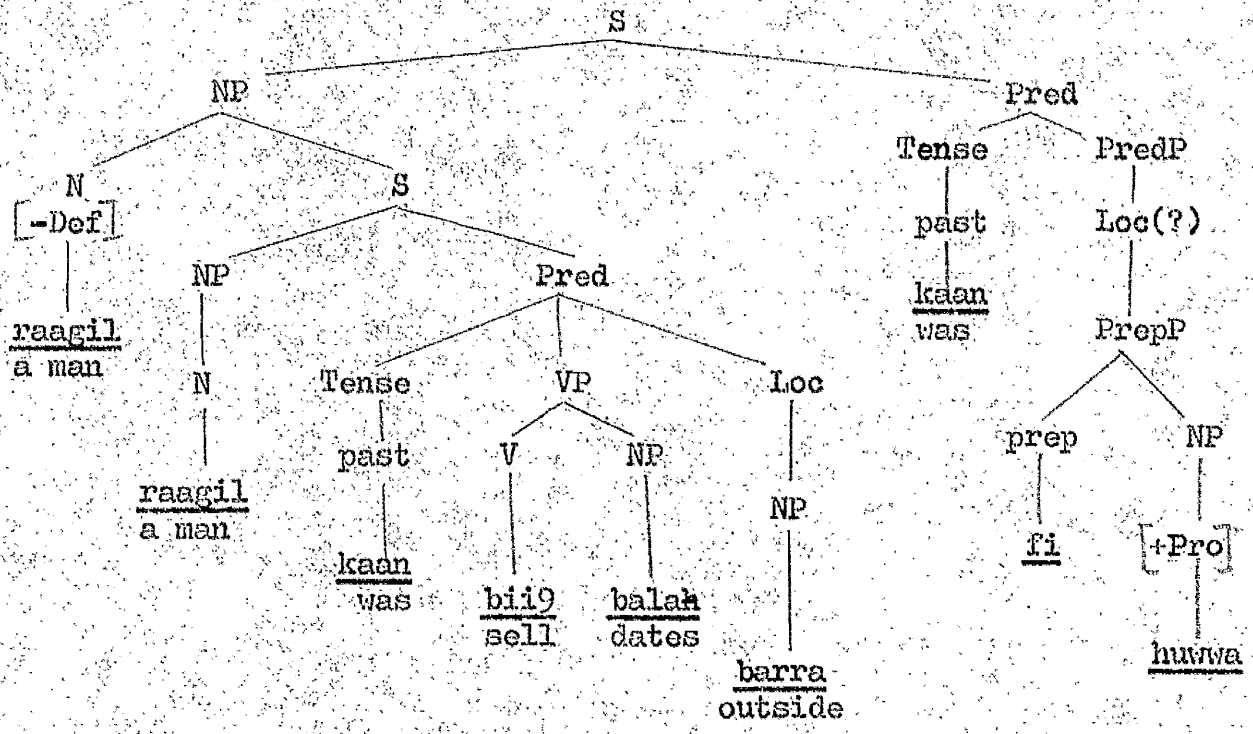
12. 'hadd 9aayiz yikallimak'
'someone wants to speak to you'

Note also that 'Tense' would have to be copied to pre-subject position, rather than simply preposed, and optionally deleted under identity, since we find the variant:

13. 'kaan fiih raagil kaan biybii9 balah barra'
'there was a man selling dates outside'

If we opt for this solution, 7 in the structural index of the transformation must be made a variable, and extra conditions added to account for the optional nature of the transformation if it is VP.

Alternatively, it may be that such verbal sentences (or indeed all sentences with an indefinite subject) contain a restrictive relative clause, with 'fiih' as the predicate of the main clause. Adopting this solution, the deep structure of 9 could be represented as:



However, this would entail somehow filtering out of the deep structure sentences with indefinite subjects but without following relative clauses or predicates consisting of a dummy locative. On the other hand, sentences occur consisting only of 'fiih' + indefinite noun phrase e.g.:-

14. 'fiih wa?t'
'there is time'

15. 'mafiiʃ fayda'
'it's no use'

- which could only be generated if a dummy locative occurs in the deep structure. In any case, a modification of the 'fiih' placement transformation would still be needed, to prepose the entire predicate of such sentences. It may be that 'fiih', instead of being specifically locative, represents a proform of 'PredP' as a whole (1).

If the nominal in sentences like 14 and 15 contains the element 'Emphatic', left-shifting topicalisation is triggered e.g.:-

16. 'wa?t fiih, filuus mafiiʃ'
'(lit.) time there is, money there is not'

(b) Prepositional predicates

Whichever solution is adopted to explain the above data, it is clear that some preposing operation is obligatorily carried out on sentences with indefinite subjects and non-verbal predicates (e.g. examples 4 and 5); no such operation is performed on sentences with definite subjects e.g.:-

17. 'ikkalb kaan figgineena'
'the dog was in the garden'

---

(1) It is probably fruitless to speculate on the reasons for the selectional restriction obtaining between the predicate 'fiih' and its indefinite subject; it may be that it is tautologous to affirm the existence of something if it has already been specified by a marker of definiteness, which presupposes existence.

18. 'il?oTTa taht iTTarabeeza'
'the cat is under the table

19. 'ikkitaab miʃ fiddurg'
'the book is not in the drawer'

If the prepositional phrase is emphasised, it may be left-shifted e.g.:

20. 'fiddurg ikkitaab'
'the book is in the drawer (i.e. not elsewhere)'

21. 'taht iTTarabeeza il?oTTa' (cf. 18)

This kind of topicalisation occurs if the subject is indefinite:

22. 'fiddurg kitaab li9aaTif'
'in the drawer is a book for 9aaTif'

23. 'taht iTTarabeeza ?oTTa Sugayyara'
'under the table is a small cat'

However, most speakers asked felt that, in contrast to sentences like 20 and 21, 22 and 23 do not imply any particular emphasis of the predicate. In other words, topicalisation here may be considered a somewhat less favourite option to 'fiih'-placement.

In addition, there may be secondary topicalisation, by which the NP is moved out to the left from the prepositional phrase, leaving a place-marking pronoun e.g.:-

24. 'iTTarabeeza taktaha il?oTTa'
'the cat is under the table'

25. 'iTTarabeeza ma9alehaaʃ turaab'
'there is no dust on the table'

Topicalisation of a NP is quite independent of the transformation which preposes the prepositional predicate. E.g. it is possible to have:

26. 'iTTarabeeza, il?oTTa taHtaha'
'the cat is under the table'

27. 'iddurg, ikkitaab mafiihuuS'
'the book is not in the drawer'

Special mention must be made of those prepositions in predicate phrases which are marked '+Possessive': 'ma9a', '9and' and 'li', of which the first denotes temporary, and the second two, permanent possession of the subject by the following NP. These prepositions may also be [-Possessive] e.g. - 'ma9a' - 'with':

28. 'kaan biyur?uS ma9aaha'
'he was dancing with her'

'9and' - 'at the house of':

29. 'niruuH 9and TanT farduuS bukra'
'let's go to aunt Fardus's tomorrow'

'li' - 'to', 'for':

30. 'iddaani hadiyya li uxti'
'he gave me a present for my sister'

'Possessive' prepositions must be differentiated from 'non-possessives' syntactically as well as semantically since preposing and secondary topicalisation are obligatory, to produce the favourite surface structure, whether the subject noun is + or -Definite. E.g.:

31. 'ma9aaya iʃʃanTa'
'I've got the case'

32. '9izzat 9andu aSHaab kitiir'
'Izzat has a lot of friends'

33. 'liiki HA??'
'you (f.) are right'

If the definite subject is left in initial position, a fully acceptable but less favourite surface structure results:

34. 'iʃʃanTa ma9aaya'

35. 'ilfiluus 9andi'
'I have the money'

Similarly, if the subject is -Definite, 'fiih'-placement may operate to produce rather less favourite structures than those produced by simple preposing:

36. 'fiih kabriit ma9aak?'
'do you have a light?'

37. 'mafiiʃ muxx 9anduhum'
'they are quite stupid' (lit. 'they have no brain')

Another less favourite structure is produced by operating both the preposing and 'fiih'-placement transformations:

38. 'fiih ma9aak kabriit?'

39. 'mafiiʃ 9anduhum muxx'

This appears to be much less acceptable in sentences containing non-possessive prepositional predicates e.g.:

40. ?'mafiiɸ 9aTTarabeeza turaab'
'there is no dust on the table'

41. ?'mafiiɸ takt iTTarabeeza ?oTTa'
'there isn't a cat under the table'

We have listed so far only three possessive prepositions; however it seems that others may be classified as such in semi-idiomatic expressions e.g.: '?uddaam' - 'before, in front of' as in:

42. 'ma?uddamuuɸ ixtiyaar'
'he has no choice'

which is synonymous with

43. 'ma9anduuɸ ixtiyaar'

and '9ala' - 'on top of, against', as in:

44. 'ma9alehuuɸ zamb'
'he is not guilty' (lit. 'he has no guilt')

Sentences containing such expressions may undergo both preposing and 'fiih'-placement; i.e. the following are quite acceptable:

45. 'mafiiɸ ?uddaamu ixtiyaar'

46. 'mafiiɸ 9aleeh zamb'

If only 'fiih'-placement, and not preposing takes place, 47 and 48 result:

47. 'mafiiɸ ixtiyaar ?uddaamu'

48. 'mafiiɸ zamb 9aleeh'

'bitaa9'

While on the subject of possessive prepositional phrases I should say a word about the possessive particle 'bitaa9' - 'belonging to'. I call it a particle provisionally, precisely because it is rather difficult to classify according to either morphological or syntactic criteria. Morphologically, it acts like both an adjective and a noun. An adjective, because it agrees with its head noun in both number and gender e.g.:

49. 'il?alam bitaa9 MuxTaar'
'Muxtar's pen'

50. 'iʃʃanTa bitaa9it MuxTaar'
'Muxtar's bag'

51. 'il?awlaad bitu9 MuxTaar'
'Muxtar's children'

A noun, because it forms a construct with the following NP, so that the feminine ending is realised as '-it' rather than '-a' as in 50, and also:

52. 'il?oTTa bita9itna'
'our cat'

Although it functions semantically rather like the possessive prepositions it is quite different syntactically. For instance, the topicalisation transformation produces sentences which are only acceptable if they imply strong emphasis of the 'bitaa9' phrase e.g.:-

53. 'iʃʃanTa bita9ti'
'the bag is mine'

but

54. ??'bita9ti iʃʃanTa'

Moreover, 'bitaa9' can only occur with a +Definite head noun e.g.:-

55. *'fiih ʃanTa bita9ti fil9arabiyya'
'there is a bag of mine in the car'

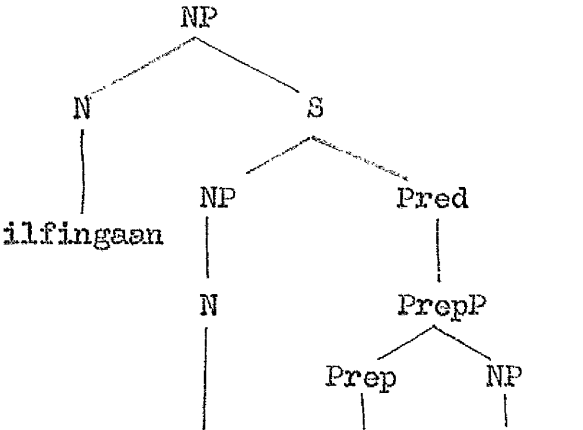
56. *'9andak kitaab bitaa9i?'

The above can only be expressed by a partitive construction e.g.:-

57. 'fiih waaHda min ʃunaTi fil9arabiyya'

or 'fiih ʃanTa min ʃunaTi fil9arabiyya'
'there is one of my bags in the car'

To adduce more syntactic evidence it would probably be necessary to investigate the construct in much greater detail than is possible here. Briefly, I propose to derive the construct from an embedded relative clause of the form:



e.g.: 58. 'ilfingaan li iʃʃaay'
'the cup is for tea'

After the relative clause reduction and deletion transformations one is left with an NP like:

59. 'ilfingaan illi liøøaay'
'the cup which is for tea'

or, choosing a different preposition in the DS:

60. 'fingaan min iøøaay'
'a cup (which is) of tea'

The construct transformation deletes the preposition, and any definite marker attached to the head noun, although this is still assigned to its modifiers. If the head noun is feminine and ends in 'a', this inflection is realised instead as '-it', as in examples 50, 52 and 53 and elsewhere.

Hence the ambiguity of 'fingaan øaay' - 'a cup of tea' or 'a teacup'. Rather than having 'preposition' in the deep structure it would be better to have a more abstract notion - possibly 'relation' - which will subsume a number of semantic relations such as 'consisting of', 'for the use of', 'containing', belonging to' etc. Some of these will be realised by prepositions, some by 'bitaa9', and all will have the option of the construct transformation; i.e. 'bitaa9' may be the exponent of a number of relations, not just of 'belonging to' e.g.

61. 'ilbayyaa9 bitaa9 ilbalah'
'the seller of dates'

62. 'ilfingaan bitaa9 iʃʃaay'
'the teacup (not 'cup of tea')'

63. 'ilbawwaab bitaa9 il9imaara di'
'the door-keeper of this block' (1)

I shall not attempt to answer here the question of whether NPs like 61 and

64. 'sawwaa? il9arabiyya'
'the driver of the car'

and, possibly, 63, are in fact derived from embedded verbal sentences such as:

65. 'huwwa illi biybii9 ilbalaħ'
'he who sells dates'

66. 'huwwa illi biysuu? il9arabiyya'
'he who drives the car'

Such a solution would imply a radical modification of the form of the grammar, and although of considerable theoretical interest, is somewhat beyond the scope of the present work.

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(1) Alternatively, nouns in construct could be generated directly by a PS rule NP ⟶ N (NP) which, being recursive, would also allow for an indefinitely long string of nouns, although three appears to be about the stylistically acceptable maximum. Such a rule could also be used to generate nominal complements (see Chapter Five), in which the head noun inflects for the construct, although followed by a clause rather than a noun in the surface structure.

CHAPTER TEN

Adjective and Verb - One Category?

* * *

So far, it has been taken for granted that three major categories - noun, adjective and verb - are to be generated quite separately by the PS rules. There are a number of morphological similarities between nouns and adjectives in CEA, but it should be clear from the PS rules alone that the syntactic distribution of nouns is very different from that of adjectives. There is an obvious morphological distinction between adjectives and verbs, but it is open to argument whether at a deeper level they may be represented as a single category. Below I shall outline some of their syntactic similarities, which could be used as evidence in support of such a view and suggest briefly how the present grammar could be revised if this approach were to be adopted.

Such a solution would above all have the advantage of simplifying the PS rules. For instance, as we have seen, both 'V' and 'Adj' can be modified by 'Intensifier' and 'Degree' - subject to the selectional restriction stated in Chapter One.

I mentioned the possibility of verbs taking a 'resultative' NP, which should of course be included in our present PS rules. However, adjectives can also be followed by NPs of the same consonantal root (which may themselves be modified by an adjective) and which have a strongly intensifying effect e.g.:

1. 'huwwa 9abiiT 9abaT'
   'he is incredibly stupid (lit. 'stupid stupidity')'

2. 'kaan za9laan za9al gaamid'
   'he was terribly angry (lit. 'angry a terrible anger')'

3. 'hiyya ɸa?iyya ɸa?aawa'
   'she is terribly naughty (lit. 'naughty naughtiness')'

If there is a corresponding verb of the same root, the same form of the resultative will be used after both adjective and verb, and if two resultatives - the VN and the 'countable' form - are available to the verb, they will also be available to the adjective e.g.:-

4. 'zi9il / 'kaan za9laan } { za9al gaamid' / za9la gamda'
   'he {got / was} terribly angry'

but only:

5. 'kisil / 'kaan kaslaan } kasal gaamid'
   'he {got / was} terribly lazy'

If 'Adj' and 'V' were to be conflated in the deep structure, the PS rules could simply write 'resultative', 'Intensifier' and 'Degree'

as optional adjuncts to a single category, instead of having to introduce them twice. 'Manner' could also be included as a modifier to this category; the non-occurrence of many 'Manner' adverbials with adjectives would be due to a selectional restriction discussed below.

Under our present analysis class 3 verbs like 'Tawwil' - 'make long, lengthen', 'laTTaf' - 'make pleasant', 'taxxan' - 'make fat' etc. can only be derived from the verbs 'Tiwil' - 'grow long', 'liTif' - 'become pleasant', 'tixin' - 'grow fat' etc. and cannot be formally related to the adjectives 'Tawiil' - 'long, tall', 'laTiif' - 'pleasant', 'tixiin' - 'fat' etc., although an equally predictable semantic and syntactic relationship holds between them. The scope of the causative transformation could be extended under our new analysis so that it applied to our super-category - what we may call 'VERB'. This would avoid the arbitrary derivation of the causative from the verb, rather than the adjective, where there exist an adjective, a class 1 verb and a class 3 verb of the same consonantal root, with the class 3 verb in a causal relation to the other two e.g.: 'suxn' - 'hot', 'sixin' - 'get hot', 'saxxan' - make hot', '?awi' - 'strong', '?iwi' - 'grow strong', '?awwa' - 'make strong' (and, if one allows causatives to be formed from other than class 1 verbs) 'ħilw' - 'sweet', 'iħlaww' - 'grow sweet', 'ħalla' - 'sweeten', 'abyaD' - 'white', 'ibyaDD' - 'grow white', 'bayyaD' - 'whiten' etc.

In addition there are a number of class 3 verbs with no corresponding adjectives or verbs, but with a corresponding noun e.g. 'zayyit' - 'oil, lubricate' ('zeet' - 'oil'), 'faDDaD' - 'silver (trans.)', ('faDDa' - 'silver'). One could argue that these are causative verbs derived from nouns - i.e. that the causative transformation applies to all major categories. This would clearly be uneconomical since so many non-occurring causative verbs would have to be filtered out; pratically all the nouns in the lexicon would have to be marked -Causative (1).

The verbal noun transformation could also be extended to apply to adjectives as well as verbs; i.e. abstract nouns like 'ħamaar' - 'redness' could be considered the VN of the adjective 'aħmar' - 'red', just as 'iħmiraar' is the VN of 'iħmarr' - 'grow red'. Rather than an adjective/verb distinction one could recognise a static/dynamic distinction, 'adjective' correlating generally with static and 'verb' with dynamic. The feature ±Dynamic could be included as a feature on the supercategory VERB. The verbal noun transformation could then be applied to VERB, so that, for a VERB like 'aħmar/iħmarr', the VN 'ħamaar' will result if the feature 'static' is chosen, and 'iħmiraar' if 'dynamic' is chosen.

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(1) A number of causatives have been formed from foreign loan words - usually ones with three consonants - e.g.:- 'fallim' - 'make films', 'saggar' - 'smoke', 'maxxik' - 'make music' etc.

Let us suppose, by way of further illustration, that -Dynamic (i.e. 'static') is chosen in the PS rules, and that '?a9ad' - 'sit' is supplied by the lexicon. This combination will trigger the participle transformation so that the active participle '?aa9id' (1) - 'seated, sitting' results. If however +Dynamic were chosen, the finite verb would result. All active and passive participles are static, except participles of verbs of motion; e.g. 'waakil' means 'having eaten', not 'eating', 'ʃaarib', 'having drunk', not 'drinking', 'faatiħ', 'having opened', not 'opening' etc., whereas 'maaʃi' means '(in the process of) walking', 'raaħiʃ', 'going', 'gayy', 'coming' etc.. Note that these latter participles can be used with reference to future time e.g.:

6. 'humma gayyiin bukra'
'they are coming tomorrow'

---

(1) Active participles of class 1 verbs are of the form 'CaaCiC', passive participles of the form 'maCCuuC' e.g. 'kaatib', 'maktuub', Both agree with their subject in number and gender, the suffix '-a' being added for concord set II and the suffix '-iin' for concord set III (see appendix on nominal concord); with loss of the short unstressed penultimate vowel, this gives 'katba' and 'katbiin', 'maktuuba' and 'maktubiin'. Other classes of verb form participles by prefixing 'mi-' to the incomplete form of the verb. This prefix may be added to the passive form ('in-' or 'it-' prefixed) of class 1 verbs, so that two 'passive participles' are available to this class e.g. 'maksuur' - 'broken' and 'minkisir'. I.e. the participle transformation can take place before or after the rule which changes the class 1 verb to class 5. In practice one or the other (usually the 'maCCuuC' form) is preferred. Where both exist, there appears to be a subtle meaning difference (v. Mitchell, 'Teach Yourself' series, p. 92 for examples), which I shall not investigate here.

but not

7. *'humma ʃarbiin bukra'
'they will be drinking tomorrow'

Hence active participles of non-motive verbs cannot occur in the contemporaneous clauses of sentences like:

8. 'ʃuftaha wi hiyya maʃya fiʃʃaari9'
'I saw her walking in the street'

i.e.:

9. *'ʃuftaha wi hiyya ?arya kitaab'
'I saw her reading a book

is not possible.

Contrast the possible sentence:

10. 'hiyya ?arya kutub kitiira'
'she has read a lot of books'

Verbs of motion will have to be marked +Dynamic in the lexicon; i.e. they cannot be inserted if -Dynamic has been chosen by the PS rules. A VERB like '?a9ad' on the other hand is neutral as to the ±Dynamic distinction.

There are a few VERBs which would have to be marked -Dynamic in the lexicon e.g. 'yihimm' - 'be important, matter', 'yinfa9' - 'be useful', 'yilzam' - 'be necessary' since, if -Dynamic were chosen by the PS rules, these verbs could be inserted without undergoing the

participiple transformation (1). However they cannot be selected if +Dynamic has been chosen by the PS rules.

To take another illustrative example: if +Dynamic is taken together with the VERB 'suxn/sixin' - 'hot/grow hot', the finite verb 'sixin' may be chosen, or the auxiliary 'ba?a' with the adjective 'suxn'. If -Dynamic is chosen with the same VERB then the adjective 'suxn' must be chosen, since 'sixin' has no active participle. It is interesting to note that, where there exist both an adjective and dynamic verb of the same root, there is often no corresponding active participle e.g.: 'kisil/kaslaan' - '(grow) lazy' but no *'kaasil', 'zi9il/za9laan' - '(get) angry', but no *zaa9il', 'tixin/tixiin' - '(get) fat' but no *'taaxin', '?iwi/?awi' - '(grow) strong', but no *'?aawi' etc.. On the other hand, a word like 'waasi9' - 'broad' is usually classed as an adjective, although it has the morphological form of an active participle; under an analysis which recognises a supercategory VERB no conflict arises as to whether it should be classed as adjective or active participle; it would simply be the 'static' form of the VERB 'wisi9'.

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(1) A selectional restriction exists, to the effect that 'Manner' adverbials like 'bi sur9a' - 'quickly', kwayyis' - 'well', 'bi raaha' - 'quietly' etc. cannot occur with a VERB marked -Dynamic; i.e. with adjectives and static verbs under our present description.

It should be noted that not all static verbs have active participles either e.g. *'haamim' from 'yihimm' or *'faayid' from 'yifiid'. We do find 'laazim' corresponding to 'yilzam', but in the case of this verb two syntactic and at least three semantic distinctions should be made. If it means 'need' or 'is necessary', the complete and incomplete forms of the finite verb can be used, as well as the active participle e.g.:

'biyilzamni filuus' or 'laazimni filuus'
'I need money (lit. money is necessary to me)'

or 'lizimni filuus'
'I needed money'

but if it means 'must' or 'ought', with an abstract sentential subject, then the past tense is not possible; i.e. one finds

'laazim(ni) arawwaḥ'
'I must go home'

and '(bi)yilzamni arawwaḥ'

but not:

* 'lizimni arawwaḥ'
'I had to go home'

(Note that 'laazim' can also be used in an implicational sense e.g.:

'laazim biyistagal filmaktab'
'he must be working in the office'

in which case the embedded clause is marked for tense and aspect, unlike clauses embedded with the 'laazim' of obligation:

'laazim yistagal filmaktab'
'he must work in the office'.)

For morphological purposes 'verb' and 'adjective' would have to be included in the lexical entries of VERBs, together with their morphological subclasses. A lexical redundancy rule would state that all adjectives are -Dynamic and all verbs +Dynamic, unless otherwise marked.

As we have seen, this revised form of the grammar would simplify the PS rules but at the same time would require a more complex lexicon and transformational component. As Chomsky says (1):

"In general, it is to be expected that enrichment of one component of the grammar will permit simplification in other parts. Thus certain descriptive problems can be handled by enriching the lexicon and simplifying the base at the cost of greater complexity of transformations, or conversely. The proper balance between various components of the grammar is entirely an empirical matter."

Although there is considerable evidence in favour of the revised version I prefer to leave the question open, since I have not investigated the behaviour of adjectives in the same detail as that of verbs, and since it is difficult to evaluate the relative complexity of the two solutions in a very partial grammar.

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(1) 'Remarks on nominalisation'.

APPENDIX

(A)

Verbal Concord

A finite verb in CEA agrees with its subject in number, gender and person. We are concerned here with the third person, rather than second or first, since it is with this person that neutralisation phenomena can be observed. Briefly, there are three concord sets in the third person (as with adjectives and second and third person pronouns), correlating roughly with masculine singular (I) (unmarked), feminine singular (II) (marked by suffix 'it' with the complete form of the verb, and by prefix 'ti-' with the incomplete) and plural (III) (marked by suffix '-u' with the complete and incomplete forms of the verb, together with prefix 'yi-' with the incomplete form). In fact set II can be used with plural subjects, if the noun is non-human. A number of other features enter into the choice of concord set, which will be investigated more fully in Appendix (B).

As the phrase structure rules indicate, the verb usually follows its subject. In some cases, however, the verb may be preposed to initial position - an operation recalling that of nominal topicalisation. These are generally intransitive, one-place verbs e.g.:-

1. 'istaxabbu ilmugrimiin' (III)
'the criminals hid'

2. 'ħaSalit ilħadsa yoom il?arba9' (II)
'the accident happened on Wednesday'

3. 'raDDu aSħaabi wi ?aalu...' (III)
'my friends replied and said...'

4. 'wiSlu ħurraas ilmarma fisstaad' (III)
'the goal-keepers arrived at the stadium'

Note that we are using 'intransitive' here to refer to one-place verbs in the surface structure; they may well be transitive in the deep structure, but may have undergone e.g. the passive transformation:

5. 'itfataħit iʃʃababiik' (II)
'the windows were opened'

6. 'inkatabit ilħisabaat bisur9a' (II)
'the accounts were written quickly'

With preposed verbs, neutralisation takes place of sets II and III to unmarked set I, if the subject is plural and human. E.g.:-

7. 'istaxabba ilmugrimiin' (cf 1) (I)

8. 'raDD aSħaabi wi ?aalu...' (cf 3) (I)

9. 'wiSil hurraas ilmarma fisstaad' (cf 4) (I)

But not

10. *'Taar il9asafiir' (I)
'the birds flew away'

11. *'wiSil ikkutub' (I)
'the books arrived'

since in these examples the subject is non-human, nor:

12. *'ħaSal ilhadsa yoom ilarba9' (I)

nor

13. *'Tili9 iɸɸams' (I)
'the sun came out'

only

14. 'Til9it iɸɸams' (II)

nor

15. *'wiSil ilbint' (I)
'the girl arrived'

only

16. 'wiSlit ilbint' (II)

since the subject in these examples is singular.

It should be noted that the above type of preposing belongs to the purely colloquial register of speech, whereas speakers feel that there is something 'poetic' or 'literary' about most preposed transitive verbs (1) e.g.

17. 'katabli axuuya gawaab'
'my brother wrote me a letter'

Sentences like examples 1 - 6, on the other hand, are considered perfectly 'natural'.

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(1) This is no doubt due to the fact that the usual surface order in Classical Arabic is verb + subject + object.

It will have been noticed, in Chapter Nine, that after the 'fiih-placement' transformation, the auxiliary 'kaan' always occurs in the unmarked concord set, instead of agreeing with the (DS) subject of the sentence.

Obligatory neutralisation was also discussed in relation to the 'it-replacement' transformation (see Chapter Five), by which the subject of an embedded clause is moved to the head of the matrix sentence, and the verb of the matrix takes concord set I (1).

In addition to the above cases, neutralisation occurs obligatorily with the passive in certain circumstances. We noted in our chapter on the passive that the transformation can apply to participants other than the direct object of the verb, notably the instrumental and the (non-sentential) locative e.g.:-

18. 'il?alam inkatab biih'
'the pen was written with'

19. 'issiriir itnaam 9aleeh'
'the bed has been slept in'

20. 'ikkubbaaya di inʃarab minha'
'this glass has been drunk out of'

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(1) The only exception I found to this rule was with the passive of the verb '9araf' - 'know', if the 'it-replacing' subject is plural and human. Then neutralisation was optional for a number of speakers e.g.:
'il9asaakir it9araf/it9arafu innuhum kaanu safru'
'the soldiers were known to have left'
but only 'issa9aat iddahab it9araf innaha insara?it min isbuu9'
'the gold watches were known to have been stolen a week ago'

21. 'ikkursi da yit?a9ad 9aleeh'
'that chair is for sitting on'

- in which a place-marking pronoun is left after the preposition.

In such cases, neutralisation to concord set I is obligatory - hence

20, and not

22. *'ikkubbaaya di inʃarabit minha'

Also

23. 'issaraayir di itnaam 9aleeha'
'these beds have been slept in'

and not

24. *'issaraayir di itnaamit 9aleeha'

and

25. 'li?laam inkatab biiha'
'the pens were written with'

not

26. *'li?laam inkatabit biiha'

Where the locative preposition can be deleted e.g.:-

27. 'raak issinima'
'he went to the cinema'

28. 'daxal il?ooDa'
'he went into the room'

29. 'sakan iʃʃa??a'
'he lived in the flat'

- the passive applies as if to a direct object, leaving no place-marking pronoun, and allowing of no neutralisation:

30. 'issinima itraaḥit'

31. 'il?ooDa indaxalit'

32. 'iʃʃa??a itsakanit'

Compare the following examples, in which the locative preposition has not been deleted, and obligatory neutralisation occurs:

33. 'issinima itraaḥ laha'

34. 'il?ooDa indaxal fiiha'

35. 'iʃʃa??a itsakan fiiha'

Note that passivisation of the instrumental or locative does not necessarily require deletion of the (DS) direct object, so that besides a sentence like 20 we may find

36. 'ikkubbaaya di inʃarab minha ?ahwa'
'(lit.) this glass has had coffee drunk out of it'

and besides 18 -

37. 'il?alam inkatab biih risaala'
'(lit.) the pen had a thesis written with it'

In these two examples the instrumental and the locative must originally have been moved to post-verbal position, so that the passive operated on these NPs rather than on the direct object.

An almost identical surface structure is obtained if the instrumental or locative adjunct is topicalised to the left, the direct object passivised, and then right-shifted to the end of the sentence:

38. 'ikkubbaaya di inʃarabit minha il?ahwa'
'the coffee was drunk from this glass'

39. 'il?alam inkatabit biih irrisaala'
'the thesis was written with the pen'

The only surface difference is that the verb now agrees with the subject 'il?ahwa' - 'the coffee' and 'irrisaala' - 'the thesis' instead of being neutralised.

Note that this cannot be explained as neutralisation becoming optional if the object is present, since, if the object were masculine and the locative or instrumental feminine, only concord set I could be used e.g.:

40. 'ikkubbaaya di inʃarab minha iʃʃaay' (not *'inʃarabit')
'the tea was drunk out of this glass'

Neutralisation operates equally when there is a preposition supplied by the lexicon before the object of the verb e.g. 'dawwar 9ala' - 'look for', 'zi9il min' - 'get angry with'. Hence we can have

41. 'ikkutub iddawwar 9aleeha'
'the books were looked for'

42. 'axwaati inza9al minhum'
'(lit.) my sisters were got angry at'

but not

43. *'ikkutub iddawwarit 9aleeha'

or

44. *'axwaati inza9alu minhum'

It is clear that this type of neutralisation is independent of the deep structure grammatical relations between the surface subject and the verb, and depends only on the presence of a preposition preceding the passivised adjunct.

* * *

(B)

Nominal Concord

This section deals with the form of adjectives and verbs after singular, plural and dual nouns, and nouns with numerals. I shall not discuss the form of the numerals themselves, nor their position in relation to the noun. As far as I have been able to observe, the rules of concord are the same, whether the verb or adjective in question is immediately dominated by the same node as the noun, or is further removed from it in the surface structure.

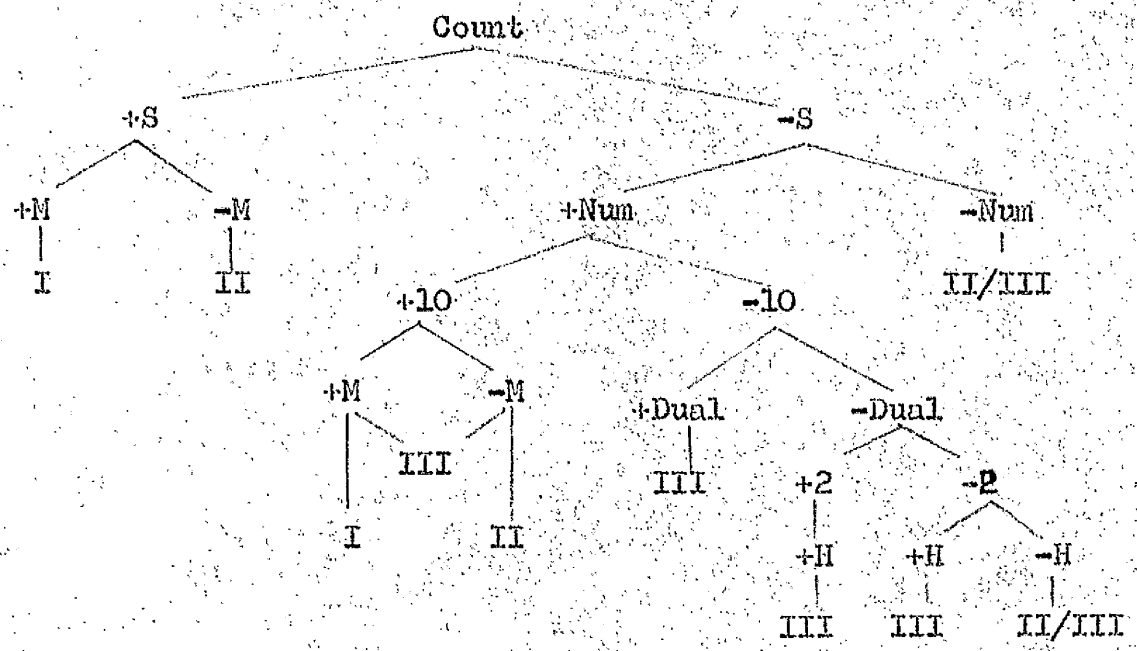
Count nouns in CEA have three forms: the singular, which may be either masculine or feminine (the masculine being the 'unmarked' form, the feminine either overtly marked by a suffix '-a', or displaying gender only through concord); the plural, marked either by suffixation or by internal vocalic change (the so-called 'broken' plurals); and the dual, which is the singular plus the suffix '-een'; e.g.:-

kalb dog	kilaab dogs	kalbeen 2 dogs
mudarris teacher	mudarrisiin teachers	mudarriseen 2 teachers
magalla magazine	magallaat magazines	magalliteen 2 magazines

The three concord sets described for verbs in the previous section are marked on adjectives rather as in nouns: the 'masculine singular' is unmarked (set I); the 'feminine singular' is marked by the addition of the suffix 'a' (set II); and the 'plural' by the suffix 'iin' or by the internal vocalic change (set III); e.g.:-

I	II	III
ħilw pretty	ħilwa	ħilwiin
fa?iir poor	fa?iira	fu?ara

There is not, however, a one-to-one relation between the three forms of the noun and the three concord sets. It may be helpful to represent the choice of concord set in diagrammatic form as follows, indicating the inherent syntactic features of the noun which influence the choice:



Notation:

S = singular, M = masculine, Num = numerical system, H = human, +10 = numbers 11 upwards, -10 = numbers 10 and under, -2 = numbers 3 - 10 inclusive. The ± 'feature' notation is used simply for reasons of economy. The same oppositions could equally well be expressed in terms of 'masculine/feminine', 'singular/plural' etc. I have not indicated on the diagram the form of the noun itself; this will be made clear in the discussion that follows.

As the above hierarchy demonstrates, the numerical system is rather more complex in matters of concord than the non-numerical; the inherent features of gender and humanness of the noun must be taken into account, as well as the number preceding the noun. Starting from the top of the tree, then, the first split is between singular and plural. Masculine singular nouns take concord set I, feminine singular, set II e.g.:-

'bint ħilwa'	'walad fa?iir'
'a pretty girl'	'a poor boy'

With non-numerical plurals the plural form of the noun is used, and either concord set II or III can be selected e.g.:-

'karaasi Sugayyara/Sugayyariin'
'small chairs'

'Tarabezaat kibiira/kubaar'
'big tables'

At this point in the system, the gender distinction has been neutralised. But if preference is to be taken into account, a human/non-human distinction should be recognised, since most speakers tend to prefer III with human nouns, and II with non-human. Or rather, speakers will make II their first choice if the noun is non-human and if the adjective forms its set III by suffixation, though set III was still considered quite acceptable e.g.:

'?umSaan wisxa'
'dirty shirts' rather preferred to '?umSaan wisxiin'

Set II was quite acceptable with plural human nouns, if the adjective was of the latter type i.e. formed its plural by suffixation e.g.:

'awlaad ɟaTra/ɟaTriin'
'clever boys'

'aSkaab kwayyisa/kwayyisiin'
'good friends'

However, if the adjective was of the 'broken plural' type, many speakers positively rejected set II with human nouns e.g.:

*'Zubbaaf laTiifa' ('luTaaf' only allowed)
'nice officers'

*'awlaad Tawiila' ('Tuwaal' only allowed)
'tall boys'

*'mudarrisiin gidiida' ('gudaad' only allowed)
'new teachers'

However, if the plural human noun had a feminine ending '-a' or '-aat', set II was often allowed, irrespective of the type of

adjective e.g.:

'banaat Tawiila/Tuwaal'	'riggaala kibiira/kubaar'
'tall girls'	'old men'

Turning now to the numerical system, we find that nouns with numbers ten and under must be distinguished from those with numbers eleven upwards. With numbers eleven upwards the singular form of the noun must be used, with concord set I or II, depending on the gender of the noun; or the gender distinction may be neutralised, and set III used; e.g.:-

'talatiin mudarris kwayyis/kwayyisiin'
'thirty good teachers'

'itnaaʕar xaddaama kwayyisa/kwayyisiin'
'twelve good servants (fem.)'

'xamastaaʕar sabat Sugayyar/Sugayyariin'
'fifteen small baskets'

The dual form of the noun takes concord set III, irrespective of gender or humanness. However, a further distinction could be made under the heading +Dual, depending on whether the noun is marked with the inherent feature '+Pair' or not. '+Pair' nouns, such as 'rigl', - 'foot, leg', '9een' - 'eye', '?iid' - 'hand', habitually found in the dual form, can take set II or III, like '-Num' nouns. It is as if the concord marker of duality - redundant in the case

of these nouns - has been dropped and the dual is treated like an ordinary plural form (1).

I have separated the number two from other numbers under eleven as only human nouns can follow this number, in the plural form e.g.:

'itneen Zubbaaʃ'
'two officers'

but *'itneen kutub'
'two books' (2)

Otherwise it behaves just like other numbers under eleven; with human nouns, only concord set III can be used e.g.:-

'xamas talamza ɣaʃriin'
'five intelligent students'

'taman riggaala ʁwayyisiin'
'eight good men'

'talat bawwabiin ʈuwaal'
'three tall door-keepers

With non-human nouns, however, either concord set II or III can be used:

---

(1) Note that the dual form of nouns is not obligatory if two objects or people are referred to; the plural may be used unless the speaker wishes to stress that only two are involved. The dual may also be used to mean 'a few', 'a small number' e.g. 'nuʔTiteen mayya' - 'a few drops of water'. It may be reinforced by the numeral 'two', in which case it has the meaning 'exactly two' e.g. 'nuʔTiteen itneen' - 'two drops'.
(2) Speakers occasionally use the number two with animate but non-human nouns, but these must always be interpreted as a form of personification e.g. 'itneen kilaab' - '(lit.) two dogs' - i.e. scoundrels.

'9a$ar karaasi kwayyisa/kwayyisiin'
'ten good chairs'

'talat Suwar gidiida/gudaad'
'three new pictures'

Another inherent feature of the noun which must be recognised when accounting for concord phenomena is '±Product'. In the case of +Product nouns, like '?ahwa' - 'coffee', 'karavaTTa' - 'tie', the gender distinction of +8 and +10 is neutralised to the unmarked concord set I with adjectives of nationality; e.g.:-

'karavaTTa ingiliizi' (+Product)
'an English tie'

but 'bint ingiliziyya' (-Product)
'an English girl'

and 'siyaasa maSriyya' (-Product)
'Egyptian politics'

Some nouns must be marked both + and -Product, since with them this neutralisation is optional e.g.:-

'filuus ruusi/rusiyya' 'ikkaniisa il?ingiliizi/-iyya'
'Russian money' 'the English church'

This may be because such nouns can be considered either concrete products or abstract entities or institutions.

It should be noted that where the speaker has a choice of concord sets he is quite likely to switch from the one he initially selects in the course of a sentence, or longer stretch of discourse; i.e.

the option remains open beyond the original choice. On the other hand he does not have total freedom to switch at any point. One would have to examine a very large body of data to determine what conditions make it possible or likely; all I can say with any certainty is that concord-switching is not possible within a noun phrase (after reduction of relative clauses).

LEXICON

* * *

The following list is not technically speaking a lexicon but rather a brief word list to help the reader follow examples in the text.

Besides the English gloss, a certain amount of syntactic information is given with each item. Firstly the category to which the item belongs is given, then its strict subcategorisation (in the case of nouns only (-S) is possible), followed by inherent syntactic features and then by transformations from which the item must be exempt. Inherent features of the noun are: gender [±M], humanness [±H], product [±Pr], pair [±P], definite [±Def] and pronominal [±Pro]. Invariable adjectives are marked as such. Verbs may be marked [±Dynamic]; then it is indicated if they cannot undergo the passive, causative, 'li'-reduction and verbal noun transformations.

Order of items:

Words are listed according to their radicals in the following order: ?, b, d, D, f, g, ɡ, h, ɦ, k, l, m, n, q, r, s, S, ɸ, t, T, w, x, y, z, Z, 9.

Some words are listed under '?' although strictly speaking this is not their first radical ('?' is introduced before initial V, as the phonology does not permit a VC syllable structure). No distinction is made between the '?' which is the colloquial reflex of 'q' and that which is '?' in every speech register.

Hollow and weak verbs will be listed according to the consonantal radicals which appear in their surface form, although in a proper lexicon they should be listed according to whether the underlying radical is 'w' or 'y'.

* * *

?

?abb	N [+M,+H]	father
?abl	Prep	before
?ibil	V (___ (fi)NP))	agree to
?aabil	V (___ NP)	meet
it?aabil	V (___ (ma9a NP))	meet
?ibn	N [+M,+H]	son
?idda	V (___ NP (li NP)) -Passive	give
?addim	V (___ NP (li NP)) -'li'-reduction	introduce, offer
?uddaam	Prep/Adv	in front

?idir	V_1(___ (S)) -VN -Causative	be able
	V_2(___ 9ala NP) -Causative	be up to, capable of
?iid	N [-M,-H,+P]	hand
?ooDa	N [-M,+Pr]	room
?afal	V (___ NP) -Causative	close, lock
?ifl	N [+M, +Pr]	lock
?ahwa	N [-M,+Pr]	coffee
?akkid	V (___ $NP_1$9ala NP_2)	assure NP_2 of NP_1
?akiid	Adj	certain
?akal	V (___ (NP))	eat
?akl	N [+M,+Pr]	food
?aal	V (___ ((NP)(li NP)) -Causative, -'li'-reduction	say, tell
?alam	N [+M,+Pr]	pen
?aam	V (___)	stand up
?aamin	V (___ bi NP)	trust
?amiin	Adj	loyal, trustworthy
?aqna9	V (___ NP_1(bi NP_2))	persuade NP_1 of NP_2
?ara	V (___ (N))	read
?arD	N [-M,+Pr]	land, earth
?araf	V (___ (NP)) -Causative	disgust
?arraf	V (___ (NP))	disgust
?aSad	V (___ (9ala NP)) -Causative	intend, determine

?atal	V (___ (NP))	kill
?oTTa	N [-M,*Pr]	oat
?awi	Intensifier	very (much)
?awi	Adj	strong
?iwi	V (___)	grow strong
?axx	N [+M,+H]	brother
?uxt	N [-M,+H]	sister
?a9ad	V_1(___ (Loc))	sit down
	V_2(___ S) -Causative, -VN	keep on

b

ba?a	V (___ Adj/NP) -Causative, -VN	become
baa?i	N [+M,-H,-Pr]	remainder, change
ba??aal	N [+M,+H]	grocer
baab	N [+M,+Pr]	door
bukra	Adv	tomorrow
baalig	V (___ (fi NP))	exaggerate
balah	N [+M,+Pr]	dates
baladi	Adj_1 (invariable)	common, low-class
	Adj_2	local
bana	V (___ (NP))	build

bunn	N [+M,+Pr]	coffee (ground)
bint	N [-M,+H]	girl, daughter
baat	V (___ (Loc))	spend the night
beet	N [+M,+Pr]	house
bard	N [+M, -H,-Pr]	cold
birid	V (___)	grow cold
bardaan	Adj	cold (of animate beings)
barra	Prep (___ (min))/Adv	outside
bawwaab	N [+M,+H]	door-keeper
baa9	V (___ (NP)(li NP)) -'li'-reduction	sell
ba9at	V (___ NP (li NP)) -Causative, -'li'-reduction	send

d

da??	V (___ (NP))	knock on
da?ii?a	N [-M,-H,-Pr]	minute
daab	V (___)	dissolve
dafa9	V (___ (NP)(li NP)) -'li'-reduction	pay
daafi9	V (___ 9an NP)	defend
dahab	N [+M,+Pr]	gold
dahaɸ	V (___ NP) -Causative	astonish

dihik	V (___ (9ala NP))	laugh at
dilwa?ti	Adv	now
diri	V (___ bi NP)	be aware of
durg	N [+M,+Pr]	drawer
daras	V (___ (N)))	study
dars	N [+M, -H,-Pr]	lesson
mudarris	N [+M,+H]	teacher
madrasa	N [-M,+Pr]	school
dawwar	V (___ (9ala NP))	look for
daxal	V (___ (Loc))	enter
da9a	V (___ NP (li NP)) -Causative	invite

D

Didd	Prep	against
Duhr	N [+M, -H,-Pr]	noon
Dallim	V_1(___)	become dark
	V_2(___ NP)	make dark
Darab	V (___ (NP)) -Causative	hit
Daruuri	Adj	necessary

f

fi	Prep	in
foo?	Prep (___ (min))/Adv	above
fa?iir	Adj	poor
faad	V (___ (li NP))[-Dynamic]-Causative	be useful
faDDa	N [-M,+Pr]	silver
faDDa	V (___ NP)	inlay, plate with silver
fiDil	V (___ S) -VN -Causative	continue, keep
fihim	V (___ (NP))	understand
itfaahim	V (___ (ma9a NP))	come to an understanding with
fikra	N (___ S)[-M,+Pr]	idea
fakkar	V_1(___ (fi NP))	think
	V_2(___ NP (fi NP))	remind
itfakar	V (___ (NP))	think, remember
fallaah	N [+M,+H]	peasant farmer
filuus	N [-M,±Pr]	money
fallis	V (___)	go bankrupt
fingaan	N [+M,+Pr]	cup
itfarrag	V (___ (9ala NP))	look at
frawla	N [-M,+Pr]	strawberries
furSa	N (___ S)[-M,-H,-Pr]	opportunity

fustaan	N [+M,+Pr]	dress
faat	V (___) [+Dynamic]	pass
fatah	V (___ (NP))	open
fattah	V (___ (NP))	throw open
miftaah	N [+M,+Pr]	key

g

gaab	V (___ NP (li NP)) -Causative, -'li'-reduction	bring
gidiid	Adj	new
geh	V (___ (Loc))[+Dynamic] -Causative	come
gild	N [+M,+Pr]	skin, leather
gamma9	V (___ NP)	gather
igtama9	V (___)	gather
gum9a	N [-M,-H,-Pr]	week, Friday
gamiil	Adj	beautiful
gannin	V (___ (NP))	drive mad
magnuun	Adj	mad
gineena	N [-M,+Pr]	garden
giri	V (___ (Loc))	run
garah	V (___ (NP)) -Causative	hurt, wound

gaww	N [+M,-H,-Pr]	weather, atmosphere
gawaab	N [+m,-H,-Pr]	letter
gaawib	V (___ (9ala NP))	reply
gawaaz	N [+M,-H,-Pr]	marriage
gawwiz	V (___ NP (li NP))	marry
itgawwiz	V (___ (NP))	marry
gaZZaar	N [+M,+H]	butcher
gaa9	V (___)	get hungry
ga9aan	Adj	hungry

g

gala	V (___ NP) -Causative	boil
gili	V_1(___) -Causative	boil
	V_2(___)	increase in price
ganna	V (___ (NP))	sing
ginwa	N [-M,-H,-Pr]	song
miganni	N [+M,+H]	singer
geer	Prep (min ___)	without
gariib	Adj	strange
istagrab	V (___ (min NP))	be astonished
gasal	V (___ (NP))	wash
gaSab	V (___ 9ala NP_1(fi NP_2))	oblige NP_1 to NP_2

~~ɡaɸɸ~~	V (___ (NP))	cheat
~~ɡa'a~~	N [-M,+Pr]	cover, blanket
~~ɡ~~ayyar	V (___ (NP))	change

h

hadiyya	N [-M,-H,+Pr]	present
hamm	V (___ (NP))[-Dynamic] -Causative	be important
hindi	Adj	Indian

~~h~~

~~h~~a??	N [+M,-H,-Pr]	right
~~h~~a?ii?a	N [-M,-H,-Pr]	truth
istaha??	V (___ (NP))	deserve
~~h~~abb	V (___ (NP))	like, love
~~h~~ubb	N [+M,-H,-Pr]	love
~~h~~add	N [+Pro,-Def,+M,+H]	someone
~~h~~adsa	N [-M,-H,-Pr]	accident
~~h~~afla	N [-M,-H,-Pr]	party
~~h~~aaga	N [+Pro,-Def,-M,-H]	something
~~h~~ikaaya	N (___ (S))[-M,-H,-Pr]	story

ħilw	Adj	beautiful
ħara?	V (___ NP)	burn
ħarii?a	N [-M,-H,-Pr]	fire
ħaarib	V (___ NP)	fight
itħaarib	V (___ (ma9a NP))	fight
ħarb	N [-M,-H,-Pr]	war
aħmar	Adj	red
iħmarr	V (___)	grow red
ħarr	N [+M,-H,-Pr]	heat
ħarraan	Adj	hot (of animate beings)
ħasad	V (___ (NP_1)(9ala NP_2))	envy NP_1 NP_2
ħassin	V (___ (NP))	improve
ħaSal	V (___ (li NP))	happen
ħuSaan	N [+M,-H,+Pr]	horse

k

kubri	N [+M,-Pr]	bridge
kibiir	Adj	large, old
kibir	V (___)	grow larger, older
kabriit	N [+M,+Pr]	matches
kalb	N [+M,+Pr]	dog

kallim	V (___(NP)) -Passive	speak to
itkallim	V (___ (ma9a NP))	speak to
koora	N [-M,+Pr]	(foot)ball, globe
karavaTTa	N [-M,+Pr]	tie
kisil	V (___)	grow lazy
kassil	V (___)	grow lazy
kaslaan	Adj	lazy
kasar	V (___ NP)	break
kassar	V (___ NP)	smash to pieces
kaʃaf	V (___ (9ala NP))	examine
katab	V (___ (NP)(li NP)) -'li'-reduction	write
kaatib	N [+M,+H]	clerk, writer
kitaab	N [+M,+Pr]	book
kitiir	Intensifier	very (much)
kwayyis	Adj/Adv(+Manner)	good/well

l

li	Prep	to, for
laa?a	V (___ NP)	find
laban	N [+M,+Pr]	milk
libis	V (___)NP))	put on, get dressed
laff	V (___ (Loc))	turn, wander

lahga	N [-M,-H,-Pr]	accent, dialect
lukanDa	N [-M,+Pr]	hotel
leela	N [-M,-H,-Pr]	night
laam	V (___ NP_1 (9ala NP_2) -Causative	blame NP_1 for NP_2
lamma	V (___ NP)	gather
laTiif	Adj	pleasant, nice
liTif	V (___)	become pleasant
laxbaT	V (___ NP)	confuse
lizim	V (___ (li NP))[-Dynamic]-Causative	must, be necessary
li9ib	V (___ (NP))	play
laa9ib	V (___ NP)	play (with)
itlaa9ib	V (___ (ma9a NP))	cheat

m

imtaHan	V_1(___)	take an exam
	V_2(___ (NP))	examine, set an exam
imtiHaan	N [+M,-H,-Pr]	examination
yimkin	V (___) (Defective) [-Dynamic] -Causative, -VN	be possible
mumkin	Adj	possible
makana	N [-M,+Pr]	machine
maal	V (___ li NP) -Causative	tend

min	Prep	from
mana9	V (___ (NP_1)(9an NP_2) (___ (NP_2)(min NP_1)	forbid NP_2 NP_1
maani9	N [+M,-H,-Pr]	objection
maSr	N [-M,-H,-Pr]	Egypt
maSri	Adj	Egyptian
miɸi	V (___ (Loc)) [+Dynamic]	walk, leave
itmaɸɸa	V (___ (Loc))	go for a walk
maat	V (___)	die
maTar	N [+M,-H,-Pr]	rain
maTaar	N [+M,-H,-Pr]	airport
ɱaTTar	V (___)	rain
muxx	N [+M,-H,-Pr]	brains, mind
mayya	N [-M,-H,-Pr]	water
ma9a	Prep (±Possessive)	with

n

na??a	V (___ (NP))	choose
naa?iɸ	V (___ (NP))	discuss
itnaa?iɸ	V (___ ma9a NP(fi NP))	discuss
naDiff	Adj	clean

nifi9	V (___ (li NP)) [-Dynamic] -'li'-reduction	be useful
naam	V (___)	sleep
nuur	N [-M,-H,-Pr]	light
nisi	V (___ (NP))	forget
nuSS	N [+M,-H,-Pr]	half
niʃif	V (___)	dry
naTT	V (___(NP))	jump
nawa	V (___ (9ala NP)) -Causative	intend
nizil	V (___ (Loc)) [+Dynamic]	descend, stay
intaZar	V (___ (NP)(9ala NP))	expect, wait for

q

ilqaahira	N [-M,-H,-Pr,+Def]	Cairo
qarya	N [-M,-H,-Pr]	village

r

ra?iis	N [+M,+H]	president
ra?aS	V (___ (NP))	dance
ra??aaS	N [+M,+H]	dancer

rabii9	N [↑M,-H,-Pr]	spring
radd	V (___ (9ala NP)) -Causative	reply
rufayya9	Adj	thin
rigl	N [+M,-H,+P]	foot, leg
raagil	N [+M,+H]	man
rigi9	V (___ (Loc)) [+Dynamic]	return, go back
ragga9	V (___ NP (li NP))	give back
raaḥ	V (___ (Loc)) [+Dynamic] -Causative	go
raaḥa	N [-M,-H,-Pr]	peace, quiet
ruuḥ	N [-M,-H,-Pr]	soul, self
rama	V (___ (NP))	throw
ramaDaan	N [+M,-H,-Pr]	(feast of) Ramadam
ramaz	V (___ li NP)	represent
arnab	N [+M,-H,±Pr]	rabbit
raasil	V (___ NP)	correspond with
itraasil	V (___ (ma9a NP))	correspond with
rawwaḥ	V_1(___) [+Dynamic]	go home
	V_2(___ NP)	take home
rixiiS	Adj	cheap
istarayyaḥ	V (___)	rest
rayyis	N [+M,+H]	boss

s

saa?	V (___ (NP))	drive
saab	V (___ $NP^{(Loc)}_{(liNP)}$) -'li'-reduction, -Causative	leave
sabab	N [+M,-H,-Pr]	reason
sabat	N [+M,+Pr]	basket
sadda?	V (___ (NP))	believe
saafir	V (___ (Loc)) [+Dynamic]	travel
sikin	V (___ (Loc))	live, inhabit
sikkiina	N [-M,-H,+Pr]	knife
sikir	V (___)	get drunk
sakraan	Adj	drunk
samah	V (___ li NP_1(bi NP_2) -'li'-reduction, -Causative	allow NP_1 NP_2
simi9	V (___ ((bi)NP))	hear (of)
sans	N [-M,-H,-Pr]	year
sara?	V (___ (NP)(min NP)) -Causative	steal
siriir	N [+M,+Pr]	bed
sarii9	Adj	swift
sur9a	N [-M,-H,-Pr]	speed
suxn	Adj	hot
sixin	V (___)	grow hot

sawwaa?	N [+M,+H]	driver
iswid	Adj	black
iswadd	V (___)	grow black
siyaasa	N [-M,-H,-Pr]	politics
saa9a	N [-M,-H,-Pr]	hour, time
saa9id	V (___ NP (fi NP))	help

S

Sabb	V (___ NP)	pour
Subh	N [+M,-H,-Pr]	morning
Seef	N [+M,-H,-Pr]	summer
Saahib	N [+M,+H]	friend, owner
Sahiih	Adj	true
Saaliħ	V (___ NP)	become reconciled with
itSaaliħ	V (___ (ma9a NP))	become reconciled with
SallaT	V (___ NP_1 9ala NP_2)	set NP_1 on NP_2
Sammim	V (___ 9ala NP))	insist
Saniyya	N [-M,+Pr]	tray
maSna9	N [+M,+Pr]	factory
Suura	N [-M,+Pr]	picture
Soot	N [+M,-H,-Pr]	voice, vote

Sawwar	V_1(___ (NP))	take a picture, paint
	V_2(___ (NP))(li NP)) -'li'-reduction	describe
itSawwar	V (___ (NP))	imagine
Sa9b	Adj	difficult
Su9uuba	N [-M,-H,-Pr]	difficulty

ɸ

ɸabaa	V (___ li NP) [-Dynamic] -Passive -Causative	resemble
ɸidiid	Adj	violent, strong
ɸaaf	V (___ (NP))	see
ɸagga9	V (___ NP (9ala NP))	encourage
ɸahat	V (___)	beg for alms
ɸahhat	V (___ (NP))(li NP))	give alms
ɸahhaat	N [+M,+H]	beggar
ɸiik	Adj (invariable)/Adv	chic
ɸooka	N [-M,+Pr]	fork
ɸakl	N [+M,-H,-Pr]	type, sort
muɸkila	N [-M,-H,-Pr]	problem
ɸaakil	V (___ NP)	fall out with
itɸaakil	V (___ (ma9a NP))	fall out with
ɸaal	V (___)	carry, put away
ɸams	N [-M,-H,-Pr]	sun

ɸanTa	N [-M,+Pr]	bag, case
ɸirib	V (___ (NP))	drink
ɸarah	V (___ NP (li NP)) -Causative -'li'-reduction	explain
ɸaari9	N [+M,-H,-Pr]	street
ɸita	N [+M,-H,-Pr]	winter
iɸtiri	V (___ (NP)(min NP))	buy
ɸaaTir	Adj	clever
ɸayyaal	N [+M,+H]	porter

t

ti?il	V (___)	grow heavy
ti?iil	Adj	heavy
talg	N [+M,-H,-Pr]	ice, snow
tamalli	Preverb	always
taman	N [+M,-H,-Pr]	price
turaab	N [+M,-H,-Pr]	dust
ti9ib	V (___) -Causative	get tired
ta9ab	V (___ (NP))	tire
ta9baan	Adj	tired

T

Tabiib	N [+M,+H]	doctor
Talab	V (___ (NP_1)(min NP_2) -Causative	ask for NP_1 from NP_2
Taalib	N [+M,+H]	stident
Tool	N [+m,-H,-Pr]	length
Tili9	V_L(___)	go up, out
Taar	V (___)	fly
Tarii?	N [+M,-H,-Pr]	road, way
Tarii?a	N [-M,-H,-Pr]	method, means
Tarabeeza	N [-M,+Pr]	table
Tiwil	V (___)	grow long, lengthen
Tawiil	Adj	long, tall
Tayyib	Adj	good

w

wi?if	V (___)	stop, stand
wa?t	N [+M,-H,-Pr]	time
wadda	V (___ NP (li NP))	send
waafi?	V (___ (NP)(9ala NP_2)	agree with NP_1 on NP
wiłi$\not$	Adj	ugly, nasty
walad	N [+M,+H]	boy

warra	V (___ (NP) li NP)	show
wisix	Adj	dirty
waSal	V (___ (Loc))	arrive
waSSal	V (___ NP (Loc))	deliver, take home
waziir	N [+M,+H]	minister
muwaZZaf	N [+M,+H]	employee
wa9ad	V (___ (NP_1)(li NP_2) (___ (NP_2)(bi NP_1) -Causative	promise NP_1 to NP_2

x

xad	V (___ (NP)(min NP) -Causative	take
xaddaam	N [+M,+H]	servant
xidma	N [-M,-H,-Pr]	service
xaaf	V (___ (min NP))	be afraid of
xafiif	Adj	light
xaal	N [+M,+H]	(maternal) uncle
xalla	V (___ S)	make, let
itxalla	V (___ 9an NP)	abandon
xiliS	V (___)	finish, end
xaaliS	Intensifier	very (much), completely

xamra	N [-M,+Pr]	wine, liquor
xaani?	V (___ NP)	quarrel with
itxaani?	V (___ (ma9a NP))	quarrel with
xarag	V (___ (Loc))	go out, leave
itxarrag	V (___)	graduate
xaʁʁ	V (___ (Loc))	go in
xaʁab	N [+M,-H,+Pr]	wood
xaṬar	N [+M,-H,-Pr]	danger

y

yoom	N [+M,-H,-Pr]	day
yunaani	Adj	Greek

z

zoo?	N [+M,-H,-Pr]	taste
zift	N [+M,+Pr]	tar
zaakir	V (___ (NP))	study
min zamaan	Adv	a long time ago
ziina	N [-M,-H,-Pr]	decoration, ornament
zeet	N [+M,+Pr]	oil

zawwid	V (___ NP)	increase
zayy	Prep	like
zi9il	V (___)	get angry
za9laan	Adj	angry

Z

Zahra	N [-M,-H,-Pr]	flower
Zahar	V (___ (li NP)) [-Dynamic]	be clear, obvious
Zann	V (___ NP) -Causative	think

9

i9ta?ad	V (___ (bi NP))	be sure of
9eeb	N [+M,-H,-Pr]	shame, disgrace
9iid	N [+M,-H,-Pr]	feast, festival
9adatan	Preverb	usually
9agab	V (___ NP) [-Dynamic] -Causative -Passive	be pleasing to
9ala	Prep	on, against
9allim	V (___ (NP)(li NP))	teach
9alaʂaan	Prep	for
9aam	V (___ (Loc))	swim

9umda	N [+M,+H]	mayor, headman
i9tamad	V (___ (9ala NP)) [-Dynamic]	depend on
9amal	V (___ NP_1(fi NP_2))	do NP_1 to NP_2
9aamil	N [+M,+H]	worker
9amm	N [+M,+H]	(paternal) uncle
9een	N [+M,-H,+P]	eye
9an	Prep	about
9and	Prep (±Possessive)	with, at the house of
9arabiyya	N [-M,-H,±Pr]	car
9irif	V (___ (NP))	know
i9taraf	V (___ bi NP)	recognise, acknowledge
9askari	N [+M,+H]	soldier
9ee$\not$	N [+M,+Pr]	bread
9a$\not$a	N [-M,-H,-Pr]	dinner
it9a$\not$$\not$a	V (___)	dine
9at$\not$aan	Adj	thirsty
9ayyaT'	V (___)	weep
9aaz	V (___ NP) [-Dynamic]	want, need
9azam	V (___ NP (9ala NP))	invite

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