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ASPECTS OF CLAUSE STRUCTURE IN  
STANDARD ARABIC: A STUDY  
IN RELATIONAL GRAMMAR

DISS  
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by

Mahmud Husein Salih

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Doctor of Philosophy

1985

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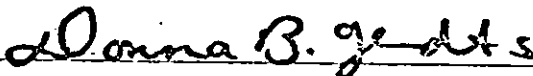
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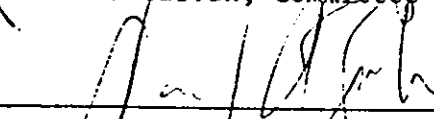
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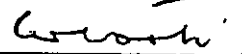
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## DEDICATION

FOR ALL THEY HAVE GIVEN ME, FOR ALL THEY  
HAVE TAUGHT ME, FOR ALL THEY HAVE CONTRIBUTED  
TO MY LIFE, AND FOR ALL THEY HAVE ENDURED WITH  
ME, THIS DISSERTATION IS DEDICATED, WITH  
BOUNDLESS LOVE AND RESPECT, TO MY FATHER --  
MR. HUSEIN WARDAT --, MY MOTHER -- MRS.  
MARYAM WARDAT --, BROTHERS AND SISTERS, WHO  
REMAIN MY STAINCHEST SUPPORTERS.

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## ABBREVIATIONS

A3	absolute 3rd person
Abs	absolute
Acc	accusative
Ag	agent
Asp	aspectual
aux	auxiliary
Ben	benefactive
c	causative prefix
CA	Classical Arabic
Caus	causative
CCU	causative clause union
Comp	complementizer
Cons/c	consonant
Cor	coronal
cs	causative
D	dual
Dir	directional
Dat	dative
Def	definite article
Det	determiner
E3	ergative 3rd person
Erg	Ergative
F	feminine
GR	grammatical relation
Gen	genitive
HLL	Host Limitation Law
Impf	imperfective
Ind	indicative
Inst	instrumental
Intr	intransitive
IP	Inheritance Principle
lpe	1st person plural exclusive
Lk	linker
Loc	locative
M/m	masculine
MCL	Motivated Chomage Law

Nom	nominative
NP	noun phrase
OB	Oblique case marker
Obl	Oblique case
P/pl	plural
Pas	passive
Pat	patient
Pf	perfect
Pst	past
RG	Relational Grammar
RN	Relational Network
RSL	Relational Succession Law
S/SG	singular
SA	Standard Arabic
Sbj	subjunctive
SD	stratal diagram
SUL	Stratal Uniqueness Law
Targ	target
Temp	temporal
TG	Transformational Grammar
Trans	transitive
UH	Unaccusative Hypothesis
Unm	unmarked
V	(epenthetic) vowel
VP	verb phrase
1	1st person
2	2nd person
3	3rd person
3isg	animated 3rd person singular
1-AEX	1-Advancement Exclusiveness Law

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indirect object-to-direct object advancement and passives; Ascension involving raising to "subject" and object; and Clause Union. Evidence for those constructions is based upon several rules that I have formulated for SA: nominal case, verb agreement, topicalization, reflexivization and word order. Likewise, data involving passives and raising furnish further arguments for double accusative clauses.

This work has several interesting consequences pertinent to both SA syntax and linguistic theory. First, although impersonal passives have been viewed as subjectless, I supply evidence based upon verb agreement and embedding contradicting that viewpoint. Thus, they do not constitute a counterexample to the Motivated Chomage Law and the universal characterization of passives in RG. Similarly, those passives are found to lend further support to the Unaccusative Hypothesis posited in RG in the sense that only initially-unergative strata tolerate impersonal passive.

Second, raising constructions, which I argue for on the basis of nominal case, verb agreement, passives and word order, are significant in two ways: firstly, like passives, they help in distinguishing the two accusative nominals: only the nominal bearing the direct object or 2-relation can raise; secondly, SA is found to permit raising of final 3s as well as 1s and 2s to either "subject" or object, a phenomenon which is extremely rare among natural languages.

Third, drawing upon nominal case, reflexives, passives and raising, I point out that nominals characterized as double accusatives exhibit different syntactic behavior. Consequently, double accusative clauses

ABSTRACT OF THE DISSERTATION

Aspects of Clause Structure in Standard Arabic:  
A Study in Relational Grammar

by

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The present study aims at examining aspects of the clause structure in Standard Arabic (SA); specifically, those clauses which involve and are relevant to "double accusatives". Double accusatives denote clausal structures having two nominals marked for the accusative case.

Linguists like Wright (1974) and Comrie (1976) make the strong claim that SA tolerates "double direct object" constructions. Accordingly, such constructions violate a universal posited in the linguistic theory of Relational Grammar (RG), the Stratal Uniqueness Law which states that no more than one nominal can bear a given grammatical relation like direct object in a single level of structure.

Taking the theory of RG as a frame of reference, I argue against the above claim showing that SA has double accusatives which result from the advancement of indirect object to direct object. I also provide evidence for the following constructions: Revaluations including

do not, as has been claimed, constitute a violation of the Stratal Uniqueness Law.

Finally, providing evidence based upon nominal case, passives and raising, among others, I show that causative clause union in SA follows from and, thus, lends further support to the type of clause union advocated by Perlmutter and Postal (1974). Moreover, discussing the interaction between clause union and indirect-to-direct object advancement, I point out that SA clause union does not, as has been maintained, allow "doubling on direct object", and, consequently, bolsters the universality of the Stratal Uniqueness Law.

## Chapter 1

### INTRODUCTION

#### 1.0 Introduction

This dissertation deals with aspects of the clause structure in Standard Arabic (henceforth SA); to be exact, those clauses which involve and are relevant to "double objects".<sup>1</sup> The syntax of SA has been treated only within the framework of the transformational-generative grammar (henceforth TG). I have, therefore, intended to investigate those aspects in terms of grammatical relations (henceforth GRs) as perceived by the proponents of the theory of Relational Grammar (henceforth RG). The data for the purpose of the study are constructed by the writer himself, who is a native speaker of Arabic. They are, however, checked against both judgments available in what is written about Arabic grammar as well as other native speakers' knowledge of the language.<sup>2</sup>

#### 1.1 Focus of the Study

Other linguists' generalizations about SA clause structure constitute the focus of the present work. Wright (1974) and Comrie (1976), among others, claim that Arabic tolerates two direct objects in a single clause.



In this dissertation, I examine this claim and argue for its rejection, offering an alternative account of "double object" phenomena.

Working within the theory of RG, I look upon those claims and present evidence for the following clause structures in SA:

- 1) a. Passives.
- b. Advancement of indirect object to direct object.
- c. Raising to both subject and object.
- d. Causative clauses.<sup>3</sup>

The analysis involves the following:

- 2) a. RG treatment of each structure in universal grammar.
- b. Description of each clause structure in SA.
- c. Arguments for the change of GRs in each clause structure.

## 1.2 Theoretical Framework

In this section, I present an overview of the syntactic theory of RG, the frame of reference within which the present work is carried out. For a comprehensive presentation of the theory and the issues involved, the reader is referred to Perlmutter (1980), Perlmutter and Postal (1983a; 1984b) and the references cited therein.

### 1.2.1 Relational Grammar

Attempting to explain the similarities and dissimilarities among natural languages, RG has posited three aims:

- 3) a. Formation of linguistic universals.
- b. Characterization of grammatical constructions found in natural languages.
- c. Construction of grammars for individual languages.

In other words, linguistic universal rules and language-particular rules are to be distinguished. GRs like "subject of or 1", "direct object of or 2", and "indirect object of or 3", which are the basic tenets of the theory are, therefore, needed to achieve these aims.

### 1.2.2 Representation of Clauses

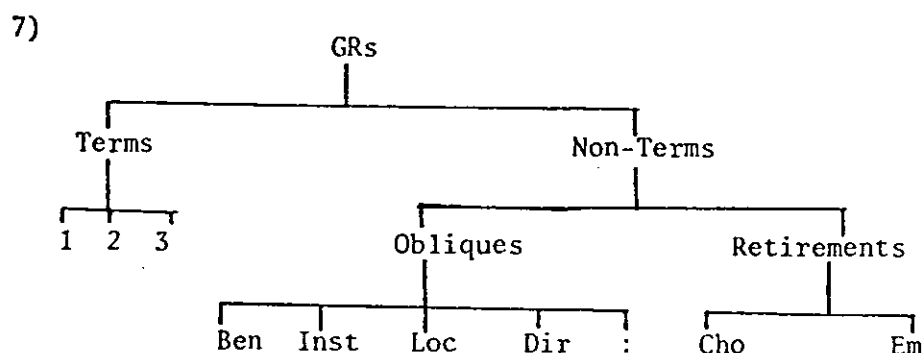
The syntactic structure of a particular clause is represented in terms of relational networks (henceforth RNs) whose purpose is to specify the following:

- 4) a. which elements bear GRs to which other elements.
- b. which GRs each element bears to other elements.
- c. the level(s) at which each element bears GRs to other elements.

Among the GRs are Term and Non-Term relations which fall into the following classes:

- 5) Term Relations: subject of, direct object of and indirect object of. These are relationally represented as 1, 2 and 3, respectively.
- 6) Non-Term Relations: These include two sub-classes:
  - a. Oblique relations: benefactive (Ben), instrumental (Inst), locative (Loc), directional (Dir), temporal (Temp), etc.
  - b. Retirement relations: chomeur (Cho) and emeritus (Em).

These GRs can be clearly represented in the chart below:



Besides, there is the Predicate (P) relation. All the above categories denote the relations between P and nominals in a given clause. Finally, the classes (5-6) constitute the primitive or central relations arranged in a hierarchy as follows:

8) Relational Hierarchy:

1 > 2 > 3 > Non-Terms

This hierarchy manifests that the terms outrank the non-term relations.

A closely related issue is the assignment of GRs at the initial level of a given clause. Concerning this issue, Perlmutter and Postal make the claim:

Our ultimate claim is that the justification of such assignments (at the level of the  $C_1$  Coordinate) is universally determined by principles referring to the semantic role of the nominal. Thus, as traditionally recognized, agent nominals are initially 1s (although, of course, not all 1s represent agents), patients 2s, etc. (Perlmutter and Postal 1983c: 12-13).

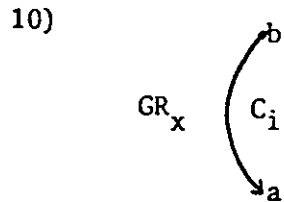
This claim constitutes the principle that will be adopted in the anal-

ysis of Arabic data.

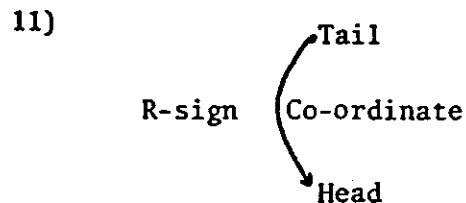
To achieve the purpose (4), the following set of three primitive linguistic elements are required in a relational network:

- 9) a. nodes which indicate linguistic elements.
- b. R-signs which are the names of GRs that elements bear to other elements.
- c. Coordinates which represent the levels at which elements bear GRs to other elements.

The grammatical relation of a given element is representable by means of an 'arc' as is illustrated in (10):



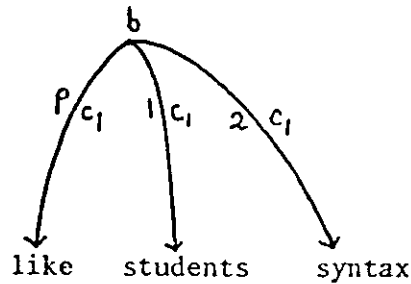
(10) says that the linguistic element (a) bears the GR named GR<sub>x</sub> to the element (b) at the C<sub>i</sub> level. Moreover, an arc like (10) codes the information given in (11):



Finally, the arc in (10) can be classified as a GR<sub>x</sub>-arc by means of its R-sign and as an initial arc by means of its coordinate. A sentence like (12) below can be represented by the RN in (13):

12) Students like syntax

13)



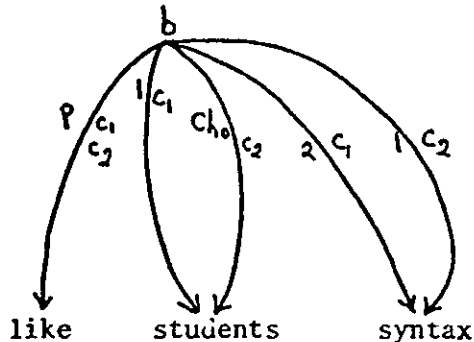
This RN shows that (12) is represented by a set of arcs having the same tail (b). Furthermore, the sentence has one level of structure as is shown by the co-ordinate  $C_1$  at which like bears the P-relation, students the 1-relation and syntax the 2-relation.

In a given clause, a linguistic element can bear more than one GR at different levels. Consider the passive clause (14), the counterpart to (7) above:

14) Syntax is liked by students

The RN for (14) is given in (15).

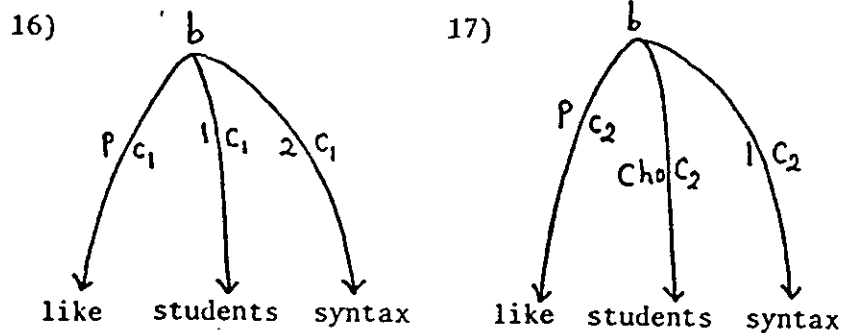
15)



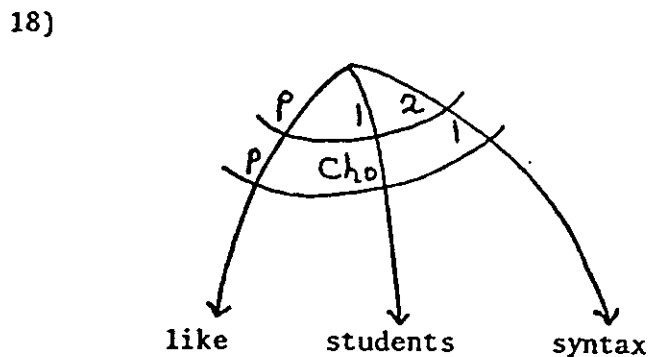
(15) indicates that (14) has two levels of structure,  $C_1$  and  $C_2$ . Students, for instance, bears both the 1-relation at the initial or first

level,  $C_1$ , and the Cho-relation at the final or second level,  $C_2$ . Likewise, the nominal syntax bears both the 2- and 1-relations at the initial ( $C_1$ ) and final ( $C_2$ ) levels, respectively.

It is also possible to reconstruct the notion of linguistic level in terms of the notation of "stratum". A stratum is defined as the maximal set of arcs with the same tail or node sharing a single coordinate. Accordingly, the RN (15) has two strata, the first or  $C_1$  stratum consisting of the arcs in (16), and the second or  $C_2$  stratum consisting of the arcs in (17):



It is, however, more convenient to represent RNs in terms of another formal notation called a "stratal diagram" (henceforth SD). The SD for (14) is given in (18):



In SDs like (18), it is not uncommon to use the symbols " $\hat{1}$ ", " $\hat{2}$ ", etc., instead of "1-chomeur", "2-chomeur" and the like. An "n-cho-meur" in a stratum  $C_1$  is a nominal heading a Cho-arc in the  $C_1$  stratum and an n-arc in the stratum immediately before the first stratum in which it heads a Cho-arc. Therefore, in (18) the symbol 'Cho' in the second stratum can be replaced by " $\hat{1}$ ".

The RNs in which a clause structure is represented are significant in linguistic theory. They indicate what is common among world languages. Specifically, they show that various languages have the same grammatical constructions irrespective of language-particular differences in word order and case marking, for instance. Constructions like passives, among others, are accounted for in various cross-linguistic studies. The sameness has, thus, been cross-linguistically brought out in terms of grammatical relations.

Another outcome of the representation of clause structure by means of RNs is that it denotes the differences between RG and other syntactic theories like TG. The latter accounts for a clause structure in terms of linearization, phrase structure configurations and dominance relations among the elements of a given clause. RG, on the other hand, takes grammatical relations as linguistic primitives in terms of which a clause structure is represented. Other linguistic theories either lack those relations or do not accept them as primitive constituents, and therefore fail to represent the similarity among different languages all over the world.

### 1.3 Typology of Clause Constructions

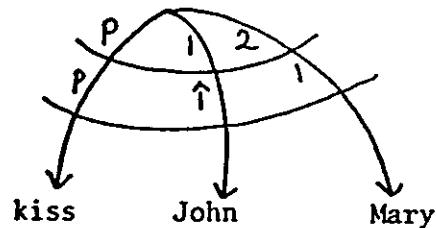
The present section is intended to give a general idea about the four types of clause constructions identified in RG: Revaluations, e.g., advancements and retreats, Ascensions, Clause Union and Dummy constructions.

#### 1.3.1 Revaluations

Revaluations are those clauses in which nominals bearing a given GR in one stratum bears another GR higher or lower on the relational hierarchy in the following stratum. One example is the 2-1 advancement of passive clauses shown in (19) and representable in (20):

19) Mary is kissed by John

20)



The advancee in (20) is Mary which heads a 2-arc at the departure or initial level, and a 1-arc at the arrival or final stratum. Thus, in revaluations involving advancements, the nominal that bears a particular GR is higher on the relational hierarchy.

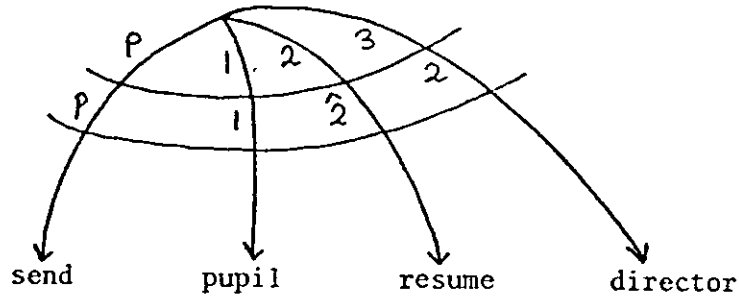
Another instance of revaluations is 3-2 advancement, tradition-



ally known as "dative movement", as is shown in (21) and represented in (22):

21) The pupil sends the director the resume.

22)



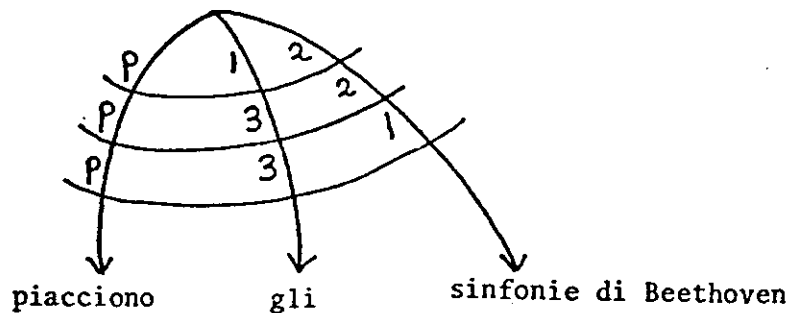
In the case of (22), the director bears both an initial 3-relation and a final 2-relation. This sort of revaluation will be further discussed in subsequent chapters.

A final example on revaluations is 1-3 retreat which is known as "Inversion", demonstrated in the Italian clause (23), taken from Perlmutter (1984b), and is represented in (24):

23) Gli piacciono le sinfonie di Beethoven  
him-Dat like the symphonies of Beethoven

'He likes Beethoven's symphonies'

24)



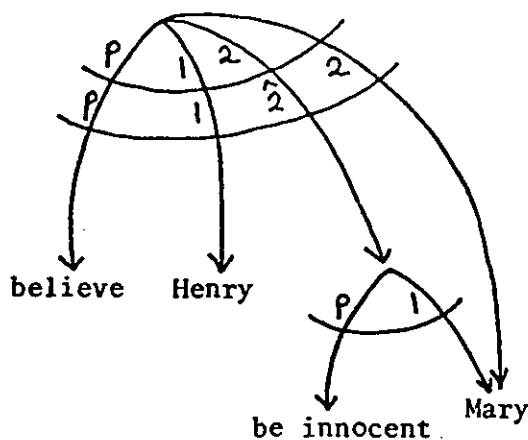
In the case of (23-24), gli, the inversion nominal, heads both an initial 1-arc and a final 3-arc.<sup>4</sup>

### 1.3.2. Ascensions

Ascensions are clauses consisting of both an embedded or downstairs clause and a matrix or upstairs clause in which one downstairs nominal becomes a dependant of the upstairs predicate. These include subject-to-subject and subject-to-object raising as well as possessor ascension. Only raising constructions are relevant to the focus of the present work, and are thus exemplified in (25-26):

25) Henry believes Mary to be innocent.

26)



In the case of (26), Mary is the raisee or ascendeer which heads a 1-arc in the downstairs clause and a 2-arc in the matrix clause.

1.3.3 Clause Union

Clause union refers to the construction where two clauses, downstairs and upstairs, are collapsed into one clause. In union, all the dependents of the downstairs clause also bear relations in the upstairs clause. This is exemplified by causative clause union observed in various languages like French:

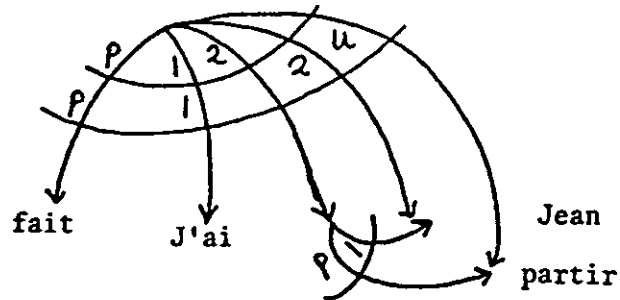
French (data taken from Aissen, 1974b:355)

27) J'ai fait partir Jean.  
'I made Jean leave.'

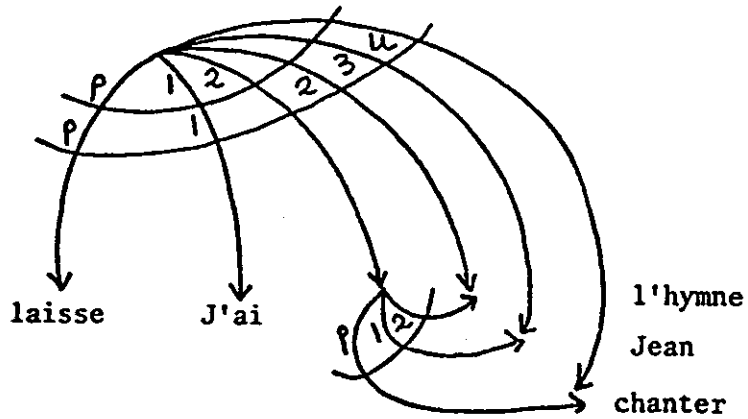
28) J'ai laisse chanter l'hymne à Jean  
'I let Jean sing the anthem.'

These clauses can be diagrammed in (29-30)<sup>5</sup>, respectively:

29)



30)



In the case of (29), the downstairs intransitive subject bears the 2-relation in the union clause. The downstairs transitive subject, however, bears the 3-relation in the matrix clause in (30). Furthermore, the downstairs predicates in both (29-30) bear the union (U) relation in the clause union; and the downstairs 2 in (30) inherits that relation in the union stratum. This characterization proposed by Perlmutter and Postal (1974) has given rise to other proposals of clause union which will be dealt with later.

#### 1.3.4. Dummy Constructions

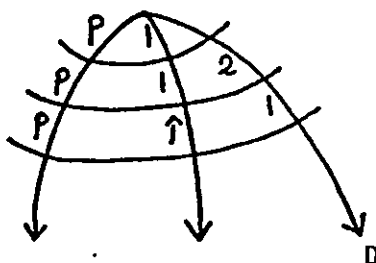
Dummy constructions denote clauses in which a dummy nominal (D) bears a relation at a non-initial level. An illustrative clause is impersonal passive involving an inserted dummy whose first relation is a 2 and which advances to 1 in the final stratum. Demonstration comes from Dutch researched by Perlmutter (1978: 168-73):

31) Er wordt hier door de jonge lui veel gedanst  
'It is danced here a lot by the young people'

32) Hier wordt (er) veel gewerkt  
'It is worked here a lot'

These impersonal passives have the structure in (33):

33)



As (33) shows, the D is inserted as a 2 which then advances to 1 in the final stratum. Its advancement thus places the initial 1 en chomage.

#### 1.4 Rationale for Using RG

I have chosen the theory of RG to examine aspects of SA clause structure for various reasons. Firstly, the theory is universal: i.e., it is purported to account adequately for clause structure observed across languages. As such, it helps in putting SA into universal perspective in the sense that SA clauses, as will be demonstrated later, follow from universal laws and rules posited within RG. Viewing SA within universal grammar can thus be readily achieved since linguistic universals are stated in terms of grammatical relations rather than in terms of sequential linearization of linguistic constituents within a clause.

Secondly, certain clause constructions like those involving 3-2 advancement are best treated with reference to more than one level of structure. For this reason, I have chosen RG as a frame of reference since it is the only linguistic theory that depends heavily on multistrata in accounting for the structure of natural languages. This theory would, therefore, be of great help in accounting for the divergence in the syntactic behavior of the so-called "double objects" in SA clauses.

Finally, since linearization as well as nominal case, mainly the

accusative case, do not maintain "double object" nominals distinct, I need the relation "chomeur"; one of the most significant innovations introduced into linguistic theory by RG. This theory does not make reference to "first object" and "second object", but rather to 2s and 2-chomeurs.

### 1.5 Notations Used Throughout the Thesis

The following notations are utilized in the citation of data:

- \* marks sentences which are ungrammatical and rejected by Arabic grammarians and native speakers.
- ? denotes sentences which native speakers are not sure of.
- @ refers to sentences which are regarded as grammatical by some natives and ungrammatical by others.
- (\*x) shows that a sentence is grammatical only if x is not present.

## Footnotes

1. The so-called "double object" clauses which will be named "double accusatives" throughout the dissertation are demonstrated in (i-ii):

(i) maḥahat l-kulliyyat-u ṭ-ṭa:libat-a  
awarded the-faculty-Nom the-student+F-Acc  
biṣṭ at-an  
scholarship-Acc

'The faculty awarded the student a scholarship'

(ii) darras-tu ṭ-ṭulla:b-a t-ta:ri:x-a  
taught-1s the-students-Acc the-history-Acc

'I taught the students history'

In the case of (i), the two nominals ṭ-ṭa:libat-a and biṣṭ at-an are mistakenly viewed by linguists like Wright (1974) as "two direct objects" since they are marked accusative. Likewise, ṭ-ṭulla:b-a and t-ta:ri:x-a are the "two objects" in (ii). Later, I will argue against this misconception.

2. Four native speakers are studying at SUNY/Buffalo in America and the last two are teachers of Arabic language and literature in Jordan.
3. Passives are treated in Chapter Four and are exemplified in (iii-iv):

(iii) quṭifat-i l-wardat-u  
Pas+picked-V the-rose-Nom

'The rose was picked'

(iv) subiḥ-a fi l-birkat-i  
Pas+swum-3ms in the-pool-Obl

'It was swum in the pool'

Raising to both subject and object is discussed in Chapter Five and is illustrated in (v-vi):

- (v) Yabdu 1-walad-u (?anna-hu samiḡa 1-xabar-a)  
seem the-boy-Nom that-he heard the-news-Acc

'The boy seems to have heard the news'

- (vi) ḡasib-tu 1-walad-a (?anna-hu samiḡa 1-xabar-a)  
thought-1s the-boy-Acc that he heard the-news-Acc

'I thought the boy to have heard the news'

Advancement of indirect object to direct object (or 3-2 advancement) is dealt with in Chapter Six and is demonstrated in (i-ii) above. Finally, clause union is dealt with in Chapter Seven and is demonstrated in (vii-viii):

- (vii) ?ajlas-tu ṭ-ṭifl-a ḡala 1-kursiyy-i  
seated-1s the-baby-Acc on the-chair-Obl

'I seated the baby on the chair'

- (viii) ḡammal-tu ṣ-ṣundu:q-a li 1-bint-i  
caus+carry-1s the-box-Acc to the-girl-Obl

'I made the girl carry the box'

4. For evidence for "inversion" in Italian, see Perlmutter (1984b).
5. Aissen (1974b) does not represent the data she cites from French and other languages in terms of RG notations like stratal diagrams. She rather represents them in terms of linear order and dominance followed in the TG framework.



## Chapter 2

### PRELIMINARIES

#### 2.0 Introduction

The purpose of this chapter is to describe the form of the language under investigation. Further, an overview of Arabic phonology and relevant aspects of nominal and verbal morphology are presented.

#### 2.1 The Language

The language analyzed in the present work is Standard Arabic (SA). It is the national and official language throughout the Arab World. It is not, therefore, a form of Arabic -- i.e., a dialect -- restricted to any Arabic-speaking country. Rather, it is the form that has been standardized and widely used in writing, as a means of instruction in educational institutions, in mass media, in mosques and as a means of culture.

The linguistic situation is often portrayed as "diglossic".<sup>1</sup> This means that more than one form of Arabic exists; and each form fulfills given purposes. For instance, Classical Arabic (CA), which is often regarded as the sole medium of religion, is no longer spoken; nor is it the native tongue of any single Arab in the sense that it is not acquired natively or at home. In addition, everyday activities and transactions are performed by means of various dialects natively acquired and overwhelmingly used in the Arabic World. Still, a third

form is assumed to exist.<sup>2</sup> This form, which is sometimes called "Modern Standard Arabic" and sometimes "Modern Written Arabic", has overthrown CA and thus become the language of education and mass media as well as the medium of artistic expression.

Though it is not the task of this dissertation to defend one form over another, the reader may ask "Which form is to be investigated in this work?" Suffice it to say that two forms, Classical and Colloquial, are presumed to exist. The major difference between the two varieties is the absence of the inflectional markers in the Colloquial. As far as the Classical vs. Modern forms are concerned, I say, without further justification, that they are alike. Present-day lexical elaboration and simplification is what has motivated proponents of "modernism" in Arabic to claim that Modern forms have taken over the role of the Classical form which is not alive anymore. Nevertheless, I will adopt Brame's position:

To claim that this literary brand of Arabic is artificial is to betray one's ignorance. Indeed, the differences which separate Literary Arabic from the various colloquial varieties of Arabic have been exaggerated in the past. In fact, the only really difficult problem for the Arab approaching Literary Arabic is the problem of supplying the correct case endings to nouns and mood endings to verbs, as, understandably, he has none in his native dialect. The other difficulties are rather minimal, and probably do not present a more difficult task for the Arab learning Literary Arabic than for the American learning Literary English....There is no definite point in history separating Modern Standard Arabic from Classical Arabic, and again the differences between the two tongues have been exaggerated by some. What

differences do exist reside in the main in the vocabulary, and to a lesser degree, in certain syntactic locutions.<sup>3</sup> But the phonology is, by and large, one and the same. (Brame 1970: 1-2)

Consequently, for the purpose of this dissertation the term Standard Arabic is used to refer to both Modern and Classical forms. Further, SA whether spoken or written constitutes the source of data for the present work.

## 2.2 Studies on Standard Arabic Syntax

To my knowledge, there have been no studies so far which dealt with SA syntax within the RG model. On the other hand, several works have been written on SA within both the traditional and transformational-generative frameworks. The majority of the traditional grammars are written in Arabic. Of these, the following can be cited: Sibawayhi's ʔal-kita:b 'The Book', Hassan's ʔan-nahwu l-wa:fi: 'The Complete Syntax', to mention only a few. Within the traditional framework, the only comprehensive treatment of Arabic which is written in English is Wright's (1974) A Grammar of the Arabic Language.

Within the TG framework, several studies have been carried out. These include the following: Snow's (1965) A Grammar of Modern Written Arabic Clauses; Lewkowicz's (1967) A Transformational Approach to the Syntax of Arabic Participles; Awwad's (1973) Relativization and Related Matters in Classical Arabic, Modern Standard and Palestinian Colloquial Arabic; Bakir's (1979) Aspects of Clause Structure:

A Study in Word Order Variation in Literary Arabic; Suaieh's (1980)  
Aspects of Arabic Relative Clauses: A Study of the Structure of Rel-  
ative Clauses in Modern Written Arabic; and Abdul-Ghany's (1981)  
Government Binding in Classical Arabic.

All the above mentioned works treat various aspects of Arabic syntax without giving heed to GRs and their significance to linguistic theory.

### 2.3 Phonology

In this section, I present SA phonemes as well as some phonological processes.<sup>4</sup>

SA has the phonemes given in the charts (1-2), which are utilized throughout the study for the transcription of the data.

It should be realized that consonant gemination which is a characteristic of Arabic is represented by doubling the segment involved as in (3):

- 3) a. naqala 'to copy something; to move'  
       naqqala 'to dictate; to make someone move'
- b. ḡalima 'to know'  
       ḡallama 'to teach'

Likewise, the two dots following each vowel in (2) mark vowel length illustrated in (4):

- 4) qaala → qa:la 'to say'  
       ṭawiil → ṭawi:l 'long'  
       maḥmuud → maḥmu:d 'Mahmud'

Finally, a recurrent phonological process is epenthesis. A clus-

1) SA Consonants

	labial	dental	alveolar	velarized	palatal	velar	uvular	pharyngeal	glottal
stops	b	t d		t ɾ		k	q		ʔ
fricatives	f	θ ð	s z	ʃ ʒ	ç	x χ		ħ ʕ	h
affricates					j				
nasals	m		n						
liquids			l, r						
glides	w				y				

## 2) SA Vowels

		front	back
high	short	i	u
	long	i:	u:
low	short	a	
	long	a:	

ter of three consonants across a word boundary is not permissible in SA. A vowel is thus inserted to break the cluster. The process is elucidated in (5) in contrast to (6):

5) kataba na:hid-un-i r-risa:lat-a  
wrote Nahid-Nom-V the-letter-Acc

'Nahid wrote the letter'

6) kataba na:hid-un risa:lat-an  
wrote Nahid-Nom letter-Acc

'Nahid wrote a letter'

In (6) in which the cluster is formed by -un ri-, no vowel is required. However, the cluster of \*-n r-r is not possible. To overcome the problem, the vowel /i/ is inserted after the nominative case marker -un. This epenthetic vowel is indicated by the letter V in the gloss.

## 2.4 Nominal Morphology

In this section, I give a general idea of SA pronominals, definite article, gender and number.

### 2.4.1 Pronominals

Fourteen pronominals are utilized in SA. Each is categorized for person, gender and number. Likewise, every pronominal has two forms: independent and bound. The independent forms which are summarized in

the table below always function as subject:

### 7) Subject Independent Pronominals

person	gender	singular	dual	plural
1st		?ana:		nahnu
2nd	M	?anta	?antuma:	?antum
	F	?anti	?antuma:	?antunna
3rd	M	huwa	huma:	hum
	F	hiya	huma:	hunna

The bound pronominals are clitics suffixed to verbs, nouns and prepositions. When attached to verbs, they function as objects. They indicate possession when suffixed to nouns and prepositions. The following table summarizes these clitics:

### 8) Object Pronominal Clitics

person	gender	singular	dual	plural
1st		-ni: (-ii) <sup>5</sup>		-na:
2nd	M	-ka	-kuma:	-kum
	F	-ki	-kuma:	-kunna
3rd	M	-hu	-huma:	-hum
	F	-ha:	-huma:	-hunna



The subject independent pronominals occur only when they are emphatic or contrastive; otherwise, they are deleted. The process of subject pronominal deletion -- "Pronoun Drop" -- is illustrated in the following clauses (9-11.b):

9) a. katab-tu?ana: d-dars-a (emphasis)  
wrote-1s 1 the-lesson-Acc

'I wrote the lesson'

b. katab-tu d-dars-a  
wrote-1s the-lesson-Acc

'I wrote the lesson'

10) a. katab-ti ?anti d-dars-a (emphasis)  
wrote-2fs you+f+s

'You wrote the lesson'

b. katab-ti d-dars-a  
wrote-2fs the-lesson-Acc

'You wrote the lesson'

11) a. katab-a huwa d-dars-a (emphasis)  
wrote-3ms he the-lesson-Acc

'He wrote the lesson'

b. katab-a d-dars-a  
wrote-3ms the-lesson-Acc

'He wrote the lesson'

What indicates the dropped subject is the agreement marker on the verb, discussed in section 2.5.2. In the case of (9.b), for instance, the suffix -tu "1s" marks the deletion of the first person singular pronominal subject.

### 2.4.2 The Definite Article

SA utilizes one definite article, ?al, roughly corresponding to the English article 'the':

12) ?al-kita:b	?al-bint
the-book	the-girl
?al-walad	?al-?asad
the-boy	the-lion

It is prefixed to the lexical item it defines, and is used with all cases, numbers and genders:

- 13) šaraha l-muġallim-u d-dars-a  
explained the-teacher-Nom the-lesson-Acc

'The teacher explained the lesson'

- 14) ħallati l-bint-a:-ni l-masa:?il-a  
solved the-girl-D-Nom the-problems-Acc

'The two girls solved the problems'

- 15) sallam-tu ħala l-muġallim-i  
greeted-1s on the-teacher-Obl

'I greeted the teacher'

The article has the allomorph l- which is phonologically conditioned. The allomorph appears to be used after a word ending with a vowel as in the case of (13-15) where l- follows the vowel-final words saraha, ħallati and sallam-tu.

Furthermore, the consonant /l/ of ?al assimilates to certain following consonants, as demonstrated by the following data:

(def) C<sub>1</sub>  
 1 - C<sub>1</sub> / - (+cons)  
 (+cor)

18) I-assimilation:

follows:

(17) where the /I/ assimilates to the following segments: /t, d, θ, ʒ, s, z, n, r, i, ġ, ʃ, ʒ, ɖ, ʒ/. The assimilation rule can be stated as

The data in (16) exhibit no assimilation as opposed to those in

17) ?al+tibnu → ?at-tibnu	the+hay
?al+dubbu → ?ad-dubbu	the-bear
?al+θaʕlabu → ?aθ-θaʕlabu	the+fox
?al+ʕanabu → ?aʕ-ʕanabu	the-tail
?al+samaku → ?as-samaku	the+fish (pl)
?al+zamannu → ?az-zamannu	the-time
?al+na:ru → ?an-na:ru	the+fire
?al+ra:yatu → ?ar-ra:yatu	the+flag
?al+ʔa:wilatun → ?at-ʔa:wilatun	the+table
?al+ġulmu → ?aġ-ġulmu	the+oppression
?al+šawtu → ?aš-šawtu	the+sound/voice
?al+ǰabtu → ?ad-ǰabtu	the+hypena
?al+šamsu → ?aš-šamsu	the+sun
?al-ʔami:ru	the-prince
?al-hawa:ʔu	the-air
16) ?al-bintu	the-girl
?al-filmu	the-film
?al-madrasatu	the-school
?al-wa:di	the-valley
?al-laylu	the-night
?al-ʔama:lu	the-beauty
?al-yawmu	the-day
?al-kalbu	the-dog
?al-xawfu	the-fear
?al-ʕuba:ru	the-dust
?al-qamaru	the-moon
?al-ħaki:mu	the-wiseman
?al-faru:su	the-bride

Rule (18) reads as: the /l/ of the definite article assimilates to the first consonant having the features (+consonantal) and (+coronal) of the following word.<sup>6</sup>

Finally, a word should be mentioned about the means whereby SA designates indefiniteness. Indefiniteness is not marked by an article, but rather by what is called "nunnation". That is, doubling the final vowel at the end of a word denotes an indefinite noun or an adjective; the second vowel is pronounced /n/:

- 19) qlam-un  
 pencil-a+Nom 'a pencil'  
 qalam-an  
 pencil-a+Acc  
 qalam-in  
 pencil-a+Obl
- kasu:l-un  
 lazy-Nom 'lazy'  
 kasu:l-an  
 lazy-Acc  
 kasu:l-in  
 lazy-Obl

#### 2.4.3 Gender

Nouns in SA have two genders: "masculine" which refers to male human and nonhuman beings like na:hid-un 'Nahid' and maktab-un 'an office'; and "feminine" which designates female human and nonhumans like ?amirat-un 'Amira!', sayya:rat-un 'a car' and na:r-un '(a) fire'. The former is unmarked in contrast to the latter which is normally marked by the suffix -t:

20) Masculine

muḡallim-un  
'a m.teacher'  
xa:dim-un  
'a m.servant'

Feminine

muḡallima-t-un  
'a f.teacher'  
xa:dima-t-un  
'a f.servant'

This does not mean that all feminine nouns are indicated by -t. There are nouns which are inherently feminine. Examples are:<sup>7</sup>

21) Feminine

yad-un	'a hand'	ḡayn-un	'an eye'
rijl-un	'a leg'	?irbid'	'Irbid' (a city in Jordan)
aru:s-un	'a bride'	?al-?urdunn	'Jordan'

Similarly, there are nouns ending with -t whose gender is unexpectedly masculine as is shown in (22):

22) Masculine

xali:fa-t-un 'a Caliph, a successor'  
ḡalla:ma-t-un 'a savant'

## 2.4.4 Number

Nouns exhibit three numbers: singular, dual and plural. Singular is the unmarked category as opposed to dual and plural which are marked:

23) SingularDualPlural

qalam-un 'a pencil'	qalam-a:ni qalam-ayni	?aqla:m
muḡallim-un 'a teacher'	muḡallim-a:ni muḡallim-ayni	muḡallim-u:na muḡallim-i-na
muḡallima-t-un 'a f.teacher'	muḡallima-t-a:ni muḡallima-t-ayni	muḡallim-a:t-un muḡallim-a:t-in
sa:?iq-un 'a driver'	sa:?iq-a:ni sa:?iq-ayni	sa:?q-u:na sa:?iq-i:na

As the data in (23) show, the dual has two suffixes: -a:ni and -ayni. The distinction between them is that the former marks the nominative case of the dual noun while the latter marks the accusative and oblique cases.

As far as the plural is concerned, two types of plurals exist in SA: regular and irregular, which are traditionally known as "sound" and "broken" plurals. The regular plural marking is given in (24):

24) Regular Plural Morphemes

	masculine	feminine
Nominative	-u:na	-a:tu(n)
Accusative and Oblative	-i:na	-a:ti(n)

It should be noted that some masculine nouns take the feminine rather than the masculine plural morpheme.<sup>9</sup> Such nouns include the following:

25) <u>Nouns - M</u>		<u>Plural</u>
ba:ş-un	'a bus'	ba:ş-a:tun
maşa:r-un	'an airport'	maşa:r-a:tun
talab-un	'an application'	talab-a:tun

Finally, irregular or broken pluralization is unpredictable and involves changes in the vowels of the singular nouns as is illustrated in the following set of data:

26) <u>Singular Nouns</u>		<u>Irregular Nouns</u>
walad-un	'a boy'	?awla:d-un
kita:b-un	'a book'	kutub-un
rajul-un	'a man'	rija:l-un

## 2.5 Verbal Morphology

This section deals with tense, agreement and mood marking as well as causative and passive formation.

### 2.5.1 Tense

Standard Arabic has two tenses: perfect (i.e., past) and imperfect (i.e., non-past). The perfect denotes a completed action as opposed to the imperfect which designates an incompleting action that is in progress. In what follows, I summarize the affixes marking these tenses.

#### 2.5.1.1 The Perfect

The perfect tense whose stem has the structural pattern CVCVC is marked by suffixes. A paradigm of the perfect conjugation of the verb qatala 'to kill' is given below:

#### 27) Perfect Conjugation of qatala 'to kill'

1s	qatal-tu
2ms	qatal-ta
2fs	qatal-ti
3ms	qatal-a
3fs	qatal-at
2m&f D	qatal-tuma:
3m D	qatal-a:
3f D	qatal-ata:

1p	qatal-na
2mp	qatal-tum
2fp	qatal-tunna
3mp	qatal-u:
3fp	qatal-na

The perfect markers can be summarized as follows:

### 28) Perfect Markers

person	gender	singular	dual	plural
1st		-tu		-na:
2nd	M	-ta	-tuma:	-tum
	F	-ti	-tuma:	-tunna
3rd	M	-a	-a:	-u:
	F	-at	-ata:	-na

#### 2.5.1.2 The Imperfect

The imperfect form of the verb whose stem is CCVC is marked by prefixes rather than suffixes. The paradigm of qatala below illustrates this generalization:

#### 29) Imperfect Conjugation of qatala 'to kill'

1s	?a-qtul-u
2ms	ta-qtul-u
2fs	ta-qtul-i:na
3ms	ya-qtul-u
3fs	ta-qtul-u



2D	ta-qtul-a:ni
3mD	ya-qtul-a:ni
3fD	ta-qtul-a:ni
1p	na-qtul-u
2mp	ta-qtul-u:-na
2fp	ta-qtul-na
3mp	ya-qtul-u:-na
3fd	ya-qtul-na

Paradigm (29) also indicates that the imperfect form of the verb can have suffixes marking gender and/or number. Based on (29), the prefixes and suffixes can be summarized in the following:<sup>12</sup>

### 30) Imperfect Markers

person	gender	singular		dual		plural	
		prefix	suffix	prefix	suffix	prefix	suffix
1st		?a-	-u		-a:(ni)	na-	-u
2nd	M	ta-	-u	ta-	-a:(ni)	ta-	-u:
	F	ta-	-i:	ta-	-a:(ni)	ta-	-na
3rd	M	ya-	-u	ya-	-a:(ni)	ya-	-u:
	F	ta-	-u	ta-	-a:(ni)	ya-	-na

Like the perfect suffixes, the imperfect markers are categorized for gender, number and person. In this respect, three points should be mentioned. Firstly, the first person has no dual form. Secondly, the suffixes mark gender and/or number whereas the prefixes mark tense and person. Finally, in the singular, the second person masculine and the

third person feminine are not distinguished. Likewise, the second person and third person feminine dual morphemes are neutralized. In other words, there is no overt marker that distinguishes them.

### 2.5.2 Agreement

In SA, the verb agrees with its subject.<sup>13</sup> Three types of verb agreement are observed and marked by suffixes as to the feature "person" of the subject when the tense is perfect. First, the verb agrees with the subject in gender if it is third person. Second, if the subject is first person, agreement is marked for person and number. Third, in the case of second person, the verb agrees with it in person, number and gender. Those types together with conjoined subject nominals are looked upon in section 2.5.2.1 under "Main Clause Agreement". Likewise, verb agreement marking in ?anna/?inna clauses is presented in section 2.5.2.2. Finally, agreement and Pro Drop is broached in section 2.5.2.3.

#### 2.5.2.1 Agreement in Main Clauses

When the subject is third person, the verb agrees with it in gender only as is seen in the clauses below:

31) katab-a ṭ-ṭa:lib-u d-dars-a  
wrote-3ms the-student-Nom the-lesson-Acc

'The student wrote the lesson'

- 32) katab-a ṭ-ṭa:lib-a:ni d-dars-a  
wrote-3ms the-students+M+D-Nom the-lesson-Acc  
'The two students wrote the lesson'
- 33) katab-a ṭ-ṭulla:b-u d-dars-a  
wrote-3ms the-students+M-Nom the-lesson-Acc  
'The students wrote the lesson'
- 34) katab-at-i ṭ-ṭa:libat-u d-dars-a  
wrote-3fs-V the-student+f-Nom the-lesson-Acc  
'The student wrote the lesson'
- 35) katab-at-i ṭ-ṭa:lib-at-a:ni d-dars-a  
wrote-3fs-V the-students-f-d+Nom the-lesson-Acc  
'The two f-students wrote the lesson'
- 36) katab-at-i ṭ-ṭa:lib-a:t-u d-dars-a  
wrote-3fs-V the-student-F+pl-Nom the-lesson-Acc  
'The students wrote the lesson'

In the case of (31-33), the verb kataba agrees with a third person masculine subject; the agreement marker is the suffix -a. On the contrary, the verb katab-at-i in (34-36) agrees with a third person feminine subject as is indicated by the suffix -at.

In third person agreement, the verb is always singular in form irrespective of the number of the nominal subject. This is evident from the clauses (31-36). If the verb agreed with the subject in number, the result would be ungrammatical as can be seen in (37-40):

- 37) \*katab-a:ṭ-ṭa:lib-a:ni d-dars-a  
wrote-M+D the-student-D+Nom the-lesson-Acc  
'The two students wrote the lesson'

- 38) \*katab-u: ʧ-tulla:b-u d-dars  
wrote-M+P the-students-Nom  
  
'The students wrote the lesson'
- 39) \*katab-at-a:ni ʧ-ʧa:lib-at-a:ni d-dars-a  
wrote-F-D the-student-F-D+Nom the-lesson-Acc  
  
'The two f.students wrote the lesson'
- 40) \*katab-na ʧ-ʧa:lib-a:t-u d-dars-a  
wrote-F+P the-student-F+P-Nom the-lesson-Acc  
  
'The f-students wrote the lesson'

With respect to the first and second person, the verb, as I stated above, agrees with the former in person and number; however, it agrees with the latter in person, number and gender. The following clauses demonstrate this agreement:

- 41) katab-tu ʔana: ʔad-dars-a  
wrote-1s I the-lesson-Acc  
  
'I wrote the lesson'
- 42) katab-na: nahnu d-dars-a  
wrote-1p we the-lesson-Acc  
  
'We wrote the lesson'
- 43) katab-ta ʔanta d-dars-a  
wrote-2ms you+m+sg the-lesson-Acc  
  
'You wrote the lesson'
- 44) katab-ti ʔanti d-dars-a  
wrote-2fs you+f+sg the-lesson-Acc  
  
'You wrote the lesson'
- 45) katab-tuma: ʔantuma: d-dars-a  
wrote-2D you+d the-lesson-Acc  
  
'You wrote the lesson'

- 46) katab-tum ?antum ?ad-dars-a  
wrote-2mp you+m+pl the-lesson-Acc

'You wrote the lesson'

- 47) katab-tunna ?antunna d-dars-a  
wrote-2fp 2fp the-lesson-Acc

'You wrote the lesson'

In (41-42), the verb agrees with the first person subject in person and number. In (43-47), the agreement with the second person subject is marked for person, number and gender. The agreement markers for both first and second person pronominal subject can be summarized as follows:

48) First and Second Person Agreement Markers

person	gender	singular	dual	plural
1st		-tu		-na:
2nd	M	-ta	-tuma:	-tum
	F	-ti	-tuma:	-tunna

Regarding conjoined subject agreement, the verb agrees in gender with the first nominal in the conjunct when the subject involves two or more third person nominals as is exemplified in (49-52).<sup>14;15</sup> In the case of a conjoined subject in which the first element is first person, the verb agrees with it in number and person as is illustrated in (54). Likewise, if the second person is the first element, agreement is marked for number, person and gender as is manifested in (53) and (55):

- 49) sa:far-a l-walad-u wa l-bint-u  
travelled-3ms the-boy-Nom and the-girl-Nom  
  
'The boy and the girl travelled'
- 50) sa:far-at-i l-bint-u wa l-walad-u  
travelled-3fs-V the-girl-Nom and the-boy-Nom  
  
'The girl and the boy travelled'
- 51) katab-a t-tulla:b-u wa t-ta:lib-a:t-u  
wrote-3ms the-students+m-Nom and the-students-F-Nom  
wa l-muʕallim-u risa:lat-an ?ila ra?i:s-i  
and the-teacher +M-Nom letter-Acc to president-obl  
l-ja:miʕat-i  
the-university-obl  
  
'The male students, female students, and male teacher  
wrote a letter to the university president'
- 52) katab-a t-talib-u wa ?antunna risa:lat-an  
wrote-3ms the-student+M-Nom and you+F+p letter-Acc  
  
'The student and you wrote a letter'
- 53) katab-tunna ?antunna wa t-ta:lib-u risa:lat-an  
wrote-2fp 2fp and the-student+M-Nom letter-Acc  
  
'You and the student wrote a letter'
- 54) katab-tu ?ana: wa ?anta risa:lat-an  
wrote-1s 1s and 2ms letter-Acc  
  
'You and I wrote a letter'
- 55) katab-ta ?anta wa ?ana: risa:lat-an  
wrote-2ms 2ms and 1s letter-Acc  
  
'You and I wrote a letter'

Agreement with a nominal/pronominal other than the first element results in ill-formedness as can be seen from clauses (56-58) below, corresponding to (49-50; 54) above:

56) \*sa:far-at-i l-walad-u wa l-bint-u  
 travelled-3fs-V the-boy-Nom and the-girl-Nom

'The boy and the girl travelled'

57) \*sa:far-a l-bint-u wa l-walad-u  
 travelled-3ms the-girl-Nom and the-boy-Nom

'The girl and the boy travelled'

58) \*katab-ta ?ana: wa ?anta risa:lat-an  
 wrote-2ms I and 2ms letter-Acc

'You and I wrote a letter'

Clause (56) is ill-formed because the verb agrees with l-bint-u; (57) is also ungrammatical since the verb agrees with the nominal l-walad-u. Likewise, the ungrammaticality of (58) is due to the agreement of the verb with the pronominal ?anta rather than ?ana:.

In sum, Table (59) summarizes the agreement markers discussed so far:

59) Agreement Markers in Main Clauses

person	gender	singular	dual	plural
1st		-tu		-na:
2nd	M	-ta	-tuma:	-tum
	F	-ti	-tuma;	-tunna
3rd	M	-a	-a	-a
	F	-at	-at	-at

### 2.5.2.2 Agreement in ?anna/?inna Clauses

So far I have been concerned with verb agreement in main clauses. The present subsection treats the same phenomenon in subordinate clauses introduced by the complementizer ?anna/?inna 'that'.

In clauses introduced by ?anna/?inna, the subject precedes the verb. Consequently, when the subject is third person, the verb agrees with it not only in gender, but also in number as can be seen in examples (60-63):

60) ʕalim-tu ?anna l-muʕallim-a šaraḥ-a  
 knew-1s that the-m+teacher-Acc explained-3ms  
 l-qaṣi:dat-a  
 the-poem-Acc

'I knew that the teacher explained the poem'

61) ʕalim-tu ?anna l-muʕallimat-a šaraḥ-at-i  
 knew-1s that the-teacher+f-Acc explained-3fs-V  
 l-qaṣi:dat-a  
 the-poem-Acc

'I knew that the f.teacher explained the poem'

62) ʕalim-tu ?anna l-?awla:d-a laʕib-u: fi l-ḥadi:qat-i  
 knew-1s that the-boys-Acc played-3mp in the-garden-Obl

'I knew that the boys played in the garden'

63) ʕalim-tu ?anna l-bana:t-a laʕib-na fi l-ḥadi:qat-i  
 knew-1s that the-girls-Acc played-3fp in the-garden-Obl

'I knew that the girls played in the garden'

In the case of the first person subject, agreement is marked for number and person as can be demonstrated in the following:



64) qa:l-at ?inna-ni ʔahab-tu ?ila l-qaryat-i  
said-3fs that-1s+Acc went-1s to the-village-Obl

'She said that I went to the village'

65) qa:l-at ?inna-na: ʔahab-na: ?ila l-qaryat-i  
said-3fs that-1p+Acc went-1p to the-village-Obl

'She said that we went to the village'

By the same token, the verb agrees with the second person in gender, number and person as is elucidated in (66-69):

66) ʕalim-tu ?anna-ka ʔahab-ta ?ila l-madi:nat-i  
knew-1s that-2ms+Acc went-2ms to the-city-Obl

'I knew that you went to the city'

67) ʕalim-tu ?anna-ki ʔahab-ti ?ila l-madi:nat-i  
knew-1s that-2fs+Acc went-2fs to the-city-Obl

'I knew that you went to the city'

68) qa:l-at ?inna-kum ʔahab-tum ?ila l-madi:nat-i  
said-3fs that-2mp went-2+mp to the-city-Obl

'She said that you went to the city'

69) qa:l-at ?inna-kunna ʔahab-tunna ?ila l-madi:nat-i  
said-3fs that-2fp went-2fp to the-city-Obl

'She said that you went to the city'

Based on the foregoing discussion, a summary of the markers in subordinate clauses can be given in the following table:

70) Agreement Markers in ?anna/?inna Clauses

person	gender	singular	dual	plural
1st		-tu		-na:
2nd	M	-ta	-tuma	-tum
	F	-ti	-tuma	-tunna
3rd	M	-a	-a:	-u:
	F	-at	-ata:	-na

## 2.5.2.3 Verb Agreement and Pro Drop

In section 2.4.1, I have stated that a nonemphatic and a noncontrastive pronominal subject can be dropped, and that agreement markers indicate the person, gender and number of such a pronominal. This is illustrated in clauses (71-83):

71) sabaḥ-tu fi n-nahr-i  
swam-1s in the-river-Obl

'I swam in the river'

72) sabaḥ-na fi n-nahr-i  
swam-1p in the-river-Obl

'We swam in the river'

73) sabaḥ-ta fi n-nahr-i  
swam-2ms in the-river-Obl

'You swam in the river'

- 74) sabaḥ-tuma: fi n-nahr-i  
swam-2d in the-river-Obl  
  
'You swam in the river'
- 75) sabaḥ-tum fi n-nahr-i  
swam-2mp in the-river-Obl  
  
'You swam in the river'
- 76) sabaḥ-ti fi n-nahr-i  
swam-2fs in the-river-Obl  
  
'You swam in the river'
- 77) sabaḥ-tunna fi n-nahr-i  
swam-2fp in the-river-Obl  
  
'You swam in the river'
- 78) sabaḥ-a fi n-nahr-i  
swam-3ms in the-river  
  
'He swam in the river'
- 79) sabaḥ-u: fi n-nahr-i  
swam-3mp in the-river-Obl  
  
'They swam in the river'
- 80) sabaḥ-a: fi n-nahr-i  
swam-3md in the-river-Obl  
  
'They (D.) swam in the river'
- 81) sabaḥ-at fi n-nahr-i  
swam-3fs in the-river-Obl  
  
'She swam in the river'
- 82) sabaḥ-ata: fi n-nahr-i  
swam-3fd in the-river-Obl  
  
'They (D.) swam in the river'
- 83) sabaḥ-na fi n-nahr-i  
swam-3fp in the-river-Obl  
  
'They swam in the river'

In all these clauses, the pronominal subjects are dropped off, and are thus marked by suffixes on the verb. A quick glance at those suffixes denotes that they are exactly the same suffixes utilized to mark agreement with subjects in ?anna/?inna and main clauses summarized in (70) and (59), respectively. Thus, those suffixes do two things at one time: they mark agreement and indicate pronominal drop.

### 2.5.3 Mood

SA has five moods: indicative, subjunctive, jussive or conditional, imperative and energetic. Only the first three moods which are relevant to the present work will be illustrated. The indicative, subjunctive and jussive are marked by suffixes, and normally used with the imperfect.

The indicative is marked by either -u or -na. When the stem has no suffixes, -u is used. Otherwise, -na should be used. The jussive marker is always null; i.e., it has no overt markers whatsoever. Finally, the subjunctive is usually marked by -a which occurs in the same positions where -u occurs. Otherwise, a null marker is used.

The following imperfect conjugation of the verb qatala 'to kill' illustrates the marking of those moods:

#### 84) Indicative, Jussive & Subjunctive Forms of the Verb qatala

	<u>Indicative</u>	<u>Jussive</u>	<u>Subjunctive</u>
1m&fs	?a-qtul- <u>u</u>	?a-qtul- $\emptyset$	?a-qtul- <u>a</u>
2ms	ta-qtul- <u>u</u>	ta-qtul- $\emptyset$	ta-qtul- <u>a</u>
3fs	ta-qtul- <u>ii-na</u>	ta-qtul-ii- $\emptyset$	ta-qtul- <u>ii</u>
3ms	ya-qtul- <u>u</u>	ya-qtul- $\emptyset$	ya-qtul- <u>a</u>
3fs	ta-qtul- <u>u</u>	ta-qtul- $\emptyset$	ta-qtul- <u>a</u>
3m&fD	ta-qtul-aa- <u>ni</u>	ta-qtul-aa- $\emptyset$	ta-qtul- <u>aa</u>
3mD	ya-qtul-aa- <u>ni</u>	ya-qtul-aa- $\emptyset$	ya-qtul- <u>aa</u>
3fD	ta-qtul-aa- <u>ni</u>	ta-qtul-aa- $\emptyset$	ta-qtul- <u>aa</u>
1m&fp	na-qtul- <u>u</u>	na-qtul- $\emptyset$	na-qtul- <u>a</u>
2mp	ta-qtul- <u>uu-na</u>	na-qtul- $\emptyset$	na-qtal- <u>a</u>
2fp	ta-qtul- <u>na</u>	ta-qtul-na- $\emptyset$	ta-qtul- <u>na</u>
3mp	ya-qtul- <u>uu-na</u>	ya-qtul-uu- $\emptyset$	ya-qtul- <u>uu</u>
3fp	ya-qtul- <u>na</u>	ya-qtul-na- $\emptyset$	ya-qtul- <u>na</u>

#### 2.5.4 Causative and Passive Formation

Verbs in Standard Arabic are derived from either roots consisting of three consonants called "trilateral roots", or roots consisting of more than three consonants called "quadrilateral roots". For instance, from the root q-t-l we can derive several forms some of which are given in (85):

##### 85) q-t-l

qatala	'he killed'
qutila	'was killed'
qattala	'cause to kill'

By the same token, the forms given in (86) can be derived from the quadrilateral root t-r-j-m:

##### 86) t-r-j-m

tarjama	'he translated'
turjima	'was translated'

Furthermore, the third person masculine singular form of the verb is utilized as the basic form out of which all other forms are derived. In the q-t-l example, qatala is the basic form.

With respect to causative formation, two classes of causative verbs are distinguished. The first is marked by lengthening or geminating the second consonant of the basic form. The second is marked by the prefix ?a-. The classes are illustrated in (87-88):

87) Class I

<u>basic verb</u>		<u>Causative Verb</u>	
raqaşa	'to dance'	raqqaşa	'to cause to dance'
kataba	'to write'	kattaba	'to cause to write'
şalima	'to know'	şallama	'to teach'

88) Class II

<u>basic verb</u>		<u>Causative verb</u>	
jara:	'to run'	?a-jra:	'to cause to run'
ra?a:	'to see'	?a-ra:	'to show'
jalasa	'to sit'	?a-jlasa	'to seat'
şalima	'to know'	?a-şlama	'to inform'

Finally, passive verbs are formed by changing the vowels of the basic form as is illustrated in (89) below:

## 89)

<u>basic form</u>		<u>Passive form</u>	
qatala	'to kill'	qutila	'to be killed'
şa:hada	'to witness'	şu:hida	'to be witnessed'
qa:la	'to say'	qi:la	'to be said'
?aşa	'to give'	?uşıya	'to be given'

## Footnotes

1. For the "diglossic" characterization of the linguistic situation in the Arab World, see Ferguson (1959) Wexler (1971) and Zughoul (1980).
  2. In addition to the Classical and Colloquial forms, Hussein (1981) claims that a third form, Modern Standard Arabic, exists. He, therefore, utilizes the notion "triglossia" rather than "diglossia" for portraying the Arabic situation.
  3. Brame (1970) does not demonstrate or define the "syntactic locutions" he refers to.
  4. For a detailed study of Arabic phonology see Brame (1970)
  - 5) -ii, not -nii, occurs with prepositions; e.g.;
- (i) li-i 'to-me'
  - (ii) \*li-nii 'to-me'
- 6) See Chomsky and Halle (1968) for such phonological features as (+coronal) and (+consonantal).
  - 7) Names of cities, countries, roads and body-parts seem to be feminine.
  - 8) Two tests, verb agreement and pronominalization, among others, can be utilized to determine whether a noun is masculine or feminine. The former is exemplified in (i-i):

- (iii) a. ?aşdar-a l-xali:fat-u l-qara:r-a  
issued-3ms the-Caliph-Nom the-decision-Acc  
'The Caliph issued the decision'
- b. ?aşdar-at-i l-ḥuku:mat-u l-qara:r-a  
issued-3fs-V the-government-Nom the-decision-Acc  
'The government passed (issued) the decision'

In the case of (iii.a), the agreement marker -a indicates that the verb agrees with a third person masculine singular subject. In (iiib), however, the suffix -at shows agreement with a third person feminine singular object. Therefore, a noun like l-xali:fat-u is masculine though it ends with the feminine marker -at.

Pronominalization is demonstrated in (iv-v):

- (iv) a. za:ra r-ra?i:s-u l-ḡalla:mat-a  
visited the-president-Nom the-savant-Acc  
'The president visited the savant'
- b. za:ra-hu (\*-ha:) r-ra?i:s-u  
visited-him (\*-her) the-president-Nom  
'The president visited him (\*her)'

- (v) a. za:ra r-ra?i:s-u l-ba:ħiθat-a  
 visited the-president-Nom the-researcher+f-Acc  
 'The president visited the F.researcher'
- b. za:ra-ha: (\*-hu) r-ra?i:s-u  
 visited-her (\*-him) the-president-Nom  
 'The president visited her (\*him)'

In (iv.b), -hu is a third person masculine pronominal singular that replaces l-ħalla:mat-a; thus, the noun is masculine. If that noun is replaced by -ha:, a third person feminine singular, the sentence would be ill-formed. Similarly, the noun l-ba:ħiθat-a in (v.a) is shown to be feminine since it is replaceable by -ha: as in (v.b). The two tests prove successful in determining whether a noun ending in the suffix -t is masculine or feminine.

9. See f.n. (10) for syntactic tests verifying this claim.
10. How and why such data given in (26) above are viewed to have broken or irregular plural is difficult to tell. Maybe, there is a semantic, phonological or morphological reason behind the issue. This really deserves further investigation.
11. Verbal forms are derived from the third person masculine form of the verb like qatala 'he killed', which is referred to as the stem. Throughout this work, this form is utilized as the basic or citation form and glossed as the English infinitive, e.g., 'to kill'. Whether the citation form should rather be the imperfect form of the verb is not of any concern to us here; this is an issue for those interested in morphology and morphophonemics. For insights into this issue, see, however, Brame (1970).
12. The imperfect markers also indicate the agreement of the verb with the subject in clauses in which the tense is imperfect. No more details will be given about those markers in conjunction with verb agreement.
13. Arguments for this claim are supplied in the following chapters.
14. If a conjoined subject is moved out through, let's say, raising, the verb no longer agrees with the first nominal in conjunct. In such a case, agreement follows from the generalizations concerning ?anna/?inna clauses (see section 2.5.2.2 below) or any other clauses in which the subject precedes the predicate. This generalization is manifested in:



- (vi) a. katab-a 1-walad-u wa 1-bint-u  
 wrote-3ms the-boy-Nom and the-girl-Nom  
 d-dars-a  
 the-lesson-Acc  
 'The boy and the girl wrote the lesson'
- b. ḥasib-tu 1-walad-a wa 1-bint-a  
 believed-1s the-boy-Acc and the-girl-Acc  
 ?anna-huma:katab-a: d-dars-a  
 that-3mowrote-3mothe-lesson-Acc  
 'I believed the boy and the girl to have written  
 the lesson'

Agreement in (vi.a) follows from the generalizations made regarding clauses (31-47) above. In the case of (vi.b) where the conjunct 1-walad-a wa 1-bint-a is an object of the matrix verb, the agreement of the verb katab-a: in the downstairs clause is not with 1-walad-a, but rather with the number and gender of the whole conjunct. (In SA, the gender of a conjunct is determined by the gender of the first element. In (vi.b), the gender is masculine since the first element 1-walad-a is masculine.) Agreement thus changes as to the position of the subject. If the subject follows the verb, agreement is accounted for in the same way it is accounted for in clauses (31-47) above; otherwise, it follows from the generalization made in section 2.5.2.2 below.

15. Adjectives have no effect on verb agreement since an adjective agrees with the modified nominal in gender, number, person and case. This is demonstrated in (viii):

- (vii) za:r-a 1-walad u ʔ-ʔakkiyy-u  
 visited-3ms the-boy-Nom the-intelligent-Nom  
 wa 1-bint-u ʔ-ʔakkiyy-at-u  
 and the-girl-Nom the-intelligent-F-Nom  
 ?al-maḥaf-a  
 the-museum-Acc  
 'The intelligent boy and the intelligent girl visited  
 the museum'

The verb in this clause still agrees with the third person masculine singular 1-walad-u irrespective of the adjectives ʔ-ʔakkiyy-u and ʔ-ʔakkiyy-at-u.

## Chapter 3

### SYNTACTIC FEATURES

#### 3.0 Introduction

In this chapter, I illustrate some basic syntactic features of SA, giving rules and conditions which will serve as the basis for argumentation in subsequent chapters. Word order is discussed in section 3.1; nominal case in section 3.2; pronominal cliticization in 3.3; verb agreement in 3.4; reflexives in 3.5; and, finally, topicalization is dealt with in section 3.6. Evidence for those rules as well as the level at which they apply is supplied later.

#### 3.1 Word Order

Standard Arabic is a VSO language. Intransitive clauses consist of a predicate<sup>1</sup> followed by a subject which in turn can be optionally followed by an oblique nominal, demonstrated in (1-2):

- 1) *Ṣann-at-i l-bint-u*  
*sang-3fs-V the-girl-Nom*

'The girl sang'

- 2) *rakaḍ-a ṭ-ṭulla;b-u ḥawla l-malṣab-i*  
*ran-3ms the-students-Nom around the-playground-Ob1*

'The students ran around the playground'

By the same token, in transitive clauses, a direct object nominal immediately follows the subject which is preceded by the predi-

icate. Also, a nominal bearing an oblique relation can optimally follow the direct object. This is elucidated in clauses (3-4):

3) ba:ġ -a lmuhandis-u s-sayya:rat-a  
sold-3ms the-engineer-Nom the-car-Acc

'The engineer sold the car'

4) fataḥ-a l-walad-u l-ba:ba-a bi l-mifta:ḥ-i  
opened-3ms the-boy-Nom the-door-Acc with the-key-Obl

'The boy opened the door with the key'

Finally, in the case of ditransitive clauses, the indirect object immediately follows the direct object. In these clauses, a nominal which bears an oblique relation may follow the indirect object. This is exemplified in (5):

5) qaddama ṭ-ṭayya:r-u l-qahwat-a la na:hid-in  
offered the-pilot-Nom the-coffee-Acc to Nahid-Obl  
fi l-ḥaql-i  
in the-field-Obl

'The pilot offered coffee to Nahid in the field'

On the basis of the foregoing discussion, the word order rule can be stated as follows:

6) Word Order Rule:

P-1-(2)-(3)-(Obl)

In (6), the nominals bearing the relations 2, 3 and Obl are parenthesized since not all clauses have them.

The word order is, however, not fixed; the following orders are also possible:

1-P-2 7) ?al-muhandis-u ba:ʕa s-sayya:rat-a  
the-engineer-Nom sold the-car-Acc

'The engineer sold the car'

P-2-1 8) ba:ʕa s-sayya:rat-a l-muhandis-u  
sold the-car-Acc the-engineer-Nom

'The engineer sold the car'

1-2-P 9) ?al-muhandis-u s-sayya:rat-a ba:ʕa  
the-engineer-Nom the-car-Acc sold

'The engineer sold the car'

2-P-1 10) ?as-sayya:rat-a ba:ʕa l-muhandis-u  
the-car-Acc sold the-engineer-Nom

'The engineer sold the car'

The order given in (6) seems to be unmarked and those in (7-10) marked. Clauses (7-10) signify meanings different from that of clause (3). Bakir (1979: 10-16) maintains that these orders are used in various sorts of focus or emphasis like answering questions or supplying new information about a given topic already known to the listener. For instance, clause (7) gives a statement about ?al-muhandis-u who is known to both speaker and listener. For more details about pragmatic functions involved in SA word order, see Bakir (1979). Since those possible orders are not relevant to the purpose of this study, both the word order rule given in (6) only and a different type of focus that is, for convenience, termed "topicalization" and discussed in section 3.6 will be frequently referred to in subsequent chapters.

Nevertheless, in sentences composed of both a main and subordinate clauses introduced by the complementizer ?anna/?inna 'that', the

subject nominal or 1 immediately follows the complementizer which is in turn followed by the predicate.<sup>2</sup> The word order for ?anna/?inna clauses can be given as in (11), exemplified in (12-13) as opposed to (14-15):

11) Word Order in ?anna/?inna Clauses:

.....?anna/?inna-1-P-(2)-(3)-(Obl)

12) ?iṣṭaqada na:hid-un ?anna l-bint-a tuḥibba-hu  
believed Nahid-Nom that the-girl-Acc like-him

'Nahid believed that the girl liked him'

13) qa:la na:hid-un ?inna ?ami:rat-an ṣahabat ?ila  
said Nahid-Nom that Amira-Acc went to  
l-bayt-i  
the-home-Obl

'Nahid said that Amira went home'

14)\*?iṣṭaqada na:hid-un ?anna tuḥibba-hu l-bint-u  
believed Nahid-Nom that like-him the-girl-Nom

15)\*qa:la na:hid-un ?inna ṣahabat ?ami:rat-an ?ila  
said Nahid-Nom that went Amira-Acc to  
l-bayt-i  
the-home-Obl

### 3.2 Nominal Case

SA distinguishes three cases for nominals: Nominative, accusative and oblique. A nominal that bears the 1-relation is in the nominative case, and is marked by the suffix -u or -un. A nominal that bears the 2-relation is in the accusative case and is marked by either -a or -an. Finally, other nominals bearing the oblique relation are in the oblique case. Nominal case is illustrated in (16-20):

In the case of (16-20), nominals whose GR is 1 at both initial and final levels are in the nominative case; nominals bearing the 2-relation are in the accusative case; and nominals bearing the oblique relation are in the oblique case. As such, the rule for nominal case can be stated as follows:

22) Nominal Case Marking Rule:

1s are in the nominative case.  
2s are in the accusative case.  
 Others are in the oblique case.

Changing the case of the nominals in (16-20) results in ungrammaticalness as is shown in (23-26):

23) \*za:ra 1-?usta:ð-a 1-mari:q̣ -u /  
 visited the-professor-Acc the-patient-Nom/  
 1-mari:q̣-i  
 the-patient-Obl

'The professor visited the patient'

24) \*za:ra ?usta:ð-an 1-mari:q̣-i  
 visited professor-Acc the-patient-Obl/  
 1/mari:d-u  
 the-patient-nom

'A professor visited the patient'

25) \*raqaṣat bint-an / bint-in fi 1-layl-u  
 danced girl-acc/girl-Obl in the-night-Nom

'A girl danced at night'

26) \*?arsala 1-muḡallim-i / 1-muḡallim-a risa:lat-un  
 sent the-teacher-Obl/the-teacher-Acc letter-Nom  
 li ṭa:lib-un / ṭa:lib-an  
 to student-Nom/student-Acc

'The teacher sent a letter to the student'

The ungrammaticality of (23-26) supports (22) above.

However, in sentences with subordinate clauses introduced by ?anna/?inna 'that', the final l only is in the accusative case rather than in the nominative case as is illustrated in (27-28):

27) ?iʕtaqad-tu ?anna l-muhandis-a fataħa l-ba:b-a  
believed-1s that the-engineer-Acc opened the-door-Acc

'I believed that the engineer opened the door'

28) qa:la l-ka:tib-u ?inna r-rajul-aħahaba ?ila  
said the-clerk-Nom that the-man-Acc went to  
l-mašnaġ-i  
the-factory-Obl

'The clerk said that the man went to the factory'

The nominals l-muhandis-a and r-rajul-a in (27-28) are in the accusative case as is indicated by the accusativity marker -a. If the case of these nominals changed, ungrammaticalness would result, as is manifested in (29-30):

29) \*?iʕtaqad-tu ?anna l-muhandis-u fataħa  
believed-1s that the-engineer-Nom opened  
l-ba:b-a  
the-door-Acc

'I believed that the engineer opened the door'

30) \*qa:la l-ka:tib-u ?anna r-rajul-uħahaba ?ila  
said the-clerk-Nom that the-man-Nom went to  
l-mašnaġ -i  
the-factory-Obl

'The clerk said that the man went to the factory'

Thus, a rule for the case of nominals in ?anna/?inna clauses can be given as follows:

31) Case Marking Rule in ?anna/?inna Clauses:

1s and 2s are in the accusative case. Others are in the oblique case.

What distinguishes 1s and 2s in (31) is word order: in those subordinate clauses as I stated it in (11) above, nominals bearing the 1-relation precede the predicate while those bearing 2s follow.

### 3.3 Pronominal Cliticization

In clauses in which a nominal bearing a non-1-relation pronominalizes, the corresponding pronominal appears as a clitic either on the verb or on the preposition. In the case of direct object nominals, the pronominals, discussed in section 2.4.1, cliticize to the verb as can be shown in the following:

- 32) a.  $\text{\textcircled{d}araba na:hid-un ?ami:rat-an}$   
hit Nahid-Nom Amira-Acc  
  
'Nahid hit Amira'
- b.  $\text{\textcircled{d}araba-ha: na:hid-un}$   
hit-her Nahid-Nom  
  
'Nahid hit her'
- c. \* $\text{\textcircled{d}araba na:hid-un ha:}$   
hit Nahid-Nom her

In the case of (32.b), the pronominal -ha: cliticizes to the verb \text{\textcircled{d}araba} since it replaces the direct object nominal ?ami:rat-an. Leaving that pronominal stranded at the end of the clause induces ungrammaticality as can be seen in (32.c).

Unlike direct objects, pronominals corresponding to both indirect object and oblique nominals show up as clitics on the preposition. The phenomenon is illustrated in the following clauses:



- 33) a. baʕaθ-tu risa:lat-an li l-ʔami:r-i  
sent-1s letter-Acc to the-prince-Obl  
'I sent a letter to the prince'
- b. baʕaθ-tu risa:lat-an la-hu  
sent-1s letter-Acc to-him  
'I sent a letter to him'
- c. \*baʕaθ-tu-hu risa:lat-an  
sent-1s-him letter-Acc
- 34) a. kataba t-tilmi:ð-u d-dars-a  
wrote the-pupil-Nom the-lesson-Acc  
bi l-qalam-i  
with the-pen-Obl  
'The pupil wrote the lesson with the pen'
- b. kataba t-tilmi:ð-u d-dars-a bi-hi  
wrote the-pupil-Nom the-lesson-Acc with-it  
'The pupil wrote the lesson with it'
- c. \*kataba-hu t-tilmi:ð-u d-dars-a (bi)  
wrote-it the-pupil-Nom the-lesson-Acc (with)

The pronominals -hu and -hi replacing the indirect object l-ʔami:r-i and the oblique l-qalam-i appear on the preposition li and bi in (33-34b), respectively. Otherwise, ill-formedness would be the result as is demonstrated in (33-34c).

Drawing upon the foregoing discussion, the rule for pronominal cliticization can be formulated as follows:

35) Pronominal Cliticization Rule:

- a. Pronominal direct objects appear as clitics on the verb.
- b. Pronominal indirect objects and obliques appear as clitics on the preposition.

### 3.4 Verb Agreement

In section 2.5.2., I pointed out the morphological marking of verb agreement, illustrated as follows:

- 36) Ša:had-a ṭ-ṭa:lib-u l-muġallimat-a  
 saw-3ms the-student-Nom the-f+teacher-Acc  
 'The m.student saw the f.teacher'
- 37) ra:qab-tu ?ana:l-qamar-a  
 observed-1s I the-moon-Acc  
 'I observed the moon'
- 38) ġarab-at-i l-mar?at-u ṭ-ṭifl-a  
 hit-3fs-V the-woman-Nom the-baby-Acc  
 'The woman hit the baby'
- 39) ġahab-a l-?aṭibba:?-u ?ila l-ġiya:dat-i  
 went-3m the-physicians-Nom to the-clinic-Obl  
 'The physicians went to the clinic'

In these clauses, the verbs are in concord with the (pro)nominals ṭ-ṭa:lib-u, ?ana, l-mar?at-u, and l-?aṭibba:?-u, all bearing 1-relations. As such, the rule for verb agreement can be formulated as in (40):

#### 40) Verb Agreement Rule:

The verb agrees with the subject.

If the verb agrees with a nominal other than the 1, such an agreement induces ungrammaticality as is manifested in the following:

- 41) \*šā:had-at-i ṭ-ṭa:lib-u l-muʕallimat-a  
saw-3fs-V the-m+student-Nom the-f+teacher-Acc  
(The m.student saw the f.teacher)
- 42) \*ḍarab-a l-marʔat-u ṭ-ṭifl-a  
hit-3ms the-woman-Nom the-baby-Acc  
(The woman hit the baby)
- 43) \*šāhab-at-i l-ʔaṭibba:ʔ-u ʔila l-ʕiya:dat-i  
went-3fs-V the-m+physicians-Nom to the-clinic+f-Obl  
(The m.physicians went to the clinic)

Clauses (41-42) are ill-formed since agreement is marked for the direct objects l-muʕallimat-a and ṭ-ṭifl-a. By the same token, šāhab-at-i agrees with the oblique nominal l-ʕiya:dat-i in (43) which is, thus, ungrammatical. The ungrammaticality of such clauses lends support to (40), showing that the verb cannot be in concord with a non-subject nominal.

### 3.5 Reflexives

SA reflexives are expressed by the words given in (44):

- |          |          |      |             |
|----------|----------|------|-------------|
| 44) nafs | 'soul'   | ʕa:t | 'substance' |
| wajh     | 'face'   | ḥa:l | 'state'     |
| ru:ḥ     | 'spirit' |      |             |

The following are sentences demonstrating reflexives:

- 45) ḥabba na:hid-un nafs-a-hu  
liked Nahid-nom self-Acc-his  
'Nahid liked himself'

- 46) ?aslam-tu wajh-i-i li lla:h-i  
resign-1s self-Acc-my to God-Obl  
'I resign myself to God'
- 47) ?ahlak-ti ru:h-a-ki  
destroyed-2fs self-Acc-your  
'You destroyed yourself'
- 48) jaraḥ-at ḥa:l-a-ha:  
cut-3fs self-Acc-her  
'She cut herself'
- 49) karihat-i l-bint-u ḥa:t-a-ha:  
disliked-V the-girl-Nom self-Acc-her  
'The girl disliked herself'

Since there are no structural differences between the various reflexive forms in (44), the word nafs will be utilized throughout the present work.

The reflexive nominal and its antecedent must agree in number, gender and person. This is manifested in (45-49) above as well as in (50-53) below:

- 50) qul-tu fi nafs-i-i  
said-1s in self-Obl-my  
'I said to myself'
- 51) ?iṣṭamada ṭ-ṭa:lib-u ṣala nafs-i-hi  
depended the-student-Nom on self-Obl-him  
'The student depended on himself'
- 52) ḥabba l-baḥḥa:rat-u ?anfus-a-hum  
liked the-sailors-Nom self-Acc-them  
'The sailors liked themselves'

53) ?ištaraṭ ?ami:rat-un sayya:rat-an li nafs-i-ha  
bought Amira-Nom car-Acc to self-Obl-her

'Amira bought a car for herself'

54) \*jaraḥa na:hid-un nafs-a-ha:  
cut Nahid-Nom self-Acc-her

'\*Nahid cut herself'

55) \*karihat-i l-bint-u ḡa:t-a-hu  
disliked-V the-girl-Nom self-Acc-his

'\*The girl disliked herself'

56) \*qul-tu fi nafs-a-ka  
said-1s in self-Obl-2ms

'\*I said to yourself'

Moreover, the antecedent must be a final 1 or a final 2 as is shown in clauses (57-60):

57) takallam-tu ṡan nafs-i-i  
spoke-1s about self-Obl-my

'I spoke about myself'

58) ?axbara na:hid-un ?ami:rat-an ṡan nafs-i-hi  
told Nahid-Nom Amira-Acc about self-Obl-his

'Nahid told Amira about himself'

59) qa:la na:hid-un ?inna l-muṡallimat-a ṡabbarat  
said Nahid-Nom that the-teacher+f-Acc expressed  
li ṡ-ṡabi:b-i ṡan nafs-i-ha:  
to the-physician-Obl about self-Obl-her

'Nahid said that the f.teacher expressed herself to the physician'

- 60) yabdu na:hid-un li-i ?anna-hu xadaṣa  
 seem Nahid-Nom to-me that-he deceived  
 nafs-a-hu / \*nafs-i-i  
 self-Acc-his / self-Obl-my

'Lit.: Nahid seems to me that he deceived himself/  
 \*myself  
 'Nahid seems to have deceived himself/\*myself'

In contrast, final 3s and obliques cannot antecede reflexives as is demonstrated in the ungrammatical clauses (61-63):

- 61) \*?aṣṭat-i ṭ-ṭa:libat-u l-kita:b-a  
 gave-V the-student+f-Nom the-book-Acc  
 li l-muḡallim-i ṣan nafs-i-hi  
 to the-teacher-Obl about self-Obl-his

(The f. student gave the book to the teacher about himself)

- 62) \*?arsala l-walad-u r-risa:lat-a li l-bint-i  
 sent the-boy-Nom the-letter-Acc to the-girl-Obl  
 ṣan nafs-i-ha:  
 about self-Obl-her

(The boy sent the letter to the girl about herself)

- 63) \*ḡamal-tu l-xubz-a fi l-ḡaqi:bat-i ṣan  
 carried-1s the-bread-Acc in the-bag-Obl about  
 nafs-i-ha:  
 self-Obl-its

(\*I carried the bread in the bag about itself)

To recapitulate, the foregoing presentation displays one condition on SA reflexives relevant to the purpose of the study given in (64):

- 64) Condition on Reflexives:

The antecedent of a reflexive nominal is a final 1 or a final 2.

### 3.6 Topicalization

Apart from the various word orders which express "focus" and are discussed in section 3.1 and demonstrated in clauses (7-10) above, SA makes use of another type of focus which, for convenience and subsequent reference, I call "topicalization". Topicalization as discussed by Bakir (1979) is achieved by placing a definite nominal at the beginning of a clause and marking it nominative as is elucidated in (65-67):

- 65) a. qara?a l-malik-u l-majallat-a  
read the-king-Nom the-magazine-Acc  
  
'The king read the magazine'
- b. ?al-malik-u , qara?a l-majallat-a  
the-king-Nom, read the-magazine-Acc  
  
'The king, he read the magazine'
- c. ?al-majallat-u, qara?a-ha: l-malik-u  
the-magazine-Nom, read-it the-king-Nom  
  
'The magazine, the king read it'
- 66) a. faḥasa ṭ-ṭabi:b-u l-mari:d-a fi  
examined the-physician-Nom the-patient-Acc in  
l-ḥiya:dat-i  
the-clinic-Obl  
  
'The physician examined the patient in the clinic'
- b. ?al-ḥiya:dat-u, faḥasa ṭ-ṭabi:b-u  
the-clinic-Nom, examined the physician-Nom  
l-mari:d-a fi:-ha:  
the-patient-Acc in-it  
  
'The clinic, the physician examined the patient in it'

- 67) a. ?aṣṭay-tu l-jari:dat-a li z-za:?ir-i  
gave-1s the-newspaper-Acc to the-visitor-Obl  
'I gave the newspaper to the visitor'
- b. ?az-za:?ir-u, ?aṣṭay-tu l-jari:dat-a la-hu  
the-visitor-Nom, gave-1s the-newspaper-Acc to-him  
'The visitor, I gave the newspaper to him'

It is thus obvious that any nominal bearing a GR can topicalize. In (65), the subject ?al-malik-u and the direct object ?al-majallat-u topicalize as in (65b-c). Similarly, an oblique nominal can also topicalize as is observed in (66) and (67), where the nominals ?al-ḡiya:dat-u, which is semantically locative, and ?az-za:?ir-u, which is semantically recipient, are topics. The rule for topicalization can, therefore, be formulated as in (68):

68) Topicalization Rule:

Any nominal bearing a GR can topicalize.

Rule (68) does not, however, imply that more than one nominal can topicalize simultaneously. If this were the case, ill-formedness would be induced as can be seen in \*(69-70c) contrasted with (69-70b):

- 69) a. qul-tu ?anna r-ra?i:s-a tazawwaja  
said-1s that the-president-Acc married  
l-?ami:rat-a  
the-princess-Acc  
'I said that the president married the princess'
- b. ?ar-ra?i:s-u, qul-tu ?anna-hu tazawwaja  
the-president-Nom, said-1s that-he married  
l-?ami:rat-a  
the-princess-Acc  
'The president, I said that he married the princess'



- c. \*ʔal-ʔami:rat-u, ʔar-raʔi:su, qul-tu ʔanna-hu  
 the-princess-Nom, the-president-Nom said-1s that-he  
 tazawwaja-ha:  
 married-her

(The princess, the president, I said that he married her)

- 70) a. ʔaʕala ʔ-ʔabi:b-u ʕala l-ja:ʔizat-i  
 got the-physician-Nom on the-prize-Obl

'The physician got the prize'

- b. ʔal-ja:ʔizat-u, ʔaʕala ʔ-ʔabi:b-u ʕalay-ha:  
 the-prize-Nom, got the-physician-Nom on-it

'The prize, the physician got it'

- c. \*ʔal-ja:ʔizat-u, ʔaʔ-ʔabi:b-u, ʔaʕala ʕalay-ha:  
 the-prize-Nom, the-physician-Nom, got+3ms on-it

(The prize, the physician, he got it)

To account for the impossibility of such sentences as \*(69-70c), the rule should be modified in a way whereby it indicates that one and only one nominal can topicalize in a given clause. The modified rule is stated in (71):

71) Topicalization Rule Revised:

Only one nominal bearing a GR can topicalize at a time in a given clause.

The most significant aspect of topicalization relevant to the present work is that a topicalized nominal bearing a final GR leaves a pronominal copy of itself in the position out of which it is extracted. This condition is manifested in (65-67) above in which the topics ʔal-majallat-u, ʔal-ʕiya:dat-u and ʔaz-za:ʔir-u have left the copies -ha:, -ha: and -hu, respectively. In this regard, a third per-

son singular subject like ?al-malik-u in (65b) does not leave a copy since the verb like qara?a already ends with -a, a third person masculine singular marker.

Moreover, the copy indicates the GR of the topic and cliticizes either to the verb or to a preposition in conformity with the rule for pronominal cliticization (35) discussed in section 3.3. By way of illustration, the copy -ha: in (65c) denotes that the GR of the topic prior to topicalization is a final 2 since it cliticizes to the verb qara?a-ha:.

In sum, we have observed that any nominal bearing a GR can be a topic. Furthermore, a topicalized nominal must meet the condition given below:

72) Condition on Topicalization:

The topic must leave a pronominal copy of itself behind which should cliticize either to the verb or preposition in accord with the rule of pronominal cliticization.

### Footnotes

1. The term "predicate" does not stand for "verb phrase"; rather, it refers to a verb, a predicate nominal, or a predicate adjective. Both terms "predicate" and "verb" will, however, be used interchangeably here.
2. It might be suggested that the complementizer ?anna/?inna draws the subject nominal to it. This suggestion is not quite accurate and lacks generality since SA has other complementizers like ?an 'that' which do not do so. For instance, ?an is always followed by the verb as is shown in (i) below as opposed to the ungrammatical clause (ii) where ?an is followed by the subject:

(i) ?ara:da ʈ-ʈa:lib-u ?an yazu:ra  
wanted the-student-Nom that visit  
l-walad-u š-šarikat-a  
the-boy-Nom the-company-Acc

'The student wanted the boy to visit the company'

(ii) \*?ara:da ʈ-ʈa:lib-u ?an ?al-walad-u  
wanted the-student-Nom that the-boy-Nom  
yazu:ra š-šarikat-a  
visit the-company-Acc

Furthermore, the proposal implies that the subject nominal must have originated after the verb and has then been drawn to the complementizer. I could not find any evidence that supports this position.

## Chapter 4

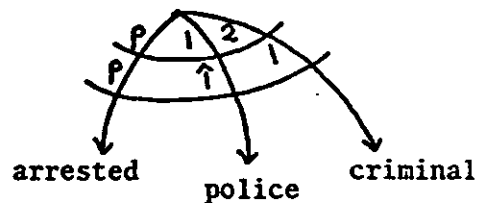
### PASSIVES

#### 4.0 Introduction

Attempting to universally characterize syntactic constructions in world languages, relational grammarians like Perlmutter and Postal have proposed a typology of clausal constructions consisting of monostratal clauses, revaluations including advancement and demotions, ascensions, dummy constructions and clause union. (Perlmutter and Postal 1983a) and (Perlmutter 1980). Viewed within this typology, passives are a subclass of advancements which involve the advancement of a 2 in a transitive stratum. (Perlmutter and Postal 1983c) and (Perlmutter 1978). This universal characterization is attested across languages including Dutch (Perlmutter 1978), German and Welsh (Perlmutter and Postal 1984a), Georgian (Harris 1976), Halkomelem (Gerds 1981) and Seri (Marlett 1984a), and is illustrated in the English clause (1), representable in the stratal diagram (2):

1) The criminal was arrested by the police.

2)



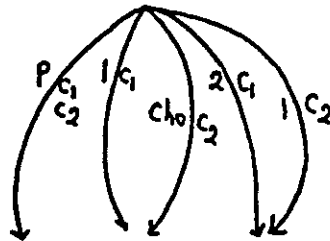
Following the assumption that GRs are assigned to nominals in

the first stratum according to their semantic roles (Perlmutter and Postal 1983c), the nominals the police and the criminal bear the 1- and 2-relations at the first level of structure since they are semantically agent and patient.<sup>1</sup> As (2) shows, the criminal which heads a 2-arc in the first stratum advances to 1 in the following stratum. Accordingly, Perlmutter and Postal (1983c) give the following universal characterization of passives:

### 3) Universal Characterization of Passive Clauses:

If (i) the RN for a clause Q has a nominal that bears the 2-relation in the stratum in which some nominal  $N_b$  bears the 1-relation, and (ii) if  $N_a$  bears the 1-relation in the following stratum,<sup>a</sup> the Q is a passive clause. Thus, any clause in any language whose relational network contains a subpart of the form (38) ((38) is repeated here as (4) is a passive clause.

4)



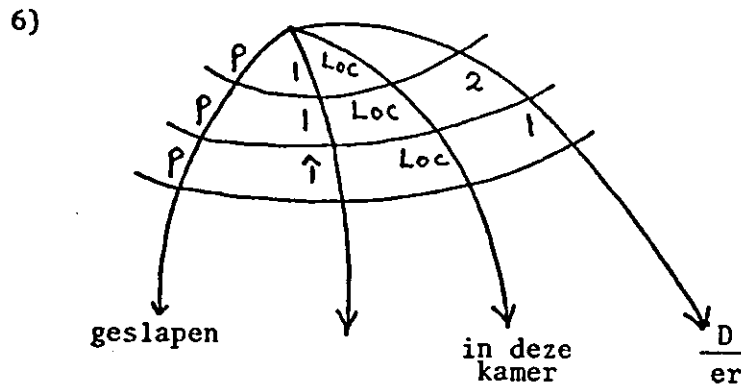
This characterization is claimed to be valid for four different, though related, types of passive: personal, impersonal, reflexive personal and reflexive impersonal. Overlooking reflexive passives since they are irrelevant to this work, I exemplify personal (e.g., clause (1) above) and impersonal passives (clause (5) below):<sup>2</sup>

5) Dutch (from Perlmutter 1978: 168)

Er wordt in deze kamer vaak geslapen

'It is often slept in this room'

Clause (5) is representable in diagram (6):



Unlike personal passives which involve a lexical nominal advancing from 2 to 1, impersonal passives universally involve an inserted dummy D. (Perlmutter 1978). Under this proposal, the D, realized as Er in the case of Dutch, bears the 2-relation in the second stratum and the 1-relation in the final stratum, thus putting the initial 1 en chomage.

Compare (2) and (6). Both involve a 2-to-1 advancement in a clause where the advancee heads a 2-arc. They also have a nominal heading a 1-arc, put en chomage by the advancee. Clauses like (1) and (5), therefore, conform to the universal characterization of passive. This analysis is very often called "the advancement analysis".

Interacting with the advancement analysis are two linguistic uni-

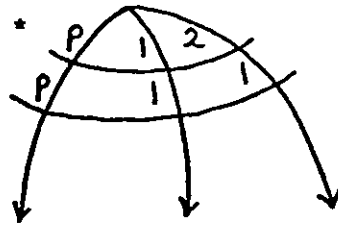
versals posited within RG; the Stratal Uniqueness Law (SUL), and the Chomeur Condition. (Perlmutter and Postal 1983c). The former is associated with the issue of how many nominals can bear the same GR in one stratum. Perlmutter and Postal claim that in any given stratum only one nominal can bear a given term relation. The Law is informally given in (7):

7) The Stratal Uniqueness Law:

Only one dependent of a clause can bear a given term relation in a given stratum.

This means that if two nominals bear the same relation, this structure will be ill-formed as is exemplified in (8):

8)



The GR of a nominal like the police in (1-2) gives rise to the Chomeur Condition. Since the criminal, for instance, bears the 1-relation at the final level in (2), it follows from the SUL that the police cannot bear the final 1-relation. It thus bears the chomeur relation in conformity with the Chomeur Condition informally stated as follows:

9) The Chomeur Condition:

If some nominal,  $N_a$ , bears a given term relation in a given stratum,  $S_i$ , and some other nominal,

$N_b$ , bears the same term relation in the following stratum,  $S_{i+1}$ , then  $N_a$  bears the Chomeur relation in  $S_{i+1}$ .

The condition results in another universal called the "Motivated Chomage Law" (MCL) which is informally given as in (10):

10) The Motivated Chomage Law:

A nominal can bear the cho-relation when the conditions of the Chomeur Law are satisfied.

A consequence of the Chomeur Condition is that passive clauses are intransitive. That is, they only contain a nominal heading a 1-arc but no 2-arc. Likewise, their corresponding active clauses are transitive in the sense that they consist of both a 1-arc and a 2-arc.

Having introduced how passive clauses are viewed within the theory of RG, I proceed to examine the two types of passive available in SA: personal and impersonal, which, as we will see, vindicate and fall within the purview of the universal characterization of passive.

#### 4.1 SA Passives: Personal and Impersonal

This section presents a syntactic description of both personal and impersonal passives in SA. The former is illustrated in (15-18), the counterpart to the active clauses (11-14), and the latter in (22-24), the counterpart to the active clauses (19-21);

11) ha:jam-a 1-jayš-u 1-qalṣat-a  
 attacked-3ms the-army-Nom the-castle-Acc

'The army attacked the castle'

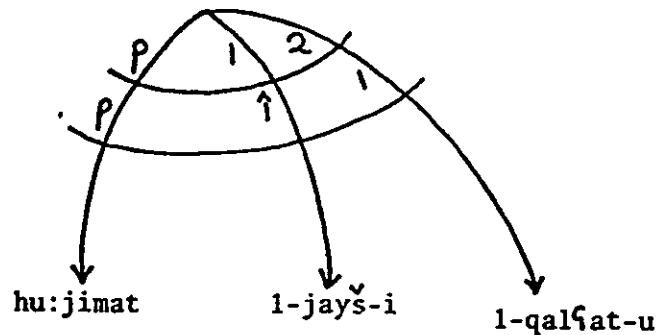


- 12) ?alq-at-i 1-malikat-u xiṭa:b-an  
delivered-3fs-V the-queen-Nom speech-Acc  
  
'The queen delivered a speech'
- 13) Ša:had-a 1-?ami:r-u 1-masraḥiyyat-a  
saw-3ms the-prince-Nom the-play-Acc  
  
'The prince saw the play'
- 14) faḥas-a 1-?aṭibba:?-u 1-mari:d-a  
examined-3ms the-physicians-Nom the-patient-Acc  
fi 1-šiya:dat-i  
in the-clinic-Obl  
  
'The physicians examined the patient in the clinic'
- 15) hu:jim-at-i 1-qalṣat-u (min qibali  
Pas+attacked-3fs-V the-castle-Nom (from side  
1-jayš-i)  
the-army-Obl)  
  
'The castle was attacked (by the army)'
- 16) ?ulqiy-a xiṭa:b-un (min qibali  
Pas+delivered-3ms speech-Nom (from side  
1-malikat-i)  
the-queen-Obl)  
  
'A speech was delivered by the queen'
- 17) Šu:hid-at-i 1-masraḥiyyat-u  
Pas+saw-3fs-V the-play-Nom  
  
'The play was seen'
- 18) fuḥis-a 1-mari:d-u fi 1-šiya:dat-i  
Pas+examined-3ms the-patient-Nom in the-clinic-Obl  
  
'The patient was examined in the clinic'
- 19) na:m-a 1-walad-u taḥta š-šajarat-i  
slept-3ms the-boy-Nom under the-tree-Obl  
  
'The boy slept under the tree'

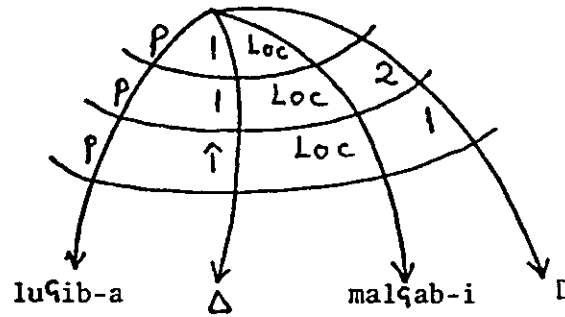
- 20) ?iʕtamad-at ɣana:n-un ɣala ?umm-i-ha:  
 depended-3fs Hanaan-Nom upon mother-Obl-her  
 'Hanaan depended upon her mother'
- 21) laʕib-a ɕ-ɕulla:b-u fi 1-malʕab-i  
 played-3ms the-students-Nom in the-playground-Obl  
 'The students played in the playground'
- 22) ni:m-a taɣta š-šajarat-i  
 Pas+slept-3ms under the-tree-Obl  
 'It was slept under the tree'
- 23) ?iʕtumid-a ɣala ?umm-i-ha:  
 Pas+depended-3ms upon mother-Obl-her  
 'It was depended upon her mother'
- 24) luʕib-a fi 1-malʕab-i  
 Pas+played-3ms in the-playground-Obl  
 'It was played in the playground'

Following the RG analysis of passives, I propose that SA passives involve the advancement of a nominal bearing the 2-relation in some stratum to 1 in the next stratum. Accordingly, clauses (15) and (24), for instance, are representable in diagrams (25-26), respectively:

25)



26)



Representing a personal passive clause, structure (25) denotes that the nominals 1-jayš-i and 1-qalḡat-u head a 1-arc and a 2-arc, respectively, in the initial stratum. At the final level, the former heads a cho-arc while the latter, which I call the (passive) advancee throughout the discussion, heads a 1-arc. In section 4.1.1, I supply arguments for this analysis.

Likewise, the impersonal passives illustrated in (26) involve the advancement to 1 of a dummy nominal which is inserted as a 2.<sup>3</sup> As (26) shows, in advancing to 1, the D puts en chomage the unspecified nominal bearing the initial 1-relation. Evidence for this analysis is presented in section 4.1.2.

Before embarking on details, I should make some further remarks. Structures (25-26) meet all the relevant laws posited within RG. First, they meet the Motivated Chomage Law in the sense that the chomage of such nominals as 1-jayš-i is motivated by the advancement of 1-qalḡat-u to 1. Second, the Stratal Uniqueness Law is satisfied: no two nominals bear the same GR; each nominal has a distinct relation.

Several characteristics of SA passives should be mentioned.

First, while personal passives are transitive in the initial stratum consisting of both a 1- and a 2-relation, only intransitive clauses tolerate impersonal passive; impersonal passives of clauses with initially transitive strata are not permitted as demonstrated in the ill-formed clauses (29-30), the counterpart to (27-28):<sup>4</sup>

27) fataḥ-a 1-walad-u n-na:fiḏat-a  
opened-3ms the-boy-Nom the-window-Acc

'The boy opened the window'

28) za:r-a 1-ʔusta:ḏ-u ṭ-ṭa:libat-a  
visited-3ms the-professor-Nom the-F+student-Acc

'The professor visited the student'

29) \*futiḥ-a n-na:fiḏat-u  
Pas+opened-3ms the-window-Nom

(It was opened the window)

30) \*zi:r-a ṭ-ṭa:libat-u  
Pas+visited-3ms the-F+student-Nom

(It was visited the student)

However, both passives are intransitive in the final stratum in the sense that there is a 1-arc but no 2-arc.

Second, the inserted dummy in the SA impersonal passive is always invisible unless a passive clause is embedded into an upstairs clause; in such a case, the dummy appears as a clitic on a complementizer. The embedding of impersonal passives is discussed in section 4.1.2. The fact that the dummy is thus normally invisible seems to superficially violate the Final 1 Law which entails that every clause must have a final 1. However, a closer inspection of SA impersonal

passives proves that this is not the case.

Finally, while the nominal bearing the final 1-chomeur relation is rarely specified in personal passives, it is never expressed in impersonal passives. In the case of personal passives, it is not always stated explicitly unless one wants to point out the agent responsible for a given act.<sup>5</sup> This is why I have left it out in the above clauses (17-18). Throughout the present work, the  $\hat{1}$  is only mentioned for elucidation. The invisibility of the chomeur may also constitute an ungrounded counterexample to the Motivated Chomage Law in impersonal passives. This is not eventually the case. The chomage of the initial 1 is motivated by the dummy, usually invisible in SA.

Recapitulating, the grammar of SA should include the following statements in connection with passives:

- 31) a. Transitive clauses only have personal passives whereas intransitives only have impersonal passives.
- b. The 1-chomeur is rarely expressed in the final stratum of personal passives, and it is never expressed in impersonal passives.
- c. The dummy is phonetically null, except in embedded clauses.

In what follows, I present arguments for the passive analysis proposed in section 4.1. Sections 4.1.1 and 4.1.2 provide evidence that the advancing nominals are final 1s in personal and impersonal passives, respectively. In section 4.2, the Unaccusative Hypothesis is introduced to facilitate understanding of subsequent sections. Section 4.3 deals with an alternative to the advancement analysis,

supplying evidence in favor of the latter. The 1-Advancement Exclusiveness Law (1-AEX) and SA passives as viewed by Fuller and Nerbonne (to appear) is examined in section 4.4. Finally, other approaches to SA passives are discussed in section 4.5.

#### 4.1.1 Evidence for the Final 1-hood of Advancee in Personal Passive

In this section, I give evidence that the advancee like xiṭa:b-un in (16) above bears the final 1-relation in personal passive clauses. Evidence is based on nominal case, verb agreement, subject Pro drop, and word order.

##### a) Nominal Case

The rule for nominal case, that I discussed in section 3.2, is given here in (32):

##### 32) Nominal Case Rule:

- a. 1s are in the nominative case.
- b. 2s are in the accusative case.
- c. Others are in the oblique case.

If (32) is correct, we expect that the final subject which is the initial direct object in passives will be in the nominative case. The prediction is borne out by the rule as can be seen in (33):

##### 33) Ḥu:lij-a 1-mari:d-u Pas+treated-3ms the-patient-Nom

'The patient was treated'

in which the advancing nominal 1-mari:d-u is marked nominative as is indicated by the suffix -u. As such it is a final 1. Therefore, that the passive advancees are in the nominative in the final stratum pro-

vides one piece of evidence for their final 1-hood.

If we maintain that the passive advancee is a final 1 and is in the nominative case as is illustrated in (33), then the rule for nominal case only marks final GRs. Therefore, to account for the nominal case marking of passive advancees as final 1s, the nominal case rule treated in section 3.2 should be modified to refer to final relations only. The rule can thus be rewritten as in (34):

34) Nominal Case Reformulated:

- a. Final 1s are in the nominative case.
- b. Final 2s are in the accusative case.
- c. Others are in the oblique case.

b) Verb Agreement

I have maintained earlier that subjects can trigger verb agreement in SA (see section 3.4). In passive clauses, we see that nominals which are patients in the initial stratum can also cue verb agreement as can be seen in (35):

35) kutib-a d-dars-u  
Pas+wrote-3ms the-lesson-Nom

'The lesson was written'

The verb kutib-a in this clause agrees with d-dars-u, a third person masculine singular, as is marked by the suffix -a. So, what those patients and other subjects have in common is that they all trigger agreement. The fact that nominals like d-dars-u advancing from 2 to 1 can cue agreement, therefore, supplies another piece of evidence for their subjecthood in passive clauses.

If we suppose that the passive advancee is a final 1 and triggers agreement on the verb as is demonstrated in (35), then the rule for verb agreement discussed in section 3.4 should be restated in terms of final level. That rule is, therefore, given here as in (36):

36) Verb Agreement Restated:

The verb agrees with the final 1.

c) Subject Pro Drop

Recall that a subject pronominal can be dropped if it is not used emphatically or contrastively. So if the passive advancee is a subject in the final stratum, it should undergo Pro Drop. That this is true can be shown in (38), the counterpart to the active clause (37):

37) qa:bal-a-huml-mudi:r-u fi l-maktab-i  
met-3ms-them the-manager-Nom in the-office-Obl

'The manager met them in the office'

38) qu:bil-u:fi l-maktab-i  
pas+met-3mp in the-office-Obl

'They were met in the office'

In (38), the subject of the passive verb has been left out as is indicated by suffix -u:, marking verbal agreement with a third person masculine dropped plural subject. Thus, the fact that passive advancees can drop shows that they are subjects.

If, however, we maintain that the passive advancee is a final 1, then the rule for subject Pro drop applies to final grammatical relations only. Therefore, to account for the capability of final 1s to



drop in clauses like (38) above, the rule of Pro Drop discussed in section 2.5.2.3 should be modified to refer to final relations only as follows:

39) Subject Pro Drop Restated:

Only a nominal bearing a final 1 can drop.

d) Word Order

The word order rule discussed in section 3.1 is given in (40):

40) P-1-(2)-(3)-(Ob1)

In all the above clauses, the first element is the predicate. Following the predicate is the subject which may in turn be followed by nominals bearing (non)-term relations. Take clause (18) above, for instance. There, the predicate fuḥis-a is the first linguistic element which is immediately followed by the nominal 1.mari:d-u, in turn followed by the oblique nominal fi 1-ṣiya:dat-i. Thus, the fact that a predicate in a (passive) clause is always followed by a (pro)nominal shows that that (pro)nominal is a final 1 in passives.

If we maintain that the final 1 follows the verb in passive clauses, then the rule for word order discussed in section 3.1 should be modified to refer to final relations. Accordingly, the rule can be reformulated to specify the level of nominals as in (41):

41) Word Order Rule Reformulated:

Final P-1-(2)-(3)-(Ob1)

To sum up, four arguments are presented for the final 1-hood of the passive advancee. We have seen that it is marked nominative, trig-

gers verb agreement, undergoes Pro Drop and always follows the verb.

#### 4.1.2 Evidence for the Final 1-hood in Impersonal Passive

So far we have proposed that impersonal passive, like personal passive, involves 2-1 advancement. The advancing nominal is a dummy that heads a 2-arc at a non-initial level. The question that should be answered is what evidence SA can offer for the final GR of the dummy. The present section supplies two pieces of evidence based on verb agreement and embedding.

##### a) Verb Agreement

As discussed in section 4.1.1, the verb agrees with the final subject only. If we look at impersonal passive clauses like (42-43),

42) *luḡib-a maḡa l-ʔawla:d-i*  
Pas+played-3ms with the-boys-Obl

'It was played with the boys'

43) *ruḡiṣ-a huna:*  
Pas+danced-3ms here

'It was danced here'

we realize that the verbs luḡib-a and ruḡiṣ-a end with the suffix -a, marking agreement with a given subject. Moreover, if we assume that the dummy is a third person masculine singular as in other languages like Latin, as is reported by Comrie (1976), verb agreement automatically follows from this assumption. In other words, what triggers agreement in the case of impersonal passive is the dummy which is not overtly stated.

If agreement is marked otherwise, the clauses would be ill-formed as is exemplified in (44-45):

- 44) \*luṣib-at maṣa l-?awla:d-i  
Pas+played-3fs with the-boys-Obl

(It was played with the boys)

- 45) \*ruqiṣ-at huna:  
Pas+danced-3fs here

(It was danced here)

b) Embedding

When the subject is a pronominal, it appears as a clitic on the complementizer as illustrated in (46-47):

- 46) a. katab-a d-dars-a  
wrote-3ms the-lesson-Acc

'He wrote the lesson'

- b. ḥasib-tu ?anna-hu katab-a d-dars-a  
thought-1s that-he wrote-3ms the-lesson-Acc

'I thought that he wrote the lesson'

- c. \*ḥasib-tu ?anna katab-a d-dars-a  
thought-1s that wrote-3ms the-lesson-Acc

(I thought that he wrote the lesson)

- 47) a. fuḥis-a fi l-ṣiya:dat-i  
Pas+examined-3ms in the-clinic-Obl

'He was examined in the clinic'

- b. qa:la l-muṣallim-u ?anna-hu fuḥis-a  
said the-teacher-Nom that-he Pas+examined-3ms  
fi l-ṣiya:dat-i  
in the-clinic-Obl

'The teacher said that he was examined in the clinic'

- c. \*qa:la l-muʕallim-u ʔanna fuḥis-a  
 said the-teacher-Nom that Pas+examined-3ms  
 fi l-ʕiya:dat-i  
 in the-clinic-Obl

(The teacher said that he was examined in the clinic)

In the case of (46-47b) where embedding occurs, the pronominal -hu which agrees with the dropped subject of katab-a and fuḥis-a appears on ʔanna/ʔinna. In clauses where the pronominal does not surface, ungrammaticalness results as can be seen in (46-47c).

Now consider the embedding of impersonal passives as demonstrated in (48-49):

- 48) a. rukiʕ-a ʔama:mi l-malik-i  
 Pas+knelt-3ms before the-king-Obl  
 'It was knelt before the king'
- b. ḥasib-tu ʔanna-hu rukiʕ-a ʔama:mi l-malik-i  
 thought-I that-3ms pas+knelt-3ms before the-king-Obl  
 'I thought that it was knelt before the king'
- 49) a. ʕulliy-a fi l-ʕurfat-i  
 Pas+prayed-3ms in the-room-Obl  
 'It was prayed in the room'
- b. qa:l-a l-muqa:til-u ʔinna-hu ʕulliy-a  
 said-3ms the-fighter-Nom that-3ms Pas+prayed-3ms  
 fi l-ʕurfat-i  
 in the-room-Obl  
 'The fighter said that it was prayed in the room'

The pronominal -hu in (48-49b) appears on the complementizer as a consequence of embedding the impersonal passives in (48-49a). The pronominal, moreover, agrees with the subject nominal of the embedded verb.

However, if the pronominal does not appear on the complementizer, clauses like (48-49b) would be rendered ungrammatical as can be seen in (50-51):

- 50) \*ḥasib-tu ?anna rukiḥ-a ?ama:mi l-malik-i  
 thought-1s that pas+knelt-3ms before the-king-Obl

(I thought that it was knelt before the king)

- 51) \*qa:l-a l-muqatil-u ?anna sulliy-a  
 said-3ms the-fighter-Nom that pas+prayed-3ms  
 fi l-ḡurfat-i  
 in the-room-Obl

(The fighter said that it was prayed in the room)

Thus, the fact that embedding impersonal passives into main clauses entails that a pronominal agreeing with the subject of the embedded verb be attached to the complementizer indicates that the dummy bears the final 1-relation. Embedding therefore supplies another piece of evidence for the final 1-hood of the dummy.

In sum, the preceding subsection argues for the final 1-hood of impersonal passive clauses. It is argued that the impersonal passive verb agrees with a subject nominal; i.e., the dummy. Furthermore, agreement provides evidence that the dummy is a third person masculine singular. Similarly, embedding indicates that the dummy is a final 1 in the sense that a final 1 appears as a clitic on the complementizer when an impersonal passive clause is embedded into a main clause. Consequently, the evidence for the dummy as a final 1 in SA lends further support to the Final 1 Law.

## 4.2 The Unaccusative Hypothesis Cross-Linguistically

This section is meant to present an independently motivated hypothesis about linguistic structure known as the Unaccusative Hypothesis (UH) and discuss its interaction with the impersonal passive analysis proposed within the theory of RG. First, I introduce the Unaccusative Hypothesis together with its claims, and then provide two arguments for it, drawing upon data from Dutch and SA.

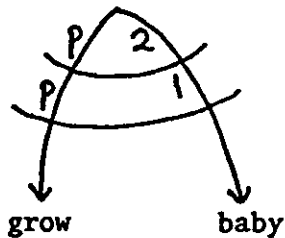
### 4.2.1 The UH Concept

The UH as is articulated by Perlmutter (1978) claims that certain intransitive clauses have an initial 2, but no initial 1. (Perlmutter 1978; 160). By way of illustration, consider the English sentence (52):

52) The baby grows

Under the UH, (52) is associated with structure (53),

53)



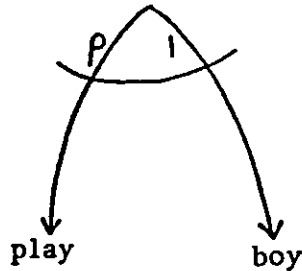
in which the baby is initial 2 but final 1.

According to the UH, initially intransitive strata are of two types: unaccusative and unergative. The former is one whose initial

stratum contains a 2-arc but no 1-arc. The unergative stratum has a 1-arc but no 2-arc. The first type is demonstrated in (52-53) above, and the second in (54) below associated with the stratal diagram (55):

54) The boy plays

55)



Another issue related to the UH is the advancement of the 2 to 1 known as "unaccusative advancement". This is in accordance with the Final 1 Law which states that every clause must have a final 1-arc. As such clauses with final unaccusative strata are well-formed in no natural language. The Law has the following consequence:

56) Every clause with an unaccusative stratum involves an advancement to 1.<sup>7</sup> (Perlmutter 1978: 161-66).

Initially unaccusative strata can thus be contrasted with initially unergative ones. For instance, the boy in (54-55) does not head a 2-arc, and thus there is no advancement to 1. This is contrasted with (52-53) in which the baby heads a 2-arc, and thus advances to 1.

Initial unergativity vs. initial unaccusativity can be predicted from the semantics of the clause (Perlmutter 1978: 161). The former seems to correspond to the notion "active" or intransitive clauses, and is determined by predicates describing willed or volitional acts

(e.g., (57) below), or involuntary bodily processes (e.g., (58) below):

57) walk, swim, study, etc.

58) cough, cry, sneeze, etc.

On the other hand, initially unaccusative strata are determined by predicates including the following:

59) Predicates whose initial nuclear term is semantically a patient:

sink, burn, dry, melt, etc.

60) Predicates of existing and happening:

exist, happen, occur, disappear, etc.

61) Predicates describing non-voluntary emission of stimuli that impinge on the senses:

shine, glitter, smell, etc.

62) Aspectual Predicates:

begin, cease, etc.

63) Durative Predicates:

last, remain, etc.

Since RG is supposed to account for data cross-linguistically, the assumption here is that predicates with similar meanings in languages other than English behave similarly in the determination of initial unergativity and unaccusativity.

A single remark should be made concerning the semantic predicates. As Perlmutter (1978) points out, it is possible for one predicate to be used in both unergative as well as unaccusative clauses. Compare



the following:

64) Mary fell from the third-story window.

65) Mary fell right on cue in the fourth act.

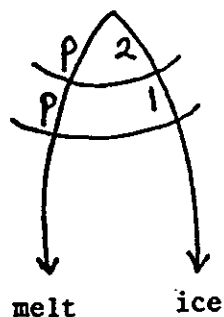
In (65), the predicate fell expresses a willed or volitional act; the clause is therefore not unaccusative. Conversely, (64) is unaccusative where fell expresses a non-volitional act.

Finally, it should be noted that unaccusative advancement differs from passive. In unaccusative advancement, the nominal heading a 2-arc in an intransitive stratum advances to 1 while in passive, a nominal heading a 2-arc in a transitive stratum does so. This is illustrated in clauses (66-67), representable in diagrams (68-69) respectively.

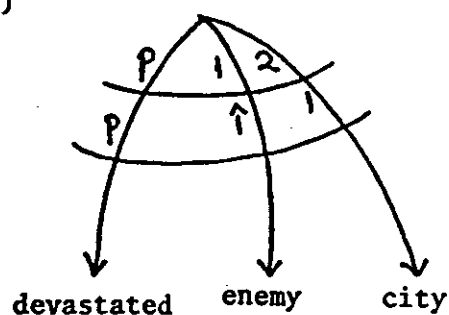
66) The ice melted

67) The city was devastated by the enemy

68)



69)



Having introduced the UH as is perceived by relational grammarians, I can now proceed to review the evidence which has been given for initial

unaccusativity vs. initial unergativity.

#### 4.2.2 Evidence for Initial Unaccusativity vs. Initial Unergativity

Two pieces of evidence, among others, can be provided to support the UH across languages.<sup>8</sup> These are based upon impersonal passive in Dutch given by Perlmutter (1978) and impersonal passive in SA.

##### a) Impersonal Passive in Dutch

As I mentioned earlier, an impersonal passive clause involves an inserted dummy advancing to 1 in the final stratum. Distinguishing between initial unaccusativity vs. unergativity in Dutch, Perlmutter (1978) maintains that the impersonal passives of initially-unergative clauses are well-formed as is shown in (70-71):

70) Er wordt door de jonge lui veel gedanst

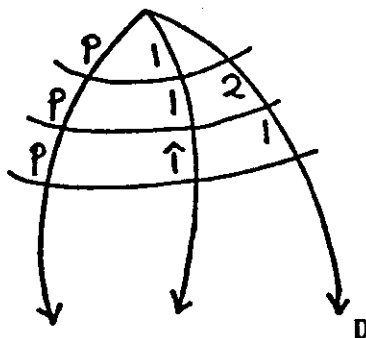
'It is danced here a lot by the young people'

71) Hier wordt (er) veel gewerkt

'It is worked here a lot'

Such clauses can be represented in the following stratal diagram:

72)



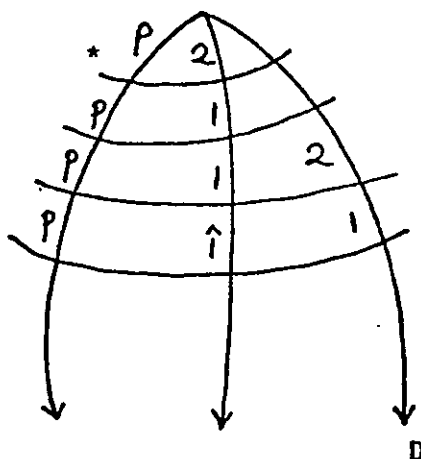
Contrariwise, impersonal passives of initially-unaccusative clauses are ungrammatical as is exemplified in (73):

73) \*Door de lijken werd al gerot

'The corpses have already rotted'

Diagram (74) represents the structure of such ill-formed clauses as (73):

74)



The ungrammaticality of those clauses is accounted for by the fact that they violate the 1-Advancement Exclusiveness Law (1-AEX), informally given as:

75) The 1-Advancement Exclusiveness Law:

No clause can involve more than one advancement to 1 (Perlmutter and Postal 1984b).

Initially unaccusative clauses involve an advancement to 1. The impersonal passives of such clauses are, therefore, not possible since they will have two advancements to 1, which are not permitted by the 1-AEX. Thus, the fact that initially unergative clauses can have im-

personal passives whereas initially unaccusative clauses cannot provide one piece of evidence for initial unergativity vs. unaccusativity.

b) Impersonal Passive in SA

Impersonal passives of initially-unergative clauses in SA are allowable in contrast to the impossibility of those of initially-unaccusative clauses. (Predicates determining initial unaccusativity vs. initial unergativity in SA are given in the Appendix). The grammaticality of impersonal passives of unergative clauses is demonstrated in the clauses (79-81), the counterparts to the non-passives (76-78):

- 76) rakaḍ-a l-junu:d-u fi l-wa:d-i  
ran-3ms the-soldiers-Nom in the-valley-Obl  
'The soldiers ran in the valley'
- 77) ḍaḥik-a r-rija:l-u ʕala l-mumaθθil-i  
laughed-3ms the-men-Nom at the-actor-Obl  
'The men laughed at the actor'
- 78) ʕall-a n-na:s-u fi l-masjid-i  
prayed-3ms the-people-Nom in the-mosque-Obl  
'The people prayed in the mosque'
- 79) rukiḍ-a fi l-wa:d-i  
Pas+ran-3ms in the-valley-Obl  
'It was run in the valley'
- 80) ḍuḥik-a ʕala l-mumaθθil-i  
Pas+laughed-3ms at the-actor-Obl  
'It was laughed at the actor'

- 81) şulliy-a fi l-masjid-i  
Pas+prayed-3ms in the-mosque-Obl

'It was prayed in the mosque'

The predicates in (76-78) describe willed or volitional activities; they, therefore, have initially-unergative strata and tolerate impersonal passives.

Predicates expressing acts or events in which the nominal heading an initial 2-arc is semantically patient determine initial unaccusativity and, as is claimed, do not tolerate impersonal passives as is exemplified in the ill-formed clauses (86-89), the passive counterparts to the active unaccusative clauses (82-84):

- 82) saqaṭ-at-i t-tuffa:ḥat-uṣala l-?arḍ-i  
fell down-3fs-V the-apple-Nom on the-ground-Obl

'The apple fell down on the ground'

- 83) ?indalaḡ-at-i l-ḥarb-u fi lṣa:m-i  
broke out-3fs-V the-war-Nom in the-year-Obl  
l-ma:d-i  
the-last-Obl

'The war broke out last year'

- 84) wamaḍ-a l-barq-u fi l-layl-i  
flashed-3ms the-lightning-Nom in the-night-Obl

'The lightning flashed at night'

- 85) waqaḡ-at-i l-ḥa:diṯat-u fi ṣ-ṣaba:ḥ-i  
happened-3fs-V the-accident-Nom in the-morning-Obl

'The accident happened in the morning'

- 86) \*suqit-a ḡala l- ?arḍ-i  
Pas+fell down-3ms on the-ground-Obl

(It was fallen down on the ground)

- 87) \*?induliṣ-a fi 1-ṣa:m-i 1-ma:d-i  
Pas+broke out-3ms in the-year-Obl the-last-Obl

(It was broken out last year)

- 88) \*wumiḍ-a fi 1-layl-i  
Pas+flashed-3ms in the-night-Obl

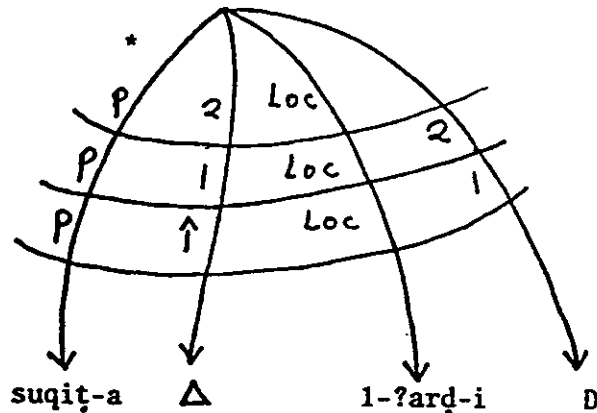
(It was flashed at night)

- 89) \*wuqiṣ-a fi ṣ-ṣaba:h-i  
Pas+happened-3ms in the-morning-Obl

(It was happened in the morning)

The impersonal passives (86-89) violate the 1-AEX since they involve two nominals--the  $\Delta$  and the  $\underline{D}$ --advancing to  $\underline{1}$ , as exemplified in diagram (90), representing clause (86).<sup>9</sup>

90)



The fact that initially-unergative clauses can have impersonal passives whereas initially unaccusative ones in SA cannot supplies interesting confirmation of the Unaccusative Hypothesis.

In sum, the preceding section has introduced and motivated the UH cross-linguistically. Evidence for it has been furnished on the

basis of impersonal passives in both SA and Dutch.

#### 4.3 An Alternative to the Impersonal Passive Analysis

So far we have observed that the advancement analysis of passives in SA provides substantial evidence for the universal characterization of passives within RG, the Motivated Chomage Law and the Final 1 Law. Nevertheless, impersonal passive is often cited as counterevidence to the advancement analysis.

Rather than viewing impersonal passives as a phenomenon involving the advancement of a 2 to 1, Comrie (1977), among others, argues that impersonal passives involve subject demotion.<sup>10</sup> Under this analysis, which is referred to throughout this chapter as the "unmotivated chomage" analysis, an impersonal passive clause in SA like (92) below can be represented in the stratal diagram (93):

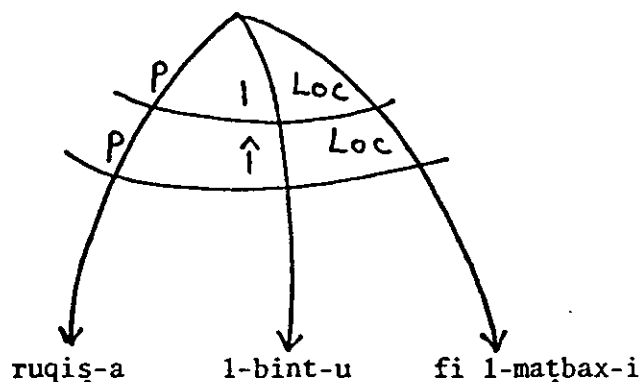
91) raqaş-at 1-bint-u fi 1-maṭbax-i  
danced-3fs-V the-girl-Nom in the-kitchen-Obl

'The girl danced in the kitchen'

92) ruqiş-a fi 1-maṭbax-i  
Pas+danced-3ms in the-kitchen-Obl

'It was danced in the kitchen'

93)



In the case of (93), the chomage of the initial subject 1-bint-u is spontaneous and, as such, violates the Motivated Chomage Law. The spontaneous demotion of the subject follows from Comrie's view that the clause lacks a visible object whose advancement would put the initial 1 en chomage. Furthermore, (92) constitutes a violation of the Final 1 Law since the clause does not have a nominal heading a 1-arc at the final level of structure.

Since we get two analyses: advancement and unmotivated chomage, there exists the issue of deciding upon which one is valid. In the following subsection, I look upon this issue, attempting to show that the advancement analysis is valid and is thus favored over its alternative.

#### 4.3.1 The Advancement and Unmotivated Chomage Analysis Contrasted

The advancement analysis sees passive clauses as a syntactic structure characterized by the advancement of a nominal heading a

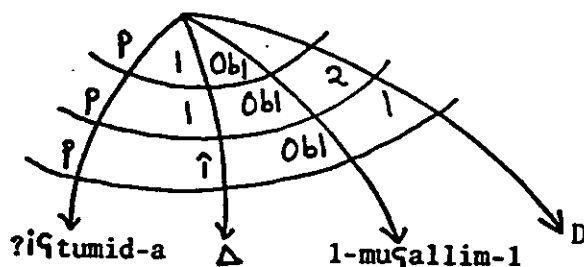


2-arc in some stratum to a 1 in the final stratum, whereas the unmotivated chomage analysis views the phenomenon as the demotion of a nominal heading a 1-arc without giving heed to the advancement characteristic of other nominals. What predictions do these two conflicting approaches make for SA impersonal passives? To answer the question, let us see how each approach accounts for the impersonal passive clause (94) which is diagrammed in (95-96) as to the claims of those analyses:

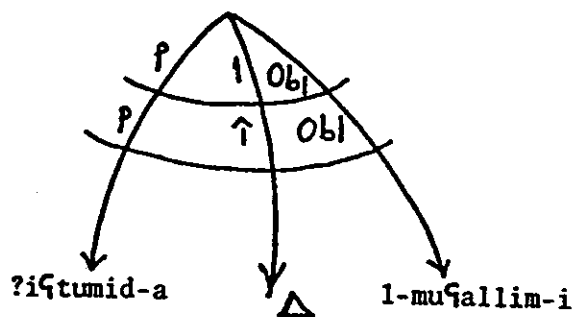
- 94) ?iʕtumid-a ʕala 1-muʕallim-i  
Pas+depended-3ms on the-teacher-Obl

'It was depended on the teacher'

95) Advancement Analysis



96) Unmotivated Chomage



Both analyses predict that the unspecified nominal heads a 1-arc in the initial stratum and a cho-arc in the final stratum. Likewise, both make the correct prediction concerning the oblique relation borne by çala 1-muçallim-i at both levels. Thus, the two analyses could equally handle the GRs of nominals at both levels. We are then tempted to conclude that either analysis is applicable to SA.

On the contrary, a quick glance at both (95-96) reveals that differences exist between them. First, the advancement analysis predicts that the chomage of the initial 1 at the final level is motivated by the advancement of the dummy to 1 in accordance with the Motivated Chomage Law. Under Comrie's analysis, the chomage is not motivated; it is rather spontaneous. Thus, his analysis is a strong challenge to the Chomage Condition. Second, under the advancement analysis, any clause must have a final 1. In impersonal passive clauses, it is the dummy that bears the final 1-relation. This generalization follows from the Final 1 Law. In contrast, the clause does not have a derived subject under the unmotivated chomage analysis, and as such constitutes counterevidence to the Final 1 Law. In what follows, arguments are uncovered for the advancement analysis.

#### 4.3.2 Arguments for the Advancement Analysis

SA syntax provides several arguments for the advancement analysis over the unmotivated chomage analysis. The arguments are based upon embedding of impersonal passive clauses, impersonal passives of per-

sonal passive clauses and the interaction of the unaccusative hypothesis and the impersonal passive.

a) Embedding

In section 4.1.2, I have claimed that the subject nominal of the impersonal passive clause appears on the complementizer as a clitic when such a clause is embedded into another clause, further exemplified in (97):

97) ḥasib-tu ?anna-hu ni:m-a fi 1-fira:š-i  
 thought-1s that-3ms pas+slept-3ms in the-bed-Obl

'I thought that it was slept in the bed'

The dummy appears overtly as the clitic -hu on the complementizer ?anna. Embedding of impersonal passives is compatible with the advancement analysis in the sense that this analysis posits the condition that every clause must have a final 1 which, in the case of SA impersonal passives, can explicitly appear on the complementizer. On the contrary, the unmotivated chomage analysis which does not admit of a final 1 cannot account for the dummy cliticization due to embedding.

Thus, the fact that the dummy surfacing as a clitic in embedded clauses can be accounted for under the advancement analysis constitutes one piece of evidence in favor of that analysis over the unmotivated chomage one.

b) Impersonal Passives of Personal Passive Clauses

The impersonal passives of personal passive clauses are ill-

formed in SA as can be shown in (99-100), represented in (101-102) respectively:

- 98) qa:bal-a ʔ-ʔa:lib-u  
 met-3ms the-student-Nom  
 ʔ-ʔa:libat-a fi l-ḥadi:qat-i  
 the-student+F-Acc in the-garden-Obl

'The m. student met with the f. student in the garden'

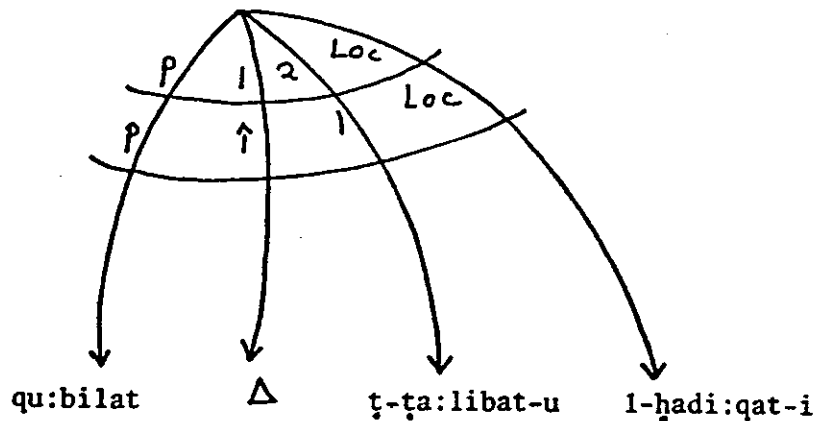
- 99) qu:bil-at-i ʔ-ʔa:libat-u fi  
 Pas+met-3fs-V the-student+F-Nom in  
 l-ḥadi:qat-i  
 the-garden-Obl

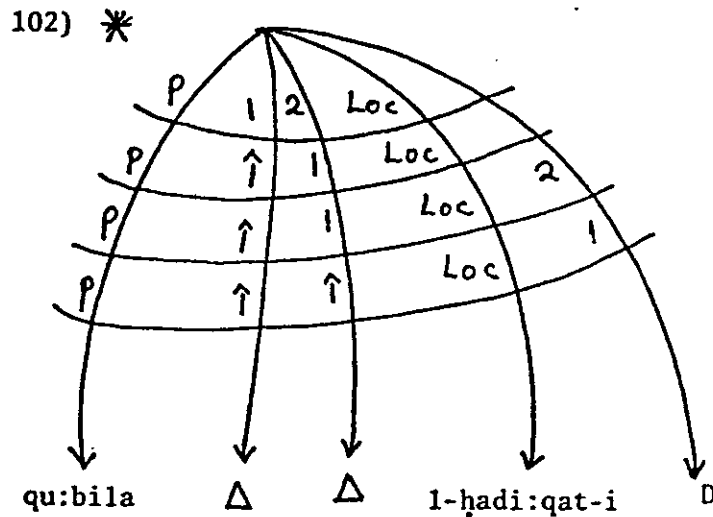
'The f. student was met in the garden'

- 100) \*qu:bil-a fi l-ḥadi:qat-i  
 pas+met-3ms in the-garden-Obl

(It was met in the garden)

101)





Since (98) is transitive, the personal passive is possible as shown in (99) which is intransitive at the final level. By the same token, since (99) is intransitive and since impersonal passives of intransitive clauses are possible, we expect that an impersonal passive of (99) would be possible. Our expectation is, however, not met as can be seen in the clause (100; 102) which is ill-formed for it violates the 1-AEX. This violation is attributable to the two advancements to 1 of the Δ and the dummy.

The ill-formedness of a clause like (100) follows from the 1-AEX. Thus, that the impersonal passive of personal passives is ill-formed and is predictable by the advancement analysis constitutes another argument for it over its rival which makes no predictions in this domain.

c) The Unaccusative Hypothesis and Impersonal Passive

Arguing for the Unaccusative Hypothesis in section 4.2.2, I have pointed out the impersonal passives of initially-unaccusative strata in SA are impossible. The impossibility of such passives is predictable under the advancement analysis taken together with the Unaccusative Hypothesis and the 1-AEX. Those data cannot, however, be predicted by the unmotivated chomage analysis which would have to block such passives by adding some extra statement to the grammar. Thus, the fact that the advancement analysis predicts the ill-formedness of impersonal passives of initially unaccusative strata in SA provides a further argument for it over the unmotivated chomage analysis.

d) Summary

The preceding section has presented two conflicting analyses for impersonal passives available in the literature on RG: the advancement and the unmotivated chomage. There we have seen that the advancement, rather than the unmotivated chomage, analysis makes correct predictions about the phenomenon in SA. To keep both analyses apart three arguments are supplied based on the embedding of impersonal passives into main clauses and the impersonal passives of initially unaccusative clauses and personal passives. The arguments if valid provide further confirmatory evidence for the advancement analysis which, I can conclude, should be adopted in the analysis of passives in SA.

## 4.4 The 1-AEX and the Impersonal Passive

Analyzing double advancements to 1, Fuller and Nerbonne (to appear) cite Classical Arabic (CA), among other languages, as a language in which impersonal passives violate the 1-AEX. They claim that CA has two types of passives interacting with each other in the following manner. "First, basic and derived transitive verbs can form medio-passive constructions, basic verbs by an n- prefix or -ta- infix, and derived verbs by a ta- prefix". They give the following illustrative data:

- |                     |   |
|---------------------|---|
| 103) a. Active      | jafala-hum<br>drew back (he)-them<br>bayna yaday-hi<br>between hands-his<br><br>'He caused them to draw back<br>before him' |
| b. Medio-passive    | injafalu:<br>drew back (they)<br>bayna yaday-hi<br>between hands-his<br><br>'They drew back before him'                     |
| c. Personal Passive | unjufila<br>drew back (pass/he)<br>bayna yaday-hi<br>between hands-his<br><br>'There was a drawing back be-<br>fore him'    |

Second, these medio-passive constructions can passivize by the regular ablaut passive (traditionally known as the majhu:l (i.e., un-

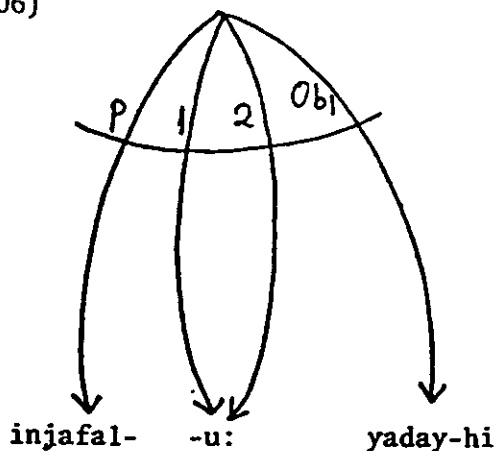




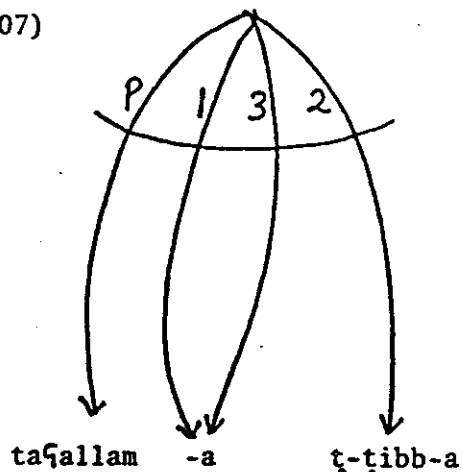
allowing two advancements to 1 in the same clause.

A closer examination of their claim reveals that Fuller and Nerbonne's analysis of the CA data is not reasonable. First, clauses like (103b) and (104b) do not involve 2-to-1 advancement since the affixes n- and -ta- signify reflexive meaning as is reported by Wright (1974), Saad (1975) and Abu Absi (1972). Accordingly, such clauses could be represented as in (106-107) in which one nominal heads two arcs:

106)



107)

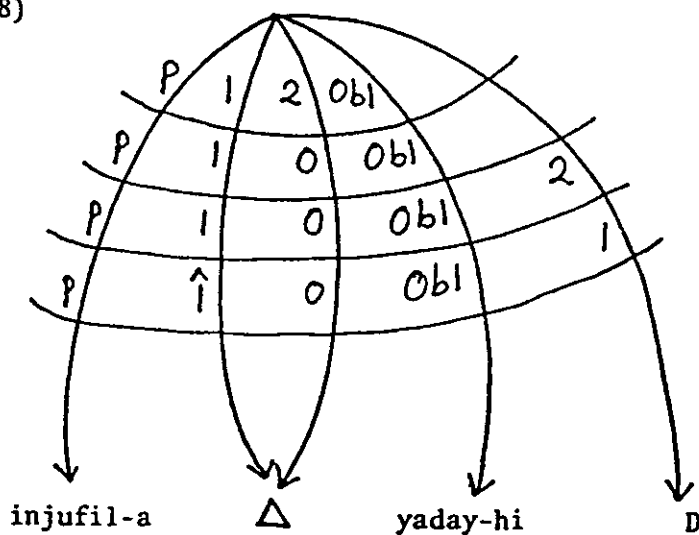


As a result, I can tentatively conclude that such clauses which form the basis of Fuller and Nerbonne's impersonal passives (103-104c) do not involve mediopassive and that they are merely active reflexive clauses.

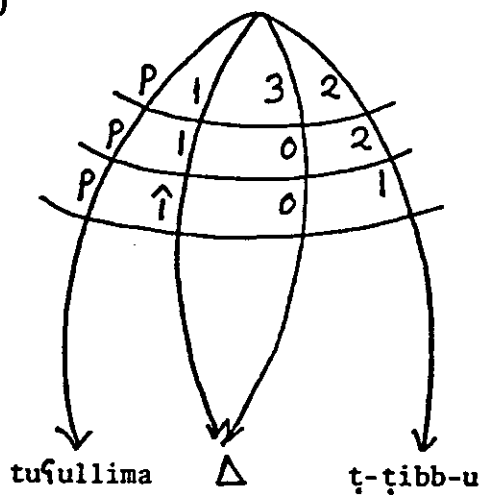
Finally, given that clauses (103-104b) are not mediopassives, I propose another alternative for analyzing such clauses compatible

with the 1-AEX. The alternative involves the cancellation of the initial 2 and 3 in (106-107) followed by 2-to-1 advancement as shown in (108-109), representing (103-104c), respectively:<sup>11</sup>

108)



109)



In sum, the above analysis is preferred over Fuller and Nerbonne's since it is compatible with the 1-AEX.<sup>12</sup> And the burden of proof is

upon Fuller and Nerbonne to show that my analysis is not tenable.

#### 4.5 Other Approaches to SA Passives

This section is intended to examine two other approaches to passives in SA: the Transformational and the Case Grammar approaches.<sup>13</sup>

The former is followed by both Snow (1965) and Lewkowicz (1967) and the latter by Saad (1975).

##### 4.5.1 The Transformational Approach

Snow (1965) and Lewkowicz (1967) deal with passives in SA within the transformational grammar (TG) as is articulated by Chomsky (1957; 1964). Snow posits two transformational rules operating on deep structure. The first derives personal passives from transitive constructions in which the subject is deleted, the transitive verb is assigned a passive voice marker, and the underlying object becomes the subject. (Snow 1965: 102-103). The rule can, for instance, derive (110b) from (110a):<sup>14</sup>

- 110) a. ?at-ṭulla:b-u yaktubu;na d-dars-a  
the-students-Nom write the-lesson-Acc

'The students write the lesson'

- b. ?ad-dars-u yuktabu  
the-lesson-Nom Pas+write

'The lesson is written'

The last rule has the effect of deriving impersonal passives from

"minus-object" transitive constructions, where the subject nominal is deleted and does not form an agentive phrase as does the English transformed subject, and the verb is assigned a passive voice marker and syntactic markers of third person masculine singular. Accordingly, (111b) can be derived from (111a)

111) a. ?at-tulla-b-u yalqabu:na fi  
 the-students-Nom play in  
 1-malqab-i  
 the-playground-Obl

'The students play in the playground'

b. yulqabu fi 1-malqab-i  
 Pas+play in the-playground-Obl

'It is being played in the playground'

by deleting the subject ?at-tulla:b-u and assigning the third person masculine form to the verb.

Lewkowicz (1967) views passive transformation as merely the "deletion of original subject of passive verb". (pp.78-80). Where the verb is transitive, the object crosses over the verb and replaces the subject which gets deleted; where it is "prepositionally" transitive, the subject is merely deleted with no replacement, thus yielding impersonal passive clauses which, according to her, have "no subject to agree with". Her transformation is thus similar to Snow's.

A careful consideration of Snow's and Lewkowicz's analyses show that they are not tenable. First, their treatment of SA passives is based on the movement of linguistic elements from one position to another. For instance, their passive rules move the nominal d-dars-u

in (110a) above from the direct object position to the subject position as illustrated in (110b). Though their analyses could handle passives in SA, the notion of "movement" is not viable cross-linguistically. (See Perlmutter and Postal (1983c) for arguments against the TG approach to passives).

Second, Snow and Lewkowicz maintain that the original subject gets deleted and does not form an agentive phrase. This is not convincing since personal passive clauses can have the  $\hat{1}$  stated although it is not common as I have pointed out in section 4.1.

Third, Lewkowicz maintains that the impersonal passives in SA do not have a subject. Her claim is vague; what does she mean by 'subject'? Is it the final subject or the initial subject? Her discussion seems to denote that she refers to the final subject, though the approach she follows does not recognize such notions as final-initial GRs. Discussing impersonal passives in section 4.1.2, I have supplied evidence based on embedding and verb agreement to the effect that an impersonal passive clause does have a final subject' which is an invisible dummy. My conclusion contradicts her statement that says that impersonal passives in SA have "no subject to agree with".

Fourth, Snow and Lewkowicz maintain that impersonal passive is derived from "minus-object" or "prepositionally" transitive clauses. Accordingly, an active clause like (112) can have the impersonal passive counterpart (113):

112) ?al-walad-u sabaḥa fi l-birkat-i  
the-boy-Nom swam in the-pool-Obl

'The boy swam in the pool'

113) *subiḥa fi l-birkat-i*  
 pas+swam in the-pool-Obl

(It was swum in the pool)

But consider (115), the impersonal passive counterpart to the "prepositionally" transitive clause (114), using their term:

114) *?al-ḥa:diθat-u ḥadaθat fi l-layl-i*  
 the-accident-Nom happened in the-night-Obl

'The accident happened at night'

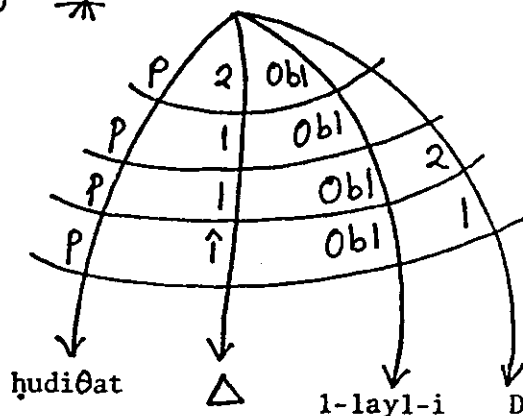
115) *\*ḥudiθa fi l-layl-i*  
 pas+happened in the-night-Obl

(It was happened at night)

Clause (115) which is falsely predicted to be grammatical under those transformationalists' analyses is, however, ungrammatical. This means that their approach cannot account for the ill-formedness of such a clause, nor can it predict which clauses can have impersonal passives. This nonpredictability also shows that Snow and Lewkowicz are unable to distinguish between predicates that can occur in passive clauses and those that cannot.

Within the RG framework, however, a clause like (115) is predicted to be ill-formed and is easily accounted for. Since the initial stratum is unaccusative consisting of a 2-arc but no 1-arc as shown in diagram (116), the 1-AEX rules out such ungrammatical clauses as (115) since they involve two advancements to 1 of  $\Delta$  and the dummy in the case of (115-116):

116) ✱



The TG approach has nothing equivalent to the notions of unergativity and unaccusativity as well as the 1-AEX.

Fifth, those transformationalists' treatment of passives in SA indicates that the language has an SVO word order, exactly like English. This is illustrated in clauses (110-115), the word order of which is consistent with their conception. This word order is not accurate as correctly noted by Saad (1975) who convincingly argues that SA is a VSO language. Consequently, the TG approach requires a different rule for SA passives where word order is distinct from that of English.

Finally, those linguists base their analyses on language specific constructions. They do not, nevertheless, give any arguments for their account. As a result, they fail to put SA into universal perspective. Failing to do so means that cross-linguistic generalizations (e.g., passives are universally a 2-to-1 advancement phenomenon) would be missed.

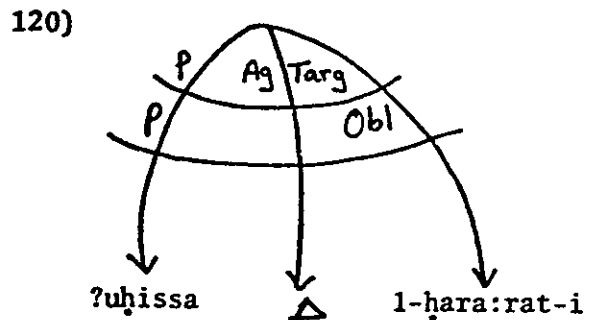
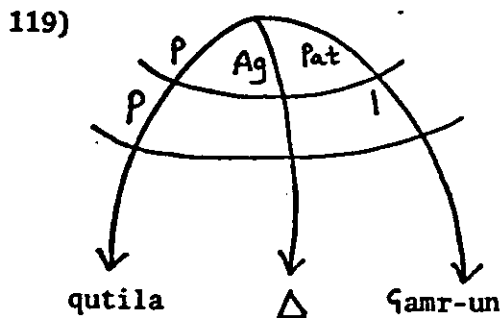
In conclusion, the TG approach seems to be inaccurate due to the pitfalls I have mentioned above. To account adequately for passives in SA, we should appeal to GRs posited within RG that disregards language-specific features, and yet makes correct predictions concerning SA passive clauses. Therefore, I can conclude that the TG approach should be rejected in favor of the RG analysis.

#### 4.5.2 The Case Grammar Approach

Following Fillmore's (1968) case grammar, Saad (1975) views SA passives as consisting of two levels: the deep structure which represents the case frame of verbs like Agent and Patient, the verb and other elements. (p. 93). If we translate his passive clause into RG terms, clauses (117-118) would be represented in (119-120), respectively:

117) qutila ʕamr-un  
Pas+killed Amr-Nom  
'Amr was killed'

118) ?uḥissa bi l-ḥara:rat-i  
Pas+felt in the-heat-Obl  
'It was felt the heat'

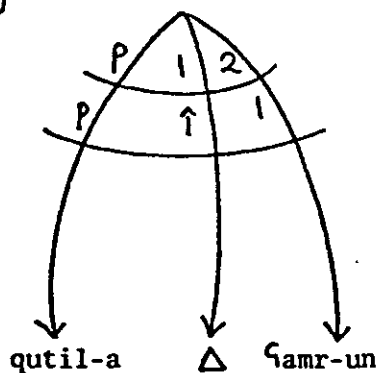




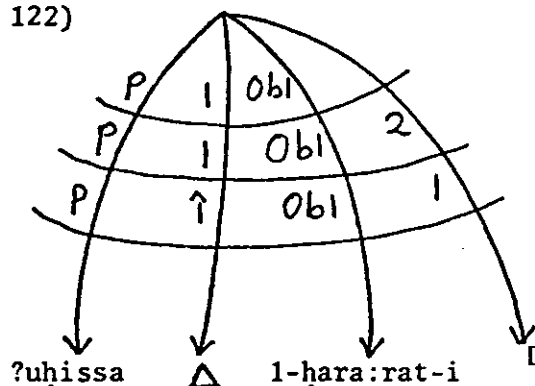
Saad does not, however, provide evidence for the final GRs borne by the nominals ḡamr-un and the unspecified subject of (120).

Under the RG analysis advocated so far, the above clauses would have the structures in (121-122) rather than those in (119-120):

121)



122)



A comparison of (119-120) on the one hand and (121-122), on the other, shows that both Case Grammar and the Relational approaches predict that ḡamr-un is the final 1, and the  $\Delta$  is neither a final subject nor an object. However, they make different predictions regarding whether or not ḡamr-un and  $\Delta$  are a 2 and 1, respectively, in the initial stratum. Moreover, Case Grammar does not posit the possibility that impersonal passives like (118) involve an inserted dummy which bears the final 1-relation. Saad's account thus excludes the possibility that a nominal like ḡamr-un can bear more than one GR in passives since his approach is monostratal that posits only one level of structure, the final one in RG terms.

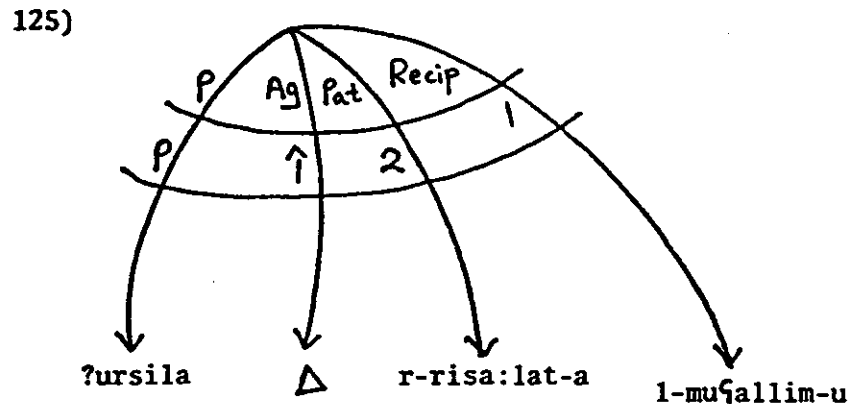
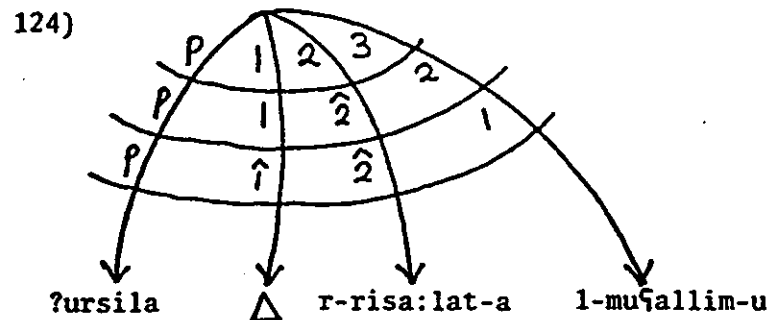
Saad's analysis encounters a few problems. Like Comrie and Lewkowicz, Saad does not recognize that an impersonal passive clause has a final 1, the dummy which is invisible in SA passives. The arguments presented in section 4.1.2 as well as those presented against Comrie in section 4.3.2 disfavor the Case Grammar approach.

In addition, Case Grammar has no systematic way of handling such passive clauses as (123), involving 3-to-2-to-1 advancement:

123) ?ursila 1-muḡallim-u r-risa:lat-a  
Pas+sent the-teacher-Nom the-letter-Acc

'The teacher was sent the letter'

Under the RG analysis, (123) has the structure in (124), while under Saad's analysis it would have the structure in (125):



In Chapter 6, it is argued that such a clause as (123) first involves the advancement of the initial 3 to 2 which, under the RG analysis of passives, then advances to final 1. Also, in advancing to 2, the initial 3 puts a nominal like r-risa:lat-a en chomage. Saad's analysis cannot account for the chomage of such a nominal since the notion "chomeur" is missing in Case Grammar. As a result, what GR a nominal like r-risa:lat-a bears cannot be predicted by Case Grammar.

In conclusion, the Case Grammar approach, like the TG approach, should be dispensed with since it cannot admit of the dummy in impersonal passives; nor can it account for the chomage of 2s in such clauses as (123).

#### 4.5.3 Summary

The preceding section has discussed the TG and Case Grammar approaches to SA passives. It has been shown that those approaches do not admit of the dummy and the chomeur relation in SA passives; therefore, those analyses should be rejected in favor of the RG analysis.

#### 4.6 Conclusion

The present chapter has examined passives in Standard Arabic. Both personal and impersonal passives are alike in the sense that they involve a nominal that advances from 2 to 1. However, while per-

sonal passive has clauses consisting of both a 1- and 2- arcs as its purview, impersonal passive is confined to unergative clauses only. Finally, it is noted that personal passives as well as clauses with initially-unaccusative strata have no impersonal passives. The impossibility of such passives follows from the 1-AEX taken together with the Final 1 Law and the Chomeur Condition.

Moreover, the advancement and the unmotivated chomeur analyses of passives are contrasted. I have supplied arguments for the former based on nominal case, the Unaccusative Hypothesis and other phenomena. Likewise, two further approaches, the Transformational and the Case Grammar, are examined and found to lack adequacy since they miss the fact that impersonal passives involve a dummy bearing the Final 1-relation and they do not admit of the chomeur relation in passive clauses.

Finally, a comparison of the analysis of SA passives with that of German, Welsh, Dutch and Maasai, to mention only a few languages, proposed by Perlmutter and Postal (1984a; 1983c) and Perlmutter (1978), reveals an interesting similarity. Though these languages are unrelated with respect to phenomena like word order and case, their passives are found to be the same, following from the universal characterization of passives posited within RG; all their passive clauses involve the advancement of a nominal bearing the 2-relation in some stratum to 1 in the final stratum. Likewise, in all these languages including SA, the 1-AEX predicts the ill-formedness of the impersonal passives of ini-

tially-unaccusative strata.

I can therefore conclude that SA passives provide confirmatory evidence for the universal characterization of passives as well as for the status of both the Chomeur Condition and the Final i Law in linguistic theory.

## Footnotes

1. Not all initial 1s are semantically "agents." Some can be patients like 1-mar?at-u or 1-mar?at-i in (i) and (ii):

(i) samiḡat-i 1-mar?at-u 1-?uḡniyata .  
heard-V the-woman-Nom the-song-Acc

'The woman heard the song'

(ii) sumiḡat-i 1-?uḡniyat-u min qibal-i  
Pas+heard-V the-song-Nom from side-Obl  
1-mar?at-i  
the-woman-Obl

'The song was heard by the woman'

Similarly, not all initial 2s are semantically "patients" as illustrated by ramaḡa:n-a which is "temporal" in (iii) and (iv):

(iii) ṣa:ma 1-muslimu:na ramaḡa:n-a  
fasted the-Muslims+Nom Ramadan-Acc

'The Muslims fasted Ramadan'

(iv) ṣi:ma ramaḡa:n-u  
Pas+fasted Ramadan-Nom

'Ramadan was fasted'

(Ramadan is the month of fasting in the Muslim World). For more details about the case frame of nominals in clauses, see Saad (1975) and El-Tikaina (1982).

2. Reflexive personal and reflexive impersonal passives are illustrated by the following German data taken from Perlmutter and Postal (1984a: 134):

(v) Reflexive Personal Passive:

Solche Sachen sagen sich nicht oft  
'Such things are not often said'

(Lit.: 'Such things do not say themselves often')

(vi) Reflexive Impersonal Passive:

Es tanzt sich gut hier  
'It dances itself well here'

(i.e., 'There is dancing here')

For more information about such types of passives, the reader is referred to Perlmutter and Postal (1984a).

3. In impersonal passives, the dummy cannot be inserted as a 1. If so, it would violate the universal characterization of passive which entails that every passive clause should involve a nominal bearing the 2-relation in a transitive stratum advancing to 1. Verbal morphology in SA gives one piece of evidence for the insertion of the dummy as a 2. The verbs in clauses like (22-24) above are all assigned a passive voice marker.
4. In this respect, SA is like Dutch in that both languages permit impersonal passives of only intransitive clauses. Other languages like Welsh and Maasai allow impersonal passives of both transitive and intransitive clauses. See Perlmutter and Postal (1984a) for discussion.
5. In this context, "agent" is not a semantic notion. It merely means the doer of the action expressed by the verb.
6. An alternative that might account for verb agreement suggests that if there is no nominal to cue agreement, then third person masculine singular is used as the default case. This sounds invalid to SA since verbs in clauses with dropped first or second person pronominals, for instance, still agree with the dropped subject, but not with a third person masculine singular. This is illustrated in (vii-viii):

(vii) qara?-ta d-dars-a  
read-2ms the-lesson-Acc

'(You) read the lesson'

(viii) qara?-na: ?ad-dars-a  
read-1p the-lesson-Acc

'(We) read the lesson'

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Even if we accept the alternative to account for verb agreement

in impersonal passives, we still need one more rule to account for data like (vii-viii).

7. The level of the unaccusative stratum is not specified here so as to accommodate other cases that may have such a stratum at a non-initial level. "Inversion"; for instance, involves an unaccusative stratum in the second level of structure.
8. Other works on the Unaccusative Hypothesis have been done on various languages including Turkish (Perlmutter 1978) and (Özkaragöz 1980b), Halkomelem (Gerds 1981) and Choctaw (Davies 1981a).
9. If the dummy were inserted as a 1 (see also f.n. (3) above), we might not be able to account syntactically for the difference between impersonal passives involving unergative predicates like (70) and (69) above and those involving unaccusatives which, if they participate in passive, would violate the 1-AEX as illustrated in clauses like (73) and (86) above.
10. Keenan (1975) and Jain (1977) also argue for the demotion analysis of impersonal passives.
11. For discussion of "cancellation" and "multiattachment" see Aissen (1982), Gerds (1981) and Rosen (1981).
12. Cases violating the 1-Advancement Exclusiveness Law are reported by Gerds (1984; 1981) and Özkaragöz (1980a).
13. The inadequacy of such approaches to passives is argued for cross-linguistically by Perlmutter (1984a; 1982; 1981) and Perlmutter and Postal (1983c).
14. Snow and Lewkowicz view SA as an SVO language. All the data given in this section are consistent with that view.



## Chapter 5

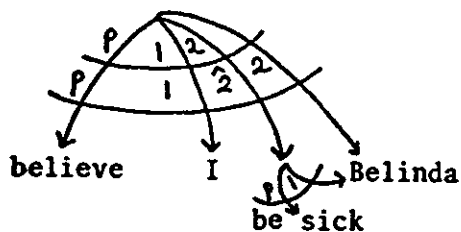
### RAISING

#### 5.0 Introduction

In a raising construction, a nominal in a downstairs clause ascends to and thus bears a grammatical relation in the upstairs clause. The clause from which it ascends is referred to as the "host" in RG. Raising is demonstrated in the English sentence (1b), represented in the stratal diagram (2):

- 1) a. I believe (that Belinda is sick).
- b. I believe Belinda (to be sick).

2)



Structure (2) denotes that the ascendees is the nominal Belinda and that the host is a 2; that is, the entire downstairs clause Belinda is sick. Moreover, the ascendees assumes the 2-relation in the upstairs clause, thus putting the initial 2 en chomage.

Any account of raising should deal with four issues: the GR of the host before and after raising and the GR of the ascendees before and after raising. Three of these issues are limited by laws as dis-

cussed below.

The GR of the host before raising is limited by the Host Limitation Law (HLL) of Perlmutter and Postal (1983b: 53), informally stated in (3):

3) The Host Limitation Law:

Only a term of a grammatical relation can be the host of an ascension.<sup>1</sup>

In the case of (1-2), for example, the host is a nuclear term bearing the 2-relation in conformity with the HLL.

Furthermore, the host following ascension should observe the Chomeur Condition, informally given in (4):

4) The Chomeur Condition:

If some nominal,  $N_a$ , bears a given term relation in a given stratum,  $S_i$ , and some other nominal,  $N_b$ , bears the same term relation in the following stratum,  $S_{i+1}$ , then  $N_a$  bears the Chomeur relation in  $S_{i+1}$ . (Perlmutter and Postal 1983c: 20).

Since Belinda in (2) usurps the upstairs 2-relation from the host, the Chomeur Condition predicts that the host should be placed en chomage.

Following raising, the ascendee should bear the GR of its host by the Relational Succession Law (RSL), proposed by Perlmutter and Postal (1983b: 53) and informally given in (5):

5) The Relational Succession Law:

An NP promoted by an ascension rule assumes the grammatical relation borne by the host out of which it ascends.<sup>2</sup>

Illustration also comes from (1-2) above in which the ascendee assumes

in the matrix clause the 2-relation, which is the GR of the host, in accordance with the RSL.

In contrast, the GR of the ascension nominal before raising is not constrained by any relational laws. Cross-linguistic research has shown that languages vary as to which nominals may ascend. In English, for instance, only final 1s can raise as is illustrated in (1-2) above as well as in (6b-c) contrasted with (6d):

- 6) a. It seems (that Margo solved the problem).  
 b. Margo seems (to have solved the problem).  
 c. The problem seems (to have been solved by Margo).  
 d. \*The problem seems (that Margo solved).

Clauses (6b-c) involving the ascension of the final 1 in the downstairs clause, Margo and the problem, respectively, are grammatical. In contrast, clause (6d) where a downstairs final 2 - the problem - has raised is ill-formed.

Similarly, Chung (1976: 134-71) finds that subject-to-subject raising is restricted to final 1s in Tongan and Samoan, two Polynesian languages, as can be seen in the following set of pairs:<sup>3</sup>

- Tongan 7) a. 'é lava ke lea á e pēpē  
 unu can sbj talk Abs the baby  
 'The baby can talk'  
 b. 'é lava á e pēpē ó lea  
 unu can Abs the baby comp talk  
 'The baby can talk'

- Samoa 8) a. e mafai óna tātou nonofo  
 unm can comp we stay-pl  
 'We can stay'
- b. e mafai e tātou óna nonofo  
 unm can Erg we comp stay-pl  
 'We can stay'

Raising, nonetheless, is not limited to final 1s universally. For example, Seiter (1983: 317-59) reports that both final 1s and 2s can ascend via subject-to-subject raising in Niuean, a Polynesian language, as in (9b-c):<sup>4</sup>

- 9) a. kua kamata ke hala he tama e akau  
 perf begin sbj cut Erg child Abs tree  
 'The child has begun to cut the tree'
- b. kua kamata e tama ke hala e akau  
 perf begin Abs child sbj cut Abs tree  
 'The child has begun to cut down the tree'
- c. kua kamata e akau ke hala he tama  
 perf begin Abs tree sbj cut Erg child  
 'The tree has begun to be cut down by the child'

Likewise, Gerdtz (1980c) finds that Ilokano, a Philippine language, permits final 1s and also final 2s to raise as in (10b-c):

- 10) a. N-in-ammama ko (nga t-in-engpa ti babai  
 pst-expect I-Gen linker pst-slap Det woman  
 ti lalaki)  
 Det man  
 'I expected that the woman hit the man'

b. N-in-amnama ko ti lalaki (nga t-in-engpa ti babai)  
'I expected the man to be hit by the woman'

c. N-in-amnama ko ti babai (nga t-in-engpa  
na ti lalaki  
3-Gen

'I expected the woman to hit the man'

Gerds notes that when the downstairs final ergative (the 1 of a transitive stratum) raises, it leaves a copy, for example, na in (10c).

In this chapter, I show that raising in SA is not restricted to only final 1s and 2s, final 3s can also ascend. In other words, all nominals bearing term relations are eligible for ascension in SA.

### 5.1 Raising in SA

Two types of raising are available in SA: raising to subject and raising to object, as illustrated in clauses (11-12b, c):

11) a. yabdu (?anna l-walad-a kasara n-na:fiḡat-a)  
seem that the-boy-Acc broke the-window-Acc

'It seems that the boy broke the window'

b. yabdu l-walad-u (?anna-hu kasara n-na:fiḡat-a)  
seem the-boy-Nom that-he broke the-window-Acc

'The boy seems to have broken the window'

12) a. ḡanna ša:hir-un (?anna ḡana:n-an katabat-i  
thought Shahir than Hanaan-Acc wrote-V  
r-risa:lat-a  
the-letter-Acc

'Shahir thought that Hanaan wrote the letter'

- b.  $\dot{\text{d}}$ anna  $\check{\text{s}}$ a:hir-un  $\text{h}$ ana:n-an (?anna-ha katabat-i  
 thought Shahir-Nom Hanaan-Acc that-she wrote-V  
 r-risa:lat-a)  
 the-letter-Acc

'Shahir thought Hanaan to have written the letter'

- c.  $\dot{\text{d}}$ anna  $\check{\text{s}}$ a:hir-un r-risa:lat-a (?anna  $\text{h}$ ana:n-an  
 thought Shahir-Nom the-letter-Acc that Hanaan-Acc  
 katabat-ha:)  
 wrote-it

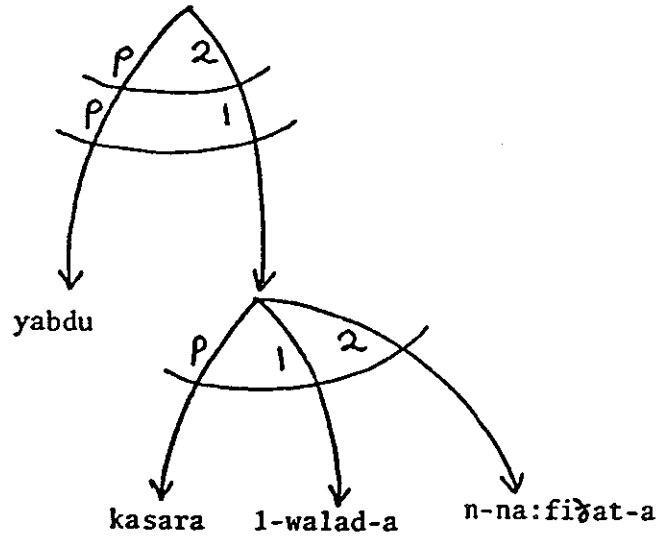
'Shahir thought the letter to have been written  
 by Hanaan'

I claim that raising to subject relates clause (11a) to (11b), and that raising to object relates (12a) to both (12b-c).

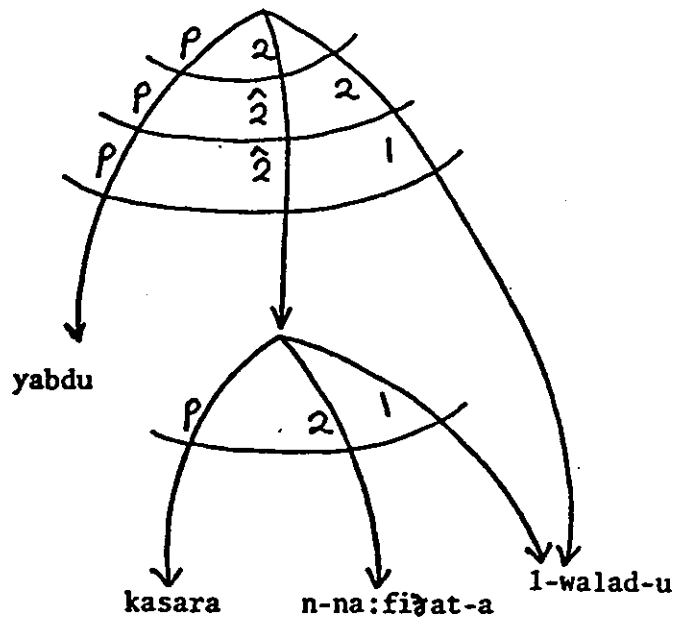
To account for such clauses as (11-12b) and (12c), I propose that raising in SA, like raising in English, involves a structure consisting of a downstairs and an upstairs clause. The latter has a raising governing predicate like  $\dot{\text{d}}$ anna and  $\text{yabdu}$ , as will be discussed later, taking a sentential complement bearing the 2-relation. Moreover, I assume that the GR of nominals in ascension clauses follows from universal laws: when raised, nominals bear the GR of their host in conformity with the RSL and the remnant of the host thus assumes the chomeur relation by the Chomeur Condition, as was the case with English raising discussed above.

To illustrate this analysis, consider the above clauses. Clauses like (11a) which do not involve raising and those like (11b) which do are represented in diagrams (13-14), respectively:<sup>5,6</sup>

13)



14)

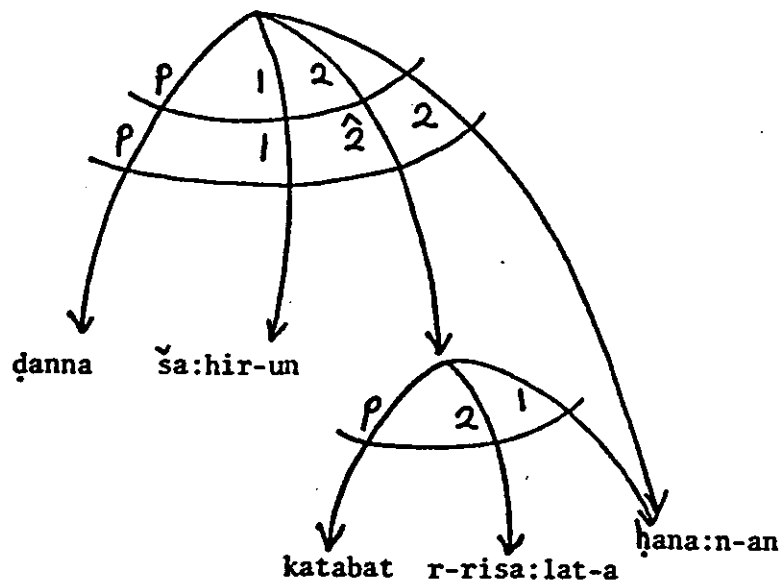


Structure (14) shows that the ascende $\acute{e}$  is 1-walad-a that assumes the 2-relation in the upstairs clause by the RSL, and then advances to 1 in the final stratum. Such clauses represented in (14) exemplify what I call "raising to subject."

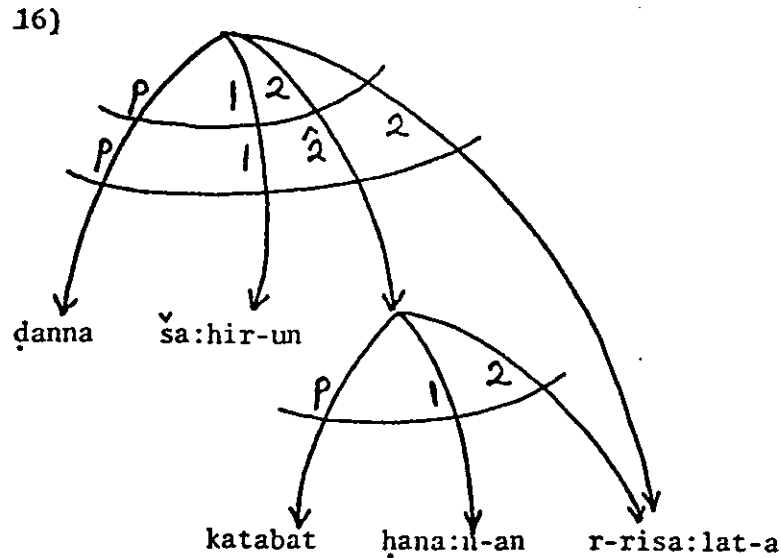
It should be noted that clauses like (11b) do not actually involve the raising of a downstairs nominal to 1 in the upstairs clause. Instead, they involve raising to 2 upon the assumption that verbs like yabdu 'seem' determine initially-unaccusative strata.<sup>7</sup> However, throughout the present work I call such raising clauses "raising to subject" to keep them distinct from raising to object clauses, discussed below.

Raising to object is exemplified in clauses (12b-c), represented in diagrams (15-16), respectively:

15)







The ascendees to object in these clauses are ḥana:n-an and r-risa:lat-a. The former assumes the 1-relation in the downstairs clause, and the latter the 2-relation. Ascending to object, these nominals put the initial 2 en chomage in the upstairs clause.

In summary, the ascendees 1-walad-u, ḥana:n-an and r-risa:lat-a in (14-16) all assume the GR of their host by the RSL. They all bear the 2-relation since in the case of examples like (14) the raising predicate determines initially-unaccusative strata and the ascende, thus, advances to 1 in accord with Unaccusative Advancement,<sup>8,9</sup> and in the case of (15-16) the raising predicate takes a sentential object. Furthermore, the host, which is a term in accordance with the HLL, goes into chomage by the Chomeur Condition.

Before turning to the evidence, I point out several features of

SA raising. Firstly, the ascende<sup>e</sup> always leaves a pronominal copy of itself behind in the downstairs clause where its placement is predicted by the rule of pronominal cliticization discussed in section 3.3; the copy is attached to either the complementizer if the ascende<sup>e</sup> is subject, to the predicate if it is a direct object, or to a preposition in the case of an indirect object. This characteristic is demonstrated in the above clauses in which the copy is underlined.

Secondly, as noted above, nominals heading final term arcs (1s, 2s and 3s) can ascend as is shown in the above and the following clauses (17-19b), which manifest that raising constructions involve only subject-to-subject (e.g., clause (11b)), direct object-to-subject (e.g., (17b)), and indirect object-to-subject (e.g., (18b)) as well as indirect object-to-direct-object (e.g., (19b)) though not all speakers permit the ascension of 3s:

- 17) a. tabayyana (?anna l-walad-a za:ra l-bint-a)  
 seem that the-boy-Acc visited the-girl-Acc  
 'It seems that the boy visited the girl'
- b. tabayyanat-i l-bint-u (?anna l-walad-a za:ra-ha:)  
 seem-V the-girl-Nom that the-boy-Acc visited her  
 'The girl seems that the boy visited her'
- 18) a. yaḏharu (?anna t-ta:lib-a ?aḏḏa l-kita:b-a  
 seem that the-student-Acc gave the-book-Acc  
 li l-muḏallim-i)  
 to the-teacher-Obl  
 'It seems that the student gave the book to the teacher'

@b. yadhuru l-muḡallim-u (?anna ṭ-ṭa:lib-a  
 seem the-teacher-Nom that the-student-Acc  
 ?aḡṭa l-kita:b-a la-hu)  
 gave the-book-Acc to-him

Lit.: 'The teacher seems that the student gave the  
 book to him'

19) a. ḡanna ša:hir-un (?anna na:hid-an ?arsala  
 thought Shahir-Nom that Nahid-Acc sent  
 r-risa:lat-a li ṭ-ṭabi:b-i)  
 the-letter-Acc to the-physician-Obl

'Shahir thought that Nahid sent the letter to the  
 physician'

@b. ḡanna ša:hir-un ṭ-ṭabi:ba (?anna na:hid-an  
 thought Shahir-Nom the-physician-Acc that Nahid-Acc  
 ?arsala r-risa:lat-a la-hu)  
 sent the-letter-Acc to-him

Lit.: 'Shahir thought the physician that Nahid  
 sent the letter to him'

Nominals heading non-term arcs cannot, however, ascend as can be  
 seen in clauses (20-24b):

20) a. ḡasib-tu (?anna ša:hir-an sallama ḡala l-bint-i)  
 thought-1s that Shahir-Acc greeted on the-girl-Obl

'I thought that Shahir greeted the girl'

b. \*ḡasib-tu l-bint-a (?anna ša:hir-an sallama ḡalay-ha:)  
 thought-1s the-girl-Acc that Shahir-Acc greeted on-her

21) a. ?aḡbata ša:hir-un (?anna muḡammad-an kataba  
 proved Shahir-Nom that Mohammad-Acc wrote  
 r-risa:lat-a bi l-qalam-i)  
 the-letter-Acc with the-pen-Obl

'Shahir proved that Mohammad wrote the letter with  
 the pen'

- b.\*ʔa ʕbata ša:hir-un ʔal-qalam-a (ʔanna muḥammad-an  
proved Shahir-Nom the-pen-Acc that Mohammad-Acc  
kataba r-risa:lat-a bi-hi)  
wrote the-letter-Acc with-it
- 22) a. ʕalim-tu (ʔanna l-mari:d-a zî:ra (min  
know-1s that the-patient-Acc pas+visited (from  
qibal-i muḥammad-in))  
side-Obl Mohammad-Obl)
- 'I knew that the patient was visited (by Mohammad)'
- b.\*ʕalim-tu muḥammad-an (ʔanna l-mari:d-a zî:ra  
knew-1s Mohammad-Acc that the-patient-Acc pas+visited  
(min qibal-i-hi))  
(from side-Obl-his)
- 23) a. yaḍharu (ʔanna r-risa:lat-a kutibat (min qibal-i  
seem that the-letter-Acc pas+wrote (from side-Obl  
ša:hir-in))  
Shahir-Obl)
- 'It seems that the letter was written (by Shahir)'
- b.\*yaḍharu ša:hir-un (ʔanna r-risa:lat-a kutibat  
seem Shahir-Nom that the-letter-Acc pas+wrote  
(min qibal-i-hi))  
(from side-Obl-his)
- 24) a. yabdu (ʔanna na:hid-an fataḥa l-ba:b-a bi  
seem that Nahid-Acc opened the-door-Acc with  
l-mifta:h-i)  
the-key-Obl)
- 'It seems that Nahid opened the door with the key'
- b.\*yabdu l-mifta:h-u (ʔanna na:hid-an  
seem the-key-Nom that Nahid-Acc  
fataḥa l-ba:b-a bi-hi)  
opened the-door-Acc with-it

These clauses are ungrammatical since nominals heading non-term arcs are raised: Clauses (20-21b) involve Oblique-to-object raising, (22b)  $\hat{i}$ -to-object raising, (23b)  $\hat{i}$ -to-"subject" raising and (24b) Oblique-to-"subject" raising.

Thirdly, after raising, the downstairs clause remains finite, introduced by the complementizer ?anna. This is exemplified in all the above clauses. This is not like English in which such a clause is infinitival following raising (e.g., (1b) above).

Finally, raising is lexically-governed. Raising to "subject" is controlled by the following set of predicates, illustrated in (11b) above:

25) Raising to Subject Triggers:

yabdu	'seem'
yatara:?a:	'seem'
yatabayyanu	'seem; turn out'
yadharu	'seem; look like'

The governors of raising to object are, to my knowledge, the following set of predicates, demonstrated in (12b-c) above:

26) Raising to Object Triggers:

ɖanna	'think, doubt'
ɖasiba	'think, believe'
ɖalima	'know'
ɖadda	'consider, think'
xa:la	'think'
fakkara	'think'
?iɖtabara	'consider'

In contrast, verbs like qa:la 'to say' and ?aɖlana 'to announce' cannot trigger raising as can be shown in the ungrammatical clauses (27-28b); the nominals t-ɖa:lib-a 'the student' and l-ɖuku:mat-a 'the government' are raised to object in the upstairs clauses:

- 27) a. qa:la l-muʕallim-u (?anna t-ta:lib-a  
said the-teacher-Nom that the-student-Acc  
laʕiba n-nard-a)  
played the-backgammon-Acc
- 'The teacher said that the student played  
backgammon'
- b. \*qa:la l-muʕallim-u t-ta:lib-a (?anna-hu laʕiba  
said the-teacher-Nom the-student-Acc that-he played  
n-nard-a)  
the-backgammon-Acc
- (Lit.: The teacher said the student that he played  
backgammon)
- 28) a. ?aʕlana l-mudi:r-u (?anna l-ḥuku:mat-a  
announced the-director-Nom that the-government-Acc  
xaffaḍat-i l-?asʕa:r-a)  
reduced-V the-prices-Acc
- 'The director announced that the government reduced  
the prices'
- b. \*?aʕlana l-mudi:r-u l-ḥuku:mat-a  
announced the-director-Nom the-government-Acc  
(?anna-ha: xaffaḍat-i l-?asʕa:r-a)  
that-it reduced-V the-prices-Acc
- (Lit.: The director announced the government that  
it reduced the prices)

In the following sections, I give arguments for raising. Sections 5.1.1 and 5.1.2 provide evidence for the final GRs assumed by the ascendees in the upstairs clause of "raising to subject" and raising to object, respectively. Section 5.2 deals with two alternatives to the raising analysis: No-Raising and Equi. Finally, some conclusions are arrived at based on the preceding discussions.

## 5.1.1 Raising to Subject

In this section, I supply evidence for the final 1-hood of the ascendees in the upstairs clauses involving "raising to subject", demonstrated in clauses (29b-d):

- 29) a. yabdu (?anna na:hid-an ?arsala 1-hadiyyat-a  
seem that Nahid-Acc sent the-gift-Acc  
li 1-ḥaki:m-i)  
to the-wiseman-Obl

'It seems that Nahid sent the gift to the wiseman'

- b. yabdu na:hid-un (?anna-hu ?arsala  
seem Nahid-Nom that-he sent  
1-hadiyyat-a li 1-ḥaki:m-i)  
the-gift-Acc to the-wiseman-Obl

Lit.: 'Nahid seems that he sent the gift to the wiseman'

- c. tabdu 1-hadiyyat-u (?anna Na:hid-an ?arsala-ha:  
seen the-gift-Nom that Nahid-Acc sent-it  
li 1-ḥaki:m-i  
to the-wiseman-Obl

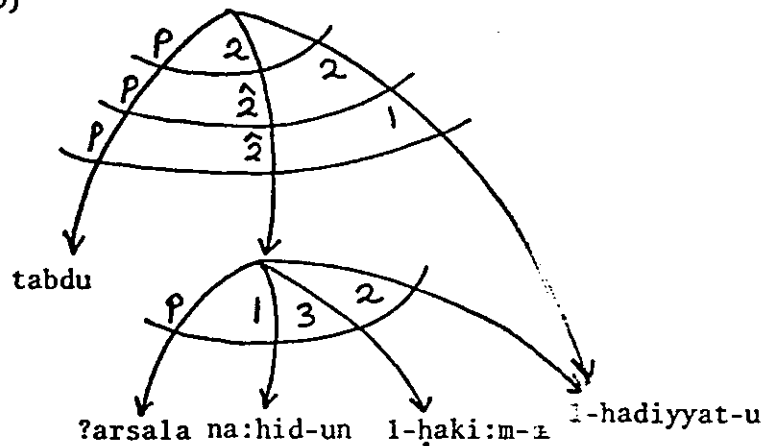
Lit.: 'The gift seems that Nahid sent it to the wiseman'

- d. yabdu 1-ḥaki:m-u (?anna na:hid-an ?arsala  
seem the-wiseman-Nom that Nahid-Acc sent  
1-hadiyyat-a la-hu)  
the-gift-Acc to-him

Lit.: 'The wiseman seems that Nahid sent the gift to him'

A clause like (29c) can be represented in diagram (30):

30)



That an ascendee like 1-hadiyyat-u is a final 1 of the predicate tabdu is evidenced on the basis of nominal case, verb agreement and word order.

#### a) Nominal Case

It has been shown that a final 1 in main clauses is marked nominative. If an ascendee bears the final 1-relation in the upstairs clause, it should be so marked; and this prediction holds as can be seen in (31-33) contrasted with sentences like (34-35):

- 31) bad-a na:hid-un (ka?anna-hu haqara  
seemed-3ms Nahid-Nom as if he attended  
1-?ijtima:q-a  
the-meeting-acc

Lit.: 'Nahid seemed as if he attended the meeting'

- 32) bad-at-i 1-bint-u (ka?anna-ha: katabat-i  
seemed-3fs-V the-girl-Nom as if she wrote-V  
r-risa:lat-a)  
the-letter-Acc

Lit.: 'The girl seemed as if she wrote the letter'



- 33) @bad-a 1-muḡallim-u (?anna na:hid-an ḡaḡṡa  
seemed-3ms the-teacher-Nom that Nahid-Acc gave  
r-risa:lat-a la-hu)  
the-letter-Acc to-him

Lit.: 'The teacher seemed that Nahid gave the letter to him'

In the case of (31-33), the ascendees na:hid-un, 1-bint-u and 1-muḡallim-u are all marked nominative as is indicated by the suffixes -un or -u. In contrast, the downstairs 1s na:hid-an and t-ṡa:lib-a in (34-35) which do not involve raising are marked accusative:

- 34) bad-a (kaḡanna na:hid-an \*(na:hid-un)  
seemed-3ms as if Nahid-Acc (Nahid-Nom)  
ḡaḡara 1-ḡijtima:ḡ-a)  
attended the-meeting-Acc

'It seemed that Nahid attended the meeting'

- 35) qa:l-at-i 1-bint-u (?anna t-ṡa:lib-a  
said-3fs-V the-girl-Nom that the-student-Acc  
\*(t-ṡa:lib-u) ḡahaba ḡila 1-qaryat-i)  
(the-student-Nom) went to the-village-Obl

'The girl said that the student went to the village'

If the downstairs 1s in (34-35) are marked nominative, the clauses would be rendered ungrammatical. Thus, the fact that ascendees are in the nominative case provides one argument for their final 1-hood in the upstairs clause.

#### b) Verb Agreement

In SA, the final subject triggers verb agreement. Accordingly, if the ascende is a final 1 in the upstairs clause, it should cue verb agreement on the upstairs verb. This is the case as can be seen in clauses (31-33) where the upstairs verb agrees with the ascension nom-

inals na:hid-un, l-bint-u and l-muḡallim-u as is indicated by the agreement markers -a or -āt. The former marks agreement with a third person masculine singular like na:hid-un, and the latter marks agreement with a third person feminine singular like l-bint-u.

#### c) Word Order

Word order provides a further argument for the final 1-hood of ascendees. In SA, final 1s follow the predicate in main clauses. Thus, if the ascendees are final 1s, they should immediately follow the upstairs predicate and appear to the left of the complementizer ?anna. That this prediction holds can be seen in clauses like (31-33) where the ascendees all follow the upstairs predicates and are positioned to the left of the complementizer. This case could be contrasted with clauses like (27-28) above where final 1s appear to the right of the complementizer; they cannot ascend since verbs like qa:la do not trigger raising as seen in (27-28b).

#### d) Summary

The preceding subsection has argued for the final 1-hood of the ascendees in "raising to subject" clauses. We have seen that an ascende is in the nominative case, can trigger verb agreement and appears following the upstairs raising governing verb to the left of the complementizer.

## 5.1.2 Raising to Object

Having argued for "raising to subject" constructions, I now establish raising to object in SA, giving evidence for the GR borne by the ascension nominals in the upstairs clause based upon word order, pronominal cliticization and passive. Clauses involving raising to object are given in (36b-c) and (37):

- 36) a. xiltu (?anna ṭ-ṭabi:b-a ?aṣṭa n-nuqu:d-a  
 thought+ls that the-physician-Acc gave the-money-Acc  
 li 1-mar?at-i)  
 to the-woman-Obl

'I thought that the physician gave the money to the woman'

- b. xil-tu ṭ-ṭabi:b-a (?anna-hu ?aṣṭa  
 thought-1s the-physician-Acc that-he gave  
 n-nuqu:d-a li 1-mar?at-i)  
 the-money-Acc to the woman-Obl

'Lit.: I thought the physician that he gave the money to the woman'

- c. xil-tu 1-mar?at-a (?anna ṭ-ṭabi:b-a  
 thought-1s the-woman-Acc that the-physician-Acc  
 ?aṣṭa n-nuqu:d-a la-ha:)  
 gave the-money-Acc to-her

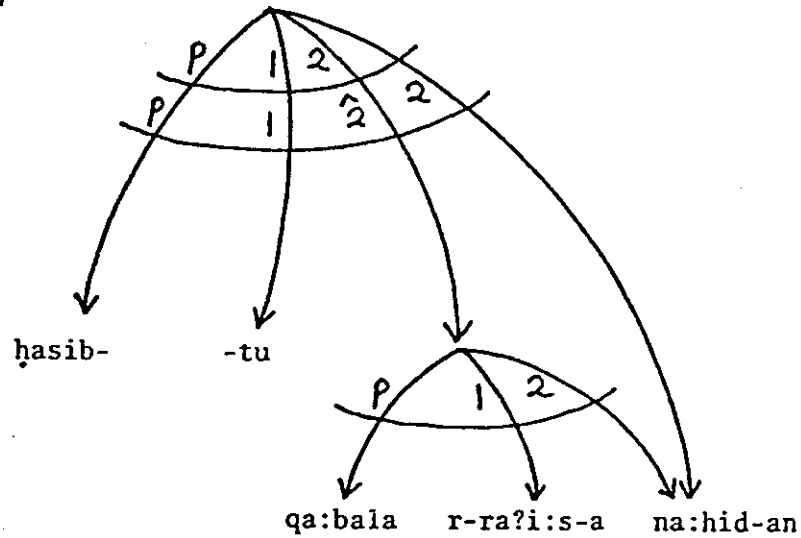
'Lit.: I thought the woman that the physician gave the money to her'

- 37) ḥasib-tu na:hid-an (?anna r-ra?i:s-a  
 believed-1s Nahid-Acc that the-president-Acc  
 qa:bala-hu)  
 met-him

'Lit.: I believed Nahid that the president met with him'

A clause like (37) has the structure in (38):

38)



In the case of (38), the ascension nominal na:hid-an as well as t-ṭabi:b-a and 1-marʔat-a in (36b-c) bear the final 2-relation and are marked accusative.<sup>11</sup>

#### a) Word Order

In section 3.1, we have seen that in SA word order the predicate comes first, followed by the subject which, in the case of transitive clauses, is in turn followed by the direct object in main clauses. Consequently, if the ascendees in clauses involving raising to object are final 2s, they should immediately follow final 1s and appear to the left of the complementizer ʔanna in the case of raising clauses. Nominals that cannot ascend should appear to the right of the complementizer. Consider in this respect the following contrasts:

- 39) ḥasib-tu na:hid-an (?anna r-ra?i:s-a  
 thought-1s Nahid-Acc that the-president-Acc  
 qa:bala-hu)  
 met-him

'I believed Nahid to have been met by the president'

- 40) a. ?aʕlana l-ḥa:kim-u (?anna l-mar?at-a  
 announced the-governor-Nom that the-woman-Acc  
 faqadat ḥaqi:bat-a-ha:)  
 lost bag-Acc-her

'The governor announced that the woman lost her bag'

- b. \*aʕlana l-ḥa:kim-u l-mar?at-a (?anna-ha:  
 announced the-governor-Nom the-woman-Acc that-she  
 faqadat ḥaqi:bat-a-ha:)  
 lost bag-Acc-her

In clause (39), which involves raising to object, the ascension nominal na:hid-an follows the final 1 -tu and appears to the left of ?anna. On the other hand, raising and placing the nominal l-mar?at-a to the left of the complementizer induces the ungrammatical clause (40b) since ?aʕlana does not govern raising. Therefore, the fact that ascension nominals can appear to the left of the complementizer following the final 1 of the upstairs clause provides an argument for the final 2-hood of ascendees in raising to object constructions.<sup>12</sup>

#### b) Pronominal Cliticization

Final 2s in SA, when pronominalized, appear as clitics on the verb. Accordingly, if the ascendees bears the final 2-relation, it should cliticize to the upstairs verb. That this prediction is borne out can be shown in the clause (41b) contrasted with (42b):

- 41) a.  $\dot{d}$ anna  $\check{s}$ a;hir-un  $\dot{h}$ ana:n-an (?anna-ha;  
thought Shahir-Nom Hanaan-Acc that-she  
qaṭafat-i 1-wardat-a)  
picked-V the-rose-Acc

'Shahir believed Hanaan to have picked up the rose'

- b.  $\dot{d}$ anna-ha;  $\check{s}$ a;hir-un (?anna-ha:  
thought-her Shahir that-she  
qaṭafat-i 1-wardat-a)  
picked-V the-rose-Acc

'Shahir believed her to have picked up the rose'

- 42) a. qa:1-at-i 1-bint-u (?anna r-rajul-a  
said-3fs-V the-girl-Nom that the-man-Acc  
ḍaraba-hu)  
hit-him

'The girl said that the man hit him'

- b. \*qa:1-at-hu 1-bint-u (?anna  
said-3fs-him the-girl-Nom that  
r-rajul-a ḍaraba)  
the-man-Acc hit

In the case of (41b), -ha:, the pronominal replacing the ascension nominal hana:n-an in (41a), cliticizes to the upstairs predicate danna-. However, cliticizing a downstairs 2 like -hu in (42b) to the upstairs predicate induces ungrammaticality in clauses that do not involve raising. The fact that ascendees can appear as clitics on the upstairs verb thus supplies another argument that they are final 2s.<sup>13</sup>

### c) Passive

If it is true that the ascendees is a 2 in the upstairs clause, it should be able to advance to 1 via passive. This claim holds as illustrated in (43), the counterpart to the non-passive (41a) above:<sup>14</sup>

43)  $\text{dunn-at } \text{hana;n-un}$  (?anna-ha;  
 Pas+thought-3fs Hanaan-Nom that-she  
 qatafat-i 1-wardat-a)  
 picked-V the-rose-Acc

'Hanaan was believed to have picked up the rose'

The ascende hana;n-un has advanced to 1 in (43), thus giving further evidence in favor of its final 2-hood.

#### d) Summary

The previous subsection has provided evidence for the ascende's final 2-hood in clauses involving raising to object. We have shown that such ascendes follow final 1s appearing to the left of the complementizer, cliticize to the upstairs predicate and advance to 1 via passive.

### 5.2 Alternatives to the Raising Analysis

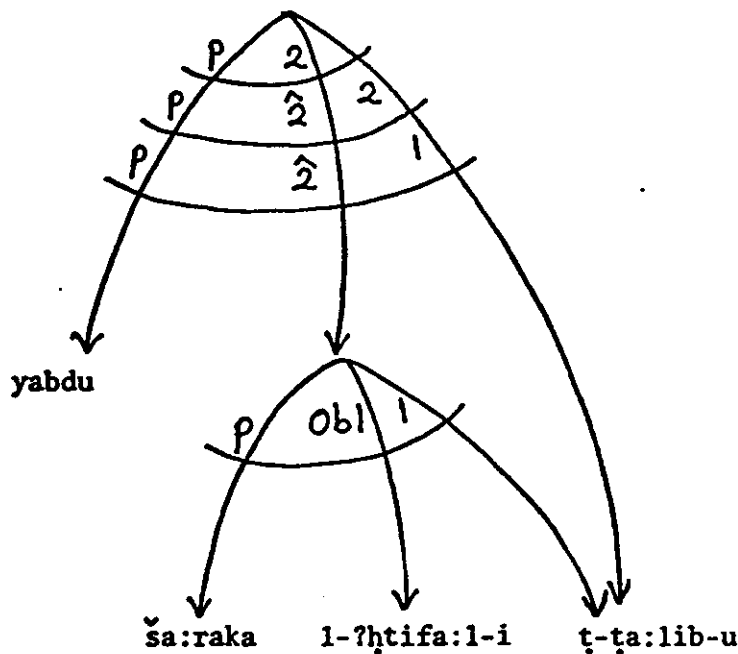
The preceding section has argued for raising in SA. Nevertheless, two alternatives to the raising analysis--No-Raising and Equi--might be posited to account for the data discussed so far. In what follows, I argue against these alternatives, showing that they are inferior to the raising analysis. The no-raising alternative is dealt with in section 5.2.1 and the Equi alternative in 5.2.2.

## 5.2.1 The No-Raising Alternative

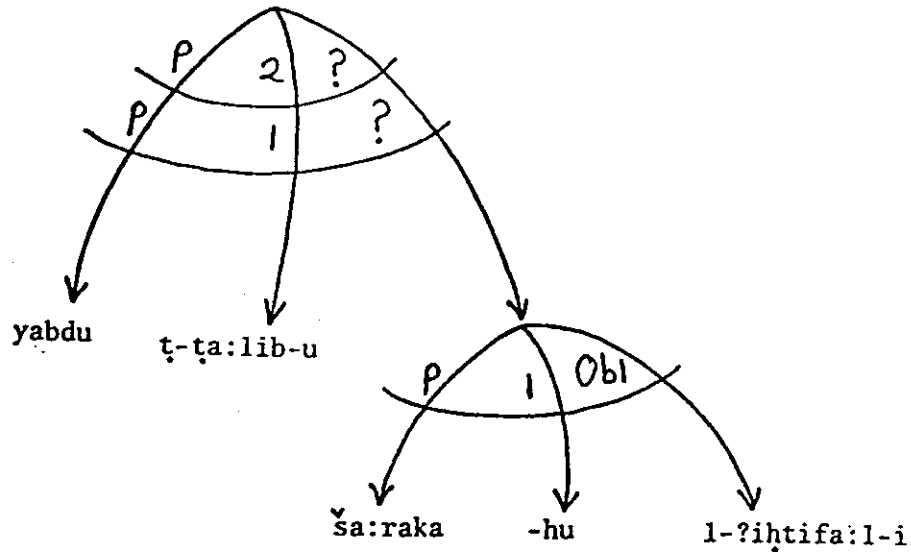
This section deals with a no-raising alternative which maintains that "ascension nominals" originate in the upstairs clause and thus have never borne any GR in the downstairs clause. Under this alternative, a clause like (44) would have the structure (46) rather than (45):

- 44) yabdu ṭ-ta:lib-u (?anna-hu ša:raka  
 seem the-student-Nom that-he participated  
 fi l-?iḥtifa:l-i)  
 in the-celebration-Obl

'The student seems to have participated in the celebration'

45) Raising Analysis



46) No-Raising Analysis

Compare (46) with the stratal diagram (45) based on the raising analysis. Under the no-raising analysis, (46) does not involve raising at all; t-ta:lib-u is the initial that advances to 1 via unaccusative advancement in the upstairs clause (not an ascende) and the pronoun -hu is the initial and final 1 in the downstairs clause (not a pronominal copy).<sup>15</sup> On the other hand, t-ta:lib-u is the initial 1 in the downstairs clause in (45) and then raises to 2 in the upstairs clause and advances to 1 via unaccusative advancement.

The no-raising alternative, like the raising one, can handle the arguments used to support the final GRs borne by the ascension nominals in clauses involving raising to both subject and object. However, it cannot handle data involving the topicalization and obligatory coreference. For the no-raising alternative to account for such data, ad

hoc statements would have to be added to SA grammar.

a) Topicalization

In section 3.6, I made the claim that any nominal bearing a final GR can topicalize in SA. If it is true that an ascension nominal is not an ascendeo in the upstairs clause of a raising construction, it should topicalize. That this prediction is ruled out can be seen in the ungrammatical sentence (47b) where the final 2 in (47a) has topicalized:

- 47) a. ḥasib-tu t-tilmi:ʒ-a (?anna  
thought-1s the-pupil-Acc that  
1-muʕallimat-a ɖarabat-hu)  
the-teacher+f-Acc hit-him

'Lit.: I thought the pupil that the f-teacher hit him'

- b. \*ʔat-tilmi:ʒ-u, ḥasib-tu-hu (?anna  
the-pupil-Nom, thought-1s-him that  
1-muʕallimat-a ɖarabat-hu)  
the-teacher+f-Acc hit-him

'Lit.: The pupil, I thought him that the f. teacher hit him'

Thus, topicalizing non-ascension nominals like ʔat-tilmi:ʒ-u in (47b) induces ungrammaticality, a fact which is non-predictable and uninterpretable under the alternative analysis. To account for data like (47b), the no-raising analysis would have to complicate the grammar by adding an ad hoc statement that says that final 2s, for instance, in the upstairs clause should not topicalize.

The raising analysis can, on the other hand, straightforwardly handle clauses like (47b). We have seen that an ascendeo leaves a copy

in the downstairs clause. If it were then topicalized, it would leave another copy in the upstairs clause, resulting in two pronominal copies in the same sentence. To block such sentences, I propose the following constraint:

48) Constraint on Pronominal Copies:

A sentence is ungrammatical if it involves a nominal which has more than one pronominal copy.

The constraint does not, however, preclude the possibility of having clauses in which one nominal antecedes more than one pronominal as seen in (49-51):

49)  $\text{?a}\text{ṣ-ṣayya:d-u, ḥasib-tu (?anna-hu qa:bala-ha:)}$   
the-hunter-Nom, thought-Is that-he met-her

'The hunter, I thought that he met her'

50)  $\text{yabdu r-rajul-u (?anna-hu kataba risa:lat-an}$   
seem the-man-Nom that-he wrote letter-Acc  
 $\text{li ?ibn-i-hi)}$   
to son-Obl-his

'The man seems that he wrote a letter to his son'

51)  $\text{ḥasib-tu l-walad-a (?anna-hu sallama}$   
thought-Is the-boy-Acc that-he greeted  
 $\text{ʕala ṣadi:q-i-hi)}$   
on friend-Obl-his

'I thought the boy to have greeted his friend'

Though every clause has more than one pronominal, (49-50) are grammatical since only one of the pronominals is a copy left by a given nominal; -hu in (50), for instance, is left by the ascende r-rajul-u.

At first, the constraint in (48) may seem odd and clearly there is an alternative to it, as follows:

52) An ascende cannot topicalize.

However, there are data that support (48) over (52). Specifically, recall from the discussion of topicalization in section 3.6 that, while non-subjects which are topicalized leave pronominal copies, subjects which are topicalized do not. Thus, (48) and (52) make different predictions concerning topicalization involving ascendees which are final subjects; (48) would allow such constructions while (52) would not. As we see in (53-54b), the constraint in (48) makes the right prediction.

- 53) a. yabdu 1-walad-u (?anna-hu ʕahaba ?ila 1-bayt-i)  
 seem the-boy-Nom that-he went to the-home-Obl  
 'The boy seems to have gone home'
- b. ?al-walad-u, yabdu (?anna-hu ʕahaba ?ila 1-bayt-i)  
 the-boy-Nom, seem that-he went to the-home-Obl  
 'The boy, (he) seems to have gone home'
- 54) a. ḥusiba na:hid-un (?anna-hu ʕahaba ?ila 1-bayt-i)  
 Pas+thought Nahid-Nom that-he went to the-home-Obl  
 'Nahid was thought to have gone home'
- b. na:hid-un, ḥusiba (?anna-hu ʕahaba ?ila 1-bayt-i)  
 Nahid-Nom, pas+thought that-he went to the-home-Obl  
 'Nahid, (he) was thought to have gone home'

In (53b), involving "subject-to-subject raising", the ascended subject can nevertheless topicalize since it does not leave a copy in the upstairs clause. Similarly, in (54b), which involves "subject-to-object raising" and passive in the upstairs clause, the final subject can topicalize and does so without a copy.

Returning now to the no-raising analysis, the ascendees in \*(47b),

as well as those in (53b) and (54b), would be viewed as having borne no GR in the downstairs clause: the pronoun in the downstairs clause is not a copy. Thus, constraint (48) would not block \*(47b) and since topicalization would not otherwise be excluded, the no-raising analysis can provide no account for such data.

The fact that we can account for the ungrammaticality of such clauses under the raising analysis constitutes an argument against the no-raising alternative.

#### b) Obligatory Coreference

I stated earlier that an ascende (as well as a topicalized nominal) leaves a pronominal copy behind in the clause out of which it is extracted. Also, the copy must match the ascende in gender, number, and person as is exemplified in (55-56) where the underlined copy -hu 'he' is left behind by and matches the third person masculine singular ascension nominal l-walad-u:

55) yabdu l-walad-u (?anna-hu \*(?anna) kataba d-dars-a)  
seem the-boy-Nom that-he (that) wrote the-lesson-Acc

'The boy seems to have written the lesson'

56) ḥasib-tu l-walad-a (?anna-hu \*(?anna) kataba  
thought-1s the-boy-Acc that-he (that) wrote  
d-dars-a)  
the-lesson-Acc

'I thought the boy to have written the lesson'

Under the no-raising alternative, such a copy is a pronoun -- not a pronominal copy. If this view is valid, we expect the substitution of another pronominal for such a copy to be grammatical. Our ex-

pectation is not met as can be shown in the ungrammaticality of (57-58) where -hum 'they', a third person masculine plural pronominal, for instance, substitutes -hu:

57) \*yabdu l-walad-u (?anna-hum kataba d-dars-a)  
 seem the-boy-Nom that-they wrote the-lesson-Acc

58) \*ḥasib-tu l-walad-a (?anna-hum kataba d-dars-a)<sup>16</sup>  
 thought-1s the-boy-Acc that-he wrote the-lesson-Acc

To maintain this analysis, a statement like the following would have to be added to SA grammar: Pronominals in the downstairs clause should agree with a nominal in the upstairs clause. This is not tenable since we have cases in which the pronominal can be replaced by others as seen in the pairs (59060),

59) a. yabdu l-walad-u (?anna-hu kataba d-dars-a)  
 seem the-boy-Nom that-he wrote the-lesson-Acc

b. yabdu l-walad-u (?anna-hu kataba-hu)  
 seem the-boy-Nom that-he wrote-it

Lit.: 'The boy seems to have written it'

60) yabdu l-walad-u (?anna-hu kataba-huma:)  
 seem the-boy-Nom that-he wrote-3mD

Lit.: 'The boy seems that he wrote them (i.e., two)'

where the substitution of -huma: '3mD' for -hu does not affect the structure of the clause.

On the other hand, the raising analysis straightforwardly accounts for clauses like (57-58). It correctly predicts the copy and its agreement with its ascende. The substitution of another pronominal for a copy destroys that agreement. These clauses, therefore, indicate that ascension nominals must have assumed GRs in the downstairs clauses before raising.

That the accountability for obligatory coreference is possible within the raising analysis supplies another piece of evidence against the view that ascension nominals are not ascendees.

Recapitulating, the foregoing discussion has argued against the no-raising alternative to raising in SA. That alternative makes false predictions as to topicalization and obligatory coreference. It should therefore be rejected since its maintenance would result in unnecessary complications in the grammar of the language.

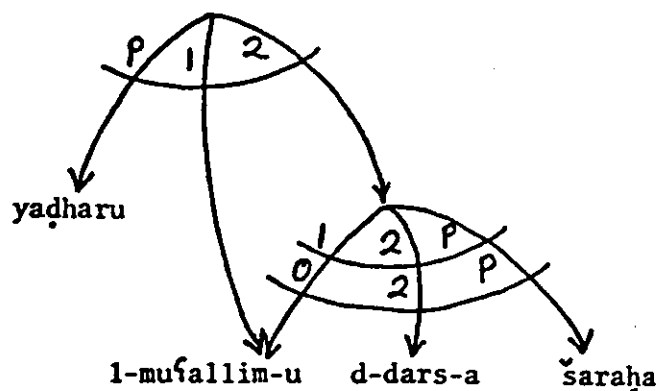
### 5.2.2 The Equi Alternative

In this section, I examine another alternative to raising -- Equi. The alternative claims that ascension nominals are not really ascendees, but rather Equi controllers.<sup>17</sup> In other words, a nominal in the downstairs clause is deleted under coreference with the subject or object of the upstairs clause. Under this alternative, a clause like (61) would have the structure given in (62) rather than that in (63):

- 61) *yadharu l-muḡallim-u* (?anna-hu ṣaraḡa d-dars-a)  
 seem the-teacher-Nom that-he explained the-lesson-Acc

'The teacher seems to have explained the lesson'

- 62) Equi Analysis<sup>18</sup>



## 64) Equi Triggers:

?ara:da	'to want'
rafaða	'to refuse'
ða:wala	'to try'
qarrara	'to decide'
talaba	'to ask'
raja:	'to hope'

- 65) ?ara:d-at ?ami:rat-un (?an tazura ?ahl-a-ha:)  
wants-3fs Amira-Nom that visit family-Acc-her

'Amira wants to visit her family'

- 66) qarrar-a t-ta:lib-u (?an yantaðira)  
decided-3ms the-student-Nom that commit suicide

'The student decided to commit suicide'

- 67) a. rajat-i l-muðallimat-u min-na:  
hoped+3fs-V the-teacher+f-Nom from-us  
(?an nuja:wiba s-su?a:l-a)  
that answer the-question-Acc

'The f.teacher hoped we would answer the question'

- b. rajat-na: l-muðallimat-u (?an nuja:wiba  
hoped+3fs-us the-teacher+f-Nom that answer  
s-su?a:l-a)  
the-question-Acc

'The f.teacher hoped we would answer the question'

- 68) a. yuri:du t-tabi:b-u min-ni (?an ?usa:ðida  
want+3ms the-physician-Nom from-me that help  
l-fuqara:?-a)  
the-poor people-Acc

'The physician wants me to help the poor'

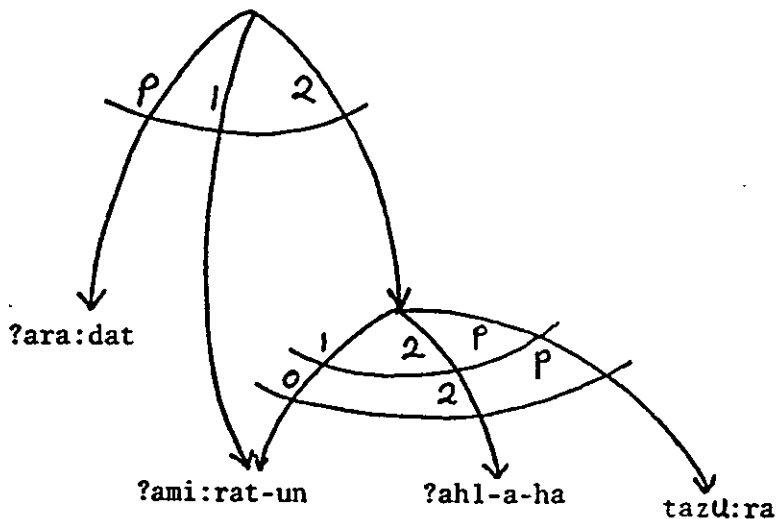
- b. yuri:du-ni t-tabi:b-u (?an ?usa:ðida  
want-me the-physician-Nom that help  
l-fuqara:?-a)  
the-poor people-Acc

'The physician wants me to help the poor'

Clause (65) has the structure in (69):



69)



In the case of (69), the downstairs 1 is deleted since it is identical with the Equi controller ?ami:rat-un in the upstairs clause. This also holds for (66) where the downstairs 1 gets deleted under coreferentiality with the upstairs 1, t-ta:lib-u. In (66-67), however, the Equi controller is a non-subject; it is a 2 in (67-68b) and an oblique in (67-68a). The difference between (67-68a) and (67-68b) is merely stylistic.

Equi, as seen above, can delete the downstairs final 1. In contrast, downstairs nominals bearing other than the final 1-relation, even though those nominals are coreferential with an Equi controller, cannot be deleted. In such a case, the coreferential non-subject nominals get pronominalized,<sup>19</sup> not deleted at all, as is illustrated in (70-75):

70) yuri:du t-ta:jir-u min-ni (?an ?aḏhaba maḡa-hu)  
 want the-merchant-Nom from-me that go with-him

'The merchant wants me to go with him'

- 71) rafada r-ra?i:s-u (?an yursila na:hid-un  
refused the-president-Nom that send Nahid-Nom  
r-risa:lat-a la-hu)  
the-letter-Acc to-him

'The president refused that Nahid sends the letter to him'

- 72) raja:-ni r-ra?i:s-u (?an ?ursila r-risa:lat-a  
hoped-me the-president-Nom that send the-letter  
la-hu)  
to-him

'The president hoped I would send the letter to him'

- 73)\*yurida t-ta:jir-u min-ni (?an ?a?ahaba ma? )  
want the-merchant-Nom from-me that go with

- 74)\*rafada r-ra?i:s-u (?an yursila na:hid-un  
refused the-president-Nom that send Nahid-Nom  
r-risa:lat-a la)  
the-letter-Acc to

- 75)\*raja:-ni r-ra?i:s-u (?an ?ursila r-risa:lat-a la)  
hoped-me the-president-Nom that send the-letter-Acc to

A few more remarks should be made to facilitate subsequent discussion. The downstairs clause in an Equi construction should be introduced by the complementizer ?an, as is also illustrated in (76),

- 76) ?ara:da 1-muza:ri? -u (?an yaštariya  
wanted the-farmer-Nom that buy  
sayya:rat-an)  
car-Acc

'The farmer wanted to buy a car'

in which it can be neither left out, nor replaced by, let us say, ?anna as is shown in the ungrammatical clauses (77-78):

- 77) \*?ara:da 1-muza:ri? -u yaštariya sayya:rat-an  
wanted the-farmer-Nom buy car-Acc

- 78) \*ʔara:da 1-muza:riʕu ʔanna yaʕtariya sayya:rat-an  
 wanted the-farmer-Nom that buy car-Acc

In addition, ʔan must be immediately followed by a verb in the subjunctive mood as can be seen in (76) where ʔan is followed by the verb yaʕtariya which is in the subjunctive mood as is marked by the suffix -a. If ʔan is followed by a nominal or by a verb in the non-subjunctive mood, the clause would be ill-formed as is seen in (79-80):

- 79) a. \*ʔara:da 1-muza:riʕ-u (ʔan muḥammad-un  
 wanted the-farmer-Nom that Moḥammad-Nom  
 yaʕtariya kita:b-an)  
 buy book-Acc
- b. \*ʔara:da 1-muza:riʕ-u (ʔan sayya:rat-an yaʕtariya)  
 wanted the-farmer-Nom that car-Acc buy
- c. \*ʔara:da 1-muza:riʕ-u (ʔan muḥammad-un  
 wanted the-farmer-Nom that Moḥammad-Nom  
 yuqa:bila-hu)  
 meet with-him
- 80) \*ʔara:da 1-muza:riʕ-u (ʔan yaʕtariy-u sayya:rat-an)  
 wanted the-farmer-Nom that buy-Ind. car-Acc

And, finally, the Equi victim never leaves a pronominal copy of itself in the downstairs clause as is exemplified in the above clauses as well as in (81), contrasted with the ungrammatical clause (82) due to the presence of the pronominal copy:

- 81) \*ḥa:walat-i 1-malikat-u (ʔan tadʕama n-nisa:ʔ-a)  
 tried-V the-queen-Nom that support the-women-Acc

'The queen tried to support the women'

- 82) \*ḥa:walat-i 1-malikat-u (ʔan tadʕama-ha:/  
 tried-V the-queen-Nom that support-her/  
 ʔan-ha: tadʕama n-nisa:ʔ-a)  
 that-she support the-women-Acc

Lit.: 'The queen tried that she support the women'

Before embarking on details, I supply evidence for the downstairs final 1-hood of an Equi victim, drawing upon verb agreement and reflexives.

a) Verb Agreement

Recall that the verb agrees only with the final subject in SA. If the Equi victim is a final 1 in the downstairs clause, it should be able to trigger agreement on the downstairs predicate. That this holds can be seen in (83),

- 83) qarrar-at-i 1-musa:fi<sup>r</sup>at-u (?an taʕu:da  
 decided-3fs-V the-traveler+F-Nom that 3fs+return  
 ?ila balad-i-ha:)  
 to home-Obl-her

'The f.traveler decided to go back home'

in which the downstairs predicate taʕu:da agrees with a third person feminine singular subject as is marked by the prefix ta-. Where does this agreement marker come from? Surely, there must have been a nominal subject in the clause that has cued the agreement. This nominal, as I have mentioned earlier, gets deleted under coreferentiality with the upstairs clause nominal 1-musa:fi<sup>r</sup>at-u, which is also a third person feminine singular subject that triggers agreement on the upstairs verb. Thus, the fact that a verb like taʕu:da agrees with a subject nominal gives one piece of evidence for the final 1-hood of the Equi victim. If that victim were not a subject, we would not be able to explain verb agreement in the downstairs clause.

## b) Reflexives

A condition on reflexives which was discussed in section 3.5 states that the antecedent of a reflexive nominal should be a final 1 or 2. If the Equi victim is a final 1, it should be able to antecede a reflexive nominal. This prediction is borne out as seen in (84):

- 84) ?ara:dat-i t-ṭabi:bat-u mina  
 wanted-V the-physician+f-Nom from  
 1-mari:q-i (?an yaḥtarima naḥs-a-hu)  
 the-patient-Obl that respect self-Acc-his

'The f.doctor wants the patient to respect himself'

In the case of (84), the reflexive nominal nafs-a-hu is coreferential with the Equi controller 1-mari:q-i, which is an oblique as evidenced by case marking. Reflexives cannot be explained unless we assume that there is a final 1 in the downstairs clause which antecedes the reflexive nominal and then is deleted upon coreference by the upstairs controller.

Having motivated Equi in SA, let me proceed to discuss it as an alternative to the raising analysis.

## 5.2.2.2 Equi vs Raising

Returning now to raising constructions, the Equi alternative, as I briefly mentioned before, maintains that raised nominals are deleted upon coreference with a nominal bearing the final 1-, 2- or oblique-relation in the upstairs clause; see (61-62) above. In what follows,

I give evidence against the Equi alternative on the basis of pronominal copy, mood and topicalization.

a) Pronominal Copy

We have observed that a raised nominal leaves a pronominal copy in the downstairs clause. The Equi analysis would thus predict that clauses like (85-86) are ungrammatical due to the presence of that copy, and clauses like (87) are grammatical. As a matter of fact, the opposite is true:

- 85) tabdu l-bint-u (?anna-ha: baḥaṭat ʕan ʕadi:qat-i-ha:  
seem the-girl-Nom that-she searched for friend-Obl-her  
fi kulli maka:n-in)  
in all place-Obl

'The girl seems to have looked for her friend everywhere'

- 86) ḥasib-tu n-na:s-a (?anna-hum ?iḥtafalu: fi  
thought-1s the-people-Acc that-they celebrated in  
l-ʕi:d-i)  
the-feast-Obl

Lit.: 'I thought the people that they celebrated the feast'

- 87) \*tabdu l-bint-u (?anna baḥaṭat ʕan ʕadi:qat-i-ha:)  
seem the-girl-Nom that searched for friend-Obl-her

Under the Equi alternative, the grammaticality vs. ungrammaticality of (85-87) is unpredictable since an Equi victim as we have mentioned earlier can never leave a copy of itself. To make this analysis compatible with the raising one, an ad hoc statement tolerating copying an Equi victim in ?anna- and only ?anna- clauses should be added to the grammar of the language. This would complicate the grammar since

another statement should be issued, banning the feature of copying in ?an-clauses.

Thus, the fact that the Equi alternative makes a false prediction concerning pronominal copy in raising clauses provides one piece of evidence against it, but in favor of the raising analysis.

b) Mood

As I mentioned earlier, the verb in ?anna-clauses must be in the indicative mood. Under the Equi alternative, clauses like (88-89) are predicted to be ill-formed since the indicative, but not the subjunctive, mood is used, and clauses (90-91) well-formed; in fact, the prediction is not tenable:

88) tabdu l-bint-u (?anna-ha: tuḥibb-u  
seem the-girl-Nom that-she like-IND  
s-siba:ḥat-a)  
the-swimming-Acc

'The girl seems to like swimming'

89) ḥasib-tu l-bint-a (?anna-ha: tuḥibb-u  
thought-1s the-girl-Acc that-she like-IND  
s-siba:ḥat-a)  
the-swimming-Acc

Lit.: 'I thought the girl that she likes swimming'

90) \*tabdu l-bint-u (?anna-ha: tuḥibb-a s-siba:ḥat-a)  
seem the-girl-Nom that-she like-subj the-swimming-Acc

91) \*ḥasib-tu l-bint-a (?anna-ha: tuḥibb-a  
thought-1s the-girl-Acc that-she like-subj  
s-siba:ḥat-a)  
the-swimming-Acc

The raising analysis, however, allows the indicative, not the subjunc-

tive, mood to be used in ?anna-clauses. Therefore, the inability of the Equi alternative to account for the verb being in the indicative mood in a raising construction constitutes a further argument for the raising analysis.

c) Topicalization

In a clause involving Equi, an Equi controller can topicalize as is illustrated in (92b):

- 92) a.  $\text{\textasciitilde}alabat-i$  1- $\text{\textasciitilde}uku:mat-u$   $\text{\textasciitilde}mina$   $\text{\textasciitilde}t-\text{\textasciitilde}ta:lib-i$   
 asked-V the-government-Nom from the-student-Obl  
 (?an  $\text{\textasciitilde}yu\text{\textasciitilde}a:dira$  1-balad-a)  
 that leave the-country-Acc

'The government asked the student to leave the country'

- b.  $\text{\textasciitilde}at-\text{\textasciitilde}ta:lib-u$ ,  $\text{\textasciitilde}alabat-i$  1- $\text{\textasciitilde}uku:mat-u$   $\text{\textasciitilde}min-hu$   
 the-student-Nom, asked-V the-government-Nom from-him  
 (?an  $\text{\textasciitilde}yu\text{\textasciitilde}a:dira$  1-balad-a)  
 that leave the-country-Acc

'The student, the government asked him to leave the country'

Now consider (94) corresponding to (93):

- 93)  $\text{\textasciitilde}asib-tu$  n-na:s-a (?anna-hum  $\text{\textasciitilde}ra?u:$  1-qamar-a)  
 thought-1s the-people-Acc that-they saw the-moon-Acc

Lit.: 'I thought the people that they saw the moon'

- 94) \* $\text{\textasciitilde}an-na:s-u$ ,  $\text{\textasciitilde}asib-tu-hum$  (?anna-hum  
 the-people-Nom, thought-1s-them that-they  
 $\text{\textasciitilde}ra?u:$  1-qamar-a)  
 saw the-moon-Acc

Under the Equi alternative, nothing precludes \*(94). In contrast, under the raising analysis, such a clause is ruled out since it violates the constraint on pronominal copies given in (48) above. Thus, the



fact that Equi cannot account for the non-topicalizability of ascension nominals supplies another argument for the raising analysis.

Summing up, I have shown Equi in SA and its properties: The downstairs clause in an Equi construction is introduced by the complementizer ?an; the downstairs verb is in the subjunctive mood; the Equi victim never leaves a copy behind; and the Equi controller can topicalize. On the other hand, in raising clauses, the downstairs clause is introduced by ?anna; the downstairs verb is in the indicative mood; the ascension nominal leaves a pronominal copy of itself; and an ascension nominal cannot topicalize. I, therefore, conclude that raising should be viewed as superior to Equi.

### 5.2.3 Summary

The previous section has examined the no-raising and the Equi alternatives to the raising analysis proposed for SA. While raising straightforwardly accounts for features like topicalization and pronominal copy, Equi and no-raising would complicate SA grammar by making ad hoc statements concerning ascension nominals. As a consequence, ascendees cannot be viewed as either non-ascension nominals or Equi controllers. The raising analysis is therefore superior to those alternatives.

### 5.3 Conclusion

The present chapter has examined raising in SA. It has been shown that SA raising follows from Perlmutter and Postal's characterization of ascension constructions in RG, in relation to the GRs of both ascendees and their hosts. Furthermore, SA permits raising to both subject and object. We have also seen that raising is restricted to nominals bearing term relations; nominals heading final 1-, 2-, or 3- arcs can ascend while nominals bearing non-term relations (Obliques and Chomeurs) cannot.

Not only is SA raising predicted by the Relational Succession Law, but it also provides further support to the theory of RG which proposes that the RSL is a universal to which all ascension constructions in world languages conform. Data from SA also support the prediction made by the RSL that "no rule can ascend NPs out of constituents that are not subjects, direct objects, or (less likely) indirect objects". (Perlmutter and Postal 1983b: 43). In SA, no nominals can ascend out of a host that bears indirect or oblique relation.

SA raising contradicts both Postal's (1974) and Seiter's (1983) suggestions in relation to which nominals are eligible for raising. Postal (1974) suggests that raising might be represented in universal grammar as (95):

- 95) Promote the subject of a complement.  
(Postal 1974 : 288).

His suggestion indicates that raising is universally restricted to downstairs subjects only. Because Niuean allows raising of both down-

stairs direct objects as well as subjects, Seiter proposes that both downstairs 1s and 2s can universally ascend to upstairs clauses. His proposal is given in the following:

- 96) Raise the subject (or direct object) of a complement.  
(Seiter 1983: 350)

These two proposals are violated by SA raising since some speakers permit downstairs indirect objects as well as subjects and direct objects to ascend. Obviously, both (95) and (96) fail to accommodate SA raising. Consequently, I propose the following condition on raising:

- 97) Only a nominal bearing a term relation can raise.

(97) denotes that there are languages like English and Tongan in which raising is limited to final 1s, like Niuean and Ilokano in which it is limited to final 1s, 2s, and 3s.<sup>20</sup> Likewise, the statement in (97) also predicts that in no languages can a downstairs non-term raise.

Furthermore, the raising data from the various languages discussed above lead me to suggest that nominals which are accessible to raising universally follow the hierarchy given in (98):<sup>21; 22</sup>

- 98) Raising Hierarchy  
1>2>3

The hierarchy shows that if a particular language can ascend a nominal bearing a GR on the hierarchy (for example 2), then it must also allow ascension of other nominals bearing GRs higher on the hierarchy (here 1). This hierarchy seems to be valid for languages like SA, Ilokano, Niuean, Tongan, Samoan and English though it still needs further cross-linguistic verification.

## Footnotes

1. The Law also refers to another construction known as "Possessor Ascension" in which a possessor nominal ascends out of downstairs nominals to the upstairs clause. This is illustrated in data from Malagasy in (ii) corresponding to (i), taken from Perlmutter and Postal (1983b: 44-45):

(i) Nantsoin-d Rakoto ny anaran' ny olona  
called Rakoto the names-of the people

'The names of the people were called by Rakoto'

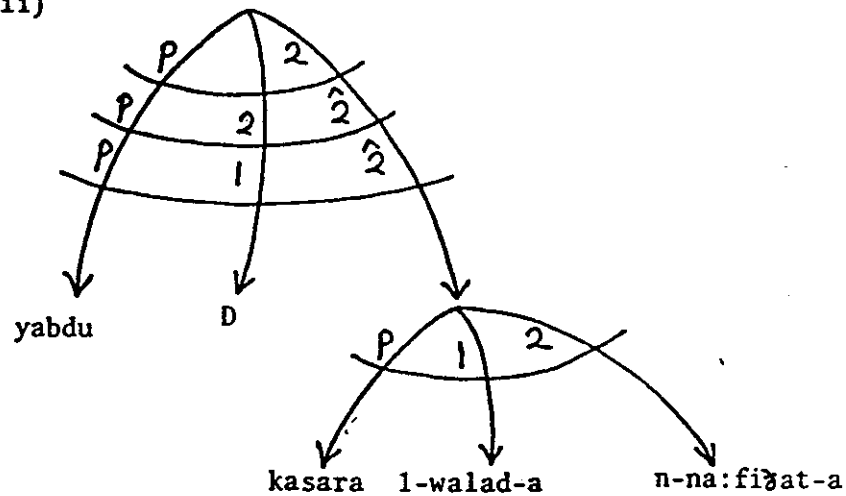
(ii) Nantsoin-d Rakoto anarana ny olona  
called Rakoto name the people

'The people were name-called by Rakoto'

Ny olona in (ii) has moved out of the NP ny anaran' ny olona and has become the subject of the sentence. For evidence, see Keenan (1971; 1972) cited by Perlmutter and Postal (1983b). Note that I have found no cases of Possessor Ascension in SA.

2. This Law also covers cases of Possessor Ascension. See f.n. (1) above.
3. For evidence, see Chung (1976).
4. For arguments, see Seiter (1983).
5. It is possible that clauses like (11a) which is represented in (13) involve a dummy, which is inserted as a 2 and then advances to 1, putting the initial 2 en chomage. I ignore this possibility here, assuming that predicates like yabdu 'seem' determine initially-unaccusative strata (see f.n. (7) below) and that the entire clause is the final 1 via unaccusative advancement as in (13). If such clauses involve a dummy, (11a) would be represented as in (iii):

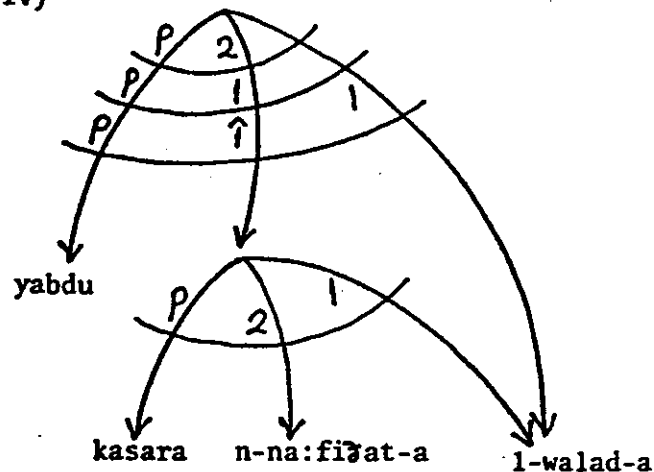
(iii)



At present, I am unable to tell whether (11a) has the structure in (iii) or that in (13). Throughout this work, I assume, for the sake of simplicity, that such clauses as (11a) do not involve a dummy, and thus have the structure (13).

6. I ignore the possibility that clauses like (11b) which is represented in (14) first involve the advancement of the initial 2 to 1 in the upstairs clause via unaccusative advancement, then raising. If this is the case, the structure associated with (11b) would be (iv):

(iv)



The question of whether (14) or (iv) represents clauses like (11b) is irrelevant to the discussion here, though it is an interesting one that deserves further investigation. Throughout the present

work, I will assume structures like (14) to represent clauses like (11b) since this assumption would make the statements concerning raising much simpler; that is, all ascension in SA is to 2.

7. The claim that a raising trigger like yabdu 'seem' determines initial unaccusativity is evidenced in the impossibility of impersonal passives of such a trigger as manifested in (v.b):

(v) a. bada 1-walad-u ?anna-hu kasara š-šubba:k-a  
seemed the-boy-Nom that-he broke the-window-Acc

'The boy seemed to have broken the window'

b. \*budiya ?anna-hu kasara š-šubba:k-a  
Pas+seemed that-he broke the-window-Acc

(It is seemed that he broke the window)

Such a clause, as I have shown in section 4.2, is ill-formed since it violates the 1-Advancement Exclusiveness Law which bans the advancement of two nominals to 1.

8. For details of the Unaccusative Hypothesis and unaccusative advancement, see Perlmutter (1978). A brief discussion of this matter has been presented in section 4.2.
9. For a discussion of raising and unaccusatives, see Perlmutter and Postal (1983b) and Marlett (1984b).
10. ?anna expresses a speaker's certainty of a given act; ka?anna, however, shows his doubt or uncertainty.
11. I overlook the possibility that nominal case marking provides a further test for the final 2-hood of ascension nominals since these nominals as well as the subject and objects of ?anna-clauses are marked accusative.
12. The argument also provides further support for the rule of word order stated in section 3.1 in the sense that the rule should refer to final GRs.
13. The cliticization of the ascendeo to the upstairs verb in raising to object constructions also gives evidence that the rule of pronominal cliticization discussed in section 3.3 should refer to the final GRs borne by nominals.
14. It might be claimed that a clause like (43) involved "non-stop passive"; that is, advancing the downstairs nominal hana:n-an, an eligible candidate for raising to 1, without first assuming the 2-re-

- lation in the upstairs clause. This claim is not accurate. In the case of (43), this claim does not go through since the clause involves the advancement of the downstairs 1 directly to 1 in the upstairs clause. The passive of such a clause, given the above claim, contradicts the universal characterization of passives (cf. Chapter Four) which entails the advancement of only 2- to -1.
15. A structure like (46) faces an additional problem regarding the GR of the downstairs clause. It cannot bear the 2-relation because of the Stratal Uniqueness Law: since t-ta:lib-u assumes the 2-relation that clause cannot assume the same relation, violating the law. I should leave this issue open, representing the GR of the downstairs clause as (?) under the no-raising analysis.
  16. Sentences (57) and (58) are also ungrammatical since the downstairs verb kataba does not agree with the pronominal -hum. Even if we supply the correct agreement ending, the sentences are still ill-formed for the discrepancy between -hum on the one hand, and 1-walad-u and walad-a, on the other.
  17. An Equi controller is the nominal in the upstairs clause that triggers deletion of a coreferential nominal in the downstairs clause.
  18. For the notions "multiattachment" and "cancellation" involved in the stratal diagram (62), see Gerdts (1981) and Rosen (1981).
  19. In this respect, SA is similar to Niuean as is reported by Seiter (1983: 341).
  20. Jake (1984) has recently claimed that Fur also allows raising of 3s to subject as exemplified in (vi.b):
    - (vi) a. terra i (alaz Fanne Eli-si say inni)  
tough be+3sg Comp Fatma Ali-Obj tea give+3sg  
  
'It is difficult for Fanne to give Ali tea'
    - b. Eli terra i (alaz-si Fanne say inni)  
Ali tough be+3sg Comp-Obj Fatma tea give+3sg  
  
'It is difficult for Fanne to give Ali tea'
  21. I do not specify the level of structure at which nominals assuming a given GR can raise since Halkomelem (Gerdts 1981: 204-213) permits acting 1s (i.e., 1 and 1̂) to raise, as seen in (vii-viiib):

- (vii) a. ?i cən xéc-t (?u ni-?əs ce? ?u  
 aux lsub wonder-tr lnk aux-3ssub fut lnk  
 c'ew-ət-al?x<sup>w</sup>-əs t<sup>θ</sup> swəy?qe?)  
 help-tr-1plobj-3ssub det man  
 'I am checking out the man if he will help us'
- b. ?i cən xéc-t t<sup>θ</sup> swəy?qe? (?u ni-?əs  
 aux lsub wonder-tr det man lnk aux-3ssub  
 ce? ?u c'ew-ət-al?x<sup>w</sup>-əs)  
 fut lnk help-tr-1plobj-3ssub  
 'I am checking out the man if he will help us'
- (viii) a. ?i cən xě?xčí-t (?u ?i?-əs le?ləm-?ət-əm?  
 aux lsub wonder-tr lnk aux-3ssub look(cont )-tr-intr  
 k<sup>w</sup>θə Bob ?ə-~~x~~ John)  
 det Bob Obl-det John  
 'I am wondering if Bob is being watched by John'
- b. ?i cən xě?xčí-t k<sup>w</sup>θə John (?u ?i?-əs  
 aux lsub wonder-tr det John lnk aux-3ssub  
 le?ləm?-ət-əm? k<sup>w</sup>θə Bob)  
 look-tr-intr det Bob  
 'I am wondering if Bob is being watched by John'

22. Two similar hierarchies are presented in the literature: the Accessibility Hierarchy of Keenan and Comrie (1977) and the Relational Hierarchy of Perlmutter (1980). The first given in (ix)

(ix) Accessibility Hierarchy:

Subject > Direct Object > Indirect Object >  
 Genitive > Object of Comparison

expresses the relative accessibility to relative clause formation of NP positions in main clauses. For details, see Keenana and Comrie (1977).

Finally, the Relational Hierarchy given in section 1.2.2 and repeated here as in (x) indicates that term relations outrank non-term ones:

(x) Relational Hierarchy:

1 > 2 > 3 > Non-Terms

For discussion, see Perlmutter (1980).



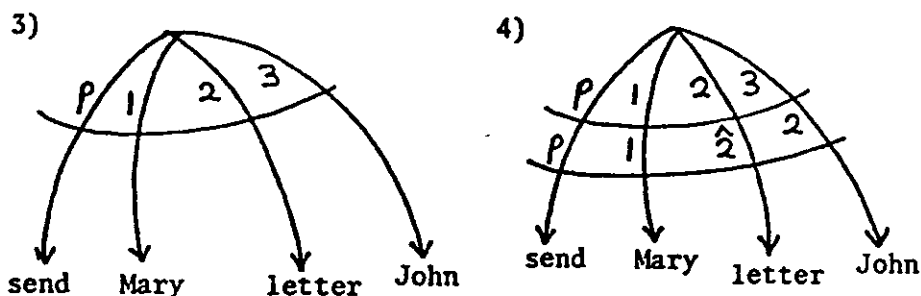
## Chapter 6

### 3-2 ADVANCEMENT

#### 6.0 Introduction

The phenomenon of 3-2 advancement has been proposed to account for constructions in which a nominal bearing the 3-relation in one stratum bears the 2-relation in the following stratum. By way of illustration, consider the English sentences (1-2), representable in the stratal diagrams (3-4), respectively:

- 1) Mary sends the letter to John.
- 2) Mary sends John the letter.



The structures in (3-4) are identical to each other in the first stratum, but (4) has a second stratum in which John is advanced to 2 and letter is placed en chomage. Evidence for 3-2 advancement in English comes from passive: John can advance to 1, but letter cannot as is shown in (5-6):

- 5) John is sent the letter by Mary.
- 6)\*The letter is sent John by Mary.

Many languages have 3-2 advancement constructions: Halkomelem (Gerds 1981), Homeric Greek (Rosen 1977), Chamorro (Crain 1979), southern Tiwa (Allen & Frantz 1983) and Tzotzil (Aissen 1983). In Bahasa Indonesia, for example, Chung (1983: 210-271) shows that a sentence like (7b) : evokes the advancement of the nominal wanita 'woman' heading an initial 3-arc to 2 in the final stratum, putting surat 'letter' en chomage.

- 7) a. Laki2 itu meng-irim (-kan) surat kepada  
 man the Trans-send-(Ben) letter to  
 wanita itu  
 woman the

'The man sent a letter to the woman'

- b. Laki2 itu meng-irim-i wanita itu seputjuk surat  
 man the-Trans-send-Ben woman the a letter

'The man sent the woman a letter'

Chung gives several arguments to support the 3-2 advancement analysis, two of which are based on passive and object preposing. While the 3-2 advancee can advance to 1 via passive, the initial 2 which goes into chomage cannot:

- 8) Wanita itu di-kirim sebuah surat  
 woman the Pass-send-Ben a letter  
 oleh laki2 itu  
 by man the

'The woman was sent a letter by the man'

- 9)\*surat itu di-kirim-i wanita itu  
 letter the Pass-send-Ben woman the

(The letter was sent the woman)

Likewise, the advancee can be object-preposed, but the initial 2 cannot:

- 10) Wanita itu saja kirim-i surat itu  
 woman the 1 send-Ben letter the

'That woman I sent the letter'

- 11) \*Buku ita saja kirim-i kau  
 book the 1 send-Ben you

(That book I sent you)

Finally, in Southern Tiwa, a Tanoan language spoken in Isleta and Sandia Pueblos in New Mexico, Allen and Frantz (1983: 303-314) demonstrate that indirect objects can advance to direct object as is exemplified in (12b):

- 12) a. ti-khwien-wia-ban 'i-ay  
 1sg: 3isg-dog-give-Past 2-to

'I gave the dog to you'

- b. ka-khwien-wia-ban  
 1sg:2sg:3isg-dog-give-Past

'I gave you the dog'

The purpose of this chapter is to demonstrate that 3-2 advancement, a subclass of revaluations in RG, also exists in Standard Arabic. SA is shown to be similar to those languages which display that construction despite differences in word order, case marking and the like. Finally, SA would give further support to the theory of RG in the sense that such a class of clausal structures can be easily accounted for in relational concepts as will be shown later.

## 6.1 Preliminary Statement

Linguists like Wright (1974) and Snow (1965) make the generalization that SA allows double object constructions illustrated in (13)

- 13) ?aʕta r-rajul-u 1-marʔat-a 1-ḥaʕi:bat-a  
gave the-man-Nom the-woman-Acc the-bag-Acc

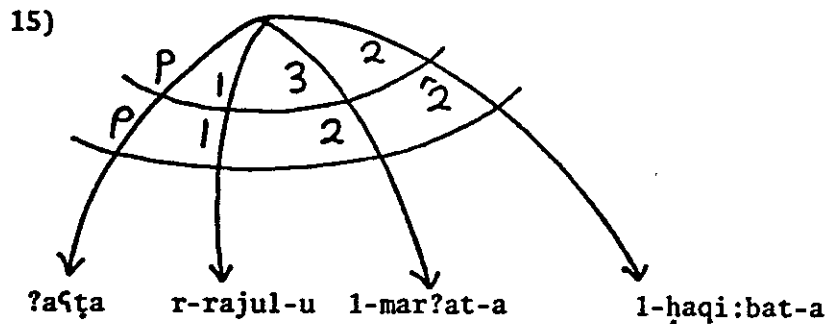
'The man gave the woman the bag'

in which the nominals 1-marʔat-a and 1-ḥaʕi:bat-a are both objects marked with the accusative case marker -a. Clauses like (13), therefore, violate the Stratal Uniqueness Law (SUL) posited as a universal in the theory of RG. The Law is given in (14):

- 14) The Stratal Uniqueness Law:

No more than one nominal can head an arc with a given term R-sign in a given stratum. (Perlmutter 1980: 211).

Rather, I claim "double accusative" clauses result from 3-2 advancement elucidated in the following stratal diagram which represents (13):



Evidence for this analysis comes from the fact that the double accusative nominals, as will be seen later, exhibit different syntactic be-

havior.

The following discussion elaborates on and argues for my claim. Section 6.2 gives a brief idea of the syntactic behavior of objects in SA. Section 6.3 gives arguments for the GRs borne by nominals in the final stratum. The nominal case marking rule is reconsidered in section 6.4 in the light of the discussion of double accusatives. Finally, other alternatives to the 3-2 advancement analysis are posited and broached in section 6.5, evincing that the latter is superior to the former.

## 6.2 Syntactic Behavior of Objects

In this section, I briefly present the syntactic properties of both direct and indirect objects in SA. The properties are crucial in understanding the 3-2 advancement phenomenon. The subsection 6.2.1 deals with the syntactic behavior of direct objects; and 6.2.2 with that of indirect objects.

### 6.2.1 Direct Objects

In Standard Arabic, a direct object nominal can readily be distinguished from other nominals in a clause. First, it is always in the accusative case marked with either -a or -an as is illustrated in (16):

- 16) qara?-tu 1-jari:dat-a / jari:dat-an fi  
 read-1s the-newspaper-Acc/newspaper-Acc in  
 1-maktabat-i  
 the-library-Obl

'I read the newspaper/a newspaper in the library'

where 1-jari:dat-a/jari:dat-an is the direct object and is marked with the accusative.

Second, the direct object is always placed to the right of the subject. (It should be realized that writing in Arabic goes from right to left.) Other nominals, however, follow that object. In (16), the direct object follows the subject -tu, whereas the locative fi 1-maktabat-i follows it.

Third, when pronominalized, the direct object appears as a clitic on the verb as illustrated in (17.b)

- 17) a. katabat-i 1-bint-u 1-kita:b-a  
 wrote-V the-girl-Nom the-book-Acc

'The girl wrote the book'

- b. katabat-hu 1-bint-u  
 wrote-it the-girl-nom

'The girl wrote it'

where the direct object 1-kita:b-a appears as the clitic -hu on the verb katabat-hu.

Fourth, it is accessible to passive, topicalization, ascension and reflexivization as can be shown in clauses (18-22);

18) Passive

kutiba 1-kita:b-u  
Pas+wrote the-book-Nom

'The book was written'

19) Topicalization

?al-kita:b-u, katabat-hu 1-bint-u  
the-book-nom, wrote-it the-girl-Nom

'The book, the girl wrote'

20) Ascension

yabdu 1-kita:b-u ?anna 1-bint-a katabat-hu  
seem the-book-Nom that the-girl-Acc wrote-it

Lit.: 'The book seems that the girl wrote it'

21) ḥasib-tu ṭ-ṭa:lib-a ?anna r-ra?i:s-a  
thought-1s the-student-Acc that the-president-Acc  
sa:ʕada-hu  
helped-him

Lit.: 'I thought the student that the president helped  
him'

22) Reflexivization

?axabar-tu 1-muʕallimat-a ʕan nafs-i-ha;  
told-1s the-teacher+F-Acc about self-Obl-her

'I told the f.teacher about herself'

Clause (18) illustrates that the direct object 1-kita:b-u has advanced to 1 via passive. In clause (17), ?al-kita:b-u has topicalized as is indicated by both the nominative case marker -u and the pronominal copy -hu, left by the topicalized direct object nominal and cliticized to the predicate katabat-. The clauses in (20-21) show the ascension of the direct objects 1-kita:b-u and ṭ-ṭa:lib-a to subject and ob-

ject, respectively. (Arguments for ascensions are given in Chapter 5.) Finally, the direct object 1-muḥallimat-a in (22) antecedes the reflexive nominal nafs-i-ha:. The above syntactic properties will thus be significant in keeping a direct object nominal distinct from the second accusative nominal in 3-2 advancement constructions.

### 6.2.2 Indirect Objects

In 6.2.1, I have presented in general terms the properties of the direct object in Standard Arabic. This subsection also aims at discussing briefly the syntactic behavior of indirect objects in the language. It thus helps in understanding the difference between direct and indirect objects.

Indirect objects exhibit various syntactic properties. First, they are always in the oblique case marked by the suffix -i or -in as is illustrated in (23):

- 23) ?aṣṭa 1-walad-u 1-qami:ṣ-a li 1-bint-i/  
 gave the-boy-Nom the-shirt-Acc to the-girl-Obl/  
 bint-in  
 girl-Obl

'The boy gave the shirt to the girl/a girl'

where 1-bint-i/bint-in is an indirect object, assigned the GR 3 on the basis of semantic roles. The semantic role of that nominal is a "recipient" as opposed to the direct object 1-qami:ṣ-a which is semantically a "patient". Besides, the indirect object is preceded by the preposition li 'to', which, as we will see later, is deleted when 3 advances to 2.



Second, while the direct object is always positioned to the right of the subject, the indirect object ends to the right of the direct object. This position is also illustrated in (23) where 1-bint-i / bint-in is placed to the right of the direct object 1-qami:s-a.

Third, unlike a direct object, an indirect object is not accessible to passivization and reflexivization as is shown in (24b-25), corresponding to (24a-23), respectively:

24) Passivization

a. qaddam-tu 1-qahwat-a li t-ṭabi:b-i  
offered-1s the-coffee-Acc to the-physician-Obl

'I offered the coffee to the physician'

b. \*quddima t-ṭabi:b-u 1-qahwat-a (li)  
Pas+offered the-physician-Nom the-coffee-Acc (to)

(The physician was offered the coffee)

25) Reflexivization

\*ʔaṣṭa 1-walad-u 1-qamiṣ-a li 1-bint-i  
gave the-boy-Nom the-shirt-Acc to the-girl-Obl

ʕan nafs-i-ha:  
about/instead of self-Obl-her

\*(The boy gave the shirt to the girl instead of herself)

Passivizing as well as reflexivizing an indirect object thus results in ungrammaticality.

However, like the direct object, the indirect object can be the input to the syntactic processes of topicalization and ascension as can be seen in (26-27):

26) Topicalization

?al-bint-u, ?aʕta 1-walad-u 1-qami:ʕ-a la-ha:  
 the-girl-Nom, gave the-boy-Nom the-shirt-Acc to-her

'The girl, the boy gave the shirt to her'

27) Ascension to Subject

ea. tabdu 1-bint-u ?anna 1-walad-a ?aʕta  
 seem the-girl-Nom that the-boy-Acc gave  
 1-qami:ʕ-a la-ha:  
 the-shirt-Acc to-her

Lit.: 'The girl seems that the boy gave the shirt  
 to her'

eb. Ascension to Object

ħasib-tu 1-bint-a ?anna 1-walad-a ?aʕta  
 thought-1s the-girl-Acc that the-boy-Acc gave  
 1-qami:ʕ-a la-ha:  
 the-shirt-Acc to-her

Lit.: 'I thought the girl that the boy gave the  
 shirt to her'

Finally, when pronominalized, the indirect object cliticizes to the preposition, and not to the verb, as can be demonstrated in (28):

28) a. ?aʕta 1-walad-u 1-qami:ʕ-a la-ha:  
 gave the-boy-Nom the-shirt-Acc to-her

'The boy gave the shirt to her'

b. \*?aʕta:-ha: 1-walad-u 1-qami:ʕ-a (la/li:)  
 gave-her the-boy-Nom the-shirt-Acc (to)

To sum up, the indirect object is in the oblique case and is placed to the right of the direct object. It is accessible to topicalization and ascension, but not to passivization and reflexivization. Finally, it appears as a clitic on the preposition, not on the verb.

### 6.3 3-2 Advancement Construction

The purpose of this section is to look upon 3-2 advancement in SA; that is, the advancement of a nominal which is semantically "recipient" to direct object or 2.

The 3-2 advancement construction is manifested in clauses (29-30):

29) ?aʕta 1-muʕallim-u r-rajul-a sa:ʕat-an  
gave the-teacher-Nom the-man-Acc watch-Acc

'The teacher gave the man a watch'

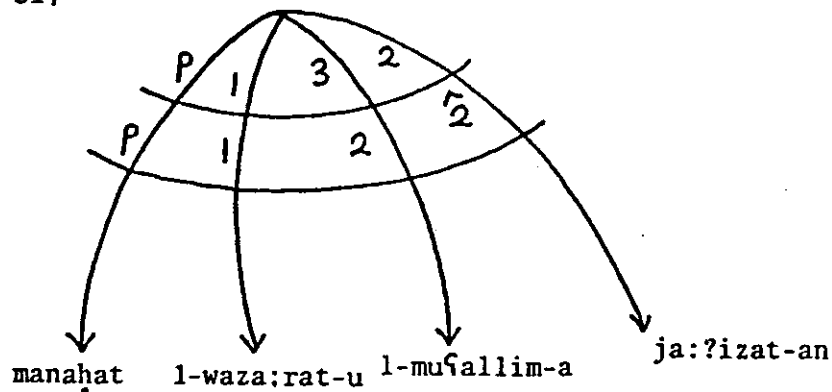
30) manaḥat-i 1-waza:rat-u 1-muʕallim-a  
awarded-V the-ministry-Nom the-teacher-Acc  
ja:ʕizat-an  
prize-Acc

'The ministry awarded the teacher a prize'

In the case of (29-30), the GR of both r-rajul-a and 1-muʕallim-a is a 3 at the initial level on the ground that GRs are determined by semantic roles in the first stratum. Similarly, sa:ʕat-an and ja:ʕizat-an bear the 2-relation in the first stratum since their semantic role is patient.

In accounting for the syntax of such clauses, I propose that the nominals bearing the initial 3-relation advance to 2 in the next stratum. Accordingly, clause (30), for instance, can be represented in diagram (31):

31)



The stratal diagram illustrates the 3-2 advancement of the recipient nominal 1-muʕallim-a, resulting in having two nominals 1-muʕallim-a and ja:ʔizat-an assigned the same case.

Based on clauses like (29-31) above, one can identify several characteristics of the 3-2 advancement construction that should be stated in SA grammar. Firstly, the advancement is optional: whether or not the recipient advances to a 2 has no effect on the grammaticality of a clause.<sup>1</sup> Thus, clauses like (32-33) below are as grammatical and acceptable as those where advancement does not occur:

32) ʔaʕta 1-muʕallim-u sa:ʕat-an li r-rajul-i  
gave the-teacher-Nom watch-Acc to the-man-Obl

'The teacher gave a watch to the man'

33) manahat-i 1-waza:rat-u ja:ʔizat-an li  
awarded the-ministry-Nom prize-Acc to  
1-muʕallim-i  
the-teacher-Obl

'The ministry awarded a prize to the teacher'

Secondly, in clauses where 3-2 advancement occurs, the preposi-

tion li 'to' does not occur as is shown in (29-30) above. Otherwise, the clauses are ill formed as can be seen in (34-35):

34)\*?aṣṭa l-muṣallim-u li rajul-i sa:ṣat-an  
gave the-teacher-Nom to the-man-Obl watch-Acc

(\*The teacher gave to the man a watch)

35) \*manaḥat-i l-waza:rat-u li l-muṣallim-i  
awarded the-ministry-Nom to the-teacher-Obl  
ja:ʔizat-an  
prize-Acc

(\*The ministry awarded to the teacher a prize)

Finally, the advancement is lexically-governed. It occurs with such verbs as those given in (36):

36) Verbs Governing 3-2 Advancement:

?aṣṭa:	'to give'
manaḥa	'to award'
?albasa	'to offer a dress to someone; to dress someone'
kasa:	'to buy someone a dress'
?arsala	'to send'
baṣaḥa	'to send'
saʔala	'to ask'
sallama <sub>2</sub>	'to deliver, to greet'
kattaba <sub>2</sub>	'to cause to write'
ḥammala <sub>2</sub>	'to cause to carry'

Illustrative sentences are the following:

37) ?albasa r-rajul-u l-marʔat-a xa:tim-an  
offered as a dress the-man-Nom the-woman-Acc ring-Acc

'The man offered the woman a ring'

38) kasa r-rajul-u l-walad-a qami:ṣ-an  
bought as a dress the-man-Nom the-boy-Acc shirt-Acc

'The man gave the boy a shirt'

- 39) ?arsal-tu r-rajul-a risa:lat-an  
sent-1s the-man-Acc letter-Acc

'I sent the man a letter'

- 40) hammala r-rajul-u l-walad-a l-ḥaqi:bat-a  
cause to carry the-man-Nom the-boy-Acc the-bag-Acc

'The man made the boy carry the bag'

Further, I know of no verbs that obligatorily govern 3-2 advancement; that is, there are no verbs which occur in a 3-2 advancement construction but which do not occur with a superficial 3. However, it does not occur with verbs like those in (41), demonstrated in (42-45):<sup>3</sup>

- |             |                        |
|-------------|------------------------|
| 41) qaddama | 'to present, to offer' |
| rabiḥa      | 'to win'               |
| ḥawwala     | 'to transfer'          |
| naqala      | 'to convey'            |

- 42) a. qaddama l-?aḥniya:?-u ṭ-ṭaḥa:m-a li  
offered the-rich people-Nom the-food-Acc to  
l-fuqara:?-i  
the-poor people-Obl

'The rich offered food to the poor'

- b. \*qaddama l-?aḥniya:?-u l-fuqara:?-a  
offered the-rich people-Nom the-poor people-Acc  
ṭ-ṭaḥa:m-a  
the-food-Acc

- 43) a. rabiḥa muḥammad-un l-ja:ʔizat-a  
won Mohammad-Nom the-prize-Acc  
li Ḥana:n-in  
to Hanaan-Obl

'Mohammad won the prize for Hanaan'

- b. \*rabiḥa muḥammad-un Ḥana:n-an l-ja:ʔizat-a  
won Mohammad-Nom Hanaan-Acc the-prize-Acc

- 44) a. naqala 1-jundiyy-u 1-maḡlu:ma:t-a  
 conveyed the-soldier-Nom the-information-acc  
 li 1-qa:ʔid-i  
 to the-leader-Obl
- 'The soldier conveyed (communicated) the information to the leader'
- b. \*naqala 1-jundiyy-u 1-qa:ʔid-a  
 conveyed the-soldier-Nom the-leader-Acc  
 1-maḡlu:ma:t-a  
 the-information-Acc
- 45) a. ḥawwalat-i 1-ja:miḡat-u n-nuqu:d-a  
 transferred-V the-university-Nom the-money-Acc  
 li 1-mabḡu:θ-i  
 to the-scholar-Obl
- 'The university transferred the money to the scholar'
- b. \*ḥawwalat-i 1-ja:miḡat-u 1-mabḡu:θ-a  
 transferred-V the-university-Nom the-money-Acc  
 n-nuqu:d-a  
 the-money-Acc

In what follows, I present arguments for the proposed analysis, thus establishing the 3-2 advancement construction in SA. First, I give arguments for the final 2-hood (or direct objecthood) of the advancee. Second, I deal with the fate of the initial 2 in the final stratum, arguing that the patient is no longer a "real" object, but is rather a chomeur. Finally, I argue against alternative analyses related to both the advancement analysis as well as the GR borne by the patient.

### 6.3.1 Evidence for the Final 2-Hood of the Advancees

In this section, I supply evidence that the recipient in double accusative clauses is a final 2. The evidence draws upon nominal case, passive, pronominal cliticization, ascension, topicalization and reflexives.

#### a) Nominal Case

In Chapter 4, I have reformulated the rule for nominal case marking, repeated here as (46):

#### 46) Nominal Case Rule:

- a. Final 1s are in the nominative case.
- b. Final 2s are in the accusative case.
- c. Others are in the oblique case.

As such if the recipient is a final 2, it must be in the accusative case in accord with the rule (46). The prediction is borne out. The nominals 1-ḡa:mil-a and 1-bint-a in (47-48) below are marked accusative as is indicated by the suffix -a:

47) ?aḡtat-i 1-marʔat-u 1-ḡa:mil-a n-nuqu:d-a  
gave-V the-woman-Nom the-worker-Acc the-money-Acc

'The woman gave the worker the money'

48) ba:ḡa t-ta:jir-u 1-bint-a s-sayya:rat-a  
sold the-merchant-Nom the-girl-Acc the-car-Acc

'The merchant sold the girl the car'

Thus, the fact that such nominals bearing the 3-relation in the initial stratum are in the accusative case in the final stratum manifests that they are final 2s.



## b) Passive

Passives advance only 2s to 1s. If this claim is true, we expect that nominals heading 3-arcs but final 2-arcs can advance to 1 via passive. That the prediction is valid is shown in the passive clauses (49-50), the counterparts to the non-passives (47-48) above:

49) ?uḥṭiya 1-ḥa:mil-u n-nuqu:d-a  
Pas+gave the-worker-Nom the-money-Acc

'The worker was given the money'

50) bi:ḥat-i 1-bint-u s-sayya:rat-a  
Pas+sold-V the-girl-Nom the-car-Acc

'The girl was sold the car'

In the case of (49-50), 1-ḥa:mil-u and 1-bint-u, assumed to be 3-2 advancees, have advanced to 1s. The ability of such nominals to advance to 1, therefore, provides another piece of evidence for the final 2-hood of the advancees in 3-2 advancement clauses.

In cases where the verb does not govern 3-2 advancement, nominals heading 3-arcs cannot be passivized as demonstrated in the ungrammatical passives (51-54), the counterparts to the active clauses (42-45a) above:

51) \*quddima 1-fuqara:ʔ-u ṭ-ṭaḥa:m-a (li)  
Pas+offered the-poor people-Nom the-food-Acc (to)

(The poor were offered the food)

52) \*rubihat ḥana:n-un 1-ja:ʔizat-a (li)  
Pas+won Hanaan-Nom the-prize-Acc (for)

(Hanaan was won the prize (for))

- 53) \*nuqila l-qa:ʔid-u l-maʕlu:ma:t-a (li)  
 Pas+conveyed the-leader-Nom the-information-Acc (to)  
 (The leader was conveyed the information (to))
- 54) \*ḥuwwila l-mabʕu:θ-u n-nuqu:d-a (li)  
 Pas+transferred the-scholar-Nom the-money-Acc (to)  
 (The scholar was transferred the money (to))

c) Pronominal Cliticization

When pronominalized, nominals bearing the final 2-relation cliticize to the predicate of the clause. Consequently, if nominals like l-ʕa:mil-a and l-bint-a are truly final 2s in (47-48) above, they should be able, if pronominalized, to appear as clitics on predicates like ʔaʕtat and ba:ʕa in (47-48) above. That the claim is true is manifested in clauses (55-56),

- 55) ʔaʕtat-hu l-marʔat-u n-nuqu:d-a  
 gave-him the-woman-Nom the-money-Acc  
 'The woman gave him the money'
- 56) ba:ʕa-ha: t-ta:jir-u s-sayya:rat-a  
 sold-her the-merchant-Nom the-car-Acc  
 'The merchant sold her the car'

where the pronominals -hu and -ha:, replacing l-ʕa:mil-a and l-bint-a, do cliticize to the predicate. Thus, pronominal cliticization supplies a further argument that initial 3s are really final 2s.

d) Ascension

In the previous chapter, I have claimed that nominals heading term-arcs can ascend to both subject and object. As such, if the advancee is

a final 2 in a 3-2 advancement construction, it should be able to ascend. The prediction holds as can be seen in the clauses (57-58):

- 57) yabdu 1-ḡa:mil-u ?anna 1-mar?at-a  
 seem the-worker-Nom that the-woman-Acc  
 ?aḡṭat-hu n-nuqu:d-a  
 gave-him the-money-Acc

Lit.: 'The worker seems that the woman gave him the money'

- 58) ḡasib-tu 1-bint-a ?anna t-ta:jir-a  
 thought-1s the-girl-Acc that the-merchant-Acc  
 ba:ḡa-ha: s-sayya:rat-a  
 sold-her the-car-Acc

Lit.: 'I believed the girl that the merchant sold her the car'

In (57), the nominal 1-ḡa:mil-u, assumed to be the advancee in the embedded clause, has moved into the subject position in the matrix clause. Likewise, 1-bint-a in (58), also assumed to be the 3-2 advancee in the embedded clause, has ascended into the object position in the matrix clause. Thus, the fact that such advancees can ascend furnishes another piece of evidence for their final 2-hood. Their being final 2s can clearly be seen from the pronominal copies like -hu and -ha: left behind in (57-58) which cliticize to the embedded verbs ?aḡṭa-hu and ba:ḡa-ha:.

#### e) Topicalization

Any nominal bearing a final GR can topicalize in SA as was pointed out in section 3.6. Accordingly, if the advancee nominal heads a final 2-arc, it must topicalize. That this prediction is borne out can be seen in (59-60) where the 3-2 advancees 1-ḡa:mil-u and 1-bint-u have

topicalized:

- 59) ?al-ʕa:mi-l-u, ?aʕtat-hu l-marʕat-u  
 the-worker-Nom, gave-him the-woman-Nom  
 n-nuqu:d-a  
 the-money-Acc

'The worker, the woman gave him the money'

- 60) ?al-bint-u, ba:ʕa-ha: t-ta:jir-u  
 the-girl-Nom, sold-her the-merchant-Nom  
 s-sayya:rat-a  
 the-car-Acc

'The girl, the merchant sold her the car'

Therefore, that advancee nominals can topicalize shows that they are final 2s.<sup>4</sup> Their final 2-hood is evident in that final 2s when topicalized leave pronominal copies of themselves like -hu and -ha, cliticizing to the predicate of the clause.

#### f) Reflexives

If the advancee is a final 2, it should antecede a reflexive nominal. This prediction is borne out as is manifested in (61)

- 61) ?aʕtay-tu s-sa:ʔiḥat-a l-maqa:lat-a  
 gave-1s the-tourist+f-Acc the-article-Acc  
 ʕan nafs-i-ha:  
 about self-Obl-her

'I gave the f.tourist the article about herself'

in which s-sa:ʔiḥat-a antecedes the reflexive nominal nafs-i-ha: in conformity with the condition on reflexives discussed in section 3.5 that says only final 1s and 2s can be antecedents of reflexives.

Therefore, that an advancee like s-sa:ʔiḥat-a can antecede a reflexive nominal supplies a further argument for the final objecthood of 3-2 advancees.<sup>5</sup>

## g) Summary

The preceding subsection has argued for an advancement analysis of clauses involving two accusatives. Specifically, it has been proposed that nominals whose semantic role is recipient in the initial stratum are final 2s in the final stratum. The proposal has been supported by arguments based upon nominal case marking, passives, pronominal cliticization, ascension, topicalization and reflexives.

## 6.3.2 The Fate of the Patient

So far I have established the final 2-hood of the recipient in double accusative constructions. In this section, I discuss the fate of the patient, again showing that it heads a 2-arc in the final stratum. Arguments draw upon passives, topicalization, pronominal cliticization and ascension.

## a) Passive

We have observed in Chapter 4 that passive has the effect of advancing nominals heading 2-arcs to 1. Thus, if the patient really heads a  $\hat{2}$ -arc, it should be able to advance to 1 in a passive clause. This is not the case as illustrated in clauses (63) and (65), the counterparts to the active clauses (62) and (64):

62) ?arsala-tu r-ra?i:s-a hadiyyat-an  
sent-1s the-president-Acc gift-Acc

'I sent the president a gift'

- 63) \*ʔursilat hadiyyat-un r-raʔi:s-a  
Pas+sent gift-Nom the-president-Acc

(A gift was sent the president)

- 64) saʔala t-ta:lib-u l-muʔallim-a suʔa:l-an  
asked the-student-Nom the-teacher-Acc question-Acc

'The student asked the teacher a question'

- 65) \*suʔila suʔa:l-un l-muʔallim-a  
Pas+asked question-Nom the-teacher-Acc

(A question was asked the teacher)

The passive clauses (63) and (65) are ill-formed because the patient nominals hadiyyat-un and suʔa:l-un have advanced to 1 in the final stratum. Thus, that such nominals cannot advance to 1 gives one piece of evidence that they are not 2s in the final level of 3-2 advancement clauses.

#### b) Ascension

Nominals bearing final term-relations can ascend to subject and/or object in SA as discussed in Chapter 5. As such if the patient bears a final term-relation in double accusative clauses, it should be accessible to ascension. This claim is invalid as can be shown in (66-67):

- 66) \*tabdu hadiyyat-un ʔanna s-sa:ʔiq-a  
seem gift-Nom that the-driver-Acc  
ʔarsala-ha: r-raʔi:s-a (ʔiyya:ha:)  
sent-it the-president-Acc (it)

(\*Lit.: A gift seems that the driver sent it the president)

- 67) \*ḥasib-tu suʔa:l-an ʔanna t-ṭa;lib-a  
 thought-1s question-Acc that the-student-Acc  
 saʔala-hu (ʔiyya;hu) l-muʔallim-a  
 asked-it (it) the-teacher-Acc

(\*Lit.: I thought the question that the student  
 asked it the teacher)

These clauses are ungrammatical due to the ascension of the nominals hadiyyat-un and suʔa:l-an. If these nominals were final terms, the clauses would be well-formed. Thus, the inability of such nominals to ascend gives a further piece of evidence for their final non-termhood or non-object-hood.

### c) Pronominal Cliticization

We have observed that a nominal bearing a final 2-relation cliticizes to the verb if pronominalized. Accordingly, if the patient is a final 2 in the construction under consideration, its corresponding pronominal form should appear as a clitic on the verb. That the prediction is not borne out can be shown in the ungrammatical clause (69b) as is contrasted with (69a) in which the nominal l-hadiyyata in (68) is replaced by the independent pronominal ʔiyya:ha: 'it':

- 68) ʔarsala s-sa:ʔiq-u l-mudi:r-a  
 sent the-driver-Nom the-principal-Acc  
 l-hadiyyat-a  
 the-gift-Acc

'The driver sent the principal the gift'

- 69) a. ʔarsala s-sa:ʔiq-u l-mudi:r-a ʔiyya;ha;  
 sent the-driver-Nom the-principal-Acc it

'The driver sent it to the principal'  
 (Lit.: The driver sent the principal it)

b. \*arsala-?iyya:ha: s-sa:?iq-u l-mudi:r-a  
 sent-it the-driver-Nom the-principal-Acc

(The driver sent it to the principal)

The ill-formedness of (69b) is attributed to the cliticization of ?iyya:ha: to ?arsala-, a slot which is only filled by a final 2 nominal. The fact that the patient cannot cliticize to the predicate in the final level of structure, therefore, supplies another argument for its final non-objecthood.

#### d) Summary

The foregoing discussion has furnished evidence to the effect that the patient is not a final 2. We have seen that it is inaccessible to passive, ascension, and pronominal cliticization. I conclude, therefore, that the patient is not a final term and must thus be a final 2-chomeur.

#### 6.3.3 Summary

The foregoing section has motivated the 3-2 advancement construction in SA. It has been shown that clauses with two accusative nominals are best analyzed as involving the advancement of the "recipient" nominal to 2 in the following stratum, thus putting the "patient" nominal en chomage. Evidence for the final 2-hood of the advancee as well as for the final chomage of the patient has also been provided, drawing upon several syntactic features internal to the language. What is left, however, is evaluate other alternatives to the above analysis; and



this is the focus of section 6.5. Prior to doing so, I would like to re-consider the rule of nominal case in the next section.

#### 6.4 Nominal Case

In this section, I reformulate the rule for nominal case marking posited in section 3.2 in the light of the findings of the previous section. That rule states that final 2s are in the accusative case. However, we have recognized that not only final 2s, but also final  $\hat{2}s$ , have the same case. Thus, the rule should be revised to accommodate the case marking of  $\hat{2}s$ . Accordingly, the reformulated rule can be stated as in (70):

##### 70) Reformulated Nominal Case Marking Rule:

- a. Final 1s are in the nominative case
- b. Final 2s and  $\hat{2}s$  are in the accusative case.
- c. Others are in the oblique case.

Since the subrule (70b) makes reference to both final 2s and  $\hat{2}s$ , the generalization could, nonetheless, be stated in terms of the RG notion of "Acting Term<sub>x</sub>". Using "term<sub>x</sub>" as a variable over the R-signs "1, 2 and 3", Perlmutter and Postal (1984) define "acting term<sub>x</sub>" as follows:

##### 71) Acting Term<sub>x</sub>:

A nominal node is an acting term<sub>x</sub> if and only if:

- a. it heads a term<sub>x</sub> arc, A, whose last coordinate is C<sub>1</sub>, and;
- b. it does not head an arc B with:
  - i) the same tail as A
  - ii) a term R-sign distinct from term<sub>x</sub>, and
  - iii) a coordinate c<sub>j</sub>, where j > i.

As such a nominal is an acting term<sub>x</sub> if term<sub>x</sub> is the last term relation it bears in a given clause. For instance, we have seen that in 3-2 advancement clauses, both the advancee and the 2, which goes into cho-mage are acting 2s, marked accusative. The subrule (70b) could, therefore, be restated as follows:

72) An acting 2 is in the accusative case.

The case marking rule for SA can now be stated in (73):

73) Revised Nominal Case Marking Rule;

- a. Final 1s are marked nominative.
- b. Acting 2s are marked accusative.
- c. Other nominals are marked oblique.

The subrule (73b) thus unites both final 2s and final 2̂s in double accusative clauses.

#### 6.5 Other Alternatives to the 3-2 Advancement Analysis

The present section is meant to examine three possible treatments that may adequately account for 3-2 advancement construction. These are the "Double 2-Analysis", the "Non-Advancement Analysis" and "Snow's Approach" to double accusative clauses. The first is posited as an alternative to the patient analysis, and is discussed in the subsection 6.5.2; the second is also postulated as an alternative to the 3-2 advancement analysis, and is dealt with in 6.5.2; and, finally, Snow's (1965) treatment of double accusative clauses is broached in 6.5.3. I argue against all of them, thus lending further support to the Stratal Uniqueness Law which is superficially threatened by the double 2- and Snow's analysis.

## 6.5.1 The Double 2-Analysis

In section 6.3.2, I have shown that the patient is a final  $\hat{2}$  in clauses with 3-2 advancement; that analysis, I will refer to as the "chomage analysis". In this section, I discuss an alternative to the chomage analysis; the alternative will be called the "double 2-analysis", representing Wright's and other's view of 3-2 advancement construction in SA.

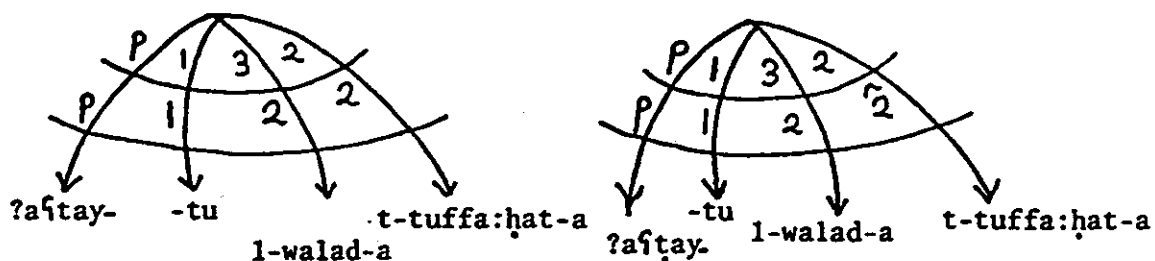
The double 2-analysis claims that the patient is not a final  $\hat{2}$ , but rather a final  $\underline{2}$ . Under this analysis, a clause like (74) has the structure (75) rather than (76):

74) ?aʕtay-tu 1-walad-a t-tuffa:ḥat-a  
gave-1s the-boy-Acc the-apple-Acc

'I gave the boy the apple'

75) Double 2-Analysis

76) Chomage Analysis



The advancee 1-walad-a as well as the patient t-tuffa:ḥat-a in (75) are superficially final  $\underline{2}$ s; hence, (71) violates the SUL which rules out any such a structure as ill-formed since two nominals head the 2-arc in one stratum. The double 2-analysis is thus compatible with the claim that 3-2 advancement clauses have "two objects": the first which is called the advancee in my analysis is termed the "first ob-

ject"; and the second the "second object". In what follows, I argue against this analysis, showing that the SUL is not violated by data from SA.

One piece of evidence favors the double 2-analysis. It is nominal case marking, saying that final 2s are marked with the accusative. Like 1-walad-a, the patient t-tuffa:ḥat-a is in the accusative case as is indicated by the suffix -a, and as such is a final 2 under the double 2-analysis. Nominal case seems to have misled Wright and others who, having realized that such two nominals have the same case, conclude that SA permits two objects. Had they reflected upon the syntactic behavior of those two "objects", they might have changed their mind. To arrive at a valid conclusion, the syntax of such two objects should thoroughly be given due account.

Contrary to these linguists' conclusion, investigating the syntactic behavior of the patient in the final stratum proves that it is not a 2. Arguments against the double 2-analysis can be furnished on the basis of passives, ascension and pronominal cliticization.

In the previous section, I have shown that the patient like t-tuffa:ḥat-a in (74) can be accessible to none of those syntactic constructions. The patient cannot advance to 1 via passive, nor can it raise via raising. Further, it cannot cliticize to the verb if it is pronominalized. The double 2-analysis, however, falsely predicts that the patient should be accessible to passive, raising, etc.

The fact that the patient is not eventually a final 2 to make it eligible for those constructions provides crucial evidence against the

double 2-analysis, but for the chomage analysis which correctly predicts that the patient is a final 2. If this conclusion is valid, the notion of "double objects" should be rejected; it cannot account for the syntactic behavior of the two accusative nominals. Its rejection is thus significant not only to SA grammar, but also to the theory of RG since the SUL is, hence, saved.

### 6.5.2 The Non-Advancement Analysis

In section 6.3, I proposed that clauses like (29-30) above, repeated here as (77-78), respectively, should be accounted for by the analysis that entails the advancement of a 3 to 2 at the final level:

77) ?aʕta 1-muʕallim-u r-rajul-a sa:ʕat-an  
gave the-teacher-Nom the-man-Acc watch-Acc

'The teacher gave the man a watch'

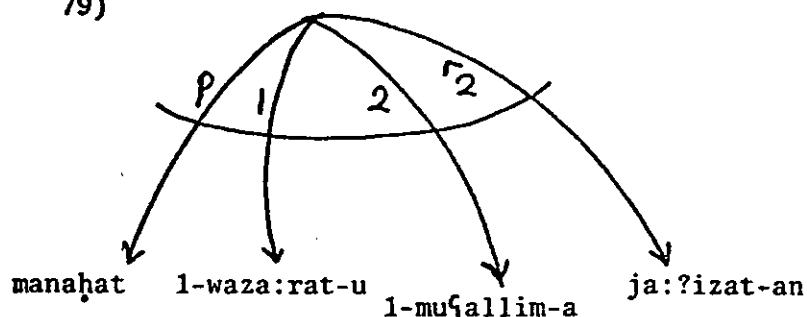
78) manahat-i 1-waza:rat-u 1-muʕallim-a  
awarded-V the-ministry-Nom the-teacher-Acc  
ja:ʕizat-an  
prize-Acc

'The ministry awarded the teacher a prize'

Moreover, I argued for this advancement analysis in section 6.3.1, which implies that clauses with 3-2 advancement have a bistratal structure.

However, there is an alternative to that analysis which I will call the "non-advancement analysis", under which clauses like (78) would be represented in the stratal diagram (79):

79)



In the case of (79), the clauses are viewed as having a monostratal, rather than a bistratal, structure.

Both analyses, the advancement and the non-advancement, make correct predictions concerning nominal case, passive, pronominal cliticization, topicalization and reflexive of the nominal bearing the 2-relation. Moreover, they correctly predict that the patient is a  $\hat{2}$  which cannot be accessible to the syntactic constructions discussed in section 6.3.2. Thus, both analyses are acceptable and cannot be retained distinct up to this point.

However, they make different claims regarding the interaction between clause union and 3-2 advancement.<sup>6</sup> In Chapter 7, I have argued that the downstairs 1 of a transitive clause bears the 3-relation in the union stratum (see section 7.2.3), and that the union 3 can advance to 2 via 3-2 advancement (see section 7.3.1) as shown in (80.b) associated with the structure in (81):

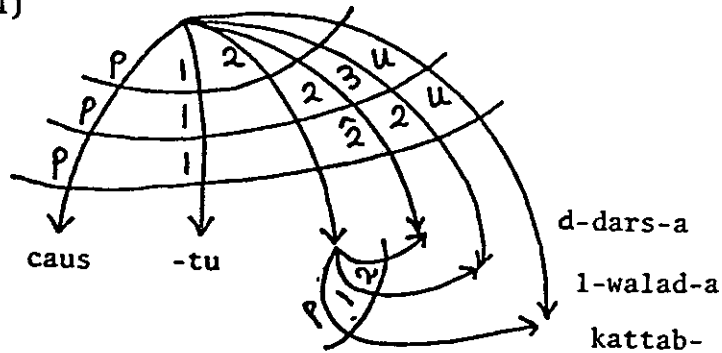
80) a. kattab-tu d-dars-a li 1-walad-i  
 caus+write-1s the-lesson-Acc to the-boy-Obl

'I made the boy write the lesson'

b. kattab-tu 1-walad-a d-dars-a  
 caus+write-1s the-boy-Acc the-lesson-Acc

'I made the boy write the lesson'

81)



Clauses like (80.b) can be readily accounted for if we assume the existence of 3-2 advancement in SA. In the case of (80.b), the nominals 1-walad-a and d-dars-a bear the 2- and 2̂- relations in the final stratum. (Evidence for this claim is provided in sections 7.3.1.1 and 7.3.1.2). Their GRs depend on there being a nominal 3 that can advance to 2 since clause union results in the downstairs 1 and 2 of a transitive clause like 1-walad-i and d-dars-a in (80.a) bearing the 3- and 2- relations, respectively, in the upstairs clause. Thus, unless we assume that SA has 3-2 advancement, we might not be able to explain why a 3 in the union stratum can bear a final 2 in such clauses as (80.b).

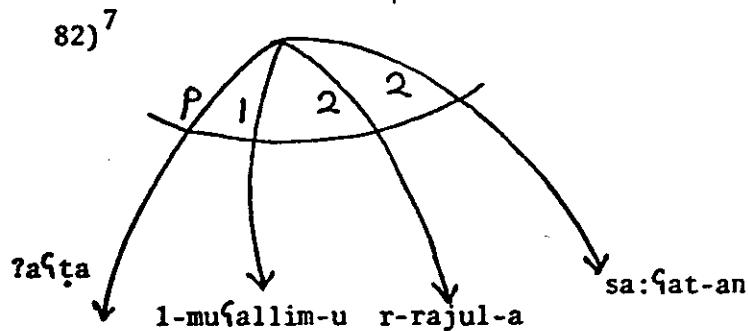
On the other hand, given the non-advancement analysis, we cannot account for the GRs borne by nominals in 3-2 advancement clauses. The analysis has no means of predicting that 1-walad-a and d-dars-a in (80.b), for instance, first head initial 3- and 2- arcs, respectively, in the union stratum.

Consequently, the advancement - rather than the non-advancement - analysis should be favored since it makes correct predictions concern-

ing the properties of 3-2 advancement cases.

### 6.5.3 Snow's Approach to Double Accusative Clauses

Like Wright, Snow (1965) conceives of clauses like (77-78) above as containing two objects like r-rajul-a and sa:ḡat-an of (77). Translating his approach into RG terminology, a clause like (77) is representable in the stratal diagram (82):



The SUL is thus violated since two nominals bear the 2-relation. Though he does not present arguments for his conception, the only piece of evidence favoring it is nominal case: the two nominal "objects" are in the accusative case. Snow, however, encounters the same problems that Wright does. (See section 6.5.1). He cannot explain why the "second object", in his own view, like sa:ḡat-an in (82) can neither advance to 1, cliticize to the verb, nor ascend.

The inadequacy of his treatment of clauses involving double accusatives also comes from the way he accounts for such clauses as (83):

83) ʔaḡṡa 1-muḡallim-u sa:ḡat-an li r-rajul-i  
gave the-teacher-Nom watch-Acc to the-man-Obl

'The teacher gave a watch to the man'



Snow utilizes a transformation (T-2 in his thesis) for this purpose, stated in (84):

84) Snow's Second Transformation:

The optional change in function of the two objects of V-tr<sub>4</sub><sup>8</sup> (e.g., ?aṣṭa: 'to give') constructions to an object and adverb of interest,<sup>9</sup> thus providing two inputs into the passive transformation. (Snow 1965: 86).

Without arguing for it, Snow demonstrated T-2 in the following examples (85-86):<sup>10</sup>

85) ?al-rajul-u ?aṣṭa: bint-a-hu hadiyyat-an  
the-man-Nom gave daughter-Acc-his present-Acc

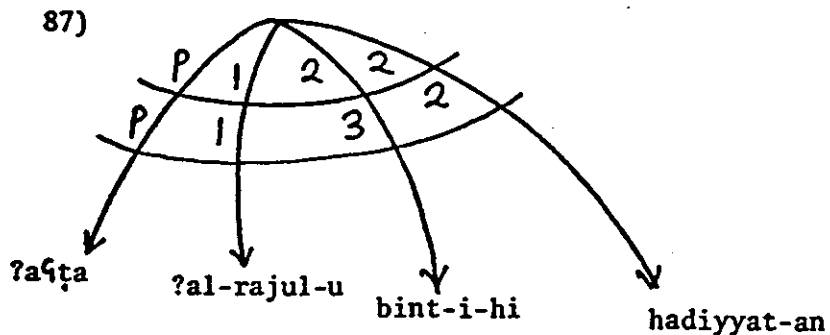
'The man gave his daughter a present'

Applying T-2 to (85) yields (86):

86) ?al-rajul-u ?aṣṭa: hadiyyat-an li bint-i-hi  
the-man-Nom gave present-Acc to daughter-Obl-his

'The man gave a present to his daughter'

Using RG clausal representation, a clause like (86), within Snow's approach, would have the structure (87):



In the case of (87), the falsely-viewed initial 2, bint-i-hi, retreats to 3 in the final stratum in conformity with the posited transformation.

Though ungrounded, his analysis correctly predicts the ascension,

topicalization, pronominalization and nominal case of a nominal like bint-i-hi, merely because it is a final 3. We have observed that final 3s are eligible for all these syntactic features. (See section 6.2.2 for examples).

Snow's account, however, encounters several problems. The first is associated with the assignment of GRs to nominals in the first stratum. A nominal like bint-i-hi can never be an initial 2 in clauses like (85-86) since it is semantically recipient and NOT patient. Recall that GRs are assigned to nominals as to their "semantics" in the first stratum. If his reasoning were valid, a structure like (87) would constitute a strong challenge to the role semantics plays in syntax. Semantics, therefore, refutes Snow's approach.

Second, passive is problematic for Snow. T-2, according to him, is a mechanism which provides "two inputs into the passive transformation": It is hard to concur with him since that transformation, even if we accepted his derivational line of thought, provides only one "input" to passivization. In a clause like (86), the only passivizable nominal is hadiyyat-an as can be seen in (88) below, contrasted with the ungrammatical passive clause (89), where bint-u-hu has advanced to 1:

88) ?uḩḩiyat hadiyyat-un li bint-i-hi  
Pas+gave present-Nom to daughter-Obl-his

'A present was given to his daughter'

89) \*?uḩḩiyat bint-u-hu hadiyyat-an (li)  
Pas+gave daughter-Nom-his present-Acc (to)

(His daughter was given a present (to))

Clause (89) is well-formed only if it is viewed as the passive counterpart to the 3-2 advancement clause (85), but not (86). Thus, the non-passivizability of a nominal like li bint-i-hi in clause (86) counter-exemplifies his transformation. We have observed earlier that such a nominal can only advance to 1 if it first advances to 2. This observation finds further support in Snow's conception of a clause like (85) as a source in which bint-a-hu can be the "input" to passivization.

Finally, his treatment of double accusative clauses is implausible. It attributes the "retreat" construction to the language in which it never exists. As a matter of fact, I have not come across any clauses that would be characterized by "retreat" in SA.

In conclusion, Snow's treatment of double accusative clauses is utterly implausible and lacks explanatory adequacy, and should, consequently, be dispensed with.<sup>11</sup> Its rejection thus saves as well as lends further support to the Stratal Uniqueness Law.

## 6.6 Conclusion

The present chapter has argued for the 3-2 advancement construction in SA. Similarly, we have observed that an initial 2 affected by 3-2 advancement ceases to bear that GR, and thus becomes a chomeur. Thus, such nominals as "patients" syntactically differ from the advancee which is a term in the final stratum.

The foregoing analysis supports the theory of RG. The theory correctly predicts that the 3-2 advancement changes the GR of nominals:

3s become 2s at the final level. It also makes the correct prediction that the final 2 which is originally 3 is accessible to passive, pronominalization and the like. Contrariwise, a  $\hat{2}$  is predicted to be incapable of occurring in such constructions. This follows from the Chomeur Condition without which we might not be able to predict the syntactic behavior of the patient. Thus, the theory of RG which entails the Chomeur Condition provides a clear-cut distinction between the double accusative nominals in SA. This implies that a theory that does not posit term as well as non-term relations is not adequate.

Finally, other treatments advocating the view of the "first object" and the "second object" are shown to lack adequacy since they cannot account for the differences between the two. They should, therefore, be rejected. Their rejection thus lends further, strong support for the SUL as well as the Chomeur Condition posited as universals in syntactic theory.

## Footnotes

1. The data with and without advancement are judged by other native speakers to be well-formed:
2. The 3-2 advancement in clauses where verbs express causation is dealt with in Chapter Seven.
3. The non-occurrence of 3-2 advancement with verbs in English equivalent to those listed in (41) is also reported by Johnson (1974).
4. The fact that only nominals bearing final relations like ?al-bint-u in (60) above can topicalize provides evidence that the rule for topicalization dealt with in section 3.6 should refer to the final level of structure.
5. This also gives evidence for the condition on reflexives given in section 3.5 in the sense that the antecedent should be a final 1 or a final 2.
6. The argument based on clause union and 3-2 advancement is suggested by Paul Postal (p.c.).
7. Within RG, the structure (82) is ill-formed not only because it violates the Stratal Uniqueness Law, but also because RG representation of 3-2 advancement clauses involves two strata, not one. This is illustrated in the stratal diagram (76) above, for instance.
8. According to Snow, "V-tr<sub>4</sub>" stands for those transitive verbs like manaha 'to award, to grant' and ?ašta: 'to give' that take two objects: indirect and direct. For details, see Snow (1965: 45).
9. Snow's "adverb of interest" is the recipient nominal introduced by the preposition li 'to'.
10. Clauses (85-86) are taken from Snow (1965). In this regard, it should be recalled that Snow considers SA as an SVO language.
11. Snow's treatment of clauses with 3-2 advancement does not also reflect how the TG framework that he follows accounts for those clauses. In TG, this advancement is known as "Dative Movement"; representable in the following formula (i):

$$(i) \begin{array}{c} NP_1 \quad V \quad NP_2 \quad \begin{array}{l} (to) \\ (for) \end{array} \quad NP_3 \\ \Rightarrow \\ NP_1 \quad V \quad NP_3 \quad NP_2 \end{array}$$

Snow's treatment of SA data could be transformationally represented in the formula (ii), however,

(ii)  $NP_1 V NP_2 NP_3 \Rightarrow$   
 $NP_1 V NP_3 li NP_2$

where NP<sub>2</sub> is semantically "recipient", and NP<sub>3</sub> "patient".

## Chapter 7

### CLAUSE UNION

#### 7.0 Introduction

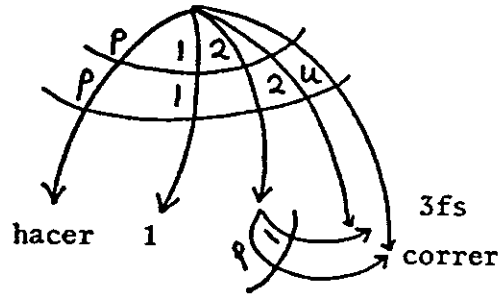
The basic idea of clause union is that two clauses collapse into a single clause; thus all the dependents of the downstairs (DS) clause are assigned relations in the upstairs clause. The stratum in which the downstairs dependents first bear grammatical relations in the upstairs clause is the union stratum. Clause Union has received much attention in RG. (See Perlmutter and Postal (1974), Gibson and Raposo (to appear), and Rosen (1983)). This work has led to two parameters -- Revaluation and Inheritance -- which determine the assignment of the grammatical relations to the downstairs dependents in the union stratum.

Revaluation is associated with the downstairs final 1; this nominal is revalued (that is, given a new relation) as either a 2 or a 3 in the union stratum, depending on language particular criteria. The Spanish clauses (1-2), taken from Aissen and Perlmutter (1983: 384), exemplify the revaluation parameter:

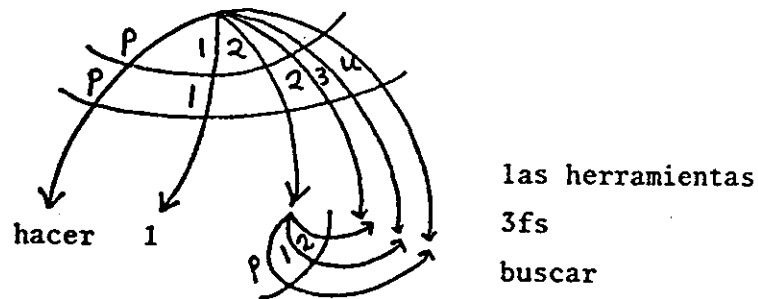
- 1) La hice correr  
her-Acc I-made run  
  
'I made her run'
- 2) Le hice buscar las herramientas  
her-Dat I-made seek the tools  
  
'I made her look for the tools'

These clauses are represented in (3-4):

3)



4)



Diagrams (3-4) exemplify a type of clause union based upon the final transitivity of the downstairs clause. The downstairs final 1 in (1) is a 2 in the union stratum since the downstairs clause is intransitive; hence, the accusative pronominal la. The downstairs final 1 in (2) is, however, a 3 in the union stratum since the downstairs clause is transitive; hence, the dative pronominal le. This clause union can be summarized as in (5):

5) Clause Union Type 1

<u>Downstairs Final GR</u>	<u>Union Relation</u>
Trans. 1	3
Intrans. 1	2

Perlmutter and Postal (P.& P.) (1974) claim that this sort of clause union holds for all natural languages since it has been attested in a



wide range of languages including Spanish (Aissen and Perlmutter 1983), Georgian (Harris 1976), Turkish (Özkaragöz 1979, 1980b) and French and Turkish (Aissen 1974a, b).<sup>1</sup>

In contrast to the downstairs final 1 which gets revalued, other downstairs dependents are subject to a universal called the "Inheritance Principle": proposed by Gibson and Raposo (to appear) (cf. Fauconnier 1983) and given in (6):

6) The Inheritance Principle:

Other nominals heading a final GRx-arc in the complement clause b head a GRx-arc or a Cho-arc in the main clause d.

In other words, all other downstairs nominals either inherit their downstairs final relations or go en chomage in the union stratum. The chomeur relation solves cases in which inheritance would constitute a violation of the Stratal Uniqueness Law (SUL). The principle is partially illustrated in (4) above in which the downstairs 2 borne by las herramientas bears the same relation in the union stratum.

Having introduced clause union as viewed by Perlmutter and Postal (1974), I proceed to discuss causative clause union (CCU) in SA. I show that SA clause union conforms to the schema in (5), and that it is theoretically significant because SA causatives are often cited as an instance of "doubling on direct object" position, which threatens the status of the Stratal Uniqueness Law in universal grammar. However, it will be argued against this view of doubling, supporting the SUL.

The demonstration is organized as follows. First, I give a general idea of other linguists' conception of SA causative constructions.

Second, I introduce my analysis of SA clause union, supplying arguments for both the initial biclausality of, and the final GRs borne by nominals in, the clause union. Third, I discuss the divergence from clause union Type I in SA and other languages, showing that CCU in SA and 3-2 advancement result in double accusative clauses. Fourth, I deal with the notion of doubling on direct object in CCU proposed by Comrie (1976). Fifth, other alternatives involving raising and Equi to the clause union analysis are postulated and rejected. Sixth, constructions in which clause union is impossible are presented. Seventh, periphrastic causatives are discussed. Next, I deal with CCU in relation to unaccusativity in SA. Finally, a semantic account of predicates prohibited from clause union is broached.

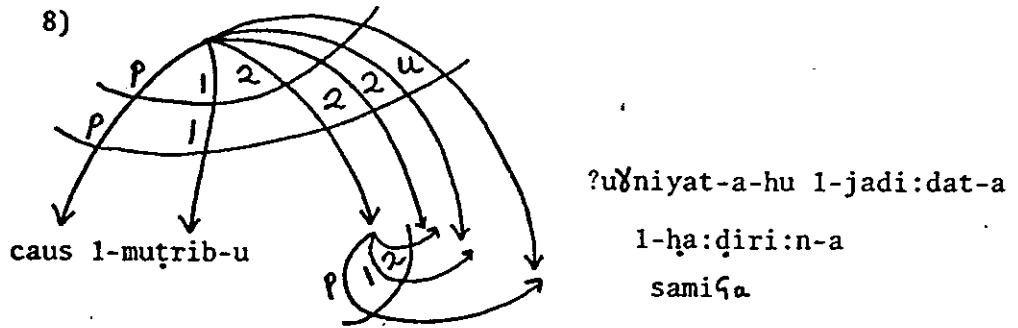
### 7.1 Preliminary Statement

Linguists like Wright (1974), Saad (1975) and Comrie (1976) make the generalization that SA tolerates two objects in causative clauses. For instance, studying the syntax of causative constructions, Comrie (1976: 285-86), who also cites Wright (1974) and Xrakovskij (1969), claims that "The causative of a transitive verb (in SA) takes two direct objects." To illustrate his claim, he gives the following example that he takes from Xrakovskij (1969):

- 7) ?asmaʕa l-muṭrib-u l-ḥa:ḍiri:n-a  
 hear-caus the-singer-Nom the-those present-Acc (DO)  
 ?uḥniyat-a-hu l-jadi:dat-a  
 song-Acc (DO)-his the-new-Acc (DO)

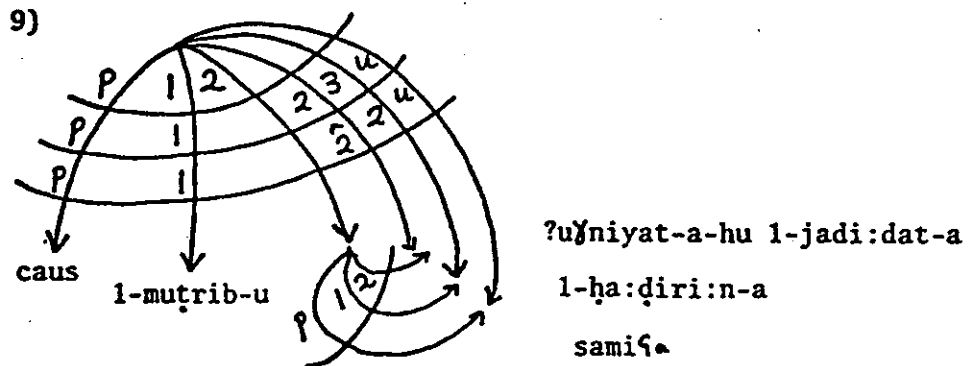
'The singer let those present hear his new song'

This clause can be represented in the diagram in (8), translating Comrie's view into RG terminology:



As it stands, structure (8) meets Comrie's purposes: it results in a construction in which two nominals -- 1-ḥa:diri:n-a and ?uṣniyat-a-hu 1-jadi:dat-a -- have the direct object relation in the same stratum. Such clauses, according to him, would therefore constitute a counterexample to the SUL posited as a universal in the theory of RG. Recall that the Stratal Uniqueness Law rules out as ill-formed any structure like (8) involving two nominals with the same term relation in a single stratum.

In subsequent sections, I argue against those linguists' analysis, positing instead that clauses like (7) involve 3-2 advancement which affects the final GRs borne by nominals in the union stratum. Under my analysis, clause (7) is representable in (9) rather than in (8):



Later, I provide evidence for (9) showing that the two nominals which are marked accusative are not both 2s in the final stratum of causatives like (7), rather one of the nominals is a 2-chomeur.

## 7.2 Causative Clause Union in SA

SA clause union is demonstrated in clauses (10-11b):

10) a. rakaḍa 1-walad-u  
ran the-boy-Nom

'The boy ran'

b. rakaḍa 1-muḡallim-u 1-walad-a  
caus+run the-teacher-Nom the-boy-Acc

'The teacher made the boy run'

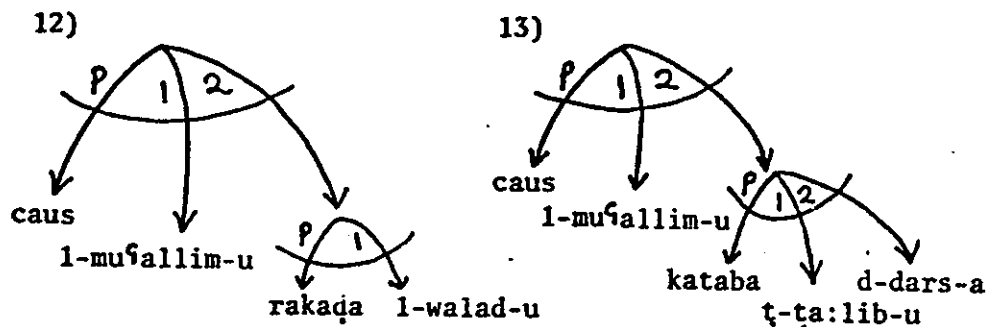
11) a. kataba ṭ-ṭa:lib-u d-dars-a  
wrote the-student-Nom the-lesson-Acc

'The student wrote the lesson'

b. kattaba 1-muḡallim-u d-dars-a li  
caus+write the-teacher-Nom the-lesson-Acc to  
ṭ-ṭa:lib-i  
the-student-Obl

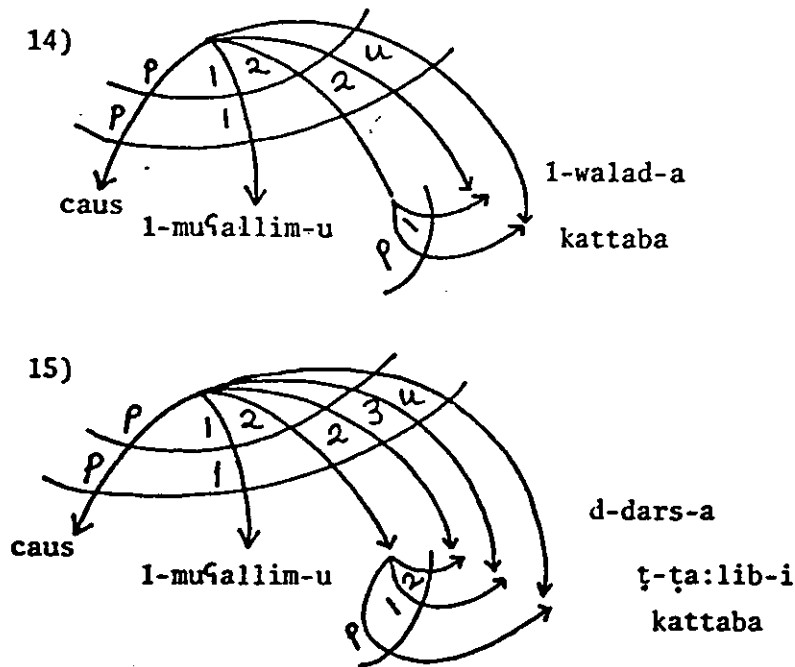
'The teacher made the student write the lesson'

I claim that the above causative clauses have a biclausal source which will be dealt with in section 7.2.1. As such the stratal diagrams (12-13) show the initial structure of the above causatives:



As can be seen in (12-13), cause is the predicate of the upstairs clause, 1-muḡallim-u the upstairs subject and the downstairs clause the direct object.<sup>2,3</sup>

SA causative clause union conforms to (5). Like the Spanish data cited earlier, clauses (10-11b) are representable in diagrams (14-15), respectively:



As is shown in (14-15) the transitivity of the downstairs (DS) clauses determines what GR a nominal assumes in the clause union. In (10b), the DS subject, 1-walad-u, of the predicate rakada bears the final 2-relation in the union stratum since the downstairs clause is intransitive. By the same token, the downstairs subject ṭ-ṭa:lib-u in (11b) bears the final 3-relation in the upstairs clause due to the fact that the DS clause is transitive. Furthermore, the downstairs 2 inherits its relation in the union stratum.

Prior to giving arguments supporting the proposed analysis for CCU

in SA elucidated in (14-15), I first provide evidence that CCU in SA involves a biclausal structure. In section 7.2.2, I supply evidence to the effect that the downstairs subject in an intransitive clause is the final 2 in the clause union. Section 7.2.3 gives evidence for the claim that the downstairs subject in a transitive clause is the final 3 of the union verb. Finally, the fate of other DS nominals is discussed in section 7.2.4.

### 7.2.1 Biclausal Source of SA Clause Union

In this section, I present arguments based on verb subcategorization, reflexives and passive showing that causatives in SA have a biclausal structure.

#### a) Verb Subcategorization

In SA, some verbs are intransitive while others are transitive as exemplified in clauses (16-23):

- 16) rakāḍa 1-muḡallim-u  
ran the-teacher-Nom  
'The teacher ran'
- 17) \*rakāḍa 1-muḡallim-u 1-walad-a  
ran the-teacher-Nom the-boy-Acc
- 18) raqaṣati 1-bint-u  
danced the-girl-Nom  
'The girl danced'
- 19) \*raqaṣati 1-bint-u 1-walad-a  
danced the-girl-Nom the-boy-Acc
- 20) fahima ṭ-ṭa:lib-u 1-muṣkilat-a  
understood the-student-Nom the-problem-Acc  
'The student understood the problem'
- 21) \*fahima ṭ-ṭa:lib-u 1-muṣkilat-a li 1-walad-i  
understood the-student-Nom the-problem-Acc to the-boy-Obl

- 22) darasa ʔ-ʔa:lib-u 1-handasat-a  
studied the-student-Nom the-engineering-Acc

'The student studied engineering'

- 23) \*darasa ʔ-ʔa:lib-u 1-handasat-a li  
studied the-student-Nom the-engineering-Acc to  
1-muza:riʕ-i  
the-farmer-Obl

Clauses (16) and (18) where the verbs are intransitive are grammatical. However, if a direct object is added to these clauses, they will be ill-formed as seen in (17) and (19). Likewise, verbs like fahima and darasa only take a direct, but not an indirect, object as shown in (20) and (22). If such verbs take indirect objects, the result will be ungrammaticality as illustrated in (21) and (23).

In causative clauses, verbs subcategorized as intransitive take a direct object, and transitive verbs an indirect object as in (24-25):

- 24) rakkada 1-muʕallim-u 1-walad-a  
caus+run the-teacher-Nom the-boy-Acc

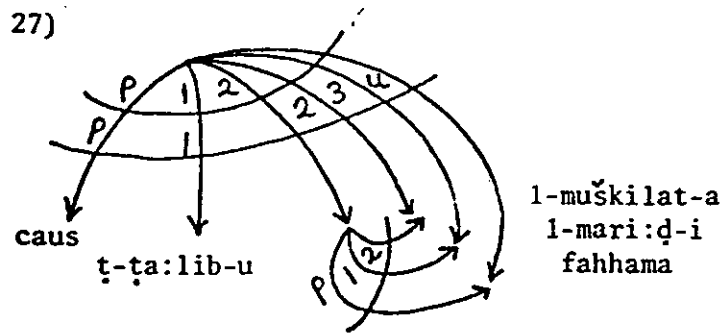
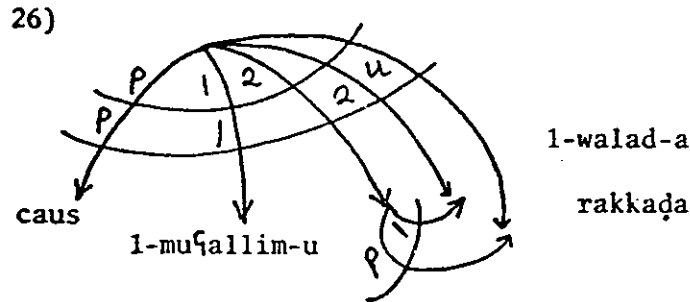
'The teacher made the boy run'

- 25) fahhama ʔ-ʔabi:b-u 1-muʕkilat-a li  
caus+understand the-physician-Nom the-problem-Acc to  
1-mari:d-i  
the-patient-Obl

'The physician explained the problem to the patient'

In the case of (24), 1-walad-a bears the final 2-relation in the union stratum as will be shown later; 1-muʕkilat-a and 1-mari:d-a in (25) bear the final 2- and 3- relations, respectively. The question that arises is how verbs like rakkada can take a direct object in (24), but not in (17), and how verbs like fahhama can take an indirect object in (25), but not in (21). The answer is that the objects in clauses like

(24-25) must have some earlier stratum in downstairs clauses as can be seen in diagrams (26-27), representing (24-25) respectively:



The downstairs clauses in (26-27) are the sources of such clauses as (24-25). Thus, verb subcategorization provides a piece of evidence for the biclausal source of SA causatives.

### b) Reflexives

In causative constructions, nominals heading 3-arcs in the union stratum can be the antecedent of a reflexive nominal supplying another argument for biclausality. Consider (28):

- 28) ?aqra?-tu 1-kita:b-a li 1-muḡallimat-i  
caus+read-1s the-book-Acc to the-teacher+F-Obl  
ḡan nafs-i-ha:  
about self-Obl-her

'I made the f.teacher read the book about herself'

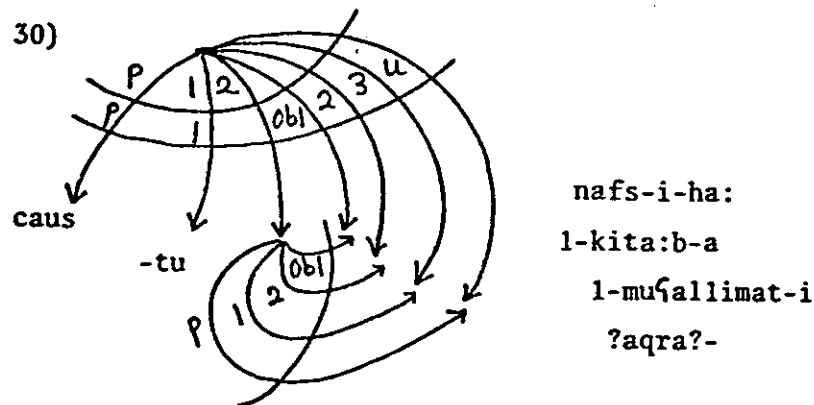
Where the antecedent of the reflexive is 1-muḡallimat-i. This ante-



cedent seems superficially to contradict the condition on reflexives discussed in section 3.5 above:

- 29) The antecedent of the reflexive nominal must be a final 1 or 2 in SA.

However, under the biclausal analysis of causatives, 1-muḡallimat-i heads a final 1-arc in the downstairs clause as is shown in diagram (30), representing (28):



c) Passive

Intransitive clauses like (16) above do not have personal passive counterparts as in (31):

- 31) \*rukida  
Pas+run  
(He was run)

However, clauses like (24) above do have passive counterparts as in (32):

- 32) rukida 1-walad-u min qibali 1-muḡallim-i  
Pas+caus+run the-boy-Nom from side the-teacher-Obl  
'The boy was made to run by the teacher'

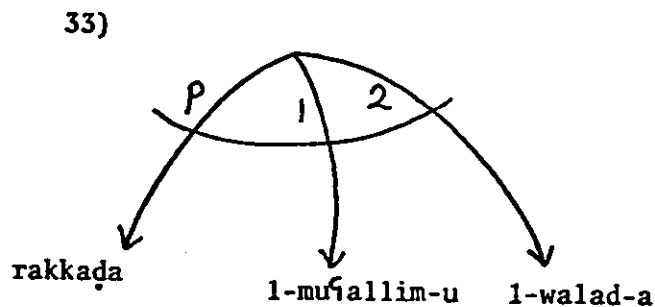
To account for (32), we should assume that the passive advancee 1-walad-u first bears the downstairs final 1 and then gets revalued as a 2

in the union stratum, thus becoming eligible for the 2-to-1 advancement via passive. The ability of nominals in causatives with intransitively-subcategorized verbs to advance to 1 provides further evidence that SA causatives involve a biclausal structure.

d) Summary

The preceding section has provided three arguments based upon verb subcategorization, reflexives and passives, supporting the biclausal analysis of SA clause union. I therefore conclude that causatives in SA involve a biclausal source.

One might, however, claim that SA causatives are monoclausal rather than biclausal; that is, causative clauses involve a single clause, not two, in the initial structure. Under this analysis, a clause like (10b) above would have the structure in (33) rather than that in (14):



Though this analysis can handle data related to subcategorization and passives, it cannot handle reflexives. Under this alternative, a nominal bearing the 3-relation cannot antecede a reflexive nominal since the antecedent should be a final 1 or 2. On the other hand, the biclausality analysis correctly predicts that a 3 in a causative clause

can be the antecedent since it first heads a 1-arc in the downstairs clause. I conclude therefore that the alternative should be rejected.

### 7.2.2 Evidence for the Final 2-hood of the Downstairs Intransitive Subject in Clause Union

In SA clause union, the downstairs subject of an intransitive clause is the 2 in the union stratum as in (34):

34) nayyamat-i 1-?umm;u ṭ-ṭifl-a  
 caus+sleep-V the-mother-Nom the-baby-Acc

'The mother made the baby sleep'

Evidence that ṭ-ṭifl-a, the downstairs subject of the intransitive clause, is the final 2 in the union stratum draws upon nominal case, passive, pronominal cliticization and word order.

#### a) Nominal Case

Acting 2s in SA (cf. section 6.4) are marked accusative. Since ṭ-ṭifl-a is in the accusative case as is indicated by the suffix -a, it must be the final 2 of the causative clause.

#### b) Passive

Passive advances only 2s to 1s as manifested in (35), the counterpart to (34) above:

35) nuyyima ṭ-ṭifl-u  
 Pas+caus+sleep the-baby-Nom

'The baby was made to sleep'

Thus, the fact that ṭ-ṭifl-u has advanced to 1 shows that it is the 2 in the union stratum.

## c) Pronominal Cliticization

When pronominalized, a final 2 appears as a clitic on the predicate as in (36):

36) nayyamat-hu 1-?umm-u  
 caus+sleep-him the-mother-Nom

'The mother made him sleep'

Since a nominal like t-tifl-a can appear as a clitic like -hu on the union verb, it is the final 2 of the causative clause.

## d) Word Order

If a nominal like t-tifl-a is the final 2 in the union stratum, it should follow the final 1. That this prediction holds can be seen in clause (34) in which t-tifl-a follows the final 1, 1-?umm-u.

## e) Summary

Arguments based upon nominal case, passive, pronominal cliticization and word order indicate that the downstairs 1 in an intransitive clause is the final 2 in the union stratum.

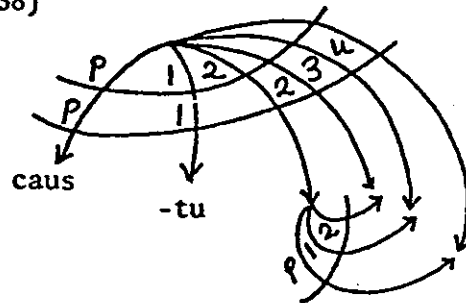
## 7.2.3 Evidence for the Final 3-hood of the DS Transitive Subject in Clause Union

I have claimed that the subject of a downstairs transitive verb shows up as the final 3 in union stratum; thus (37) has the representation in (38):

37) darras-tu 1-luḡat-a li t-ṭulla:b-i  
 taught-1s the-language-Acc to the-students-Obl

'I taught the language to the students'

38)



1-luḡat-a  
 ṭ-ṭulla:b-i  
 darras-

In the case of (37-38), the nominal ṭ-ṭulla:b-i which is the downstairs subject of the transitive clause is the final 3 in the union stratum. The nominal 1-luḡat-a, the 2 of the downstairs clause, inherits its downstairs relation in the upstairs clause in conformity with the Inheritance Principle.

Evidence that ṭ-ṭulla:b-i is a final 3 of the causative predicate draws upon nominal case, pronominal cliticization, 3-2 advancement, raising and word order.

#### a) Nominal Case

A nominal heading a final 3-arc is in the oblique case (see section 3.2). If a nominal like ṭ-ṭulla:b-i in (37) is a final 3, it must be in the oblique case. The prediction is borne out as can be seen in ṭ-ṭulla:b-i which is marked by the suffix -i for the oblique case. Since such a nominal is marked oblique, it is the final 3 of the union stratum.<sup>4</sup>

#### b) Pronominal Cliticization

When pronominalized, a final 3 cliticizes to the preposition la 'to' as can be seen in (39):

- 39) darras-tu l-luḡat-a la-hum  
taught-1s the-language-Acc to-them

'I taught the language to them'

The fact that t-tulla:b-i in (37) has appeared as a clitic on the preposition provides another argument for its final 3-hood in the clause union.<sup>5</sup>

c) 3-2 Advancement

As I showed in Chapter 6, a nominal bearing the final 3-relation can advance to 2 in SA. If a nominal like t-tulla:b-i is a final 3 in the upstairs clause, it should advance to 2. That this prediction holds is seen in (40) in which t-tulla:b-a has advanced to 2, and is thus marked accusative:

- 40) darras-tu t-tulla:b-a l-luḡat-a  
taught-1s the-student-Acc the-language-Acc

'I taught the students the language'

Thus, that a nominal like t-tulla:b-a can advance to 2 supplies another argument that it is a final 3 in the union stratum.

d) Raising

If a nominal like t-tulla:b-a is a 3 in the union stratum, it should be able to ascend to subject or object at least for some speakers (cf. Chapter 5). That this claim holds can be illustrated in (41a-b):

- 041) a. tabayyana t-tulla:b-u (?anna l-muḡallim-a  
seemed the-students-Nom that the-teacher-Acc  
darrasa l-luḡat-a la-hum)  
taught the-language-Acc to-them

Lit.: 'The students seemed that the teacher  
taught the language to them'

@b. ḥasib-tu ṭ-ṭulla:b-a (?anna l-muḥallim-a  
thought-1s the-students-Acc that the-teacher-Acc  
darrasa l-luḡat-a la-hum)  
taught the-language-Acc to-them

Lit.: 'I thought the students that the teacher  
taught the language to them'

In (41a), ṭ-ṭulla:b-u has raised to subject, and in (41b) to direct object. The fact that such a nominal can ascend indicates that it is a final term; what shows its final 3-hood is the pronominal copy -hum which is left behind and attaches to the preposition la.

#### e) Word Order

If the transitive subject is the 3 in the union stratum, it should follow the 2 in that stratum in conformity with the word order rule discussed in section 3.1 and is repeated here for convenience as (42):

#### 42) Word Order Rule:

Final P-(1)-(2)-(3)-(Obl)

That this prediction is borne out can be seen in clause (37) where the nominal ṭ-ṭulla:b-i follows the direct object l-luḡat-a in the final level of structure. If it does not follow l-luḡat-a, the clause would be ill-formed as seen in (43):

43) \*darras-tu li ṭ-ṭulla:b-i l-luḡat-a  
taught-1s to the-students-Obl the-language-Acc

Therefore, that a nominal like ṭ-ṭulla:b-i follows the final 2 in clauses like (37) gives further evidence that it is a 3 via causative clause union.

## f) Summary

The previous section has argued for the final 3-hood of the downstairs subject in causative clause union. We have observed that the subject is marked oblique, cliticizes to the preposition, advances to 2 in the clause union, ascends to 1 or 2 in the upstairs clause and follows final 2 nominals.

## 7.2.4 The Fate of Other Downstairs Nominals

In the preceding sections, I have supplied evidence that the downstairs 1 in a transitive clause is a final 3 in the union clause, and that the downstairs 1 in an intransitive clause is a final 2. In this section, I deal with the fate of other nominals, assuming that they inherit their downstairs relations in the matrix clause in conformity with the Inheritance Principle. Under this principle, causatives (44-45) are representable in diagrams (46-47), respectively:

44) ?ajlas-tu t-tifl-a ʒala l-maqʒad-i  
seated-1s the-baby-Acc on the-seat-Obl

'I seated the baby on the seat'

45) ?asmaʒ-tu l-?uʒniyat-a li l-muza:riʒ-i  
caus+listen-1s the-song-Acc to the-farmer-Obl  
fi l-ʒaql-i  
in the-field-Obl

'I made the farmer listen to the song in the field'





'The song was let to be heard by the farmer'

- 50) ?ajlas-tu-hu ʕala l-maʕʕad-i  
seated-ls-him on the-seat-Obl

'I seated him on the seat'

- 51) ?asmaʕ-tu-ha: li l-muza:riʕ-i  
caus+listen-ls-it to the-farmer-Obl

'I made the farmer listen to it'

- 52) yabdu t-tifl-u (?anna l-?umm-a ?ajlasat-hu  
seem the-baby-Nom that the-mother-Acc seated-him  
ʕala l-maʕʕad-i)  
on the-seat-Obl

'The baby seems to have been seated on the seat by the mother'

- 53) ʕasib-tu l-?uʕniyat-a (?anna l-walad-a  
thought-ls the-song-Acc that the-boy-Acc  
?asmaʕa-ha: li l-muza:riʕ-i)  
caus+listen-it to the-farmer-Obl

'Lit.: I thought the song that the boy made the farmer listen to it'

That the above nominals behave like 2s in the union stratum follows from the Inheritance Principle.

Finally, regarding obliques other than benefactives which will be discussed in section 7.5, I assume that they inherit their downstairs relations in the union stratum for lack of evidence against or for this assumption.

### 7.3 Divergence From Union Type I

In section 7.0, I have presented the clause union universal proposed by P. & P. (1974); and in section 7.1, I have argued that SA caus-

atives like (54a) below can have the alternating form (54b), representable in (55):

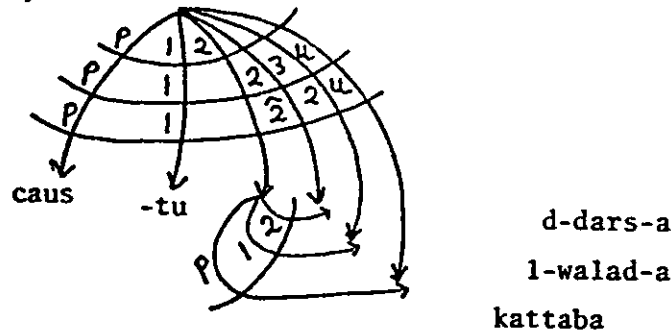
54) a. kattab-tu d-dars-a li 1-walad-i  
caus+write-1s the-boy-Acc the-lesson-Acc

'I made the boy write the lesson'

b. kattab-tu 1-walad-a d-dars-a  
caus+write-1s the-boy-Acc the-lesson-Acc

'I made the boy write the lesson'

55)



Sentence (54b) appears to counterexemplify P. & P.'s universal: the downstairs 1, 1-walad-a, unpredictably bears the final 2-relation, as will be argued later, rather than the 3-relation in the union clause. However, I account for such apparent counterexamples by proposing that 3-2 advancement occurs in these constructions, thus further substantiating the union universal. Before I present my proposed analysis, I show how divergence from the universal schema has been dealt with in other languages.

Causative constructions, attested cross-linguistically, do not necessarily follow from P. & P.'s schema, but are still consistent with that schema. Such cases are attributable to the interaction of clause union and other syntactic constructions like 3-2 advancement, 2-3 re-

treat and antipassive. In other words, the GRs borne in the clause union can be affected by the occurrence of those constructions in causative clauses; e.g., 3-2 advancement could result in the upstairs nominals of the union stratum bearing GRs other than 3. Retreat and antipassive could occur in the downstairs clauses of causative clauses. Illustrations draw upon data from Tzotzil, Turkish and Halkomelem.

The advancement of nominals in the union stratum is attested in Tzotzil. (Aissen 1983). Aissen shows that since final 3s are banned in Tzotzil clauses, the 3 in the union stratum should advance to 2, resulting in -be, the advancement marker, on the union verb; 3-2 advancement is exemplified in both the non-causative clause (56) and the causative (57), representable in (58):

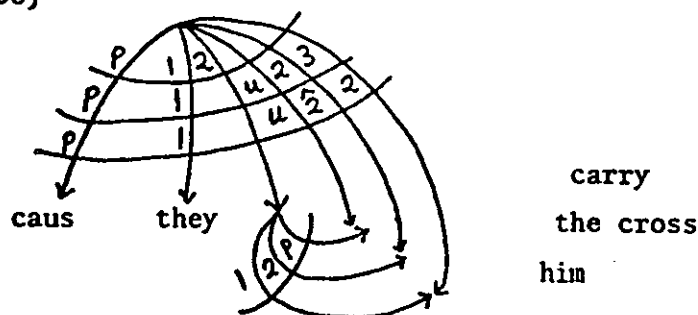
56) 'I- $\emptyset$ -h- $\check{c}$ on-be  $\check{c}$ itom li  $\check{s}$ un $\check{e}$   
asp-A3-E1-sell-BE pig the Sun

'I sold (the) pigs to Šun'

57) ?I- $\emptyset$ -y-ak'-be-ik s-kuč- $\emptyset$  krus  
Asp-A3-E3-1et-BE-3pl E3-carry-A3 cross

'They made him carry the cross'

58)



The clause union makes the downstairs subject the union 3 of ?ak- 'let'. Since final 3s are blocked in that language, it advances to 2

via 3-2 advancement, and ?ak- is suffixed with -be-. If -be does not appear on the causative verb, the clause is rendered ungrammatical as is shown in (59b):

59) a. č-a-y-ak'-be ?a-kuč-∅ krus  
Asp-A2-E3-let-BE E2-carry-A3 cross

'They'll let you carry the cross'

b. \*č-ay-ak ?a-kuč-∅ krus  
Asp-A2-E3-let E2-carry-A3 cross

Thus, Tzotzil clause union which superficially counterexemplifies Perlmutter and Postal's universal follows from that proposal in the sense that clause union first collapses the downstairs and upstairs clauses into one in which the 3-2 advancement then occurs.

A second construction that interacts with clause union is 2-3 retreat. Retreat affects the transitivity of the downstairs clause of a causative clause. Illustration comes from Turkish in which there is a class of verbs idiosyncratically taking their objects in the dative case. (Özkaragöz 1979). These verbs are demonstrated in (60):

60) a. Ali san-a tap-i-yon  
Ali you-Dat worship-progressive

'Ali worships you'

b. Ali-yi san-a tap-tir-di-m  
Ali-Acc you-Dat worship-caus-Pst-1sg

'I made Ali worship you'

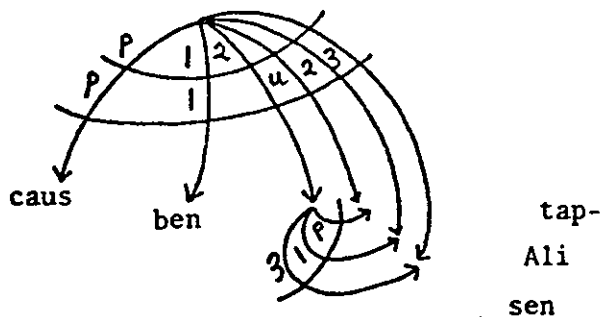
c. Sen-i Ali-ye tap-tir-di-m  
you-Acc Ali-Dat worship-caus-Pst-1sg

'I made Ali worship you'

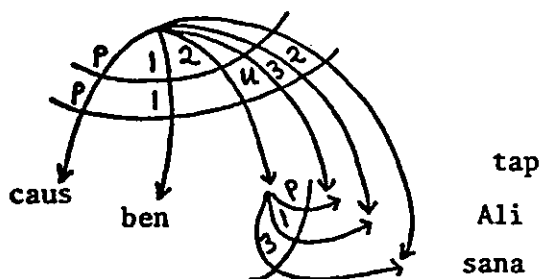
The sentence (60a) is a monoclausal construction in which the verb id-

iosyncratically takes its object in the dative case. The clauses in (60b-c) are two possible causative versions of (a). The causative clause (b) follows from the universal schema; the downstairs absolutive is the 2 in the upstairs clause.<sup>6</sup> The causative (c), however, seems to superficially run counter to the proposed universal; the downstairs absolutive is the 3 in the clause union, and the downstairs 3 is the 2 in the upstairs clause. As such, (60b-c) have the structures in (61-62), respectively:

61)



62)



Clauses like (60c) appear to present problems for the universal since the downstairs 1 is a 3 in the upstairs clause.

Özkaragöz, however, argues that such counterexamples as (60c) cease to counterexemplify the universal schema when these verbs are viewed as 2-3 retreat verbs. Thus, in clauses including 2-3 retreat



clause union.

Gerdt's (1981: 157-172) shows how antipassives interact with causative clause union in Halkomelem, as is illustrated in (65b), represented in (66):<sup>8</sup>

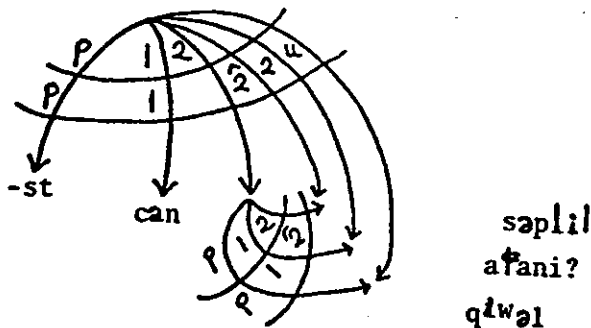
- 65) a. ni q'wə'1-əm θə s'əni? ?ət θə səplil  
 aux bake-intr det woman Obl det bread

'The woman baked the bread'

- b. ni cən q'w1-əm-stəx<sup>w</sup> θəstəni?  
 aux lsub bake-intr-cs det woman  
 ?ə tθə səplil  
 Obl det bread

'I made the woman bake the bread'

66)



The downstairs clause is an antipassive and is thus intransitive at the final level. The downstairs antipassive subject is final absolute and is an upstairs 2 in the union stratum. Thus, if the downstairs antipassive analysis were not proposed for Halkomelem causatives, the final GRs in the union stratum would violate the universal schema in the sense that the downstairs 1 is a final 2 rather than a 3 as is predicted by that schema.



Recapitulating, the preceding discussion has shown clause union in relation to other constructions. We have seen that data from various languages which superficially run counter to the proposed universal are, in fact, consistent with it.

The proposed universal has stimulated further challenges to its validity, however. In cases like the above, variations of it are possible due to the interaction of a clause union with other constructions. Nevertheless, examining causative clause union in a wider range of languages provides counterevidence to Perlmutter and Postal's claim. Working on Hebrew and Kannada, Cole and Sridhar (1977), for instance, show that the "Invariant Output Hypothesis" makes false predictions and therefore must be rejected.<sup>9</sup> In Hebrew, the subject of the downstairs transitive verb is the 2, and not the 3, of the upstairs verb in clause union as is manifested in (67):

67) Hirkadeti (et hatalmidim)  
                   (\*latalmidim)  
       I caused to dance (acc) the students  
                                   (\*dat)  
       (etharidkud) haxadaš  
       (barikud)  
       (acc) the dance the new  
       (Obl)

'I made the students dance the new dance'

hatalmidim in (67) is the downstairs 1 and is the final 2 in the union stratum. This sort of data counterexemplifies Perlmutter and Postal's universal since the downstairs 1 of a transitive verb shows up as a 2 rather than a 3 of the union verb.

Similarly, in Kannada, a Dravidian language, the downstairs sub-

ject appears as an oblique in the union stratum as is shown in the pairs (68-69):

68) \*karyadarshiyu T vishayavannu horagedahidaru  
secretary (nom) this matter (acc) revealed

'The secretary revealed this secret'

69) sacivaru (karyadarshiyinda) T vishyavannu  
\*(karyadarshige)  
minister secretary (instr.) this matter  
horgedadhisida-ru (\*dat.)  
caused to reveal

'The minister made the secretary reveal this fact'

In the causative clause (69), the downstairs subject karyadarshiyinda is an oblique rather than a dative in the clause union.

Counterexamples in (67) and (69), as Cole and Sridhar claim, cannot be explained in terms of the interaction of passive and clause union in Kannada and 3-2 advancement and clause union in Hebrew. Under Perlmutter and Postal's proposal, a clause like (69) results from first advancing the downstairs 2 to 1 in the clause giving (70) below. Then clause union occurs in (70) resulting in (69) when the downstairs subject in the passive clause is the 2 of the union verb and the downstairs oblique is an upstairs oblique:

70) \*karyadarshiyinda T vishyava horagedahal pattitu  
secretary (instr.) this matter (nom)  
reveal-pass-past

'This fact was revealed by the secretary'

The passive clause (70), contrary to the universal clause union, is ill-formed because the verb horagedahu is not passivizable in Kannada.

Likewise, clause (67) is claimed, under Perlmutter and Postal's

analysis, to be the result of 3-2 advancement in the union stratum. This is shown in (71) where 3-2 advancement has occurred resulting in (67):

71)\*Ani hirkadeti latalmidim et harikud  
 I caused to dance dat. the student acc. the dance  
 haxadaš  
 the new

'I caused the students to dance the new dance'

The clause (71) is ungrammatical since 3-2 advancement, according to Cole and Sridhar, is not attested in Hebrew.<sup>10</sup>

In sum, then, data from Hebrew and Kannada seem to run counter to Perlmutter and Postal's proposal as well as to their claim that divergence in GRs is explainable in terms of the interaction of clause union with constructions like passives and 3-2 advancement. Therefore, the necessity arises to look for other schemas that would account for variations attestable among natural languages. The failure of the universality of Perlmutter and Postal's pattern leads to having another type of clause union proposed by Gibson; her proposal occupies us in the following discussion.

Studying Chamorro, Gibson (1980) concludes that the clause union schema given in (5) above, posited by Perlmutter and Postal (1974) and repeated here for convenience as (72), is not valid.

72) Clause Union Type I: <u>Downstairs Final GR</u>	<u>Union Relation</u>
Trans. 1	3
Intrans. 1	2

Drawing upon her observations of the clause union in Chamorro, she

proposes another type of clause union summarized as follows:

73) Clause Union Type II:	
<u>Downstairs Final GR</u>	<u>Union Relation</u>
1	2

The pattern in (73) denotes that a downstairs 1 always gets revalued as a 2, regardless of the transitivity of the downstairs clause. Furthermore, all other downstairs nominals, as I have pointed out in section 7.0, inherit their relations in the union stratum in accordance with the Inheritance Principle given in (6) above.

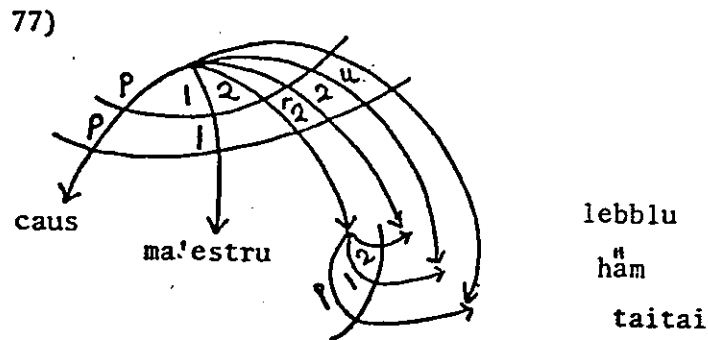
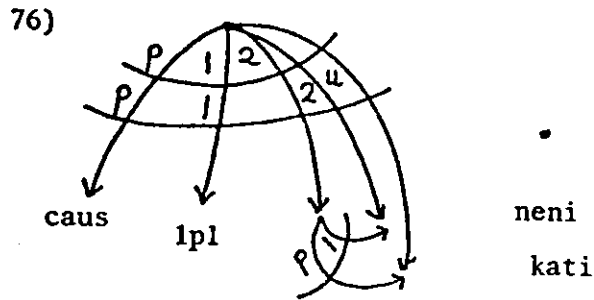
Demonstration of this pattern comes from Chamorro as viewed by Gibson (1980). In that language, the downstairs subject of both intransitive and transitive predicates bears the final 2-relation in the union stratum as can be seen in clauses (74-75), taken from Gibson (1980: 145-149):

74) In na'-kati i neni  
Ipe c-cry the baby  
  
'We made the baby cry'

75) Ha ra'-taitai hām i ma'estru ni  
3s c-read Ipe the teacher OB  
esti na lebblu  
this LK book

'The teacher made us read this book'

In the case of (74), i neni, the downstairs intransitive subject, is the 2 of the union verb. Likewise, in (104), the downstairs transitive subject hām is the 2 of the union verb taitai. Accordingly, those causatives are diagrammed in (76-77), respectively:



Furthermore, the downstairs 2 in (77) bears the cho-relation in the union stratum by the Chomeur Condition. It cannot inherit its GR because it would violate the Stratal Uniqueness Law.

Unlike the pattern in (5), the proposal in (73) does not depend on the transitivity of the downstairs clause. Both transitive and intransitive downstairs subjects bear the 2-relation in the union stratum. However, the pattern (73) could be attributed to other syntactic constructions like passives and 3-2 advancement. Nonetheless, Gibson (1980: 152-184) supplies evidence contrary to this claim. She argues that the pattern in (73) as is manifested by the Chamorro causative clause union cannot be interpreted in terms of the interaction between clause union and other constructions.

On the basis of Gibson's union type, one can conclude that the

schema proposed by Perlmutter and Postal cannot account for clause union in languages like Chamorro and thus cannot be a universal cross-linguistically.<sup>11</sup> The conclusion does not, however, preclude the possibility that there are languages whose clause union conforms to Perlmutter and Postal's pattern. One such language is SA as has been shown in section 7.2.

Finally, though the two types differ, they have something in common. Both predict that clause union involves revaluation rules. In Perlmutter and Postal's proposal, the revaluation rules assign the downstairs 1 either a 2- or a 3- relation in the union stratum depending upon the transitivity of the downstairs clause. Under Gibson's analysis the downstairs 1 is always revalued as a 2 in the union stratum irrespective of downstairs transitivity.

Having discussed some possible variations from the schema outlined in section 7.0, I turn now to an examination of SA causatives like (54b) above, showing that 3-2 advancement could account for such causatives; thus SA causatives are compatible with Perlmutter and Postal's universal clause union.

In what follows, I discuss the interaction between CCU and 3-2 advancement in section 7.3.1, providing evidence for the final GRs borne in the union stratum in sections 7.3.1.1 and 7.3.1.2. I also deal with other accounts of the variation in SA clause union in section 7.3.2. Finally, I examine Comrie's notion of "doubling on direct object" in causative constructions in section 7.3.3.

## 7.3.1 CCU and 3-2 Advancement

In this section, I show how 3-2 advancement occurs in causative clauses, resulting in "double accusative" clauses in SA. Recall that such clauses denote those involving two nominals marked with the accusative case.

Causative clauses with both direct and indirect objects like (78a) can have the alternating form (78b) where the indirect object 1-bint-a is advanced to 2:

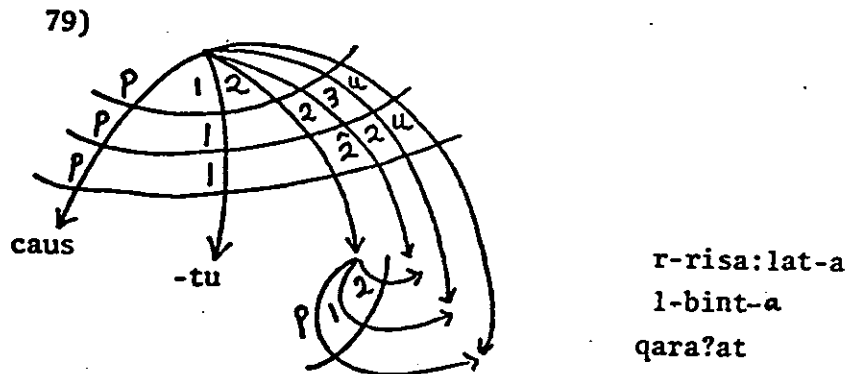
78) a. ?aqra?-tu r-risa:lat-a li 1-bint-i  
caus+read-1s the-letter-Acc to the-girl-Obl

'I made the girl read the letter'

b. ?aqra?-tu 1-bint-a r-risa:lat-a  
caus+read-1s the-girl-Acc the-letter-Acc

'I made the girl read the letter'

Accordingly, (78b) is representable in (79):



In the case of (79), the upstairs 3, 1-bint-a, has advanced to 2, thus placing r-risa:lat-a, the 2 in the union stratum, en chomage in conformity with the Chomeur Condition.

In what follows, I present evidence for this analysis illustrated

in (79). Evidence for the final 2s and final 2̂s in CCU is discussed in sections 7.3.1.1 and 7.3.1.2, respectively.

### 7.3.1.1 Evidence for Final 2s in CCU

Evidence that such a nominal as 1-bint-a in (78b-79) heads a final 2-arc in the causative clause has already been given in section 7.2.2 where I have shown that the downstairs subject in an intransitive clause is a final 2 in the union stratum. The following summarizes those arguments.

#### a) Passive

If 1-bint-a is a final 2, it should be able to advance to 1 via passive. That this prediction holds can be seen in (80) where 1-bint-u has advanced to 1 and is marked nominative:

80) ?uqri?at 1-bint-u r-risa:lat-a  
Pas+caus+read the-girl-Nom the-letter-Acc

'The girl was made to read the letter'

#### b) Pronominal Cliticization:

A nominal like 1-bint-a in (78b) should be able to appear as a clitic on the union verb if it is a final 2 in the union stratum. This prediction is borne out as can be shown in (81):

81) ?aqra?-tu-ha: r-risa:lat-a  
Pas+caus+read-1s-her the-letter-Acc

'I made her read the letter'



## c) Raising

If it is a 2, 1-bint-a should ascend to subject or object in the upstairs clause; the prediction holds as exemplified in (82-83):

82) tabdu 1-bint-u (?anna 1-walad-a  
seemed the-girl-Nom that the-boy-Acc  
?aqra?a-ha: r-risa:lat-a)  
caus+read-her the-letter-Acc

'The girl seemed to have been made to read the letter to the boy'

83) xil-tu 1-bint-a (?anna 1-walad-a  
thought-1s the-girl-Acc that the-boy-Acc  
?aqra?a-ha: r-risa:lat-a)  
caus+read-her the-letter-Acc

'I thought the girl to have been made to read the letter to the boy'

## d) Word Order

Recall that a final 2 follows a final 1. Accordingly, a nominal like 1-bint-a in (78b) should follow the final 1 if it is a 2. That this is borne out can be seen in (78b) where 1-bint-a follows the final 1.

In summary, the above four arguments favor the claim that a nominal like 1-bint-a in causative clauses like (78b) bears the final 2-relation in the union stratum.

7.3.1.2 Evidence for Final  $\hat{2}_s$  in CCU

I claim that nominals like r-risa:lat-a in (78b) above are final  $\hat{2}_s$  in the union stratum in conformity with the Chomeur Condition. Evi-

dence supporting this claim draws upon passive, raising and pronominal cliticization.

a) Passive

Only 2s can advance to 1 via passive. If a nominal like r-risa:lat-a is the final union 2, it should be able to advance to 1. This prediction does not, however, hold as can be shown in (84), the ill-formedness of which is attributed to the advancement of r-risa:lat-u to 1:

84)\*?uqri?at-i r-risa:lat-u 1-bint-a  
caus+Pas+read-V the-letter-Nom the-girl-Acc

(The letter was made to be read by the girl)

Thus, r-risa:lat-u is not the nominal that bears the 2-relation in the union stratum of clauses like (78b) above.

b) Raising

Nominals heading final term-arcs can ascend to subject and/or object in SA. Therefore, if a nominal like r-risa:lat-a is a final term, it should be able to ascend. However, this is not possible as is demonstrated in (85-86):

85)\*?hasib-tu r-risa:lat-a ?anna-ni ?aqra?-tu  
thought-1s the-letter-Acc that-I caus+read-1s  
1-bint-a ?iyya:ha:  
the-girl-Acc it

'Lit.: I thought the letter that I made the girl read it'

86)\*tabdu r-risa:lat-u ?anna-ni ?aqra?-tu  
seem the-letter-Nom that-1 caus+read-1s  
1-bint-a ?iyya:ha:  
the-girl-Acc it

'Lit.: The letter seems that I made the girl read it'

The clauses are ill-formed due to the raising of r-risa:lat-a. If such a nominal were a union 2, raising would be possible.

### c) Pronominal Cliticization

If a nominal like r-risa:lat-a is a final 2 in the causative clause, it should be able to appear as a clitic on the causative predicate. That this prediction cannot hold can be exemplified in (87):

87) \*?aqra?-tu-?iyya:ha: 1-bint-a  
 caus+read-1s-it the-girl-Acc

In the case of (87), the pronominal ?iyya:ha: replaces r-risa:lat-a. Since the cliticization of ?iyya:ha: to the verb renders the clause ill-formed, r-risa:lat-a cannot be a final union 2. Thus, the fact that such a nominal cannot appear as a clitic on the verb gives further evidence that it is not a final term in the causative clause union.

To sum up, since such nominals as r-risa:lat-a cannot advance to 1 via passive, cannot ascend to 1 or 2 via raising, and cannot appear as a clitic on the union verb, I conclude that they are not final union 2s. Rather, they are final 2̂s as marked by the accusative suffix -a. (Recall that acting 2s are marked accusative in SA.) Given that such nominals are 2̂s, all the above data could be readily accounted for.

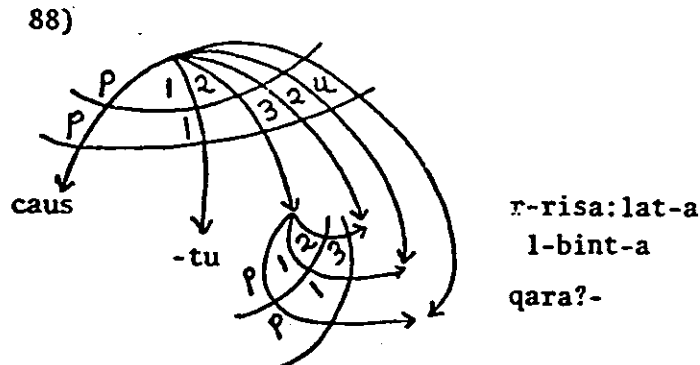
### 7.3.2 Other Accounts of the Variation in SA Clause Union

One might propose that causatives like (78b) could be accounted

for by positing the possibility that antipassives and 2-3 retreat could have occurred in the downstairs clause. Similarly, Gibson's union pattern might be viewed as another manner of handling such causatives. In what follows, I briefly show that these proposals are implausible.

a) 2-3 Retreat

The variation in SA clause union, like that in Turkish, could be attributed to the occurrence of 2-3 retreat in the downstairs clause of a causative construction. Under this analysis, a clause like (78b) would have the structure in (88) rather than that in (79) above:



Clause (78b) thus appears to contradict the schema in (5) above which predicts that the downstairs 1 should be an upstairs 3; but it is an upstairs 2. Retreat, therefore, makes the downstairs 1 bear a relation other than a 3 in the clause union.

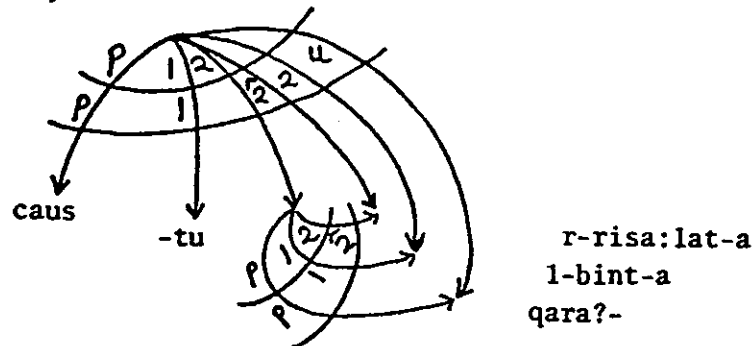
This proposal is not without problems. It cannot account for the upstairs 3 because, as we have observed in Chapter 6, a final 3 is always preceded by the preposition li and is in the oblique case. In (78b), however, the nominal r-risa:lat-a is marked accusative rather

than oblique. Furthermore, though 1-bint-a is a final 2 in the union stratum, r-risa:lat-a does not display the properties of a 3 (cf. section 6.1). Finally, the problem which is left unsolved under the retreat analysis is how to get the final  $\hat{2}$  of r-risa:lat-a in the clause union, which I have argued for in the previous section. As a consequence, I conclude that although 2-3 retreat works for Turkish, it should be rejected for SA since it makes false predictions regarding the final relations borne by nominals in the union clause.

b) Antipassive

The second construction that might be posited to account for clauses like (78b) is downstairs antipassives. Antipassives make the downstairs clause of a causative clause union intransitive. Under this analysis, a clause like (78b) would have the structure (89):

89)



In the case of (89), the downstairs clause is an antipassive in which the downstairs subject is a final 1 and is thus an upstairs 2 in the union stratum. Were antipassive not proposed for such a clause, the final GRs in the union stratum would run counter to the universal

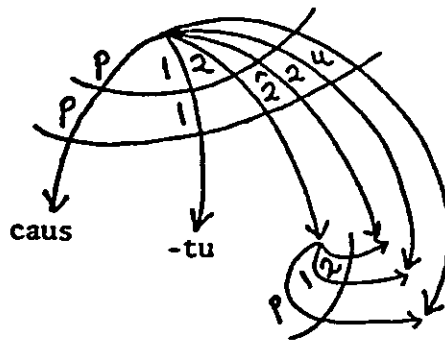
schema in the sense that the downstairs 1 is a final union 2 rather than a 3 as is predicted by that schema.

Though the antipassive analysis seems to be promising since it correctly predicts the final relations borne by 1-bint-a and r-risa:lat-a to the union verb, antipassive is not attested in the language. I, therefore, conclude that the variation in SA clause union cannot be explained by resorting to ad hoc unattestable means like antipassives.

### c) Gibson's Union Pattern

The clause union pattern proposed by Gibson (1980) also makes the correct prediction that the downstairs 1 and 2 in the clause (78b) are final 2 and  $\hat{2}$ , respectively, in the union stratum as can be seen in the stratal diagram (90):

90)



r-risa:lat-a  
1-bint-a  
qara?-

As it stands, clause (78b) represented in (90) constitutes a counter-example to Clause Union Type I which predicts that the downstairs 1 should bear the upstairs 3-relation, rather than the 2-relation, in

the union stratum.

As a matter of fact, I cannot supply any evidence against Gibson's proposal which would keep it distinct from Perlmutter and Postal's pattern in relation to SA clause union. However, adopting the former would result in an added complication to the grammar which would, therefore, include two types of clause union. To put it differently, without the possibility of 3-2 advancement, the grammar would have to appeal to two different manners to account for CCU in SA. Consequently, I conclude that the 3-2 advancement which is independently motivated for SA (cf. Chapter 6) taken together with the universal schema should be adopted to explain the variation in SA causative constructions in spite of the plausibility of Gibson's clause union pattern.

### 7.3.3 Doubling on Direct Object in CCU

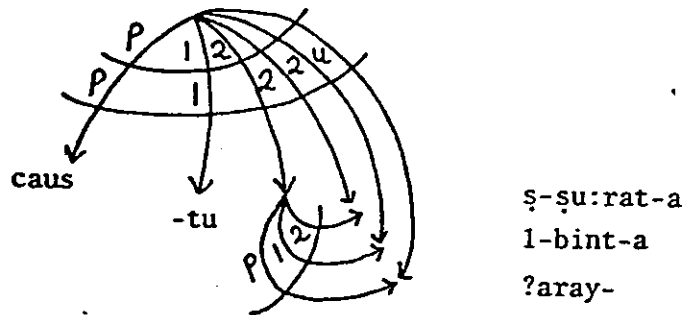
Researching the syntax of causative constructions across languages, Comrie (1976) claims that a number of languages allow doubling on the direct object position. He cites Arabic, among other languages, as an instance of this phenomenon. In Arabic, according to him, "the causative of a transitive verb takes two direct objects". In this section, I examine his claim and show that it is not valid.

Under Comrie's analysis, causative clauses like (91) are representable, using RG terminology, in the stratal diagram (92):

- 91) ?aray-tu l-bint-a ş-şu:rat-a  
 showed-1s the-girl-Acc the-picture-Acc

'I showed the girl the picture'

92)



It is evident that clause (91) superficially violates the Stratal Uniqueness Law, a universal posited in RG, for both 1-bint-a and Ş-şu:rat-a are final 2s in the union stratum.

Note that Comrie's analysis correctly predicts that the above two nominals are marked accusative indicated by the suffix -a. Case marking is, however, the only empirical fact which evidentially is compatible with his analysis.

In the previous sections dealing with CCU and 3-2 advancement, we have seen that the double accusative nominals display different syntactic behavior. Specifically, final 2s, but not final 2̂s, are accessible to passives, pronominal cliticization and raising. Under Comrie's analysis, there is no way to predict the syntactic difference between two "direct objects" in causatives. His analysis cannot account for the inaccessibility of the "second direct object", a 2̂ under my analysis, to syntactic constructions involving passive and raising, for instance. Consequently, his analysis must be rejected in favor of the relationally-based analysis of SA causatives.



#### 7.3.4 Summary

The previous section has dealt with the divergence from Perlmutter and Postal's clause union schema in both SA and other languages. Various possibilities have been presented to account for apparent divergence. Furthermore, another type of clause union suggested by Gibson has been presented; this type is incompatible with the universal schemata. Finally, various possibilities including retreat and anti-passives have been posited to account for variation in SA clause union, but found to be implausible, thus giving support to the proposed analysis based upon 3-2 advancement and CCU.

In addition, Comrie's notion of doubling on direct object has been shown to be inappropriate for SA. We have seen that 3-2 advancement involved in causative clauses results in double accusative causative clauses in which the advanced causee bears the final 2-relation to the causative predicate, thus placing the original 2 en chomage. Moreover, while the causee can advance to 1 via passive and raise to 1 or 2 via raising, for instance, the  $\hat{2}$  cannot.

In conclusion, drawing upon my previous observations of CCU in SA, I maintain that Comrie's notion must be rejected. His notion can by no means account for the inaccessibility of the  $\hat{2}$  nominal to syntactic constructions like 2-1 advancement and ascension. The conclusion therefore saves the Stratal Uniqueness Law which is superficially challenged by Comrie.

#### 7.4 Other Alternatives to the Union Analysis

This section discusses two alternatives-Raising and Equi-to the causative clause union analysis posited for SA. The assumption here is that since CCU, raising and Equi all occur with clauses consisting of downstairs and upstairs clauses each, raising and Equi could be claimed to account for CCU in SA.

##### 7.4.1 Raising vs. CCU

In section 7.3.1, it was maintained that the downstairs 1 is a 3 in the union stratum where it advances to 2 in the final level. Causatives may thus be accounted for by positing a raising analysis since raising also collapses two clauses into one. In raising a downstairs 1 would raise to 2 in the matrix clause as illustrated in (93b) representable in (94) in which the downstairs 1 ṭ-ṭa:lib-a raises to 2 and the remnant of the clause--the host--goes into chomage:

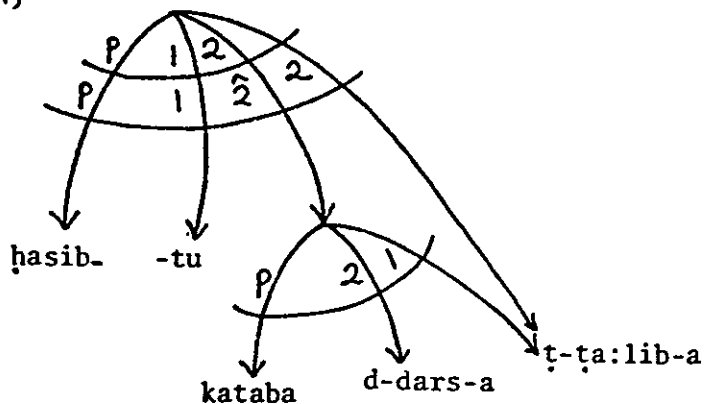
93) a. ḥasib-tu (?anna ṭ-ṭa:lib-a kataba  
 thought 1s that the-student-Acc wrote  
 d-dars-a)  
 the-lesson-Acc

'I thought that the student wrote the lesson'

b. ḥasib-tu ṭ-ṭa:lib-a (?anna-hu kataba  
 thought-1s the-student-Acc that-he wrote  
 d-dars-a)  
 the-lesson-Acc

'I thought the student to have written the lesson'

94)



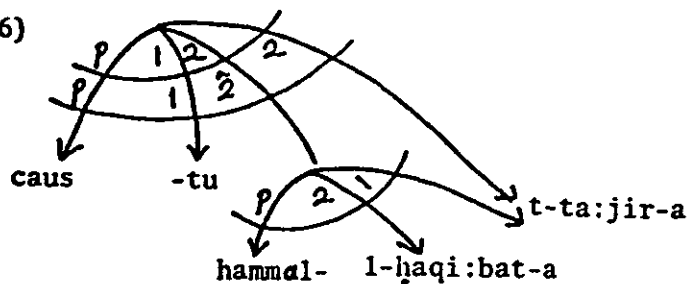
A raising clause like (93b) is thus similar to causative clauses involving 3-2 advancement in the sense that the downstairs 1 is a final 2 in the upstairs clause and that the rest of the downstairs clause out of which the 1 ascends is a final 2̂. Nevertheless, while all the dependents of the downstairs clause become dependents of the upstairs clause in CCU, only nominals heading term arcs can head arcs in the upstairs clause under raising.

Under the raising alternative, a causative clause like (95) would be represented in (96):

95) ḥammal-tu t-ta:jir-a  
 caus+carry-1s the-merchant-Acc  
 l-ḥaqi:bat-a  
 the-bag-Acc

'I made the merchant carry the bag'

96)



Evidence that t-ta:jir-a is an upstairs final 2 under raising comes from arguments used in section 7.3.1.1 to show the final 2-hood in clause union; those arguments thus support the raising alternative to CCU.

Such an analysis cannot, however, survive close scrutiny. Following are arguments which disfavor raising and, thus, maintain that alternative and the union analysis distinct. The arguments draw upon nominal case, topicalization, raising and pronominalization.

a) Nominal Case

Nominal case marking of the downstairs dependents other than the ascendeo provides one argument against the raising analysis. Under raising, those dependents forming the remnant of the host are not case-marked in the downstairs clause as illustrated in (97),

- 97) xil-tu t-tabi:b-a ?anna-hu ʒa:laja  
 thought-1s the-physician-Acc that-he treated  
 l-mari:d-a  
 the-patient-Acc

'Lit.: I thought the physician that he treated the patient'

in which ?anna-hu ʒa:laja l-mari:d-a, which is a 2 in the final stratum, is caseless. That is, there is no marker indicating its final 2-ness.

Under the CCU analysis, all the downstairs dependents which become dependents of the union verb are case-marked as to their GRs in the union clause as is shown in (98):

- 98) kattaba l-muḡallim-u ṭ-ṭulla:b-a  
 caus+write the-teacher-Nom the-students-Acc  
 d-dars-a  
 the-lesson-Acc

'The teacher made the students write the lesson'

in which ṭ-ṭulla:b-a and d-dars-a are acting 2s which are both marked accusative. If (98) were a raising clause, the  $\hat{2}$ , d-dars-a, which is parallel to ?anna-hu ḡa:laja l-mari:d-a in (97) would be caseless.

Under the union analysis, the case marking of such a  $\hat{2}$  can be readily accounted for since it predicts that all the downstairs dependents in the clause union get case-marked. The raising analysis, however, cannot account for the case marking of  $\hat{2}$  nominals in clauses like (98).

b) Topicalization

In section 5.2, I have claimed that the downstairs dependents which raise to the upstairs clause cannot topicalize as can be seen in (99b):

- 99) a. ḡasib-tu ṭ-ṭa:lib-a (?anna-hu ḡaraba  
 thought-1s the-student-Acc that-he hit  
 l-mar?at-a)  
 the-woman-Acc

'I thought the student to have hit the woman'

- b. \*?aṭ-ṭa:lib-u, ḡasib-tu-hu (?anna-hu  
 the-student-Nom, thought-1s-him that-he  
 ḡaraba l-mar?at-a)  
 hit the-woman-Acc

(The student, I thought him to have hit the woman)

The ill-formedness of (99b) is attributable to the topicalization of the final 2 ascendee ṭ-ṭa:lib-a. Now, consider the causative clause

(100):

- 100) kattab-tu l-walad-a risa:lat-a  
 caus+write-1s the boy-Acc the-letter-Acc

'I made the boy write the letter'

Under the raising analysis, the final 2 like l-walad-a cannot be topicalized if (100) were a raising clause. Contrariwise, it can topicalize as is shown in (101):

- 101) ?al-walad-u, kattab-tu-hu r-risa:lat-a  
 the-boy-Nom, cause+write-1s-him the-letter-Acc

'The boy, I made him write the letter'

Under the clause union analysis, the topicalization of ?al-walad-u is predictable since it bears the final 2-relation in the union stratum that results from collapsing two clauses into one.

The fact that the topicalization of final 2s is predictable under the union analysis rather than under raising thus provides a further piece of evidence against the raising analysis of clause union.

### c) Raising

A nominal that has raised to an upstairs clause cannot raise to another upstairs clause containing a raising trigger as can be seen in the ungrammatical clause (102) in which the ascende ṭ-ṭa:lib-a in (99a) above has also raised to direct object:

- 102) \*ḍanna r-rajul-u ṭ-ṭa:lib-a (?anna-ni  
 thought the-man-Nom the-student-Acc that-I  
 ḥasib-tu-hu (?anna-hu ḍaraba l-mar?at-a))  
 thought-1s-him that-he hit the-woman-Acc

(Lit.: The man thought the student that I thought him that he hit the woman)

Such a clause shows that under the raising analysis an ascende<sub>e</sub> cannot raise more than once.

Under the raising analysis, therefore, the final 2 in a causative clause like (103), taken to be a raising clause, must not be able to raise to another upstairs clause:

- 103) ?asmafa r-rajul-u l-walad-a ş-şawt-a  
 cause+hear the-man-Nom the-boy-Acc the-voice-Acc  
 'The man let the boy hear the voice'

This prediction cannot hold as can be seen in the grammatical clause (104) in which the final 2, l-walad-a in (103), has raised to object;

- 104) xil-tu l-walad-a (?anna r-rajul-a  
 thought-1s the-boy-Acc that the-man-Acc  
 ?asmafa-hu ş-şawt-a)  
 let+hear-him the-voice-Acc  
 'Lit.: I thought the boy that the man let him hear the voice'

The ability of a final 2 to raise indicates that a clause like (103) cannot be a raising clause. Under the union analysis, the raising of final 2s can be predicted since they have become dependents of the union verb, but not of a raising trigger, as a result of clause union.

Therefore, that a final 2 can raise provides another argument against the raising analysis in favor of the clause union analysis.

#### d) Pronominalization

Pronominalization of other dependents than the ascende<sub>e</sub> in the upstairs clause disfavors the raising analysis. Under the raising analysis, a final 2 but not a final 2̂ can pronominalize as can be seen

in (105b-c):

- 105) a  $\text{\textasciix} \text{hasib-tu } \underline{\text{r-ra?i:s-a}}$  (?anna-hu sa:ʕada  
 thought-1s the-president-Acc that he helped  
 $\text{\textasciix} \text{t-tulla:b-a}$   
 the students-Acc  
 'Lit.: I thought the president that he helped  
 the students'
- b.  $\text{\textasciix} \text{hasib-tu-hu}$  (?anna-hu sa:ʕada  $\text{\textasciix} \text{t-tulla:b-a}$ )  
 thought-1s-him that-he helped the-students-Acc  
 'Lit.: I thought him that he helped the students'
- c. \* $\text{\textasciix} \text{hasib-tu } \underline{\text{r-ra?i:s-a}}$  hu/hum/?iyya:hu  
 thought-1s the-president-Acc him/them/him  
 (Lit.: I thought the president him/them)

Clause (105b) where -hu substitutes r-ra?i:s-a, the final 2 in (105a), is grammatical as is contrasted with (105c) which is ungrammatical due to the pronominalization of the clausal  $\hat{2}$ , ?anna-hu sa:ʕada t-tulla:b-a in (105a). Thus, a final  $\hat{2}$  is predicted to be nonpronominalizable under the raising analysis.

What would the same analysis say about the pronominalization of a final  $\hat{2}$  like ʕ-ʕawt-a in the union clause (103) above? It predicts that such a nominal, like  $\hat{2}$ s in real raising clauses like (105a), can never pronominalize. As a matter of fact, though, the reverse is the case:

- 106)  $\text{\textasciix} \text{ʕasmaʕa } \underline{\text{r-rajul-u}}$  l-walad-a ?iyya:hu  
 caus+hear the-man-Nom the-boy-Acc it  
 'The man let the boy hear it'

The pronominalization of ʕ-ʕawt-a can be accounted for under the clause union analysis for such a nominal is a dependent of the union predicate



?asmafa.

That a final  $\hat{2}$  nominal in a union clause, but not in a real raising clause, can pronominalize thus supplies further evidence against the raising analysis of clause union.

To sum up, the syntactic behavior of both final 2s and other dependents in the union stratum shows that the raising analysis should be rejected as an alternative to the clause union analysis. The raising analysis makes incorrect predictions regarding both the topicalization and raising of final 2s as well as the nominal case marking and pronominalization of final  $\hat{2}s$  in causative clause union. Finally, since the two analyses make different claims, they should be viewed as two different constructions in SA.

## 7.4.2 The Equi Analysis

In this section, I consider Equi as another alternative to the clause union analysis. We have stated in section 5.2.2 that Equi deletes a downstairs nominal under coreferentiality with a nominal in the upstairs clause. Also, an Equi controller can be either a final 1, 2 or oblique; and an Equi victim can only be a final 1 in the downstairs clause. These facts are illustrated in clauses (107-108), represented in the stratal diagrams (109-110) respectively:

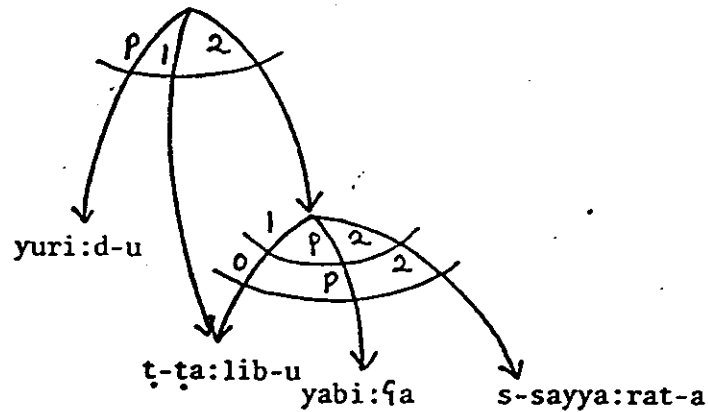
107) yuri:du t-ta:lib-u ?an yabi:fa  
 want the-student-Nom that sell  
 s-sayya:rat-a  
 the-car-Acc

'The student wants to sell the car'

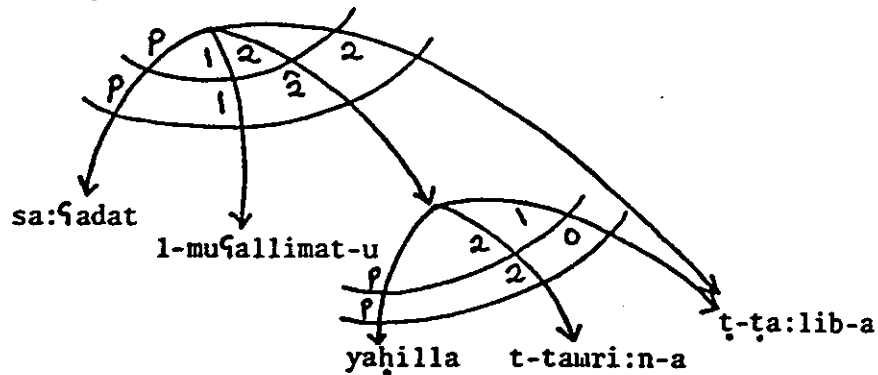
- 108) sa:ʕadat-i l-muʕallimat-u ʔ-ta:lib-a  
 helped-V the teacher-Nom the-student-Acc  
 ʔan yaḥilla t-tamri:n-a  
 that solve the-exercise-Acc

'The teacher helped the student to do the exercise'

109)



110)



The Equi controllers are t-ʔa:lib-u in (109) and t-ʔa:lib-a in (110); the former is a final 1 and the latter is a final 2 in the upstairs clause. The Equi victim is t-ʔa:lib-u, the downstairs final 1 in both clauses.

Since both Equi and union clauses are biclausal, and since an Equi controller can be a final 2 in the upstairs clause, it is likely that

Equi can account for clause union constructions in SA. In this regard, a downstairs 1 which is a final 2 in the union stratum would be the Equi victim as is demonstrated in clauses (111-112), representable in (113-114):

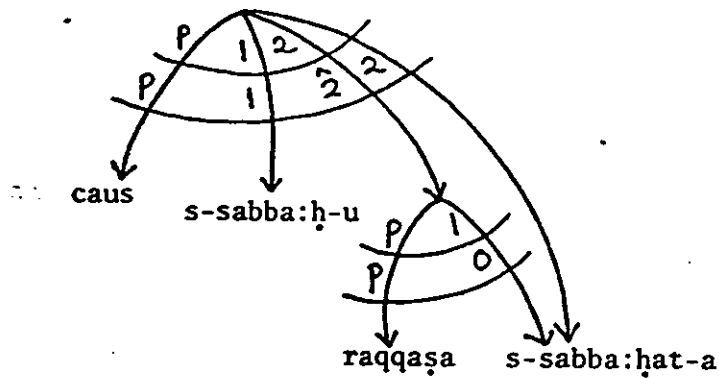
- 111) raqqaṣa s-sabba:ḥ-u s-sabba:ḥat-a  
 caus+dance the-swimmer+M-Nom the-swimmer+F-Acc

'The m.swimmer made the f. swimmer dance'

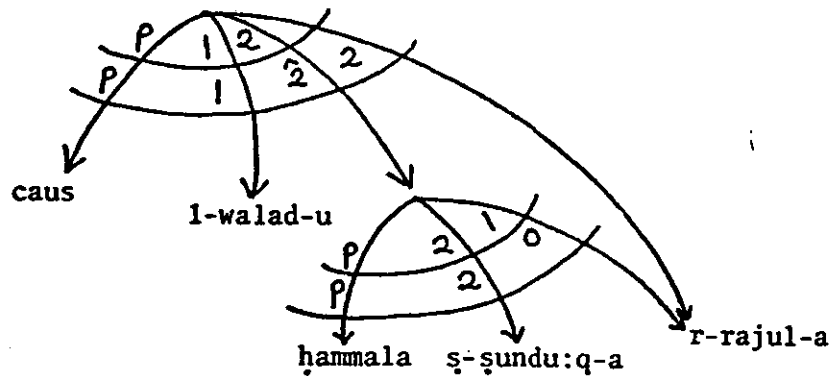
- 112) ḥammala l-walad-u r-rajul-a ṣ-ṣundu:q-a  
 caus+carry the-boy-Nom the-man-Acc the-box-Acc

'The boy made the man carry the box'

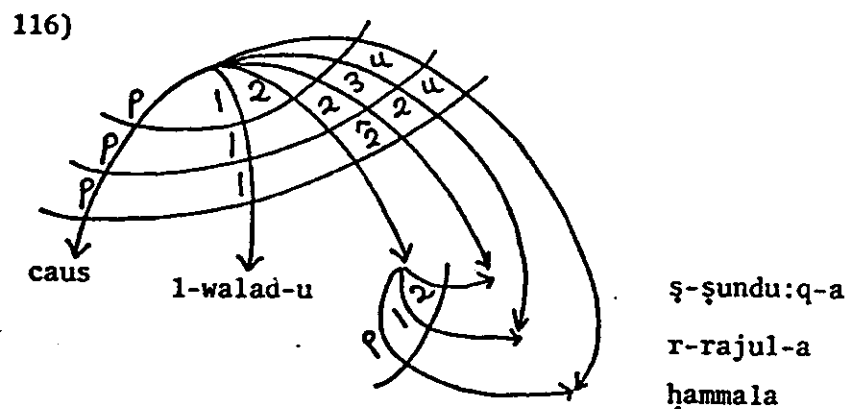
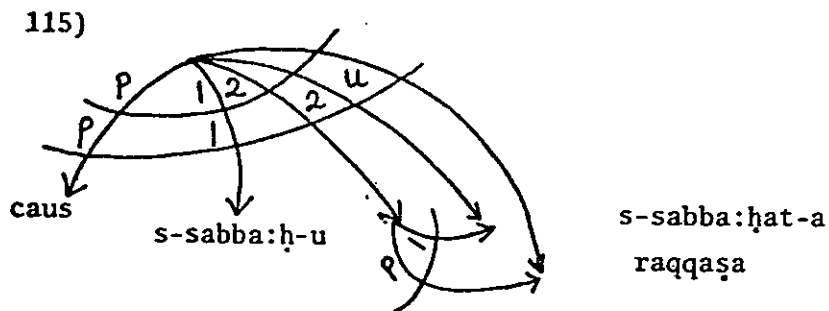
113)



114)



In the case of (113-114) the downstairs 1s s-sabba:ḥat-a and r-rajul-a get deleted because they are coreferential with the upstairs 2s. Under the clause union analysis however, (111-112) are rather representable in (115-116) respectively:



Under both analyses, s-sabba:ḥat-a and r-rajul-a are final 2s which put the initial 2s en chomage in the final stratum.

The arguments that favor the Equi analysis are the same arguments used in section 7.3.1.1 to show that the downstairs 1 is a final 2 in clause union.

Evidence that would, however, clinch the dispute between Equi and clause union draws upon nominal case and pronominalization of final  $\hat{2}s$  like s-şundu:q-a in clause (112) above, considered an Equi clause having the structure in (114) above.

a) Nominal Case Marking

I have pointed out in section 6.4 that acting 2s are in the accusative case. (Recall that acting 2s stand for both final 2s and  $\hat{2}s$ ). In a real Equi clause like (108) above, only the final 2 nominal t-ṭa:lib-a is case assigned; the remnant of the downstairs clause like ?an yaḥilla t-tamri:n-a is caseless in SA. Under the Equi analysis of causative clauses, therefore, only a final 2 is case-assigned. That this is true can be seen in (112) where r-rajul-a is marked accusative by the suffix -a. A closer examination of that clause, however, reveals that the claim made under Equi is not valid. The analysis falsely predicts that such a nominal like s-şundu:q-a must be caseless. The reverse is, however, the case; that nominal is marked accusative, shown by the suffix -a. Under the clause union analysis, case marking is predictable since all the downstairs dependents are case-marked as to their relations to the union verb.

Thus, that the case marking of final  $\hat{2}s$  in clause union cannot be predicted under the Equi analysis provides one piece of evidence against it in favor of the union analysis.

b) Pronominalization

In an Equi clause like (108) above, a nominal heading a final 2-arc can pronominalize and the remnant of the downstairs clause cannot,

as can be seen in (117) contrasted with (118):

- 117) sa:ʕadat-hu l-muʕallimat-u ?an yaḥilla  
 helped-him the-teacher-Nom that solve  
 t-tamri:n-a  
 the-exercise-Acc

'The teacher helped him to do the exercise'

- 118) \*sa:ʕadat-i l-muʕallimat-u t-ta:lib-a  
 helped-V the-teacher-Nom the-student-Acc  
 ?iyya:hu/hu  
 it (him)/him (it)

(The teacher helped the student to do it)  
 (Lit.: The teacher helped the student it)

Clause (117) in which the final 2, t-ta:lib-a, of (108) is replaced by the pronominal -hu is grammatical. Pronominalizing ?an yaḥilla t-tamri:n-a, the final 2̂, results in the ill-formedness of (118). Thus, the Equi analysis predicts that a final 2̂ in an Equi clause cannot pronominalize.

Consider, however, (119) in which the final 2̂ nominal s-ṣundu:q-a of the above union clause (112) pronominalizes:

- 119) ḥammala l-walad-u r-rajul-a ?iyya:hu  
 caus+carry the-boy-Nom the-man-Acc it

'The boy made the man carry it'

The pronominal ?iyya:hu replaces s-ṣundu:q-a. Contrary to the prediction of the Equi analysis, clause (119) is grammatical. Thus, there is no systematic way by means of which the Equi analysis can account for the pronominalization of final 2̂s in union clauses. Under the union analysis, on the other hand, pronominalization of final 2̂s is predict-

able since those nominals are dependents of the union verb.

The fact that pronominalization of final  $\hat{2}s$  in causative clauses is accountable for under the union analysis rather than under the Equi analysis, therefore, gives a further argument disfavoring Equi, but favoring the clause union analysis.

Recapitulating, data drawing upon nominal case marking and pronominalization of final  $\hat{2}s$  in union clauses show that the Equi analysis lags behind the union analysis. The former cannot account for the syntactic behavior of final  $\hat{2}s$ ; it should, therefore, be rejected. Its rejection indicates that Equi and clause union are two different syntactic constructions in SA.

#### 7.4.3 Summary

The foregoing section discusses two alternatives to the union clause analysis: Equi and raising. Both are found to be inadequate since they cannot account for the syntactic behavior of the dependents in the final stratum of a union clause. They must, therefore, be dispensed with in favor of the clause union analysis.

#### 7.5 Impossible CCU Constructions

In section 7.2, I have discussed cases in which DS 1s, 2s and Obliques other than benefactives can participate in SA clause union. In this section, I present constructions in which clause union is impossible and formulate some constraints accounting for the lack of

clause union in them.

First, clauses involving 3s and benefactives cannot participate in clause union as exemplified in (120b-c) and (121b);

- 120) a. ?aʕta r-rajul-u l-qami:ʕ-a li l-muʕallim-i  
gave the-man-Nom the-shirt-Acc to the-teacher-Obl  
'The man gave the shirt to the teacher'
- b. \*ʕaʕtay-tu r-rajul-a l-qami:ʕ-a li  
caus+give-1s the man-Acc the-shirt-Acc to  
l-muʕallim-i  
the-teacher-Obl  
'I made the man give the shirt to the teacher'
- c. \*ʕaʕtay-tu l-qami:ʕ-a li r-rajul-i  
caus+give-1s the shirt-Acc to the-man-Obl  
li l-muʕallim-i  
to the-teacher-Obl  
'I made the man give the shirt to the teacher'
- 121) a. ?iʕtarat-i l-bint-u hadiyyat-an li  
bought-V the girl-Nom gift-Acc for  
l-ʕusta:ʕ-i  
the-professor-Obl  
'The girl bought a gift for the professor'
- b. \*ʕarray-tu l-bint-a hadiyyat-an li l-ʕusta:ʕ-i  
caus+buy-1s the-girl-Acc gift-Acc for the-professor-Obl  
'I made the girl buy a gift for the professor'

To account for the ungrammaticality of such causatives, a constraint is needed in SA grammar; the constraint can be stated as follows:

- 122) A causative clause union is ill-formed if a nominal bears a 3- or ben- relation in the downstairs clause.<sup>12</sup>

Second, nominals whose GRs have been changed via passive or 3-2 advancement are not possible in clause union as shown in (123b) and (124b):



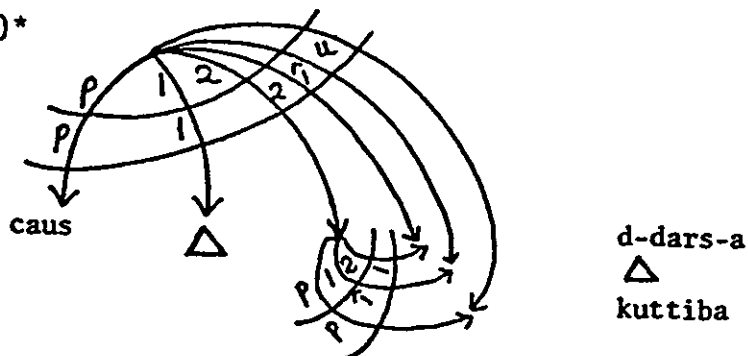
- 123) a. kutiba d-dars-u  
Pas+wrote the-lesson-Nom  
'The lesson was written'
- b. \*kuttiba d-dars-a  
caus+pas-wrote the-lesson-Acc  
(The lesson was made to be written)
- 124) a. ?aṣṭa r-rajul-u l-muḡallim-a l-qami:ṣ-a  
gave the-man-Nom the-teacher-Acc the-shirt-Acc  
'The man gave the teacher the shirt'
- b. \*ḡaṭṭay-tu r-rajul-a l-muḡallim-a l-qami:ṣ-a  
caus+give-1s the-man-Acc the-teacher-Acc the-shirt-Acc  
'I made the man give the teacher the shirt'

Clauses like (123-124b) suggest that bistratal constructions are banned from clause union in SA. To block such causatives, I propose the constraint given in (125):

- 125) CCU is possible only if there is a simple, monostratal downstairs clause.<sup>13</sup>

This constraint means that for a DS clause to participate in clause union, it has to be simple--i.e., not complex--and monostratal--i.e., involving one stratum only. Demonstration comes from clause \*(123b) represented in (126):

126)\*



The DS clause in (126) consists of two strata where the nominal d-dars-a, for instance, first bears the 2-relation in the initial level and the 1-relation in the final level via DS passive. Since such a clause has two strata no DS nominals can participate in the clause union as is evident in the ill-formed clause \*(123b). Such a union structure is thus predicted to be ungrammatical by constraint (125).

The same constraint also makes the correct prediction that CCU is banned in clauses involving raising and Equi as can be seen in \*(127-128b) where the ascension nominal l-walad-a 'the boy' has participated in clause union as well as in \*(129b) in which the Equi controller l-walad-a has done so:

- 127) a. yabdu l-walad-u ( anna-hu qara?a r-risa:lat-a)  
seem the-boy-Nom that-he read the-letter-Acc

'The boy seems to have read the letter'

- b. \*badday-tu l-walad-a ( anna-hu :  
caus+seem-Is the-boy-Acc that-he  
qara?a r-risa:lat-a)  
read the-letter-Acc

(I made the boy seem to have read the letter)

- 128) a. danna l-walad-u l-bint-a ( anna-ha:  
thought the-boy-Nom the-girl-Acc that-she  
qara?ati r-risa:lat-a)  
read the-letter-Acc

'The boy thought the girl to have read the letter'

- b. \* dānna-tu l-walad-a l-bint-a ( anna-ha:  
caus+think-Is the-boy-Acc the-girl-Acc that-she  
qara?ati r-risa:lat-a)  
read the-letter-Acc

(I made the boy think the girl to have read the letter)

- 129) a. ?ara:da l-walad-u (?an yaqra?a r-risa:lat-a)  
 wanted the-boy-Nom that read the-letter-Acc  
 'The boy wanted to read the letter'
- b. \*?arrad-tu l-walad-a (?an yaqra?a r-risa:lat-a)  
 caus+want-1s the-boy-Acc that read the-letter-Acc  
 (I made the boy want to read the letter)

Since each of such clauses is complex or multiclausal--i.e., not simple--, their corresponding causatives are ill-formed.

Finally, double causatives--i.e., causatives of causatives--are not possible in SA as predicted by constraint (125) and demonstrated in \*(130-131b):

- 130) a. kattab-tu d-dars-a li l-walad-i  
 caus+write-1s the-lesson-Acc to the-boy-Obl  
 'I made the boy write the lesson'
- b. \*kattattab-a-ni d-dars-a li l-walad-i  
 caus+caus+write-3ms-me the lesson-Acc to the-boy-Obl  
 (He had me make the boy write the lesson)
- 131) a. ?ajlasa r-rajul-u l-walad-a ʕala l-kursiyy-i  
 seated the-man-Nom the-boy-Acc on the-chair-Obl  
 'The man seated the boy on the chair'
- b. \*?aʕajlas-a r-rajul-a l-walad-a  
 caus+caus-sit-3ms the-man-Acc the-boy-Acc  
 ʕala l-kursiyy-i  
 on the-chair-Obl  
 (He had the man seat the boy on the chair)

## 7.6 Periphrastic Causatives

In addition to causatives involving clause union, SA has peri-

phrastic causatives in which, as exemplified in (132-133) below, the upstairs verb is normally jaḡala 'to make':

132) jaḡal-tu l-bint-a tarquṣu  
made-1s the-girl-Acc dance

'I made the girl dance'

133) jaḡal-tu ṭ-ṭa:lib-a yaktubu d-dars-a  
made-1s the-student-Acc write the-lesson-Acc

'I made the student write the lesson'

Clauses like (132-133) manifest that the verb, apart from the causer, is followed by a nominal, the causee, bearing the 2-relation and is thus marked accusative as well as by an embedded clause like yaktubu d-dars-a in (133) which, I assume, is introduced by a zero complementizer.

Though I cannot present an analysis for such causatives in this dissertation, I point out several characteristics of them. First, the direct object of jaḡala should be coreferential with the subject of the embedded clause as can be seen in (132-133) contrasted with \*(134-135):

134) \*jaḡal-tu l-bint-a tarquṣa/yarquṣu l-walad-u  
made-1s the-girl-Acc dance+3fs/dance+3ms the-boy-Nom

(Lit.: I made the girl the boy dance)

135) \*jaḡal-tu ṭ-ṭa:lib-a yaktubu l-walad-u  
made-1s the student-Acc write+3ms the-boy-Nom  
d-dars-a  
the-lesson-Acc

(Lit.: I made the student the boy write the lesson)

Second, while causatives involving clause union are restricted to

downstairs clauses with 1s, 2s, and obliques other than benefactives, periphrastic causatives tolerate DS clauses involving all DS relations including 3s and benefactives as seen in (136-137) below and in (132-133) above:

136) jaʕal-tu r-rajul-a yuʕti l-qami:ʕ-a  
made-1s the-man-Acc give the-shirt-Acc  
li l-muʕallim-i  
to the-teacher-Obl

'I made the man give the shirt to the teacher'

137) jaʕal-tu r-rajul-a yaʕtari hadiyyat-an  
made-1s the-man-Acc buy gift-Acc  
li l-bint-i  
for the-girl-Obl

'I made the man buy a gift for the girl'

Such clauses, which are prohibited from clause union in conformity with the conditions (122) and (125) discussed in section 7.5, do not have to observe those conditions and are thus well-formed periphrastically.

Third, unlike causatives involving clause union which do not allow 3-2 advancement in the DS clause merely because clause union is not possible with DS 3s as I pointed out in section 7.5, 3-2 advancement is possible in the embedded clause of a periphrastic causative as illustrated in (138) corresponding to (136) above:

138) jaʕal-tu r-rajul-a yuʕti l-muʕallim-a l-qami:ʕ-a  
made-1s the-man-Acc give the-teacher-Acc the-shirt-Acc

'I made the man give the teacher the shirt'

Finally, periphrastic causatives are also used to form double causatives, instead of clause union as shown in the grammatical clauses

(139-140):

- 139) jaḡala-ni l-muḡallim-u ?ukattiba  
 made-me the-teacher-Nom caus+write ls  
 d-dars-a li l-walad-i  
 the-lesson-Acc to the-boy-Obl

'The teacher had me make the boy write the lesson'

- 140) jaḡala s-sa:ʔiḡ-u l-walad-a  
 made the-tourist-Nom the-boy-Acc  
 yuraqqiṣu l-bint-a  
 caus+dance+3ms the-girl-Acc

'The tourist had the boy make the girl dance'

### 7.7 CCU and Unaccusativity

This section briefly deals with CCU in conjunction with unaccusative predicates in SA. (Predicates determining unaccusativity vs. unergativity are given in the Appendix). We have realized so far that predicates semantically categorized as unergatives are permissible in causative clause union as seen in (141b)

- 141) a. na:ma ʔ-ʔifl-u  
 slept the-child-Nom

'The child slept'

- b. nayyam-tu ʔ-ʔifl-a  
 caus+sleep-ls the-child-Acc

'I made the boy sleep'

in which the DS 1, ʔ-ʔifl-a, gets revalued as a 2 in the union stratum.

Similarly, some unaccusative predicates--to my knowledge, a very small number--can also participate in clause union as shown in (142-144b) below. Verbs that cannot do so will be discussed in the next

## section:

- 142) a. saŷurati d-da:ʔirat-u  
be or become small the-circle-Nom  
  
'The circle is small'
- b. saŷar-tu d-da:ʔirat-a  
caus+become small-1s the-circle-Acc  
  
'I made the circle small'
- 143) a. qaşura l-ḥabl-u  
be or become short the-rope-Nom  
  
'The rope is short'
- b. qaşşar-tu l-ḥabl-a  
shortened-1s the-rope-Acc  
  
'I shortened the rope'
- 144) a. saqaṭa l-kaʔs-u ʕala l-ʔarḍ-i  
fell down the-cup-Nom on the-ground-Obl  
'The cup fell down on the ground'
- b. saqqaṭ-tu l-kaʔs-a ʕala l-ʔarḍ-i  
caus+fall down-1s the-cup-Acc on the-ground-Obl  
  
'I made the cup fall down on the ground'

In this respect, the question that arises is associated with the GR borne by the DS nominal in clause union involving unaccusativity illustrated above. Specifically, is it a 2 or a 1 that results from unaccusative advancement?

There is not a tremendous literature dealing with this issue. Rosen (1983) suggests a union strategy called "Chomeur Causee Union" which, unlike Perlmutter and Postal's union schema and Gibson's, does not involve any revaluation of the DS 1 as exemplified in the Italian clause (145), taken from Rosen (1983):

- 145) Faremo accompagnare il gruppo da un interprete  
we'll-make accompany the group by an interpreter

'We will have an interpreter accompany the group'

Rosen argues that the DS 1 da un interprete bears the Cho-relation the union stratum which cannot be attributed to DS passive. This shows that the DS clause in causatives like (145) is monostratal rather than multistratal.

Moreover, Rosen claims that certain multistratal constructions cannot occur in the DS complement of a clause union in Romance languages. This is in accordance with the constraint that she has formulated and is given in (146):

- 146) Downstairs 1-Freeze:

If a nominal heads a 1-arc in the complement clause of a union, it heads an initial 1-arc in that clause.<sup>14</sup>

The constraint suggests that all constructions which involve a nominal advancing to 1 in the DS clause are banned from clause union in Romance languages. Thus, passive, unaccusative advancement and constructions involving a dummy which heads a 1-arc are all excluded from clause union.<sup>15</sup>

With respect to unaccusative clauses, the DS 1-Freeze predicts that when unaccusatives are union complements they are monostratal and do not have a final 1.<sup>16</sup> Rosen provides evidence for this prediction based on the "Disappearing Reflexive Clitic" in Italian. Italian has intransitive verbs that carry a reflexive clitic; however, in clause union, those verbs do not carry that clitic as can be seen in (147b):



147) (Data from Rosen (1983))

a. Il vigile si è arrabbiato

'The cop got angry'

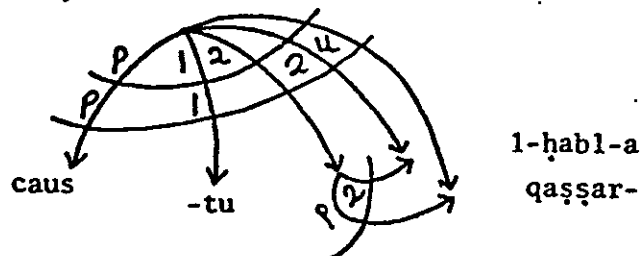
b. Carlo ha fatto arrabbiare (\*arrabbiar si) il vigile

'Carlo made the cop get angry'

In (147a), the clitic si is the reflexive copy left by unaccusative advancement. In (147b), the absence of si in the DS clause indicates that this clause does not involve such an advancement. Accordingly, the DS 2 in an unaccusative DS clause inherits its relation in the union stratum.

Going back to SA clause union and unaccusativity, I assume that unaccusative DS clauses do not involve unaccusative advancement as Rosen's constraint dictates since I cannot provide any evidence internal to SA for or against a DS unaccusative advancement. As such a nominal like 1-ħabl-a in (143b) above that heads a 2-arc in the DS clause inherits the 2-relation in the union stratum in conformity with the Inheritance Principle. Clause (143b) would thus be associated with the structure in (148):

148)



The union structure in (148) also follows from the constraint, which

I have formulated, banning any bistratal clause from participating in SA clause union.

#### 7.8 A Semantic Account of Predicates Prohibited from Clause Union

In the previous section, I have pointed out that some unaccusative predicates can be used in SA clause union. In this section, I briefly deal with predicates, both unaccusatives and transitives, which are not permissible in clause union.

A large number of unaccusative predicates cannot occur in the DS complement of a clause union as exemplified in (149-153b):

- 149) a. najama l-qarn-u  
came out the-horn-Nom  
  
'The horn came out'  
  
b. \*najjam-tu l-qarn-a  
caus+come out-1s the-horn-Acc  
  
(I made the horn come out)
- 150) a. qaşafa r-rafd-u  
roared the-thunder-Nom  
  
'The thunder roared'  
  
b. \*qaşşaf-tu r-rafd-a  
caus+roar-1s the-thunder-Acc  
  
(I made the thunder roar)
- 151) a. maţarati s-sama:?-u  
rained the-sky-Nom  
  
'It rained'  
  
b. \*maţtar-tu s-sama:?-a  
caus+rain-1s the-sky-Acc  
  
(I made it rain)

- 152) a. saḫura l-walad-u  
be or become small the-boy-Nom  
'The boy is small'
- b. \*saḫḫar-tu l-walad-a  
caus+become small-1s the-boy-Acc  
(I made the boy small)
- 153) a. qaṣura r-rajul-u  
be or become short the-man-Nom  
'The man is short'
- b. \*qaṣṣar-tu r-rajul-a  
shortened-1s the-man-Acc  
(I shortened the man)

The impossibility of such causatives can be explained on semantic grounds. According to El-Tikaina (1982: 186-192), each predicate in the above clauses expresses an innate peculiarity as in (149) or a natural force as in (150) which cannot be caused or forced to take place. We cannot cause the horn to come out; nor can we cause or force the thunder to roar. All such predicates should therefore be marked [-causative]. The constraint that accounts for the ill-formedness of such clauses can be given as follows:<sup>17</sup>

- 154) Predicates denoting a natural force or an innate peculiarity are banned from clause union.

What bolsters the semantic constraint in (154) is that causatives like \*(149-153b) cannot also be expressed periphrastically as seen in \*(155-156) corresponding to (149-150b) above:

- 155) \*jaḥal-tu l-qarn-a yanjumu  
made-1s the-horn-Acc come out  
(I made the horn come out)

- 156) \*jaʕal-tu r-raʕd-a yaqʕufu  
made-1s the-thunder-Acc roar

(I made the thunder roar)

The semantic constraint is not restricted to unaccusative predicates. It can also hold for transitive verbs like kasara 'to break' and fataḥa 'to open' in clauses like (157-158b):

- 157) a. kasarati r-riḥ-u š-šajarat-a  
broke the-wind-Nom the-tree-Acc

'The wind broke the tree'

- b. \*kassar-tu r-riḥ-a š-šajarat-a  
caus+break-1s the-wind-Acc the tree-Acc

(I made the wind break the tree)

- 158) a. fataḥa l-hawa:ʔ-u n-na:fiḏat-a  
opened the-air-Nom the-window-Acc

'The air opened the window'

- b. \*fattah-tu l-hawa:ʔ-a n-na:fiḏat-a  
caus+open-1s the-air-Acc the-window-Acc

(I made the air open the window)

These clauses also denote a natural force which cannot be controlled or caused to happen or do some action. As such they are prohibited from clause union.

But consider the following:

- 159) a. kasara l-walad-u š-šajarat-a  
broke the-boy-Nom the-tree-Acc

'The boy broke the tree'

b. kassar-tu l-walad-a š-šajarat-a  
 caus+break-1s the-boy-Acc the-tree-Acc

'I made the boy break the tree'

In a clause like (159), a nominal like l-walad-a can be caused to perform a given act; hence, the causative clause union (159b) is well-formed.

### 7.9 Conclusion

The present chapter has looked upon CCU in SA. First, it has presented arguments for both the biclausal source of and the final GRs borne by nominals in the union stratum. Second, it has maintained that the downstairs 1 is revalued as a 2 or 3 in the union stratum, depending upon the transitivity of the downstairs clause. Third, nominals heading 3-arcs in the union stratum can advance to 2 via 3-2 advancement. Fourth, different alternatives to the union analysis have been rejected for their inadequacy in favor of clause union. Fifth, several constraints have been formulated to account for the lack of clause union in certain constructions. Sixth, periphrastic causatives have been discussed. Finally, CCU and unaccusativity as well as the semantics of predicates banned from participating in clause union have been briefly examined.

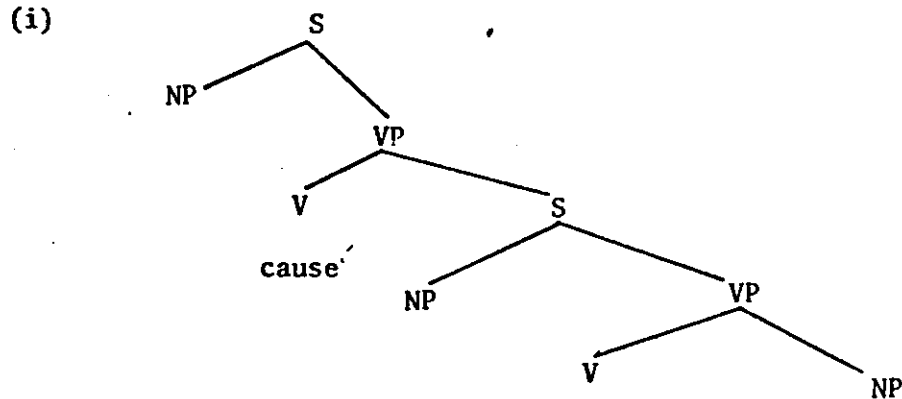
Viewed within both RG and universal grammar, CCU in SA follows from and lends further support to the union proposal posited by Perlmutter and Postal (1974). It is thus similar to such languages as

Spanish, French, Turkish, Georgian and Tzotzil. Similarities in all these languages including SA are captured by one union type suggested by Perlmutter and Postal within the theory of RG: in all of them, the downstairs final 1 is either a 2 or 3 in the union stratum.

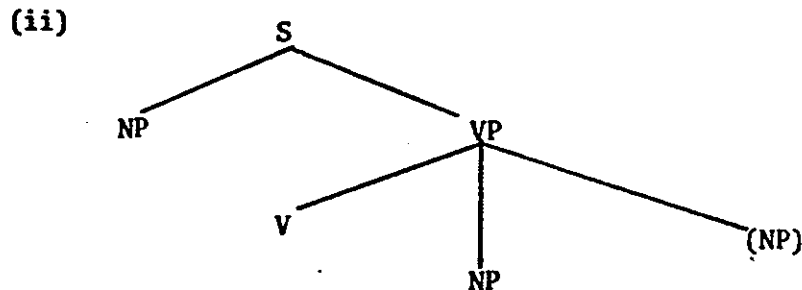
Finally, rather than violating the Stratal Uniqueness Law, SA causative clause union has been shown to favor its universality. This conclusion stems from rejecting Comrie's and others' view of "doubling on direct objects" in SA which mistakenly and superficially constitutes a challenge to that law. We have claimed that causatives with double accusative nominals involve 3-2 advancement; thus, one accusative nominal is a final direct object and the other a direct object chomeur, as evidenced by their different syntactic behavior.

## Footnotes

1. Aissen (1974a,b) discusses the syntax of causatives from a transformational grammar point of view. Within that framework, a causative clause would be represented in (i) below rather than in (3) or (4) above.



A rule of "verb raising" operates on (i) and lifts the embedded verb into the matrix clause S where it forms a verbal unit with cause, the matrix verb. Consequently, the downstairs S and VP nodes get pruned, and the downstairs NPs go up to the matrix VP node. The result of all these processes is the simplex structure of a causative sentence given in (ii) below. For more details, see Aissen (1974a,b).

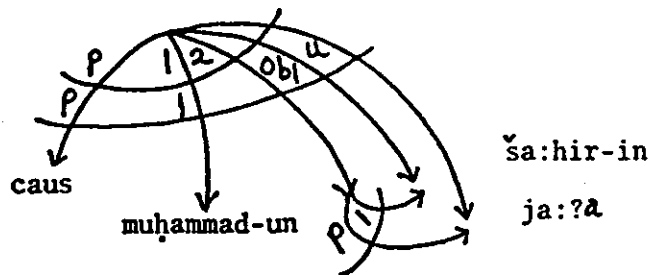


2. Recall that the predicate meaning cause in SA is expressed either by doubling the second consonant of a verb (e.g., rakada 'to run' → rakkada 'to cause to run'), or by prefixing ?a- to the verb (e.g., jalasa 'to sit' → ?ajlasa 'to seat').
3. Causativity is not always expressed morphologically, i.e., by consonantal doubling or prefixing (see f.n. (2) above); it is also expressed by means of the preposition bi 'with' in SA exemplified in (iii-iv):

- (iii) a. ja:ʔa ša:hir-un  
came Shahir-Nom  
'Shahir came'
- b. ja:ʔa muḥammad-un bi ša:hir-in  
came Mohammad-Nom with Shahir-Obl  
'Mohammad made Shahir come'
- (iv) a. xaraja ʔ-ʔa:lib-u  
went out the-student-Nom  
'The student went out'
- b. xaraja l-muʕallim-u bi ʔ-ʔa:lib-i  
went out the-teacher-Nom with the-student-Obl  
'The teacher made the student go out'

A clause like (iii) can be represented as in (v), assuming the biclausality of such a clause:

(v)



In the case of (v), the DS nominal ša:hir-in, the 1 of the intransitive verb ja:ʔa, bears the oblique relation in the union stratum. Furthermore, the causative marker is not visible. What denotes causativity is the preposition bi 'with'. (Sibawayhi 1316AH) and Saad (1975).

If such causatives are shown to involve a biclausal source, they will constitute further counterevidence to the union typology and the Oblique Law proposed in RG. In the case of the former, the downstairs 1 in a prepositionally causative clause does not get revalued as a 2 as is predicted by the schemas of clause union posited by Perlmutter and Postal and Gibson. Rather, that nominal is revalued as an Oblique in the union clause. Moreover, the Oblique Law, stated in (vi) below, is violated because the causee bears the oblique relation in a non-initial stratum.



## (vi) The Oblique Law

We say that B is a  $C_i$  arc if B is an arc one of whose coordinates is  $^i C_i$ . Then; if A is an oblique arc, A is a  $C_i$  arc.<sup>i</sup> (Perlmutter and Postal 1983a: 90).

As it stands now, however, a prepositional causative clause union needs future research.

4. This also gives further evidence that the rule of nominal case, discussed in section 3.2, should refer to final relation.
5. The argument lends further support that the rule of pronominal cliticization discussed in section 3.3 should refer to final relations.
6. "Absolutive" is the case of, simply speaking, both the subject of an intransitive clause and the direct object of a transitive clause. Both are marked the same. The case of the subject of a transitive clause is referred to as "Ergative". For case marking systems and demonstrations, see Comrie (1980) and references cited therein.
7. For "Ergative", see f.n. (7) above.
8. Antipassive demotes the nominal heading a 2-arc into a  $\hat{2}$  ... . For illustrations, see Postal (1977), Gerdts (1981; 1980a; 1980b) and Davies (1984).
9. The "Invariant Output Hypothesis" is the name Cole and Sridhar (1977) give to Perlmutter and Postal's (1974) clause union universal. That universal is also termed "Universal Clause Union" by Harris (1976) and "Clause Union" by Postal (1977).
10. Postal (p.c.) has pointed out to me that the argument from Hebrew is very weak. Obligatory 3-2 advancement in causatives violates no known principles even in the absence of 3-2 advancement in non-causatives.
11. For more counterevidence to Clause Union Type I, see Gibson (1980), Davies (1981a), Rosen (1983), Comrie (1976) and Gibson and Raposo (to appear).
12. J. Tsonope (p.c.) has pointed out to me that Setswana does not also allow DS 3 to participate in clause union. By the same token, Gerdts (1981) finds that DS 2s are banned from clause union in Halkomelem.

13. Rosen (1983) has shown that in Romance languages like French and Italian bistratal and biclausal constructions are not allowable in clause union. Also, Gerdts (1981) has argued that passive is banned from the DS complement of a causative union in Halkomelem.
14. Chun, Gerdts, and Youn (1984) claim that unaccusative advancement is possible in the DS clause of Korean causatives, thus violating Rosen's (1983) Downstairs 1-Freeze as seen in (vii):
- (vii) Haksaeng-i sensaengnim-i neme ci-si-key  
 student-Nom teacher-Nom fall-SH-cmp  
 ha-yet-ta  
 do-pst-ind
- 'The student made the teacher fall'
15. There are languages which allow other constructions in the DS complement of a clause union: Özkaragöz (1979) shows that 2-3 retreat can occur in the DS clause of causatives in Turkish; and Gerdts (1981) argues that antipassive is possible in the DS clause of a causative construction in Halkomelem.
16. This means that the Final 1 Law is not applicable to the DS clause in causative clause union in Romance languages.
17. For a detailed study of Arabic verbs, see El-Tikaina (1982).

## Chapter 8

### CONCLUSION

#### 8.0 Results of the Study

The present study has several results which are significant to both the description of SA syntax and the theory of Relational Grammar.

The focus of the study has been upon double accusative clauses which are analysed in terms of 3-2 advancement, exemplified in (1),

- 1) ?aṣṭa ṭ-ṭabi:b-u l-qa:ʔid-a  
gave the-physician-Nom the-leader-Acc  
l-ṣalam-a  
the-flag-Acc  
'The physician gave the leader the flag'

in which the nominal l-qa:ʔid-a has advanced from 3 in the first stratum to 2 in the next stratum, thus putting the initial 2, l-ṣalam-a, en chomage. Although such nominals are both marked accusative, they are syntactically different and thus should be kept distinct. For instance, only nominals heading final 2-arcs like l-qa:ʔid-a in (1) are eligible for raising, passives, reflexives and pronominal cliticization. On the other hand, accusative nominals heading a final cho-arc like l-ṣalam-a cannot be accessible to all these syntactic constructions. Not only is this result significant to SA syntax, but it is also significant to RG. Drawing upon nominal case marking only, linguists like Wright (1974) have missed the syntactic differences between double accusative nominals, leading to the claim that SA allows double objects in one and the same clause. Under this analysis, the Stratal Uniqueness Law, posited as a universal in RG, is violated.

The disproof of the "double object" analysis thus lends further support to the status of that law in universal grammar.

Secondly, motivating clause union for SA demonstrated in (2-3),

- 2) raqqaş-tu l-bint-a  
caus+dance-1s the-girl-Acc

'I made the girl dance'

- 3) ʔammal-tu ʔ-ʔa:wilat-a  
caus+carry-1s the-table-Acc  
li-r-rajul-i  
to the-man-Obl

'I made the man carry the table'

I have argued that downstairs final 1s like l-bint-a in (2) get revalued as a 2 in the union stratum since the downstairs clause is finally intransitive, and that downstairs final 1s like r-rajul-i in (3) are revalued as a 3 in the union stratum since the downstairs clause is finally transitive. Moreover, final 2s in downstairs clauses like ʔ-ʔa:wilat-a in (3) inherit their relations in the union stratum. As a result, SA clause union conforms and lends further support to Clause Union Type I proposed by Perlmutter and Postal (1974).

Moreover, examining Comrie's (1976) claim that SA tolerates "doubling on direct object" in causative constructions, I have found that constructions like (4) below, corresponding to (3) above, are compatible with Clause Union Type I on the grounds that such constructions involve 3-2 advancement in the upstairs clause, thus resulting in another double accusative structure in SA:

- 4) ʔammal-tu r-rajul-a  
caus+carry-1s the-man-Acc  
ʔ-ʔa:wil-at-a  
the-table-Acc

'I made the man carry the table'

In the case of (4), for instance, the nominal that advances from 3 in the union stratum to 2 in the final stratum is r-rajul-a, thus, placing the nominal bearing the union 2-relation t-ta:wilat-a en cho-mage in the final stratum. In this respect, these two nominals, although marked accusative, exhibit different syntactic behavior as I have shown earlier. Consequently, SA is incapable of "doubling on direct object" in causative clauses, a consequence which thus bolsters the universality of the Stratal Uniqueness Law which is superficially threatened under Comrie's analysis.

Thirdly, passives in SA constitute another area of investigation, illustrated in (5-6):

5) Personal Passives

su:ʕid-a na:hid-un  
Pas+helped-3ms Nahid-Nom

'Nahid was helped'

6) Impersonal Passives:

ni:m-a fi l-fira:š-i  
Pas+slept-3ms in the-bed-Obl

'It was slept in the bed'

Such clauses have been analysed as involving 2-to-1 advancement: in the case of (5), for instance, the nominal na:hid-un, bearing the 2-relation in the first stratum, has advanced to 1 in the final stratum; the nominal that has advanced to final 1 in the case of (6) is a phonetically-unrealized dummy inserted as a 2 in some stratum. Passives are significant for several reasons. They are crucial in keeping dou-

ble accusative nominals distinct; only the nominal that bears a 2, but not a 2̂, can advance to 1 via passive. Second, impersonal passives have been found a case of advancement rather than a case of unmotivated change as suggested by Comrie (1977), for instance. As such passives in SA support the universal characterization of passives posited within the RG framework. Finally, SA impersonal passive clauses have been shown to provide further confirmatory evidence for the Unaccusative Hypothesis in the sense that only initially-unergative strata tolerate impersonal passives (e.g., (6) above) while initially-unaccusative strata do not as in (8), the counterpart to (7):

- 7) saqata l-ka?s-u ʒala l-?arq-i  
fell down the-cup-Nom on the-ground-Obl

'The cup fell down on the ground'

- 8) \*suqita ʒala l-?arq-i  
Pas+fell down on the ground

(It was fallen down on the ground)

A fourth area of research is raising in SA. I have found that nominals bearing final term-relations can ascend to both "subject" and object, demonstrated in (9b-c), (10b) and (11b-d):

Raising to Subject

- 9) a. yabdu ?anna (na:hid-an ɖaraba l-bint-a)  
seem that Nahid-Acc hit the-girl-Acc

'It seems that Nahid hit the girl'

- b. yabdu na:hid-un (?anna-hu ɖaraba l-bint-a)  
seem Nahid-Nom that-he hit the-girl-Acc

'Nahid seems to have hit the girl'

- c. tabdu l-bint-u (?anna na;hid-an  
seem the-girl-Nom that Nahid-Acc  
ḍaraba-ha:)  
hit-her

'The girl seems to have been hit by Nahid'

- 10) a. tabayyana (?anna ḥana:n-an ?arsalat-i  
turn out that Hanaan-Acc sent-V  
r-risa:lat-a li muḥammad-in)  
the-letter-Acc to Mohammad-Obl

'It turns out that Hanaan sent the letter to  
Mohammad'

- eb. tabayyana muḥammad-un (?anna ḥana:n-an  
turn out Mohammad-Nom that Hanaan-Acc  
?arsalat-i r-risa:lat-a la-hu)  
sent-V the-letter-Acc to-him

'Mohammad turns out to have been sent the letter  
by Hanaan'

#### Raising to Object

- 11) a. ḥasib-tu (?anna ḥana:n-an ?arsalat-i  
thought-1s that Hanaan-Acc sent-V  
r-risa:lat-a li muḥammad-in)  
the-letter-Acc to Mohammad-Obl

'I thought that Hanaan sent the letter to Mohammad'

- b. ḥasib-tu ḥana:n-an (?anna-ha: ?arsalat-i  
thought-1s Hanaan-Acc that-she sent-V  
r-risa:lat-a li muḥammad-in)  
the-letter-Acc to Mohammad-Obl

'I thought Hanaan to have sent the letter to Mohammad'

- c. ḥasib-tu r-risa:lat-a (?anna ḥana:n-an  
thought-1s the-letter-Acc that Hanaan-Acc  
?arsalat-ha; li muḥammad-in)  
sent-it to Mohammad-Obl

'I thought the letter to have been sent to Mohammad  
by Hanaan'

- d. ḥasib-tu muḥammad-an (?anna ḥana:n-an  
 thought-1s Mohammad-Acc that Hanaan-Acc  
 ?arsalat-i r-risa;lat-a la-hu)  
 sent-V the-letter-Acc to-him

'I thought Mohammad to have been sent the letter by Hanaan'

Arguments for this result draw upon nominal case, passives and word order, among others. Clauses involving raising observe three universals: the Relational Succession Law, the Host Limitation Law and the Chomeur Condition. Ascension nominals like ḥana:n-an in (11b) bear the GR of their host in conformity with the Relational Succession Law; in the case of (11b) ḥana:n-an bears the initial 2-relation in the upstairs clause which is the GR of its host. Also, the host like ?anna-ha: ?arsalati r-risa:lat-a li muḥammad-in in (11b) out of which an ascendeo ascends is a nuclear term bearing the 2-relation in accordance with the Host Limitation Law. Finally, following ascension, the host goes en chomage as is required by the Chomeur Condition. Accordingly, SA raising can be adequately handled within RG.

SA raising is important. Firstly, it provides a further test for double accusative nominals; only nominals heading 2-arcs, but not  $\hat{2}$ -arcs, can ascend to either "subject" or object. Secondly, it makes a contribution to linguistic theory. While raising of final 1s (e.g., (9b) and (11b) above) is highly attested, and raising of final 2s (e.g. (9c) and (11c)) is rare, raising of final 3s (e.g., (10b) and (11d)), permitted in SA by some speakers including myself, is much rarer. Consequently, I have proposed the hierarchy given in (12).



## 12) Raising Hierarchy:

1)2)3

specifying the eligibility of nominals for raising in universal grammar. The hierarchy thus obviates the need for Postal's (1974) and Seiter's (1983) proposals regarding raising nominals since it is more general and can account for a wider range of clauses involving raising. While Postal suggests that only subjects can raise, Seiter claims that direct objects in addition to subjects can. Data from SA, however, run counter to their proposals.

Though the hierarchy seems to be promising, it is tentative and needs further research drawing upon data from various natural languages. Likewise, raising of final 3s in SA requires further research drawing upon the judgements of a large sample of consultants since the native speakers I have consulted seem to be divided among themselves in reference to the grammaticality of clauses involving raising of 3s.

Finally, this investigation has put SA into universal perspective. The characterization of the constructions I have researched follows from universal laws posited within the theory of RG. Consequently, SA resembles those languages studied within the relationally-based framework despite the fact that it may differ from them in terms of word order, verbal and nominal morphology. It goes without saying, therefore, that Standard Arabic further bolsters the universal status of Relational Grammar as a syntactic theory that purports to account for syntactic structure cross-linguistically.

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## Appendix

### PREDICATES DETERMINING INITIAL UNERGATIVITY VS. INITIAL UNACCUSATIVITY

In section 4.2, it was indicated that initial unergativity vs. initial unaccusativity is determined by the semantics of the clause. There, examples are provided from English. However, it is maintained that predicates with equivalent meanings in other languages will behave in the same way with respect to this issue. (Perlmutter 1978: 162). Following is a list of some classes of predicates determining initially-unergative and initially-unaccusative strata in SA.<sup>1</sup>

#### (1) Predicates Determining Initial Unergativity

##### a) Predicates Describing Volitional Acts

Verbs in this class have the semantic features (+volitional, +agentive). The following belong to this category:

1) laʕiba	'to play'	raqaşa	'to dance'
sabaħa	'to swim'	şalla	'to pray'
na:ma	'to sleep'	rakaşa	'to kneel down'
ḍaħika	'to laugh'		
tabassama	'to smile'		

Illustrative sentences are:

- 2) ḍaħika l-muʕallim-u ʕala t-tulla:b-i (active)  
laughed the-teacher-Nom at the-students-Obl

'The teacher laughed at the students'

- 3) ḍaħika ʕala t-tulla:b-i (passive)  
Pas+laughed at the-students-Obl

'It was laughed at the students'

## b) Motion Verbs

In this class, verbs are characterized by the features (+motion, +agentive, +directional). Verbs belonging here include the following:

4) maša:	'to walk'
rakaða	'to run'
jalasa	'to sit down'
sara:	'to go or travel by night'
maraqa	'to cross; to pass'
tałaða	'to climb'
hajama <sub>2</sub>	'to attack'
baraka	'to kneel; to lie down'

Sentences are:

- 5) maša 1-ða:mił-u fi 1-mašnađ-i  
walked the-worker-Nom in the-factory-Obl  
  
'The worker walked in the factory'
- 6) mušiya fi 1-mašnađ-i  
Pas+walked in the-factory-Obl  
  
'It was walked in the factory'

## c) Sound Verbs

Members of this class have the features (+sound; +agentive), and are exemplified by the following:

7) baka	'to weep; to shed tears'
šaraxa	'to cry out for help'
ša:ha	'to shout loudly'
nabaða	'to bark'
đawa	'to howl'
nađaba	'to croak; to cry out'
na:ða	'to coo, i.e., dove; to bewail the death of; to wail'
sajaða	'to coo'
hadala	'to coo; i.e., dove'
šahala	'to neigh; i.e., horse'
šaxara	'to snore'
našaja	'to be shocked with tears'
nađaqa	'to cry out to sheep; to croak'

Sentences are:

- 8) nabaha 1-kalb-u fi s-sayya:rat-i  
barked the-dog-Nom in the-car-Obl

'The dog barked in the car'

- 9) nubiha fi s-sayya:rat-i  
Pas+barked in the-car-Obl

'It was barked in the car'

(II) Predicates Determining Initially-Unaccusative Strata

d) Innate Predicates

The predicates in this class have the semantic features (+innate; -agentive) in common. They denote an innate peculiarity of character of an acquired state. Further the subject is affected by the event.

The members of this class include such predicates as:

10) hasuna	'to be or become beautiful'
saḡura	' " " " " small'
qaṣura	' " " " " short'
saḡuma	' " " " " fat'
maluḡa	' " " " " salty'
ṡaquia	' " " " " heavy'
kabura	' " " " " big'
ṣajuḡa	' " " " " brave'

Sentences are:

- 11) ḡasunati 1-bint-u (wajh-an) (active)  
be beautiful the-girl-Nom (as to the face-Acc)

'The girl has a beautiful face'

- 12) \*ḡusin-a (wajh-an) (Passive)  
Pas+became beautiful-3ms (as to the face-Acc)

(It has a beautiful face)

## e) Predicates of Non-Volitional Falling

The semantic features common to the predicates belonging to this category are (+unv. fall; -agentive). The first feature expresses "movement into or upon something unvolitionally". The subject does not, however, instigate the action. Such predicates are:

13) hawaa	'to fall down from a high place'
saqata	'to fall'
waqaqa	'to fall'
qaθara	'to stumble'
ɣariqa	'to sink'
saala	'to flow, to stream'

Sentences are:

- 14) hawa l-mutasalliq-u qala l-?arq-i  
 fell the-climber-Nom on the-ground-Obl  
 'The climber fell down on the ground'
- 15) \*huwiy-a  
 Pas+fell-3ms  
 (It was fallen)

## f) Predicates of Unvolitional Visibility

These predicates have in common the features (+unv. vis, -ag). The (+unv. vis) feature denotes that "something is rising or going up unvolitionally". The (-ag.) feature shows that the subject does not do anything. Of these predicates are:

16) najama	'to become visible, i.e.,	horn'
faθara	" "	teeth'
nahada	" "	breast'
nabaqa	" "	water'
baθara	" "	pimple'

Sentences illustrating this class are:

- 17) najama 1-qarn-u  
came out the-horn-Nom

'The horn came out'

- 18) \*nujim-a  
Pas+came out-3ms

(it was come out)

#### g) Predicates of Natural Sounds

This class is characterized by the features (+NS, -ag). Such verbs as the following belong to this class:

- |           |   |
|-----------|---|
| 19) xarra | 'to produce a rustling sound, i.e., water'  |
| ħaffa     | 'to produce a rustling sound, i.e., leaves' |
| qaşafa    | 'to rumble, i.e., thunder'                  |
| şarra     | 'to roar, i.e., wind'                       |
| hadara    | 'to rumble, i.e., waves'                    |

An illustrative sentence is:

- 20) qaşafa r-raşd-u  
roared the-thunder-Nom

'The thunder roared/rumbled'

- 21) \*quşif-a  
Pas+roared-3ms

(It was roared)

#### h) Meteorological Predicates

The features (+Met., -ag) characterize this class. The (+Met) feature indicates conditions in terms of meteorology; of these verbs are:

- |            |                             |
|------------|-----------------------------|
| 22) wamaða | 'to shine, i.e., lightning' |
| baraqa     | 'to flash, i.e., lightning' |
| raşada     | 'to roar, i.e., thunder'    |
| şaşafa     | 'to blow, i.e., wind'       |
| maţara     | 'to rain'                   |
| faaða      | 'to overflow, i.e., water'  |

Sentences are:

- 23) maṭarati s-sama:ʔ-u  
rained the-sky-Nom

'It rained'

- 24) \*muṭir-a  
Pas+rained-3ms

(It was rained)

#### i) Affliction Predicates

The features (+Aff, -ag) characterize these predicates. The (+Aff) feature denotes that the "verb pertains to disease or defect". The (-ag) feature manifests that the subject nominal does not initiate the action. Rather, it is affected by an external agency. Such verbs include:

- |            |                            |
|------------|----------------------------|
| 25) warima | 'to become swollen'        |
| ṡawira     | 'to become one-eyed'       |
| ṡaraja     | 'to become lame'           |
| ḥadiba     | 'to become humpbacked'     |
| lawiya     | 'to writhe, i.e., stomach' |
| kasila     | 'to be lazy'               |
| saṡala     | 'to cough'                 |

The following sentences illustrate those predicates:

- 26) ṡawira l-muqa:til-u  
become one-eyed the-fighter-Nom

'The fighter is one-eyed'

- 27) \*ṡuwir-a  
Pas+became one-eyed-3ms

(It was become one-eyed)

#### j) Predicates of Change of State

These predicates have the features (+CS, -ag) in common. The (+CS)

denoted the change of the subject nominal's state. The (-ag) feature, on the other hand, indicates that the subject is not initiating the action, but is rather affected by the action of an external force. Of these verbs are:

28) ʒa:ba	'to melt'
tajamnada	'to freeze'
tabaxxara	'to evaporate'
ma:ta	'to die'
?iḥtaraqa	'to burn'
?iḥmarra	'to redden'
?iswadda	'to darken, to become black'

The following sentences illustrate those predicates:

29) ʒa:ba θ-θalj-u  
melted the-snow-Nom

'The snow melted'

30)\* ʒi:b-a  
Pas+melted-3ms

(It was melted)

#### k) Predicates of Happening and Existing

The features (+ha/ex, -ag) are characteristic of these predicates. The first feature denotes that something has come into existence, or ceased to exist, whereas the second feature indicates that the subject is only affected by the action. Such verbs include the following:

31) ?ixtafa:	'to vanish, disappear'
waqaʒa	'to happen'
ḥadaθa	'to happen'
našaba	'to break out, i.e., war'
?indalaʒa	'to break out, i.e., war'

Illustrative sentences are:

32) ?ixtafaa l-qamar-u  
vanished the-moon-Nom

'The moon vanished'



- 33) \*?ixtufiy-a  
Pas+vanished-3ms

(It was vanished)

### 1) Aspectual Predicates

This class has the features (+Asp, -ag). Predicates belonging to this class include the following:

- |            |                   |
|------------|-------------------|
| 34) bada?a | 'to begin, start' |
| tawaqqafa  | 'to cease, stop'  |
| ?istamarra | 'to continue'     |
| ?intaha:   | 'to end'          |

Sentences illustrating this class are the following:

- 35) bada?ati 1-muħa:darat-u  
began the-lecture-Nom

'The lecture began'

- 36) \*budi?-a  
Pas+began-3ms

(It was begun)

The foregoing categories of predicates are by no means inclusive. More classes can be given. Further, it is obvious that all the categories indicating unaccusativity have one semantic feature in common: it is (-Agentive).

### FOOTNOTES

1. Categories b, c, d, e, f, g, h and i are taken from El-Tikaina (1982).

2. Some verbs belonging to this class do not allow passives as noted by Saad (1975). Of these verbs are ja:?a 'to come', xaraja 'to go out, to come out' and ħahaba 'to go', illustrated in (i-ii):

(i) ja:?a 1-walad-u  
came the-boy-Nom

'The boy came'

(ii) \*ji:?-a  
Pas+came-3ms

(It was come)