

The Pronominal System in Standard Arabic:

Strong, Clitic and Affixal Pronouns

by

Salem Albuhayri

A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Arts

Approved April 2013 by the
Graduate Supervisory Committee:

Elly van Gelderen, Chair
Karen Adams
Roy Major

ARIZONA STATE UNIVERSITY

May 2013

ABSTRACT

This thesis investigates the pronominal system in Standard Arabic. It seeks to unravel the correlation between independent and dependent personal pronouns. Although both pronoun groups are treated as distinct parts of the lexicon, I argue that dependent pronouns are reduced forms derived from the strong counterparts. This study examines how these forms (reduced and non-reduced) relate to one another phonologically and syntactically. Various analytical tools are utilized including vowel harmony, syllable structure as well as some principles of Distributed Morphology and Chomsky's 1995 Minimalist Program.

With regard to the phonological relations, I argue that dependent subject pronouns are generated from their parallel strong forms by omitting the initial syllable. Dependent object pronouns are formed by omitting the first two syllables. The first person singular and third person plural masculine subject pronouns are suppletive forms completing the paradigm. They are not derived by reduction from their full counterparts.

After investigating the distributional properties of both sets of pronouns, I propose a bipartite subcategorization of reduced pronominals into two subclasses: clitics and affixes. Clitics surface in positions in which strong pronouns cannot occur. As for affixes, they are used to mark verb-argument agreement. In light of these positions, I argue that dependent subject pronouns are always affixes while dependent object pronouns are always clitics. Clitics function as syntactically independent units which combine with hosts at the phonological phase as a result of their prosodic deficiency while affixes associate with hosts when features are valued during a sentence derivation.

ACKNOWLEDGMENTS

I am indebted to all my committee members, Profs. Elly van Gelderen, Karen Adams, and Roy Major. They have been very supportive, not only while I was working on this thesis, but throughout my educational pursuit at ASU. I owe a huge debt of gratitude to my committee chair who has contributed substantially to this work through constant encouragement and invaluable suggestions.

I would like to thank Prof. Roy Major with whom I jotted down the initial ideas for this thesis during a research class in the spring 2012. Special thanks go to Prof. Karen Adams for her support and advice especially when I applied to the PhD program.

I would also like to express my sincere gratitude to my friends Muqbil Alanazi, Mohammed Alrashed, Badr Alharbi and Hamad Alshalawi for their help in making appropriate judgments on a large portion of the data employed in this work.

My heartfelt appreciation goes to all my family members, especially my brother Mohammed who has done everything in his power to help me remain focused through the last two years I have spent working towards my MA.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
LIST OF ABBREVIATIONS	vii
CHAPTER	
1 INTRODUCTION	1
Aim and Scope of Research	1
Cliticisation	2
Clitics vs. Affixes	5
Organization of the Thesis	7
2 AN OVERVIEW OF STANDARD ARABIC	9
A Brief Review of SA History	9
Phonetics and Phonology of SA	13
Sounds in SA	13
Syllable Structure in SA	14
Morphology of SA	15
Types of Morphemes	15
Word Formation Processes	17
Derivation	17
Inflection	18
Agreement and Case Affixes	19
Aspect and Mood Affixes	21
Syntax of SA	25

CHAPTER	Page
Word Categories	25
Word Order Variation	28
Word Order and Agreement	31
Conclusion	32
3 METHODOLOGY AND THEORETICAL FRAMEWORK	33
Data	33
Theoretical Framework	33
Syllable Structure	33
Vowel Harmony	34
X-bar Theory	35
Features Valuation and Agreement	36
Distributed Morphology	37
4 THE PHONOLOGY OF DEPENDENT PRONOUNS	39
Independent Personal Pronouns	39
Dependent Personal Pronouns	40
Dependent Personal Pronouns Formation	42
An Account of Dependent Pronouns' Variant Forms	45
Phonological Alterations Triggered on Host Words	48
Noun-pronoun Combinations	49
Verb-pronoun Combinations	52
Past Tense Verbs	54
Present Tense Verbs	58

CHAPTER	Page
Preposition-pronoun Combinations	60
Conclusion	61
5 THE SYNTACTIC DISTRIBUTION OF ARABIC PRONOMINALS	63
Distribution of Independent Pronouns	63
Strong Pronouns as Subjects in Zero-copula Sentences	63
Strong Pronouns as Arguments	66
Distribution of Dependent Pronouns	71
Dependent Pronouns Replacing NPs and DPs	71
Dependent Pronouns as Arguments vs. as Agreement	77
Conclusion	81
6 CONCLUSIONS	82
Thesis Summary and Contributions	82
Suggested Future Research	84
REFERENCES	85

LIST OF TABLES

Table	Page
1. Consonants of SA	13
2. Vowels of SA	14
3. Case Inflections for Singular, Dual and Plural Forms	20
4. Imperfective Verb's Prefixes and Suffixes	22
5. Independent Subject Pronouns	39
6. Independent Object Pronouns	40
7. Dependent Subject Pronouns	41
8. Dependent Object Pronouns	41
9. Dependent Subject Pronouns Formation	42
10. Dependent Object Pronouns Formation	43
11. Verbs Made of Full-fledged Consonants	54
12. Trilateral Verbs with Geminated Radicals	55
13. Denominal Verbs	56
14. Defective Verbs	57
15. Imperfective Verbs	58
16. Prepositions	60

ABBREVIATIONS

Abbreviations Used in Glosses

1	first person
2	second person
3	third person
*	ungrammatical sentence
Accu	accusative
Comp	complementizer
Fem	feminine
Gen	genitive
Imperf	imperfective
Masc	masculine
Neg	negative
Nom	nominative
Perf	perfective
Pl	plural
Sg	singular

Other Abbreviations

AdjP	adjective phrase
CA	Classical Arabic
CP	complementizer phrase
DM	Distributed Morphology
DP	determiner phrase

MSA	Modern Standard Arabic
NP	noun phrase
PF	phonological form
PP	prepositional phrase
QP	quantifier phrase
SA	Standard Arabic
Spec	specifier
TP	tense phrase

Chapter 1

INTRODUCTION

1.1 Aim and Scope of Research

Various aspects of language such as phonology, morphology and syntax are usually investigated as separate domains. However, these disciplines have profound bearings on one another. Interpreting particular linguistic phenomena is not satisfactorily accomplished unless the interfaces of two or more aspects of language are mutually considered. Indeed, multiple studies have already taken this ‘interface’ direction in that they seek multi-dimensional explanations for several linguistic phenomena. This current study is no exception and it will examine the processes through which dependent pronouns are formed in Standard Arabic (SA). The two questions below showcase the study’s interrelated interests which will be carefully scrutinized:

- 1- How are dependent pronouns formed from their independent parallels? In other words, how do they relate to one another phonologically? And what phonological alterations would they engender in their host words?
- 2- What is the syntactic distribution of dependent pronouns? That is, do they occupy the same syntactic positions as independent pronouns?

Generally, Arabic grammarians have dealt with independent and dependent pronouns as distinct lexical parts; that is, dependent pronominals have not been analyzed as reduced forms made from their full counterparts. The analysis presented within this work suggests that dependent pronouns are reduced forms generated from full pronouns and that they serve syntactic functions which full forms cannot satisfy. Given these functions, pronominals manifest as clitics or can be relegated to affixes. What is more,

reduced pronouns are not simply other variants from the unreduced. Rather, they are special clitics or affixes occupying different syntactical positions. The significance of this analysis lies in that clitics play different roles in syntax compared to affixes and, as a result, knowing what a particle is helps to determine the function it undertakes. Given that clitics and cliticisation are essential elements of this work, it is necessary to more fully delineate their nature and function in what follows.

1.2 Cliticisation

Cliticisation traditionally involves a reduction in the phonological realization of a word and thus entails integrating it into either a preceding or following word. Being prosodically deficient, a clitic is defined as a word that cannot stand on its own in a given structure but rather tends to cling to a host word (Gerlach, 2002: 2). It is not, however, a fixed condition for a clitic to have a nonclitic counterpart. Clitics lacking a nonclitic counterpart can be treated as an integral part of the lexicon of a language. To categorize, clitics usually represent deficient forms of functional items such as pronouns, determiners, auxiliaries, negation and question particles (Gerlach, 2002: 3).

A basic question arises: why are clitics created in the first place? Kaisse (1985) studies two main types of phonological processes in connected speech, one of which includes purely phonological alterations while the other includes morphologically and/ or syntactically driven alterations. According to Kaisse, the former is determined by rate of speech and it encompasses inter alia, merge, consonant assimilation, epenthesis, anaptyxis, resyllabification across word boundaries and stress reassignment. The latter process, on the other hand, has nothing to do with speech pace and it occurs regardless of phonology. Cliticisation produces elements which can be analyzed as phonological

alternants whereas in other instances they can be explicated as morphosyntactic elements serving structural functions. When analyzed as morphosyntactic items, clitics are characterized by syntactic deficiency in that they exhibit firm resistance to modification, coordination and contrastive stress. But their placement, nevertheless, is syntactically governed (Gerlach, 2002: 4-9).

Some words have a tendency to cliticise to other words in connected speech regardless of syntactic structures; they have shortened variants with which they can alternate almost unrestrictedly. For instance, *have* in English can encliticise to a preceding pronoun provided that it is not separated from it by any constituent (even a null one) (Radford, 2009: 126). A point worthy of clarification here is that *have* cliticisation is not due to syntactic or morphological stipulations but, nevertheless, can be barred by syntax (e.g. when a trace separates *have* from its host). In contrast, other words do not demonstrate any propensity to cliticise to others yet they must, in some positions, because their existence in full forms would be syntactically unacceptable. As Kaisse (1985) exemplifies, French object clitics seem to belong to the latter group: full pronominal forms exist unless their existence is banned syntactically. Alternation between full and shortened forms is not viewed as a choice but, rather, inevitability.

Cliticisation yields two sets of clitics, namely simple and special clitics (Kaisse, 1985: 39). Simple clitics are syntactically related to their full forms in that they occupy the same positions. On the contrary, special clitics differ in their distributional properties from their uncliticised forms as they tend to occur in different positions and fulfill distinct functions through fusing with a diversity of constituents. It follows that only special clitics can be treated as elements whose introduction to words is attributed to syntax. In

other words, simple clitics are to be analyzed within phonology while special clitics within the domain of morphosyntax.

Morphemes, including clitics, are susceptible to language phonology when existing in the derivation or inflection of a word (Anderson, 1992: 15). To be more concrete, let us consider the English third person singular *-s* (or pluralization *-s* in regular plurals). This suffix gets different phonological realizations determined by English phonology. It can be realized as [s] in a verb like 'walks' but [z] in a verb like 'goes'. In light of such phenomena, Anderson articulates his departure from the traditional treatment of various phonological realizations of a morpheme as allomorphs. They result from a morpheme's subjugation to language phonology.

Word formation could be likened to syntax as it incorporates empty categories, hierarchical organization, instances of movement and adjunction (Anderson, 1993: 69). Therefore, permutations in word forms, as noted earlier, can be construed as following from their syntactical positions. Gerlach (2002) elucidates that, in some languages, more than one clitic can be integrated into a single host word. Such clitic combinations may result in a different form of a clitic when it surfaces with another versus when in isolation.

In terms of to which word another can cliticise- i.e. the relative position of a host word to a clitic- two kinds of cliticisation are identified (Kassie, 1985; Gerlach, 2002):

A) *Encliticisation*, a process whereby a word cliticises to a leftward host. Clitics

produced this way are termed as enclitics.

B) *Procliticisation*, a process whereby a word cliticises to a rightward host. Clitics

yielded by this process are known as proclitics.

1.3 Clitics versus Affixes

Both clitics and affixes are considered to be bound morphemes; neither stands alone but rather they associate with free words for various reasons (Zwicky & Pullum, 1983: 502). Zwicky & Pullum provided examples for both morphemes from English. The pluralization *s* in words like '*knights*', the past tense *ed* in '*arrived*', as well as the comparative *er* and superlative *est* in '*bigger*' and '*biggest*', respectively, are all affixes whereas the reduced form of *has* or *is* in a sentence like '*she's gone*' constitutes a clitic. Zwicky (1977) terms clitics such as the one in the above sentence (*she's gone*) as simple: the clitics' existence is regarded as an option, not an obligation. That is, the use of the full form in the same position has no restrictions.

Zwicky et al (1983) established six criteria serving to distinguish clitics from affixes.

- a) Clitics demonstrate a lesser degree of selectivity in terms of potential hosts. They can cliticise to pronouns, nouns, adjective, prepositions, etc. (e.g. *is/has* can cliticise, inter alia, to nouns and pronouns). Affixes, on the other hand, exhibit greater selectivity with respect to stems with which they combine (e.g. plural *s* associate only with nouns).
- b) No gaps are evident in host-clitic combinations. So, if a clitic can combine with nouns, then there are no cases where it cannot. However, affixes can show anomalous gaps in which a given affix occurs with a word of a certain category yet it cannot with another of the same category. Zwicky et al drew the verb '*stride*', lacking a past participle form, as an example for such gaps.

- c) No morphophonological idiosyncrasies accompany host-clitic combinations. In other words, there is no case where a cliticisation can result in an unexpected phonological form of a host word. More interestingly, clitics may have variant realizations whose distribution depends on the phonological forms of hosts, thus contributing to preserving their original (free) forms from any alterations. On the other hand, unpredicted morphophonological eccentricities are common in affixation, a matter which subdivides forms into regular, subregular and suppletive. Examples from English include *feet* and *oxen* for the plural affix; *thought* and *went* for the past tense affix and *best* and *worst* for the superlative affix.
- d) Affixation can lead to semantic peculiarities over time while cliticisation cannot. A stem-affix combination may develop a semantic slant from its original meaning. Zwicky et al illustrates this phenomenon stating that the word *last*, etymologically a superlative from *late*, has come to mean *final* not only maximally *late* or *recent*.
- e) Syntactic rules affect stem-affix but not host-clitic combinations. A clitic and its host remain separate items syntactically (e.g. *she's* are treated as two constituents). An inflected word, on the contrary, is treated as a unit by syntactic operations. For example, '*arrived*' is viewed as one constituent, rather than two (i.e. "arrive" and the past tense affix).
- f) A clitic can attach to a host which already has a clitic but an affix cannot. According to Zwicky et al, a clitic combination such as '*I'd've done it*' is possible in English. E and F follow from the theoretical assumption that syntactic

operations always precede any cliticisation operation. Consequently, one can easily understand why a clitic group is not syntactically treated as a unit while an inflected word is and why, on the other hand, an affix cannot associate with a word which has a clitic. Cliticisation occurs later at the PF phase while affixation in the course of derivation.

Any particle has to be tested according to these criteria to definitively determine whether it is an affix or a clitic. However, Zwicky (1985: 285) indicates that there are instances where an indubitable clitic or affix may fail to exhibit clearly all the defining ‘symptoms’ because of some interfering factors.

1.4 Organization of the Thesis

This introductory chapter has briefly examined, in a multi-faceted manner, the notion of cliticisation with the aim of providing a ground for later discussions. Chapter 2 is mainly concerned with providing clear characterizations of the grammar of SA, the lingual milieu to which the issue under investigation belongs. The chapter features concise descriptions of phonology, morphology and syntax as well as a brief overview of SA’s history. Chapter 3 outlines the theoretical framework of the analysis and delineates the pertinent diverse apparatus used such as syllable structure, vowel harmony, X-bar theory, feature valuation and distributed morphology.

Chapter 4 looks specifically into the phonological correlation between independent and dependent pronouns; I provide an account of why a certain set of dependent forms have two or more variants. Moreover, on the basis of Zwicky’s 1983 lines of evidence that differentiate affixes and clitics, I attempt to determine the conditions which render dependent pronouns as clitics or affixes. Chapter 5 seeks to

illustrate the syntactic distribution of Arabic pronominals. I then propose subdividing pronouns into three categories: strong, clitic and affixal. Affixal pronominals are used mainly to check agreement features of verbs. Though clitics and strong (independent) pronouns can appear in structures as arguments, I contend that there are positions which only strong pronominals or clitics can rightly occupy. Chapter 6 provides a brief summary of all chapters as well as supposed contributions of the thesis.

Chapter 2

AN OVERVIEW OF STANDARD ARABIC

Standard Arabic is a compromised term I preferred over Classical Arabic (CA) or Modern Standard Arabic (MSA) since, I believe, that the analysis and discussion given herein applies to both. Though MSA noticeably differs from CA lexically and, to a lesser extent, stylistically, they are largely identical in grammar. Put clearly, the pronominal system is exactly the same (Ryding, 2005). In this chapter, I will preface my later analysis by supplying an overview of the historical evolution of Arabic coupled with relatively focused descriptions of its grammar.

2.1 A Brief Review of SA History

Arabic is a member of the Semitic language group encompassing Amharic, Aramaic, Hebrew, among others. Though Semitic languages belong to a wide family of languages called Afro-Asiatic, Arabic is distantly related to African indigenous languages subsumed under other branches of Afro-Asiatic languages (Ryding, 2005:1). During pre-Islamic era, Arabic was predominantly a spoken language; apart from transcribed poetry and orations, rarely was Arabic textually documented. In fact, some of the poetry produced was only documented centuries later in the wake of Islamic conquests (Brown, 2011: 24). Nevertheless, that antiquated language played a vital role in the development and persistence of standard forms of Arabic for centuries to come because pre-Islamic peoples were renowned for their inclination to compete with one another demonstrating a great command of language through poetry and oration. Such contests left a literary legacy and, of course, starting-points for later research fathoming Arabic structures. Ryding (2005) points out conflicting theories as to whether the language of Arabic odes

reveals a language shared by all Arabic-speaking people or it was a distinctively superior language exclusive to tribal leaders and poets. In particular, there is a significant question whether word inflections that poets were keen on demonstrating when presenting their poems were used in daily normal interactions (e.g. case markers).

The rise of Islam was the greatest catalyst for Arabic to become a prominent language. Formerly Arabic was used only by nomadic tribes concentrated in the Arabian Peninsula and surrounding areas. But following the revelation of Qur'an to the prophet Muhammad, Arabic gained a massive interest as many people began to dedicate themselves to studying and theorizing its structures because it has become a code of the new religion (Ryding, 2005: 3). In subsequent centuries, Islamic conquests have led to widening the geographical area where Arabic is spoken. As far as the Islamic empire expanded, Arabic has become the dominant language for civilization, writing and research, diplomacy and administration.

The language spoken during pre-Islamic and early post-Islamic eras is referred to nowadays as Classical Arabic and it has been claimed to have evolved from the standardization of the language of Qur'an and poetry (Aoun et.al, 2010: 1). CA documented, especially before Islam, was mostly in the form of poetry characterized by highly sophisticated poetic metrics. This poetic heritage serves as a window into cultural, intellectual, political and religious life of CA age (Brown, 2011: 24). Ryding (2005) tacitly states that CA has prevailed for a time span which lasted until the thirteenth century when people started to develop local vernaculars. Nevertheless, CA remained the literary language. This language era, extending to the eighteenth century, is designated as "middle Arabic". However, middle Arabic's characteristics have not been clearly

identified because, as noted, this period witnessed the evolution of local varieties which were spoken, but neither documented nor formalized (Ryding, 2005: 4). That is, linguists remained interested exclusively in the standard forms of language while they viewed dialects as defective varieties unworthy of linguistic inquiry. Despite disinterest in dialects, homegrown vernaculars must have had some influence on the standard language otherwise MSA would not have come to existence, heralding a third phase of Arabic evolution.

Synchronous interaction between CA and local vernaculars during the period of middle Arabic brought forth MSA. Despite being largely identical to CA in terms of structure, MSA differs to some extent in style and vocabulary. A large portion of CA vocabulary died out over time to be replaced by alternatives whose introduction to the language might be attributed to influence of dialects and other languages with which Arabic has been in contact.

Aoun et al (2010) point out that Arab academies in the twentieth century have contributed tremendously to the evolution of MSA in an attempt to preserve standard forms from the influence of dialectal varieties. Preserving Arabic from such influence is an endeavor to maintain a uniform codified variety used invariably, at least officially, by all Arabic speakers. Suleiman (2003) indicates that this endeavor has a political element as MSA is viewed as a sign of the Arab world unity. Furthermore, this modernization process also aims to adapt the language in a manner that would allow new items to be assimilated to it. As a result, institutions for Arabicization¹ have been built in several Arab cities (e.g. Damascus, Cairo, and Baghdad) and have received considerable support

¹ Arabicization is a process whereby Arabic equivalents for words transferred to it from other languages are coined

by experts and governments for the sake of setting up regulatory procedures which define approaches to arriving at unified coined terms equivalent to those that find their ways into Arabic. Those academic centers strive to cease borrowing words which might not be malleable to Arabic phonology, morphology and syntax. They seek to encourage coining equivalents that agree with Arabic grammar. By doing so, they believe that they would ensure averting any possibility for a gradual demise of Arabic as a result of its inability to absorb new terms and concepts.

Arabic is estimated to have more than 200 million native speakers today spreading throughout the Arab world from the Persian Gulf in the east to the Atlantic Ocean in the west (Gordon, 2005). Noteworthy is the fact that MSA is not spoken natively in any part of this enormous geographical area although it is regarded as the official language. Instead, children acquire vernaculars spoken by their families which are, in most cases, different from MSA at various levels. Those vernaculars, nevertheless, are noticeably mutually intelligible to most speakers of Arabic despite the fact that such intelligibility decreases gradually as distance between areas where they are spoken increases (Aoun et al, 2010: 2). Precisely defined, MSA is the formal variety of Arabic that is acquired at school and is used in the media and formal speeches. MSA serves as a vehicle for communication between educated Arabs regardless of which parts of the Arab world they call home (Ryding, 2005: 7). It is also considered the official language in all the countries affiliated with the Arab league.

Now that I have provided a brief sketch of the historical evolution of Arabic, it is appropriate at this juncture to delve into the description of its major phonological, morphological and syntactic characteristics relevant to this study. In the following

subsections, abridged characterizations of Arabic phonetics and phonology, morphology and syntax are established as a point of departure for analysis undertaken in later chapters. I allocate a slightly wider space to morphology as a result of Arabic high syntheticity.

2.2 Phonetics and Phonology of SA

2.2.1 Sounds in SA

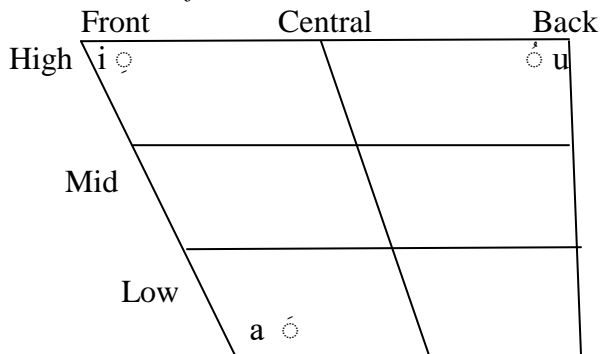
Arabic orthography has twenty eight characters representing twenty eight consonants and three vowels. Although Arabic has six vowels, every pair of which has the same quality but is different in quantity (three long vowels /i:/, /a:/ and /u:/ and three corresponding short vowels /i/, /a/ and /u/), short vowels are not symbolized by characters; rather, they are represented diacritically (Ryding, 2005: 25). Consonants and vowels of SA are given in the two tables below:

Table 1
Consonants of SA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	b پ			t d ط د ت ذ ب ب			k ك	q ق		ʔ ء
Nasal	m م			n ن						
Trill				r ر						
Tap or Flap										
Fricative		f ف	θ ð ث ذ ظ	s z س ز ص	dʒ ج	ʃ ش		χ ʁ خ غ	ħ ʕ ح ع	h هـ

Approximant	w و					j ي				
Lateral approximant				l ل						

Table 2
Vowels of SA



2.2.2 Syllable Structure in SA

Syllable structure is one of the apparatus employed in my later analysis of dependent pronouns and, hence, it is imperative to introduce it adequately. Holes (2004: 61) identifies six types of syllable structure in Arabic. Two are open and the rest are closed. According to Holes, an open syllable can either be Cv or Cv^v while a closed syllable can have one of four potential structures: CvC, Cv^vC, CvCC or Cv^vCC (v^v stands for a long vowel or a vowel changing in quality). A deduction is made out of these structures that neither complex-onset nor onsetless syllables are permissible in Arabic. To be clear, the following words exemplify SA's syllable types:

- a. /kataba/ 'he wrote' syllabified as [ka.ta.ba] (. signifies the boundaries of a syllable). All the syllables in this word have the structure Cv.
- b. /fii/ 'in' representing an example of Cv^v syllable.
- c. /marra/ 'he passed' syllabified as [mar.ra]. The first syllable constitutes an exemplar of the CvC syllable structure.

- d. /saabba/ 'he exchanged swearwords with someone' syllabified as [saab.ba]. The first syllable represents an occurrence of CvvC structure.
- e. /harb/ 'war' considered a monosyllabic word if it precedes a pause in speech providing an illustration of CvCC syllables.
- f. The final vowel in the expression /saabba/ in (d) above is dealt with as a suffix denoting a third person singular subject. However, in pre-pausal positions, it can be eliminated. Its elimination alters the pronunciation of the word to [saabb]. This alteration in phonetic realization triggers a resyllabification of the word to be monosyllabic rather than disyllabic. A CvvCC syllable is the result.

It is worth mentioning that there is a tendency to neutralize vowel length word-finally and in closed syllables where it is not contrastively distinctive (Pavel, 1974: 11). Furthermore, stress assignment in Arabic is deemed as a weight-driven process (Comrie, 1990; Halpern, 2009): the heavier a syllable, the more likely it is to attract stress. Syllable weight varies according to the number of segments it has in its rhyme. Simply, more segments mean more weight.

2.3 Morphology of SA

2.3.1 Types of Morphemes

Like all other Semitic languages, Arabic is distinct for its rich morphology and therefore is viewed as more of a synthetic language. Two main types of morphemes are identifiable in Arabic, root and vocalized morphemes (Pavel, 1974: 8). Root morphemes- abstractions which can be biconsonantal, triconsonantal, quadriconsonantal or even consisting of more than four consonants- constitute the fundamental bases for lexical meanings. Vocalized morphemes, on the other hand, are basic stems with which

inflectional and derivational affixes are associated, and they are formulated through inserting discontinuous (non-sequential) vocalic morphemes to roots (Holes, 1995: 81). So, stems are made by combining roots with intercalated vowels (vocalic melody) prior to any suffixations and/or prefixations (Watson, 2007: 126). It follows that there exist three phases of word formation involving the three following elements:

- 1- Consonantal melody,
- 2- Vocalic melody,
- 3- Affixations.

Ryding (2005: 47) points out that a root denotes a semantic field within which forms with actual lexical meanings materialize. To illustrate these two types of morphemes, let us consider the root *ktb*, a triconsonantal basic root which carries the semantic sense of 'writing'. Many words can be derived from this root through interpolation of discontinuous vowels including, but not limited to, *kitaab*, *maktuub* and *kaatib* meaning 'book', 'written' and 'writer' respectively. Quite observably, in addition to vowels, new consonants- i.e. sounds not part of the consonantal root- occur in vocalized stems generated from the basic roots (e.g. /m/ in *maktuub* 'written'). Those additional consonants are drawn from a defined set of sounds involving /s/, /n/, /t/ and /m/. The functions served by these sounds and the canonical positions they could occupy with respect to the radicals of a specific root shaped a thread of research pursued by McCarthy (1981) who concluded a kind of template which regulated the canonical distribution of such consonants.

This type of morphology is referred to by McCarthy (1981: 373) as nonconcatenative; in such morphology, roots cannot simply be arrived at by a left-to-

right or a right-to-left dissection of prefixes and suffixes. In short, words which belong to the same morphological paradigm, by no means, can be traced back to a concatenated isolable morpheme. Furthermore, neither roots nor vocalic patterns can function in isolation.

McCarthy elucidates that nonconcatenative morphology involves deriving words through reduplication, infixation and morphologically-stipulated ablaut among other processes. In some cases, word formation may involve gemination (elongated consonants) where a radical of the root is doubled. For instance *kuttaabun* ‘writers’ involves, besides discrete vowels insertion, geminating the second radical of the root *ktb*.

Discontinuous vocalic morphemes do not appear to be arbitrary given that they tend to add consistent grammatical meaning to roots. For example, the difference in vocalism between *kataba* ‘wrote’ and *kutiba* ‘was written’ is a reflection of a difference in voice. The former form is active whereas the latter is passive (McCarthy, 1981: 375).

2.3.2 Word Formation Processes

2.3.2.1 Derivation

The upshot of the above discussion is the fact that, as far as roots and stems are concerned, there are two main types of word formation processes in Arabic². The first is root-internal requiring an insertion of a discontinuous vocalic pattern with the root. The second occurs on stems’ peripheries through affixation (Pavel, 1974: 8). The former is most likely derivational and, hence, forms new words of variant grammatical categories (e.g. *kataba* and *kaatib*: the first is a verb meaning ‘wrote’ but the second is a noun

² Ryding (2005) outlines a host of word formation processes which include blending, compounding, coining, to name few. However, the full gamut of these processes is largely irrelevant to the purpose of this work.

meaning ‘writer’). On the other hand, the latter, contingent on affixation, is always inflectional and reflects grammatical functions a word can undertake in syntax.

Greenberg (1950, as cited in Pavel 1974) indicates that root morphemes patterns exhibit some restrictions on the types of consonants that they incorporate. Those morphemes have the general template $C_1...C_2...C_3...$. One such restriction is that no geminate is allowed to occur in the first two slots of the template but it can occur elsewhere. Moreover, hardly do homorganic consonants- sounds produced from the same area of the vocal tract- appear within the same root morpheme.

Vocalic patterns superimposed on root morphemes have their restrictions, too. Every discontinuous pattern should at least contain a short vowel and a maximum of two long ones occurring in different slots between the consonants of a root (Pavel, 1974: 9). Diphthongs can also appear as constituents of vocalic patterns. As indicated earlier, some of these patterns can serve relatively fixed grammatical functions (e.g. changing voice, transitivity) as each one assumes introducing an unchangeable semantic slant to roots.

2.3.2.2 Inflection

Besides vocalic patterns slotted into roots, Arabic morphology has a variety of affixes used to signify different features of verbs, nouns, pronouns and adjectives involving aspect and tense, voice, mood, person, gender, number, case and definiteness (Ryding, 2005: 51). In regards to number, Arabic marks three different forms: singular, dual and plural. Dual and plural forms have certain suffixes that, when affixed to singular forms, take a shape of two possible forms depending on the position a form occupies in a given structure and, subsequently, the case it would receive (table 3 below). Besides their

number and gender inflections, nouns inflect for cases and definiteness. In terms of their declinability, nouns are subgrouped into: triptote declining for three cases, diptote declining for two cases and indeclinable.

Verbs inflect for aspect/tense, mood and voice. They further get marked for agreement with nouns. Verb-noun agreement can either be complete or partial according to sentence structure and whether it is SV or VS (van Gelderen, 1996: 754). As for adjectives, in addition to their case inflections, predicative and attributive adjectives can show agreement with nouns. Attributive adjectives display agreement with their attributed nouns in gender, number, case and definiteness (Watson, 2007: 3-4). In Arabic, there exists a variety of agreement types that incorporate verb-subject, topic-verb, topic-comment and noun-pronoun agreement (Khalil, 1999: 244).

2.3.2.2.1 Agreement and Case Affixes

Pavel (1974) points out that affixes in Arabic, be they for case, mood, aspect, voice or agreement, have a set of specified forms: v, vv, C, a diphthong, Cv and vC. To illustrate the aforementioned types of affixes, let us consider the following example sentences:

(1) a. ʔal-mudarris-uu-n shaahad-uu ʔ-ʔaalib-a fi l-faʕl-i

the-teacher-nom.masc.pl see-perf.3pl.masc. the-student-accu in the-class.gen

“The teachers saw the student in the class”

b. qaabal-a r-rajul-u ʕadiiq-a-hu

meet-perf.3sg.masc. the-man-nom friend-accu.3sg.masc

“The man met his friend”

c. nahunu raʔay-naa l-mudarris-ii-n

we see-perf-1pl. the-teacher-accu

“We saw the teachers”

-*uu-n* suffixed to *mudarris* ‘teacher’ in 1a above has a twofold function. On the one hand, it signifies plurality and, on the other, it demonstrates that the noun has a nominative case. -*uu* affixed to the end of the verb *shaahad* ‘saw’ is a marker exhibiting agreement with the preceding subject nominal in person, gender and number (an SVO structure). -*a* and -*i* suffixed to the end of *taalib* ‘student’ and *fasl* ‘class’ indicate accusative and genitive cases, respectively. In 1b, -*u* suffixed to *rajul* ‘man’ is a nominative case marker.

In 1c, -*ii-n* suffixed to *mudarris* ‘teacher’ is a plural suffix, a variant of *uu-n* used in 1a. It is employed when a plural has the accusative or genitive case. Phonologically, the consonant /n/ in dual and plural morphemes is omitted when such forms are used in construct state structures³. *Mudarris-uu l-maadat-i* ‘the course’s teachers’ is an example where /n/ is omitted when an undefined plural is annexed to a definite noun. The omission of /n/, while preserving case and form as dual or plural, strongly suggests that it is not actually part of the morphemes. Rather it is similar to nunation in indefinite singular forms- e.g. ‘*kitaabun*’ ‘book’- but it disappears exclusively in construct states while singular nunation disappears in both definite and construct states (Ryding, 2005: 166). The following table contains case marking suffixes for singular, dual and plural forms. Suffixes marking case for dual and plural are also considered morphemes that form duals and plurals.

Table 3
Case suffixes for singular, dual and plural forms

	Nominative	Accusative	Genitive
--	------------	------------	----------

³ Construct state is a process whereby an indefinite word is made definite by means of annexation to a definite one.

Singular	/u/	/a/	/i/
Dual	/aa/	/ay/	/ay/
Masculine plural	/uu/	/ii/	/ii/
Feminine plural	/u/	/i/	/i/

The clitic *-hu* in 1b is a third person singular masculine pronoun referring back to the antecedent *rajul*. It brings definiteness to the otherwise indefinite noun *ṣadiiq* ‘friend’. In 1c, *-naa* attached to *raʔaa* ‘saw’ is a second person plural marking verb-arguments agreement. A notable observation here is that *-hu* and *-naa* are members of a large set of elements described as dependent pronouns. To this set belong a number of object and possessive pronouns which can cliticise to nouns and verbs (Watson, 2007, p. 4). This set includes other dependent pronouns dealt with as structural subjects of sentences by Arabic grammarians. They could be designated as subject dependent pronouns. In their analyses of Arabic pronouns, Fassi (1993) and Shlonsky (1997) termed those dependent pronominals as “weak pronouns” relative to independent pronouns which are designated “strong pronouns”.

2.3.2.2.2 Aspect and Mood Affixes

Besides agreement markers, there are other affixes which can be prefixed to verbs to change their aspect or tense- from perfective or past to imperfective or present or future. In some cases, certain suffixes are stipulated. Aspect and tense are used interchangeably because, as Ryding (2005) illustrates, they overlap in Arabic. Past tense verbs encode completed actions while present and future tense verbs encode ongoing or yet-to-occur actions. Aspect affixes lead to alterations in verbs vocalisms and consonantisms. These aspect-changing affixes are exhibited in the table below which displays how the verb *kataba* ‘wrote’ can inflect to reflect imperfective aspect (AlShammiry, 2007: 33; Aoun et al, 2010: 21).

Table 4
Imperfective verb's prefixes and suffixes

	Singular	Plural	Dual
1 st person	ʔa-ktub(u) ⁴	na-ktub(u)	
2 nd person masc.	ta-ktub(u)	ta-ktub-uu(na)	ta-ktub-aa(ni)
2 nd person fem.	ta-ktub-ii(na)	ta-ktub-na	ta-ktub-aa(ni)
3 rd person masc.	ya-ktub(u)	ya-ktub-uu(na)	ya-ktub-aa(ni)
3 rd person fem.	ta-ktub(u)	ya-ktub-na	ya-ktub-aa(ni)

Imperfective prefixes inherently imply person features but not gender and number features. Nevertheless, they do not always require suffixes to reflect gender and number. I will account for this idiosyncratic tendency in chapter four when clear characterizations of pronouns are given (since subject markers are pronominals). A final point in this regard is that imperfective verbs containing a present or future time reference are constructed by prefixing *sa-* or *sawfa* to an imperfective form (Ryding, 2005: 52).

Despite analyzing those prefixations and verb-final subject markers as aspect markers, Aoun et al (2010) maintain some reservations on such analyses claiming that those elements are agreement markers and have nothing to do with tense or aspect. On the basis of their analysis, existence of tense and aspect inflections in SA is dubious. Rather, these two features might be represented by abstract rather than concrete morphemes. They also discount the viewpoint that changes in vocalic melodies of verbs are aspectual/ temporal markers. They argue that those vocalic changes are nothing but phonological alterations triggered by agreement marking.

Mood is a rather elusive element of morphology. Scholarly analyses have come to support the claim that mood inflections in Arabic associate only with imperfective verbs to highlight the indicative, subjunctive, imperative and jussive moods (Abboud

⁴ All elements occurring in parentheses are mood markers, which are in some cases preceded by subject markers separated from the last radical of the verb, *b*, by dashes.

&McCarus, 1983: 263-266). Lansing (1891: 52), however, holds that indicative mood can also surface with perfective highlighting direct narration, factual statements and straightforward questions. The subjunctive mood is utilized when expressing a certain attitude towards verbal actions such as volition, intent, purpose, doubt, attempting, ability, hope or necessity. The jussive mood is used in conditional sentences and when a verb is preceded by *lam* ‘negative particle’, *laa* ‘negative command particle’ or *li-* ‘indirect command’. The imperative mood expresses commands and orders and is derived on the basis of jussive mood verbs (Ryding, 2005: 609-633).

In most cases, verbs contain a subject marker and a mood affix. The choice of the mood affix, however, is, to a large extent, determined by the subject marker. To be clear, I offer here the following two sentences containing imperfective verbs in the indicative mood. Notice that their mood suffixes are different as a result of variation in subjects.

- 2) a. *ʔana* *ʔa-drus-u* *bi-jidd-in*
 1sg. 1sg-study-mood. with-perseverance-gen.
 “I study hard”
- b. *ʔanti* *ta-drus-ii-na* *bi-jidd-in*
 2sg.fem. 2 sg- study-2sg.fem- mood. with-perseverance-gen.
 “You study hard”

In 2a, *ʔa-drus-u* ‘I study’ is marked as an indicative by the suffix *-u*. In 2b, *ta-drus-ii-na* ‘you study’ gets this same mood signified by the suffix *-na*. The reason behind variation in suffixes indicating one mood in these two sentences is attributable to variation in subject-signifying markers; *ʔa-* in 2a implies a first person singular while the discontinuous morpheme *ta-ii* in 2b signals a second person singular feminine. Two other

subject-denoting discontinuous morphemes require indicative mood to be realized on the surface by suffixing *-na* or *-ni* to an imperfective verb: *ta(ya)-uu* and *ta(ya)-aa*. The former implies a second or third person plural masculine referent whereas the latter a second or third person dual (gender-neutral) just as exhibited in table 4 above. These three suffixes, *-u*, *-ni* and *-na*, although unrelated phonologically, are relatable when dealt with as variants of the indicative mood-denoting morpheme.

Subjunctive verbs are characterized by being preceded by one of the following elements: *Lan* ‘a future negative particle’ and *li-*, *kay* or *likay* ‘future purpose expressing particles’ (Ryding, 2005). While indicative mood is realized by suffixing *-u*, *-ni*, or *-na*, subjunctive mood is realized through suffixing *-a* or omitting *-ni* and *-na*. Below are examples of subjunctive mood suffixes:

- 3) a. *lan na-ðhab-a ?ila l-madrasat-i*
 neg. 1pl-went-mood. to the-school- gen.
 ‘We will not go to school’
- b. *lan ta-ðhab-uu*(na) ?ila l-madrasat-i*
 neg. 2-went-2pl.masc. to the-school-gen.
 ‘You will not go to school’
- c. *lan ta-ðhab-aa*(ni) ?ila l-madrasat-i*
 neg. 2-went-2dual. to the-school-gen.
 ‘You will not go to school’

In 3a, the verb subjunctivization is signaled by the ending *-a*, while in 3b and 3c by omitting *-na* and *-ni* that would exist had these verbs been in the indicative mood. In

other words, 3b and 3c will be ungrammatical if their verbs are uttered with *-na* and *-ni* endings.

In a much similar way, jussive verbs are formed by eliminating *-na* or *-ni*, in case a verb ends with one of these suffixes, or by eliminating the indicative or subjunctive mood short vowels *-u* and *-a*. If the mood in 3a is changed to jussive, then the verb will become *na-ḏhab* ‘we go’. However, 3b and 3c will maintain their verb structure when jussivized.

Imperative mood is formed on the basis of jussive mood forms through a composite process which involves dispensing with subject-denoting prefixes as well as eliminating suffixes signifying the indicative and subjunctive moods. However, eliminating subject markers sometimes results in forms that may not be compatible with Arabic phonology, thereby, triggering phonological alterations (Ryding, 2005: 623). Significantly, jussive and imperative moods can show some variation in verb forms depending on the number of radicals in a consonantal root and their phonological features.

2.4 Syntax of SA

2.4.1 Word Categories

From a traditional-grammar viewpoint, different word categories exist in Arabic including lexical (substantive) and functional words. To the lexical category belong verbs, nouns, adjectives, adverbs and prepositions. A diversity of nominal types is subsumed under nouns involving deverbal, place, instrument, genric, and diminutive nouns among many others (Ryding, 2005: 75-99). Deverbal nouns derivation is highly predictable according to a set of measures (Abboud and McCarus, 1983). Adjectives

either are predicative occurring in zero-copula structures functioning as comments or attributive (Watson, 2007). Similarly, Adverbs are employed to fulfill two major needs: they intensify degree or demonstrate manner. They can occur with noun phrases to form place or time adverbials.

The prepositional group contains a constellation of elements used mainly to emphasize spatial and/or temporal bonds between constituents of a given sentence. Some prepositions function as connectives expressing optionality, adversativeness, purposefulness and other relational nexus. They also can occur in conjunction with verbs in various structures to express numerous context-bound meanings (Ryding, 2005: 366).

As in many languages, the functional category in Arabic encompasses determiners quantifiers, pronouns and complementizers. The definite article, *ʔal-*, is viewed as a determiner in many analyses (e.g. Mohammad, 1988; Benmamoun, 2000). Determiners naturally tend to be associated with definiteness. A noun can be made definite either morphologically by prefixing *ʔal-* or syntactically by getting annexed to a definite noun (construct state). Demonstratives, a special type of determiners, can be used to replace or qualify nouns; they indicate proximity to or distance from a speaker (Wickens, 1980: 61). When used as qualifiers, demonstratives precede nouns and function as appositives. Demonstratives, like pronouns, vary according to person, number and gender features.

Quantifiers are nouns that are used to express quantities and are subgrouped into expressions of totality, partiality and wholeness (Ryding, 2005: 228). They can exist as first members of construct phrases with cases assigned in light of their syntactic positions (e.g. subject, object). In some structures, quantifiers can appear as appositives and, as a

result, take on cases identical to the nouns with which they are in apposition (Ryding, 2005: 232). One final note on quantifiers is that they can host pronominals in a fashion similar to verbs and other nouns. The pronominal system in Arabic is replete with a set of pronouns, which are either independent (strong) or dependent (reduced) (Pavel, 1974).

Provided below are example sentences to illustrate some of the above theoretically presented descriptions of word categories:

- 4) a. *ʔal-kitaab-u* *jadiid-un*
 the-book-nom. new-nom.
 “The book is new”
- b. *ʔištara-y-tu* *baʔḍ-a* *l-kutub-i*
 bought-1sg. some-accu. books-gen.
 “I bought some books’
- c. *haaḏaa* *ʔal-kitaab-u* *jadiid-un*
 this the-book-nom new-nom.
 “This book is new”

ʔal-kitaab-u ‘the book’ in 4a is a DP headed by the determiner *ʔal-* which is incorporated by the nominal head of the complementing NP *kitaab* (Mohammad, 1988; Fassi, 1993). *Jadiid-un* ‘new’ is a predicative adjective agreeing with the preceding nominal in number but not in definiteness. *Baʔḍ-a* ‘some’ in 4b is a non-specific quantifier functioning as an object- it is a head of a QP which has a DP complement. The whole QP *baʔḍ-a l-kutub-i* ‘some books’ is a construct phrase by which the quantifier is made definite by its

juxtaposition to the noun. In 4c *haaḏaa* is a demonstrative, an appositive to the noun *ʔal-kitaab*, and it is a head of a DP.

2.4.2 Word Order Variations

Three main types of clauses attested in Arabic are: VSO, SVO and OVS (Al-Sweel 1983: 56). SVO is regarded as the underlying syntactic structure forming the basis on which the others are derived. This derivation process incorporates verb movements around other constituents of a clause (Tucker, 2007). Although inexplicit, Al-Sweel's (1983), in his analysis of focusing in Arabic, alludes to a fourth type of structure, VOS. Such flexibility in word order is made possible by the fact that Arabic enjoys an intensive case-marking system which determines word function regardless of the order. All Word orders are illustrated by the following example sentences.

- 5) a. ʔiṣṭar-a Muḥammad-un al-kitaab-a (VSO)
 bought-3sg.masc. Muhammed-nom. the-book-accu.
 “Muhammed bought the book”
- b. Muḥammad-un iṣṭar-a l-kitaab-a (SVO)
 Muhammed-nom. bought-3sg.masc. the-book-accu.
 “Muhammed bought the book”
- c. ʔal-kitaab-a ʔiṣṭar-a Muḥammad-un (OVS)
 the-book.accu. bought-3sg.masc. Muhammed-nom.
 “Muhammed bought the book”
- d. ʔiṣṭar-a l-kitaab-a Muḥammad-un (VOS)
 bought-3sg.masc. the-book.accu. Muhammed-nom.
 “Muhammed bought the book” (Al-Sweel, 1983: 56)

Apparently, every one of the three elements (verb, subject and object) can precede any constituent of the clause without any significant alterations in the clause's overall semantic interpretation. Case marking, evidently, is essential in making these permutations possible. *Muhammad-un* occurs clause-medially in 5a, clause-initially in 5b and clause-finally in 5c and 5d; however, its function as a subject is preserved by virtue of its overt nominative case affix *-u*. The same applies to *al-kitaab-a*: it maintains its objecthood by means of its accusative case marker *-a*. Although unclear in 5 (a-d), variation in word order profoundly influences agreement inflections required on verbs, as will be shown later. Al-Sweel (1983) points out that forwarding a nominal, whether it is a subject or an object, is an emphasis technique known as focus. Therefore, slight differences in semantic interpretations of these clauses can be accounted for in terms of which element receives more focus.

A point to clarify at this juncture is that there exist words in Arabic whose case marking is not realized phonologically: all or some of their case markers are not spelled out overtly. Those are words which end with the long vowels /aa/ or /ii/, *Maḡṣuur* and *Manquuṣ* respectively (Rahim, 2005: 5). Such words place conceivable restrictions on order. Syllable structure restrictions provide an explanation of why these words do not accept the overt affixation of case markers. As illustrated earlier, Arabic syllables do not allow three vowels existing in succession. This feature, when words ending in long vowels are attempted to be case-marked, will be violated. That is, case markers of singulars are short vowels suffixed to words (see table 3) and, thus, if a case suffix is attached to a word with a long vowel at its end, the result will be vowels occupying three successive slots. When using these words, order permutations remain valid provided that

they do not obscure semantic interpretations. To be concrete, let us consider the sentence below.

6) Lamaa ḏ^ʕarab-at Hudaa
Lamaa hit-perf-3sg.fem. Hudaa

“Lamaa hit Hudaa” (Lamaa and Hudaa are feminine proper names)

In this example, there is an ambiguity as to who hit whom. What kind of structure is this? Is it SVO or OVS? The answer lies in which structure would easily provide clues as to what functions constituents undertake. Though common in language, OVS might seem to be anomalous and less frequent than SVO. Consequently, 6 would better be taken as SVO rather than OVS. And, therefore, *Lamaa* and *Hudaa* have nominative and accusative cases, respectively, but those cases remain latent rather than overt.

Word order variations have led to the emergence of multiple analyses of sentence structures suggesting that two types of sentences are extant: nominal and verbal. For example, there have been some arguments that sentences, like 5b and 5c above, which start with nominals are interpreted as being composed of a topic and a comment (Khalil, 1999). Such interpretation implies that comments can be sentential or non-sentential. Other analysts (e.g. Wickens, 1980; Wright, 1995; Fareh, 1995) contend that such sentences are verbal since they contain verbs no matter where they exist. Al-Sweel (1983) indicates that many Arabic grammarians find it difficult to accept such analysis of sentences like 5b with the argument that the governed (a subject) should not precede its governor (a verb). Not surprisingly, these conflicting analyses are of importance since they may have contributed to the emergence of diverse accounts provided for some recalcitrant phenomena such as agreement asymmetries.

2.4.3 Word Order and Agreement

As noted earlier, SA enjoys a variety of word order permutations made possible by its overt case inflections. Nevertheless, although order permutations do not considerably effect overall semantic interpretations, they impose different requirements on agreement inflections. Some structures necessitate verbs to be in full agreement with subjects- in person, number and gender- while others require only partial agreement (mostly in gender). This agreement paucity constituted a thread of research pursued by many linguists (e.g. Mohammad, 1990; Aoun et al, 1994; van Gelderen, 1996; Abdelhafiz 2005) who sought to unravel its subtleties. To be visualized appropriately, partial agreement is exemplified below.

- 7) a. ḍahab-a ṭ-ṭulaab-u ?ilaa l-madrasat-i
went-3sg.masc. students-nom. to the-school-gen.
‘The students went to school’
- b. ?at-ṭulaab-u ḍahab-uu ?ilaa l-madrasat-i
students-nom. went-3pl.masc. to the-school-gen.
‘The students went to school’
- c. ?ilaa l-madrasat-i ḍahab-a ṭ-ṭulaab-u
to the-school-gen. went-3sg.masc students-nom.
‘To school, students went’
- d. ?ilaa l-madrasati ?at-ṭulaab-u ḍahab-uu
to the-school-gen. students-nom. went-3pl.masc.
‘To school, students went’

Agreement asymmetries are quite evident in 7 (a-d). 7a showcases a VS structure in which the verb agrees with the subject in person and gender but not in number since the subject *t-ṭulaab-u* ‘students’ is a plural while the verb *ḏahab-a* ‘went’ contains a suffix implying a singular subject. Unlike 7a, 7b shows that the verb agrees completely (in person, gender and number) with its subject. 7c and 7d are provided to display that such asymmetries are dependent upon whether a verb precedes its subject or the reverse. In other words, beginning with any constituent does not influence agreement. What matters is the relative position of a verb to its subject and, subsequently, whether the structure is VS or SV.

2.5 Conclusion

Aspect and agreement are highly relevant to the current study as they both suggest that dependent pronouns, the focus of the present investigation, are key factors in their realization. As explained above, imperfective verbs have mood affixations and subject markers. On the whole, subject markers are drawn from the set of dependent pronouns. Full agreement of verbs with pre-verbal subjects is also expressed through attaching dependent pronouns to verbs. However, as I will reveal in chapter 5, dependent pronouns can also function as arguments. In some cases they appear in positions where independent pronouns cannot such as in prepositional and construct phrases.

Chapter 3

METHODOLOGY AND THEORETICAL FRAMEWORK

Studying clitics is a demanding undertaking because they stand at the interface of sound structure, word structure and sentence structure (Spencer & Luis, 2012). Therefore, this study utilizes a variety of principles from the domains of phonology, morphology and syntax. In this chapter, I provide a thorough description of the data and theoretical framework for my analysis of clitics.

3.1 Data

Given that SA is not spoken natively in any part of the Arabic speaking world, a vast majority of the data employed throughout this work is taken from Arabic grammar books. However, in some cases, though very restrictedly, I provide invented sentences for which I relied on grammar books, personal knowledge and other Arab linguistics majors to make judgments on their un/grammaticality.

3.2 Theoretical Framework

The apparatus employed in the present analysis are syllable structure, vowel harmony, X-bar theory, features valuation and some of the principles of distributed morphology. The following subsections briefly sketch these elements.

3.2.1 Syllable structure

Six types of syllable are attested in Arabic: Cv, Cvv, CvC, CvvC, CvCC and CvvCC (Holes, 2004). These structures vary in their distribution and frequency. The first three are believed to be more common and more flexible in terms of positional distribution as they can occur word-initially, medially or finally. Heavier syllables (i.e. syllables with more segments in their rhymes) are more likely to occur word-finally. To

avoid redundancy, I can merely refer to these structures in the previous chapter in which they are discussed and instantiated (see 2.2.2).

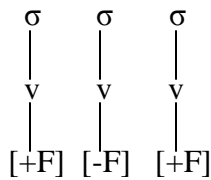
3.2.2 Vowel Harmony

Krämer (2003) points out that there is general consensus with regard to identifying vowel harmony as a phonological phenomenon triggered by feature interaction between vocalic segments, and it involves a vowel assimilating some of its features to be in harmony with another vowel. Nevertheless, conflicting standings have emerged on which one of all assimilation processes could be labeled ‘vowel harmony’. This seems to allude to potentially progressive or regressive harmony. Progressive harmony involves a vowel assimilating one or more of its features in order to be more consistent with another vowel occurring in a preceding syllable. On the other hand, regressive harmony, termed *umlaut* by Krämer, occurs when a vowel is influenced by another in a following syllable (i.e. backwards influence).

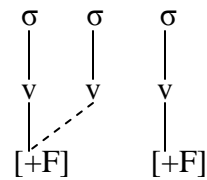
Taking this distinction into account, Krämer defines “vowel harmony as the phenomenon whereby potentially all vowels in adjacent moras or syllables within a domain like the phonological or morphological word systematically agree with each other with regard to one or more articulatory features”. This definition, as Krämer suggests, excludes *umlaut*, attested in languages such as German in which certain suffixations may require assimilation in some features of a vowel occurring in the root. The following representation helps clarify the concept of vowel harmony (Krämer, 2003: 3).

1) Vowel dis/harmony

a. disharmony



b. harmony



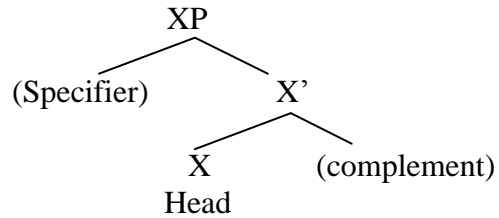
In 1b, the nucleus (vowel) of the second syllable assimilates its [-front] feature to harmonize with the vowel of the preceding syllable. Many other features are subject to the influence of vowel harmony including vowel height, backness, and roundedness among others. Krämer's definition, stated above, is the one adopted for the purposes of this study as it is used to account for vowel variation in many dependent pronouns.

3.2.3 X-bar Theory

Although it has been abandoned in favor of bare phrase structure proposed within Chomsky's 1995 minimalist program, X-bar theory forms the basis on which I rely to draw schematic representations of structures. However, it is not used as a means of argument substantiation. X-bar theory is a theoretical model of structural representation striving to depict human understanding of syntax. It manifests that sentences are not simply constructed from words strung together linearly. Rather, they are formed through hierarchical organization in which words are combined together to form phrases, structural units bigger than words but smaller than clauses (O'Grady et al, 2010).

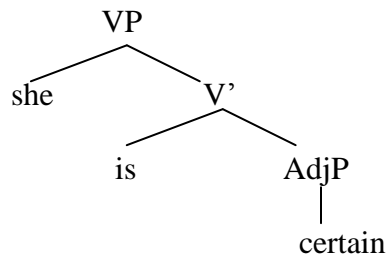
Kroch and Santorini (2007) point out that, based on X-bar theory, a phrase is broken down representationally into three minimal components: a head, a specifier and a complement. They are arranged schematically as shown below:

2)



This schema is comprised of three levels, X, X' and XP. Every phrase minimally has a head X which combines intermediately with its complement at the X' level and maximally with its specifier at the XP level. In other words, a phrase does not need to have all three levels. It can comprise a head only or a head and a complement. Sentences are combinations of phrases structured hierarchically following this model. For concreteness, let us consider the English sentence '*she is certain*'. It is depicted as follows:

3)



In 3 above, *is* is the head of the VP, *she* is its specifier and the AdjP is its complement. The adjective phrase has a head but no specifier or complement.

3.2.4. Features Valuation and Agreement

Words, be they nouns, pronouns or verbs, have different features including person, number, gender and case among others. Some of these features are interpretable while others are uninterpretable (Chomsky, 1995). Interpretable features are inherent in the semantic interpretations of lexical items and, thus, are valued before a word enters into derivation. Uninterpretable features, on the contrary, remain unvalued until an item is involved in a sentence derivation (Radford, 2009: 242-243).

Usually, when entering derivation, pronouns have their person and number already valued but not their cases. T-constituents have their tense, aspect and mood valued but not their person and number (ϕ -features). In the course of derivation, T-constituents probe for a potential goal, usually a noun or a pronoun, that would value their ϕ -features and in return they value its case (Radford, 2009).

3.2.5 Distributed Morphology

Distributed Morphology (DM), first proposed by Halle and Marantz (1993), is a framework within generative linguistics whose central tenet is that word formation is not an outcome of having a unified lexicon but rather a process distributed through other components of grammar. More to the point, words in DM are adumbrated as abstract morphemes dominated by terminal nodes which remain void of phonological information until they are fully manipulated by the syntactic component. That is, only when merge and movement entailed in derivation are complete do words get phonological actualizations; this principle of DM is known as Late Insertion (Bobaljik, 2012: 5). Moreover, morphemes in DM are defined as terminal formatives with bundles of grammatical features while vocabulary items as ties connecting strings of phonological information to the contexts in which they are inserted; it was on the basis of this perception that the Subset Principle is formulated according to which a vocabulary item matching the greatest number of grammatical features specified by a terminal morpheme is the one that must be inserted (i.e. Underspecification) (Halle, 1997). Harley and Noyer (1998) make a distinction between two types of morphemes within DM: f-morphemes and l-morphemes. The former type refers to morphemes whose morphosyntactic content is adequate to specify a certain spellout, whereas the latter involves morphemes whose

contents allow for competition among a variety of spellouts. A final premise of DM of paramount importance to this work is that morphosyntactic representations are syntactically structured in terms of their positioning and potential pre-PF movements (Bobaljik, 2012: 11). With all these arguments in mind, I attempt to provide a sensible account of how clitics function in syntax and at what stage cliticisation takes place.

Of importance at this point is to indicate that the terms ‘dependent’ and ‘reduced’ pronouns are used interchangeably in this work to designate a main set of pronominals, further divided, as I propose, into clitics and affixes. Independent ‘unreduced’ pronouns, on the other hand, are used to refer to another set which is defined as being strong.

Having provided a characterization of the general framework adopted for this work, I proceed in the following chapter into the first step of my analysis in which I investigate the phonological correlation between independent and dependent pronouns.

Chapter 4

THE PHONOLOGY OF DEPENDENT PRONOUNS

In what follows, arguments on how dependent pronominals in SA relate phonologically to strong pronouns are illustrated. The aim is to set a premium on my departure from traditional analyses (e.g. Al-afghaani, 1981: 95) that maintain that *ʔiyyaa* is the only independent object pronoun in Arabic. The problem with such an analysis is that *ʔiyyaa* does not possess any of the features interpretable for pronouns. It has to get them specified through certain suffixes. Both sets of personal pronouns are listed in the two following subsections as a frame of reference for later sections in which I delineate their structure and account for variation in forms exhibited by some of them.

4.1. Independent Personal Pronouns

Tables 5 and 6 below display subject and object independent pronouns according to their taxonomy in terms of person, number and gender features (Trager & Rice, 1954; Al-ghalaayini, 1993: 119).

Table 5
Independent subject pronouns

Romanized Forms	Arabic Forms	Features
ʔanaa	أنا	1 st sg.
naħnu	نَحْنُ	1 st pl.
ʔanta	أَنْتَ	2 nd sg.masc.
ʔanti	أَنْتِ	2 nd sg.fem.
ʔantumaa	أَنْتُمَا	2 nd dual
ʔantum	أَنْتُمْ	2 nd pl.masc.
ʔantunna	أَنْتُنَّ	2 nd pl.fem.
Huwa	هُوَ	3 rd sg.masc.
Hiya	هِيَ	3 rd sg.fem.
Humaa	هُمَا	3 rd dual
Hum	هُمْ	3 rd pl.masc.
Hunna	هُنَّ	3 rd pl.fem.

Table 6
Independent object pronouns

Romanized Forms	Arabic Forms	Features
?iyyaaya	إِيَّايَ	1 st sg.
?iyyaanaa	إِيَّانَا	1 st pl.
?iyyaaka	إِيَّكَ	2 nd sg.masc.
?iyyaaki	إِيَّكِ	2 nd sg.fem.
?iyyaakumaa	إِيَّاكُمَا	2 nd dual
?iyyaakum	إِيَّاكُمْ	2 nd pl.masc.
?iyyaakunna	إِيَّاكُنَّ	2 nd pl.fem.
?iyyaahu	إِيَّاهُ	3 rd sg.masc.
?iyyaahaa	إِيَّاهَا	3 rd sg.fem.
?iyyaahumaa	إِيَّاهُمَا	3 rd dual
?iyyaahum	إِيَّاهُمْ	3 rd pl.masc.
?iyyaahunna	إِيَّاهُنَّ	3 rd pl.fem

Tables 5 and 6 reveal a range of asymmetric features that can be summarized in the points below:

- a- In first person pronouns, SA does not show any distinction in gender. Also, first person dual pronouns do not exist. Plural pronouns are used to pronominalize dual referents. In this latter regard, Arabic is identical to English.
- b- In second and third person pronouns, SA shows distinction in gender in singulars and plurals, but not in dual forms.

4.2 Dependent Personal Pronouns

Dependent personal pronouns, which Bravmann (1977) called suffixal, are demonstrated in tables 7 and 8. Various analyses came to diverse conclusions as to whether these dependent pronouns are affixes or clitics. In the literature, they are indistinguishably referred to as clitics or affixes, but it is important to make a clear distinction when they function as clitics or affixes. The necessity of such a distinction

stems from the fact that clitics are syntactically different from affixes as they, despite leaning on hosts, remain distinct constituents.

Table 7
Dependent subject pronouns

Romanized Forms	Arabic Forms	Features
-tu	أَنْتَ	1 st sg.
-naa	أَنْتَا	1 st pl.
-ta	أَنْتَ	2 nd sg.masc.
-ti	أَنْتِ	2 nd sg.fem.
-tumma (-aa)	أَنْتُمَا (ل)	2 nd dual
-tum	أَنْتُمْ	2 nd pl.masc.
-tunna	أَنْتُنَّ	2 nd pl.fem.
-aa	أَنْتَا	3 rd dual
-wa /-uu/	أَنْتُمْ	3 rd pl.masc.
-na	أَنْتُنَّ	3 rd pl.fem.

Table 8
Dependent object pronouns in SA

Romanized Forms	Arabic Forms	Features
-ya /-ii/ /n-ii/	أَنْتَ	1 st sg.
-naa	أَنْتَا	1 st pl.
-ka	أَنْتَ	2 nd sg.masc.
-ki	أَنْتِ	2 nd sg.fem.
-kumaa	أَنْتُمَا	2 nd dual
-kum	أَنْتُمْ	2 nd pl.masc.
-kunna	أَنْتُنَّ	2 nd pl.fem.
-hu (-hi)	أَنْتُمْ (ه)	3 rd sg.masc.
-haa	أَنْتُنَّ	3 rd sg.fem.
-humaa (-himaa) (-aa)	أَنْتُمْ (ه) (ل)	3 rd dual
-hum (-him)	أَنْتُمْ (ه)	3 rd pl.masc.
-hunna (-hinna)	أَنْتُنَّ (ه)	3 rd pl.fem.

Dependent pronouns possess the same properties of strong pronouns indicated earlier. Moreover, it is of importance to note the lack of feminine and masculine third person singular subject pronouns. Null pronouns are used to pronominalize such referents. In tables 5-8, phonological relatedness between the two sets of pronouns is obvious. The analysis presented here is based on this salient phonological connection.

4.3 Dependent Personal Pronouns Formation

As evident in the tables, a large portion of dependent pronouns are shortened forms derived from their independent counterparts. Although they share some distributional properties with independent pronouns, they can occupy variant syntactic positions which full forms cannot (a point discussed in detail in chapter 5). When closely reflected on, the phonological structures of both sets of pronouns produce to the following theoretical arguments regarding their relation.

- a- Subject dependent pronouns are formed from independent peers by the omission of a syllable. For example, the reduced *-ta* ‘you’ (Cv), second person singular masculine subject pronoun, is formed from *?an.ta* ‘you’ (CvC.Cv), the strong form, by eliminating the first syllable (CvC). However, this rule has some excepted forms that are suppletive. These suppletive forms include first person pronouns and the third person plural masculine pronoun. Suppletion is an indication of affixal nature (Ziwicki & Pullum, 1983).
- b- Object dependent pronouns, on the other hand, are formed from their independent counterparts by the omission of the first two syllables. For instance *-ka* ‘you’ (Cv), second person singular masculine object pronoun, is formed from *?iy.yaa.ka* ‘you’ (CvC.Cvv.Cv) by eliminating the first two syllables (CvC.Cvv).

These phonological modifications are illustrated in the tables 9 and 10 so as to make them easier to conceptualize.

Table 9
Dependent subject pronouns formation

Strong forms	Reduced forms	Features	Phonological alterations
?an.aa	-tu	1 st sg.	Suppletive forms

nah.nu	-naa	1 st pl.	
?an.ta	-ta	2 nd sg..masc.	Formed by deleting the initial syllable ?an from the strong forms
?an.ti	-ti (-ya, /ii/)	2 nd sg.fem.	
?an.tumaa	-tumaa	2 nd dual	
?an.tum	-tum	2 nd pl.masc.	
?an.tunna	-tunna	2 nd pl.fem.	
hu.wa	-----	3 rd sg.masc.	
hi.ya	-----	3 rd sg.fem.	
hum.aa	-aa	3 rd dual	Formed by deleting the initial syllable <i>hum</i> from the strong form
Hum	-wa	3 rd pl.masc.	Suppletive form
hun.na	-na	3 rd pl.fem.	Formed by deleting the initial syllable <i>hun</i> from the strong form

Table 10
Dependent object pronouns formation

Strong forms	Reduced form	Features	Phonological alterations
?iy.yaa.ya	-ya, /-ii/ /n-ii/	1 st sg.	All formed by deleting the antepenultimate and penultimate syllables ?iy.yaa. (CvC.Cvv) from the strong forms
?iy.yaa.naa	-naa	1 st pl.	
?iy.yaa.ka	-ka	2 nd sg..masc.	
?iy.yaa.ki	-ki	2 nd sg.fem.	
?iy.yaa.kumaa	-kumaa	2 nd dual	
?iy.yaa.kum	-kum	2 nd pl.masc.	
?iy.yaa.kunna	-kunna	2 nd pl.fem.	
?iy.yaa.hu	-hu (-hi)	3 rd sg.masc.	
?iy.yaa.haa	-haa	3 rd sg.fem.	
?iy.yaa.humaa	-humaa (-himaa)	3 rd dual	
?iy.yaa.hum	-hum (-him)	3 rd pl.masc.	
?iy.yaa.hunna	-hunna (-hinna)	3 rd pl.fem.	

Observable in tables 9 and 10 is that the syllable omitted when reduced subject pronominals are formed can take one of three forms: *?an*, *hum* or *hun*. But the two syllables omitted in the formation of reduced object pronominals have a fixed form,

ʔy.yaa. Therefore, as recognized at the beginning of this chapter, some analysts posit that *ʔy.yaa* is genuinely the only independent object pronominal in Arabic and its person, number and gender features are expressed through various suffixes. According to this argument, forms under the second column in table 10 are viewed as mere suffixes and not as reduced forms that can function as clitics or affixes. The plausibility of such analyses, however, is questionable. Person, number and gender are supposed to be interpretable features for pronouns and, subsequently, do not require any affixations to manifest them (Radford, 2009: 243). Accordingly, each independent object pronoun should be viewed as one morphological unit, rather than being two units consisting of *ʔy.yaa* and a relevant suffix.

The formation of dependent pronouns yields elements that function as clitics in some positions and as affixes in others, a process that results ultimately in a tripartite taxonomy of pronominals. This tripartition can be schematized as shown below:

Strong pronouns > clitics > affixes

The sequence of this chain is based on various linguistic deficiencies that render affixes as the last link. At the phonological level, clitics and affixes are deficient because they cannot appear as independent forms in structures; they have to be integrated into host words. Morphologically, pronominal clitics are forms smaller than their independent parallels, and affixes can be equal to or even smaller than clitics. As I will show in chapter 5, all dependent pronouns with a variation in realization reveal that the shortest forms are affixes. Loss in phonological weight makes reduced pronouns more malleable in terms of the grammatical functions they undertake.

4.4 An Account of Dependent Pronouns' Variant Forms

Clear in the tables above is that some dependent pronouns have more than one variant: the first singular object pronoun has the form *-ya* but can also be realized as */-ii/* and *-n/-ii/*; the second singular feminine subject pronoun has two variants *-ti* and *-ya*, of which the latter is realized as */-ii/*; the third singular masculine object pronoun has two variants *-hu* and *-hi*; the third dual object pronoun has two variants *-humma* and *-himma*; and, finally, the third plural masculine and feminine object pronouns have the variant forms *-hum* and *-him*, and *-hunna* and *-hinna*, respectively.

In order to account for why these variant forms exist, they need be seen contextualized. Below are example sentences in which these forms are utilized:

8) a. haaḏaa huwa muḥaamiy-ya

this 3sg.masc. attorney.nom-1sg.

“This is my attorney”

b. twaka?-tu ʔalaa ʔaṣaa-ya

lean.imperf-1sg on stick-1sg.

“I leant on my stick”

c. haaḏaa kitaab-ii(ya)

this book -1sg.

“This is my book”

d. qaabal-a-n-ii Muhammad-un

meet.perf.1sg. Muhammad-nom.

“Muhammad met me”.

9) a. ʔan.ti katab-ti risaalat-an

2sg.fem write.perf-2sg.fem. letter-accu.

“You wrote a letter”

b. ?an.ti ta-ktub-ii-na risaalat-an

2sg.fem 2-write.imperf-2sg.fem-mood letter-accu.

“You are writing a letter”

c. ?u-ktub-ii risaalat-an

mood-write-2sg.fem. letter-accu.

“Write a letter.” (an imperative sentence)

10) a. ra?ay-tu-hu fa-ðahab-tu ?ilay-hi/ (hu)

See.perf-1sg-3sg.masc. and-go.perf.1sg. to-3sg.masc.

“I saw him and went to him”

b. katab-tu bi-qalam-i-hi

write.perf-1sg. with-pen-gen-3sg.masc.

“I wrote with his pen”

In 8a and b above, *-ya* (1sg.) takes this specific form, the one yielded originally by reduction from the corresponding independent pronoun *?iyyaaya*, whenever attached to a noun ending in a long vowel. Four types of nouns can have long vowels at their ends, *Maqşuur*⁵, *Manquuş*⁶, dual and sound masculine plurals. Duals terminate in /aa/ in nominative case positions while sound masculine plurals end in /uu/. Accordingly, 8a and b incorporate a *Manquuş* and *Maqşuur* nouns, *muħaamii*⁷ “attorney and *faşaa* “stick”

⁵ *Maqşuur* includes nouns ending in the long vowel /aa/.

⁶ *Manquuş* involves nouns ending in the long vowel /ii/.

⁷ *muħaamii* gets its final long vowel diphthongized as a result of its annexation to the pronoun – *ya* (1sg.).

respectively. So, they allow the pronoun to surface as *-ya*. Realizing the pronoun as a long vowel /-ii/ in these cases is phonologically impossible because it leads to a string of four vocalic slots in succession: this succession is not allowed by any syllable structure in SA. In 8c, the same pronoun can optionally surface as *-ii* or *-ya* as evident in *kitaab-ii/ya* “my book”. This optionality is possible whenever this pronoun is attached to a word ending in a consonant. Both combinations produce phrases with permissible syllable structures: [ki.taa.bii] or [ki.taab.ya].

In 8d, however, the same pronoun has the surface form *-nii* in *qaabal-a-n-ii* (ya) “he met me”; the explanation for this form resides in that the verb has two particles: *-a*, implying 3sg.masc, and *-ii* (ya), 1sg. Here, an epenthetic /n/ is inserted between the two particles in order to preserve the former from any deformation. That is, /n/ is not part of the pronoun but rather a segment epenthesized to maintain the first particle. But why is epenthesis important here? The answer is that the first particle is a subject marker, and it exhibits that the action is perfective. Although unepitomized above, imperfective verbs when attached to the same pronoun receives the epenthetic /n/ to preserve their subject markers (see table 4). As will be shown in the subsequent section (4.5), when *-ya* “1sg” is attached to a word it can trigger certain phonological changes that preclude, for instance, its case from being overtly realized. This change, however, is barred if it is to affect another dependent particle.

In 9a, b and c, it is noticed that the second person singular feminine pronoun ‘*-ti*’ can appear as *-ti* or *-ii*. This variation is linked to the aspectual properties of a sentence. When it is perfective, the pronoun surfaces as *-ti* but when it is imperfective it surfaces as *-ii*.

Finally, 10a and b reveal a third person dependent object pronoun realized in variant forms. In 10a, *-hu* “3sg.masc” appears as an argument (object); *ra ʔay-tu-hu* “I saw him”. In 10b, it serves as a second member of a construct state phrase in *bi-qalam-i-hi* “his pen”, and it surfaces as *-hi*. *qalam* “pen” is genitive since it is preceded by a preposition, *bi* “with”. Therefore, the vowel in the pronoun, /u/, assimilates its backness and roundedness features to be in harmony with the genitive case-denoting vowel /i/ attached to any word that is preceded by a proposition. In some cases, /i/ is not exclusively the case marker but rather the final segment of the suffix denoting the case (see table 3). Consider 10b again. *-hu* takes the form *-hi* in *bi-qalam-i-hi* “with his pen” so that its vowel is harmony with the genitive case marker, /i/, attached to *qalam* “pen”(i.e. progressive vowel harmony). This explanation holds true for all third person object dependent pronouns characterized by having two variants.

On the basis of the analysis presented thus far, I can infer that variation in forms is attributed to dependent pronouns’ subjugation to language phonology when they appear with hosts. In other words, this variation is not a case of allomorphy.

4.5 Phonological Alterations Triggered in Host Words

Dependent pronouns can associate with a variety of word categories including nouns, verbs and prepositions. The phonological changes that they trigger in host words are dependent upon the phonological structures of these dependent pronominals, as well as the structure of host words. That is, not all dependent pronominals can have an influence on their hosts nor could all words be influenced by associated pronominals. As noted earlier, some pronominals may undergo certain phonological processes which guard against any deformation of host words. However, there are other pronouns that can

influence words in a manner that can preclude overt spellout of some syntactic features (e.g. case). In what follows, an account is given of all possible host categories and phonological alterations they undergo when associated with dependent pronominals. Unlike affixes, clitics tend to be less selective in terms of the variety of possible hosts.

4.5.1 Noun-pronoun Combinations

When attached to a noun, a dependent pronoun must be in the genitive case. A logical conclusion follows that only object pronouns can associate with nouns. But of all dependent object pronominals, the first person object pronoun (*ya*) is the only one that can yield an influence on nouns to which it associates. This influence ranges from changing a word's original form to blocking certain features from being overtly spelled out when it occurs in structures. Sound singular nouns⁸ are the first group of nouns that can be influenced by (-*ya*) attachment. When contextualized, such nouns have their cases realized through the affixation of short vowels to their ends depending on the positions they occupy (table 3). To be concrete, I offer example sentences below which contain a sound singular noun appearing in three different positions, each of which requires a different case-denoting affix but the noun form does not inflect overtly to reflect this variation.

- 11) a. haaḏaa qalam-ii/ (i-ya)⁹
 this pen-1sg.
 “This is my pen”
- b. ʔaʕtay-tu-hu qalam-ii/ (i-ya)

⁸ Sound singular nouns are nouns which terminate with a consonant. Singular nouns terminating in long vowels get latent case markers as explained under (4.4).

⁹ This is a second option for the pronunciation of the word with the attached pronoun.

give.perf-1sg-3sg.masc. pen-1sg

“I gave him my pen”

c. katab-tu bi-qalam-ii/ (i-ya)

wirte.perf-1sg. with-pen-1sg.

“I wrote with my pen”

In 11a, the word *qalam* “pen” is the second component of a nominal sentence and, consequently, is supposed to be assigned nominative case which has to be signaled by /u/ at the end. In 11b, it is the second object of the three-place predicate *ʔa ʔʔaa* “give” and is assumed to have the accusative case marking affix /a/. In 11c, it is preceded by the proclitic *bi* “with”, a preposition, and is supposed to have the genitive-case-marking affix /i/. But, as noticed, none of these case signifying affixes is overtly spelled out. When realized as /ii/, the pronoun makes the suffixation of any case marker phonologically impossible. The explanation of this impossibility resides in syllable structure restrictions; Arabic has six types of syllables, none of which permits the existence of three vowels in succession. *qalam* “pen” theoretically should be realized as *qalamuii*, *qalamaii* and *qalamiii* in the three sentences above respectively. However, these forms are impermissible for syllable structure constraints.

As exhibited in the sentences, the pronoun can optionally surface as (ya); in this case it requires the insertion of the preceding anaptyctic vowel, /i/, in all cases invariably. But, since a vowel is needed in the position that precedes the pronoun and case markers for singular nouns are short vowels, why are these vowels not slotted there? In other words, why is the word not spelled out as *qalamuya* and *qalamaya* in 11a and b? Phonologically, there seems to be no reason for not allowing such spellouts. The

syllabification of both words is consistent with syllable structure constraints. They have four Cv syllables; [qa.la.mu.ya] and [qa.la.ma.ya]. This point suggests that prescribed grammars sometimes bar the existence of certain forms for no linguistically sound reasons.

Sound masculine plurals¹⁰ are the second group of nouns influenced by the attachment of –ya, “1sg”. To illustrate this phenomena, consider the following sentences:

12) a. haaʔulaaʔi muʔallimi-y-ya

those teachers-1sg.

“Those are my teachers”

b. qaabal-tu muʔallimi-y-ya

meet.perf-1sg. teachers-accus-1sg.

“I met my teachers”

In 12a, *muʔallimi-y-ya* “my teachers” is supposed to have the affix –*uun* at the end because it is the second component in a nominal sentence and thus has to be assigned nominative case. Only the affix’s vocalic segments mark case while /n/ behaves like nunation used for indefiniteness in singulars. Hence, /n/ disappears automatically when the noun is annexed to a definite constituent. As a result, the word is expected to be realized as *muʔallim-uu-ya* with –*uu* serving the twofold function of indicating plurality and nominativeness. Nevertheless, this spellout is regarded ungrammatical by Arabic grammarians. Again, I argue that there is no linguistically justified reason for this claim.

The phrase is syllabified as [mu.ʔal.li.mu.ʔa.ya]: the pre-antepenultimate syllables, as well

¹⁰ Sound masculine plurals are formed by the affixation of –*uun* or –*iin* to the end of the singular form; the former is used when the plural is assigned nominative case, whereas the latter when it is assigned accusative or genitive case.

as the antepenultimate and the ultimate are all monomoraic. The penultimate syllable is bimoraic (i.e. the heaviest). Being second to last, a bimoraic syllable existence is not abnormal and it is the one that will attract stress. This moraic division is based on moraic models (Hyman, 1985; Hayes, 1989). In these models, a short vowel counts as a mora, a long vowel counts as two moras and two consonants in the coda count as one mora. So, I believe that realizing the word with the morpheme (-uu) does not violate any phonological restrictions.

In 12b, the same word surfaces in an accusative-case position. Therefore, it has to terminate with the affix *-iin*. Once again, the /n/ segment is eliminated because the word is part of a construct state phrase. Hence, it should be spelled out as *muḥallimii-ya*. Here, the long vowel /ii/ that marks case and plurality is diphthongized. The resultant form, then, contains a geminate (y-y). The first segment forms the coda of the syllable that contains plural-and-case denoting affix while the second is the onset of the syllable that forms the pronoun. That is, the syllabification of the word is [mu.ḥal.li.miy.ya].

4.5.2 Verb-pronoun Combinations

Verbs are subdivided in terms of their root structures into trilateral and quadrilateral (Ryding, 2005: 429). To the former category belongs any verb consisting of three major consonants while to the latter belongs any verb comprising four consonants. Triconsonantal and quadriconsonantal verb roots are characterized as verb forms from which further forms can be derived by the augmentation of different elements according to different templates.

Augmented forms are formulated to express semantic slants from the semantic fields denoted by the base “unaugmented” forms. Fifteen possible forms to be derived

from triconsonantal roots and four forms from the quadriconsonantal are identified (Ryding (2005: 465- 603). Augmented verbs play a crucial role in determining arguments structure and theta-roles. But for the purposes of this work, the discussion is confined to base forms (verb stems).

A more fine-tuned classification of base verbs is generated on the bases of their internal phonological structure further subdividing them into strong and weak stems (Ryding, 2005). The strong are composed of full-fledged consonants while the weak contain one of the approximants *waa* /w/ or *yaa* /j/. These two sounds are problematic as they tend to transform into long or short vowels or they may disappear altogether in some cases. Therefore, the majority of phonological changes that result from deverbal derivation or inflection are explicable in terms of verb internal structure rather than being attributed to the introduction of new elements to a given stem. Augmentation involving the intercalation of different consonantisms and vocalisms into roots produces phonological alterations which are contingent on the inner structure of the base (i.e. unaugmented) verbs (Watson, 2007). Given that dependent pronouns are enclitics, their influence is limited to altering verb-final segments.

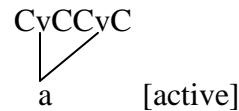
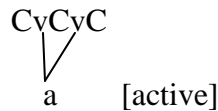
As noted in chapter two, verbs in Arabic further vary in terms of their tenses into past and present verbs, perfective and imperfective respectively. This division is of interest as both forms differ in the ways they inflect for gender, number and person. Past tense verbs take on suffixes to reflect agreement with arguments while present tense verbs can take on suffixes and prefixes (table 4). For this reason, each verb class is discussed separately below.

4.5.2.1 Past tense Verbs

Verbs containing full-fledged consonants show some variation with regard to how vocalic melodies are positioned in relation to consonantal melodies. Furthermore, they differ in the segments of which melodies are constructed. Such variations are of paramount importance in determining what phonological modifications verbs undergo when associating with dependent pronouns. To illustrate this point, consider the trilateral and quadrilateral verbs below.

a) *k-t-b* (the root for “write”)

b) *d-ħr-j* (the root for “roll”)



Observable in both verbs is that their consonantal melodies consist of different segments. When associated with dependent pronouns, these verbs (and verbs with identical structures) experience no alterations in their spellouts. The forms provided below epitomize such associations.

Table 11

Verbs made of full-fledged consonants

<i>k-t-b</i>	<i>d-ħr-j</i>	Dependent pronouns
<i>katab-tu</i>	<i>daħraj-tu</i>	1sg.
<i>katab-ti</i>	<i>daħraj-tu</i>	2sg. fem.
<i>katab-na</i>	<i>daħraj-na</i>	3pl. fem.

Noticed in this paradigm of verb-pronoun combinations is that only subject pronominals are discussed. This is ascribed to the fact that SA lacks neutral citation forms. A base form always implies a third person singular masculine subject. In other words, if uncombined with a certain subject pronoun, a verb inherently assumes a third person singular masculine subject denoted by (–a) attached to its end. Therefore, when object

pronominals associate with verbs, they are always preceded by subject markers and, consequently, they have no influence whatsoever on verbs.

Of trilateral verbs is a group whose second and third consonants are the same (geminate) with no intervening vowels in vocalized stems. Geminate, however, are not attested in quadrilateral verbal roots. But, quadrilateral roots can have reduplicated consonants; the first and third radicals are equivalent as are the second and fourth. *Marr* “pass” and *zalzal* “convulse” are illustrative instantiations of both verb classes. Quadrilateral verbs with reduplicated radicals behave in a fashion identical to verbal roots whose radicals are different. That is, they undergo no alterations when associated with dependent pronouns. But, a trilateral verb with geminate as its second and third radicals experiences a process of simplification through the insertion of an anaptyctic vowel. Table 12 contains *marr* “pass” associated with all dependent pronouns and subject markers. The purpose is to identify which elements can cause geminate simplification.

<i>m-rr</i>	Dependent Elements
<i>marir-tu</i>	1sg.
<i>marir-na</i>	1pl.
<i>marir-ta</i>	2sg.masc.
<i>marir-ti</i>	2sg.fem.
<i>marir-tuma</i>	2dual.
<i>marir-tum</i>	2pl.masc.
<i>marir-tunna</i>	2pl.fem.
<i>marr-a</i>	3sg.masc.
<i>marr-at</i>	3sg.fem.
<i>marr-aa</i>	3 dual
<i>marr-uu</i>	3pl.masc.
<i>marir-na</i>	3pl.fem.

Reflecting on this paradigm, one can detect that geminate simplification takes place whenever the element attached to the verb begins with a consonant; otherwise geminate

are preserved. Once again, this tendency is explicable in terms of permissible syllable structures in Arabic. When leaning on a verb, a dependent element with a consonant as its initial sound produces a form with an abnormal syllabification. For example, *marir-tu* “I passed”, if kept unaltered, will be *marr-tu* (CvCC.Cv). However, this syllabification defies syllable distribution constraints. In his study of syllable structure in Arabic, Holes (2004: 61) points out that word-initial existence of heavy syllables (CvCC and CvVC) is unattested although they can appear very restrictedly word-internally. But with an anaptyctic vowel separating the geminates, the form yielded is *marir-tu* with the syllabification Cv.CvC.Cv, which violates no restrictions.

There exists a third group of verbs which are derived from nouns containing an approximant as one of their radicals (i.e. denominal verbs). Verbs derived this way have a long vowel in their structures resulting from the transformation of the approximants in nominal roots. For instance, *qaal* “say” and *baaʕ* “sell” are derived from *qawl* “saying” and *bayʕ* “selling”, respectively. These verbs, when associated with dependent pronouns, undergo two phonological processes: vowel shortening and vowel quality change. Below are examples.

Table 13

Denominal verbs

Qaala	baaʕa	Dependent pronouns
<i>qul-tu</i>	<i>biʕ-tu</i>	1sg.
<i>qul-ta</i>	<i>biʕ-ta</i>	2sg.masc.
<i>qaal-aa</i>	<i>baaʕ-aa</i>	3dual.
<i>qul-na</i>	<i>biʕ-na</i>	3pl.fem.

In a much similar way to verbs with geminates, denominal verbs with long vowels, when combined with a consonant-initiated dependent element, undergo vowels shortening to avoid having a CvVC syllable at the beginning of a form. So, a form like *qul-tu* “I said”,

if maintained unchanged, will be *qaal-tu*, in which case it violates the restriction over CvvC syllables occurring word-initially. Furthermore, the vowel quality changes, too. To account for this change, one should reconsider the nominal root of which the verb is derived and what approximant it contains. When derived from a noun with /w/ as one of its radicals, a verb associated with a dependent pronoun has its vowel, alongside the vowel shortening, transformed into /u/. On the other hand, if the nominal root has /j/ as one of its radicals, vowel quality in verbs changes to /i/ (Ryding, 2005: 429).

A final class of past tense verbs incorporates verbs that terminate in the long vowel /aa/. Verbs belonging to this category are called defective (Ryding, 2005: 463). Examples for such verbs are *ramaa* “throw” and *kasaa* “clothe”. Terminal long vowels in such verbs are diphthongized whenever they associate with dependent pronouns. Let us consider the following paradigm.

Table 14

Defective verbs

<i>Ramaa</i>	<i>Kasaa</i>	Dependent pronouns
<i>ramay-tu</i>	<i>kasaw-tu</i>	1sg.
<i>ramay-ti</i>	<i>kasaw-ti</i>	2sg.fem.
<i>ramay-ta</i>	<i>kasaw-ta</i>	2sg.masc.
<i>ramay-na</i>	<i>kasaw-na</i>	3pl.fem.

The resulting diphthong (i.e /ay/ or /aw/) plausibly follows from the fact that the long vowel is originally /j/ or /w/ which is transformed into a long vowel when verbs are derived. The nominal roots for both verbs are *ramy* “throwing” and *kasw* “the act of clothing”. Therefore, the resultant diphthong is /ay/ if the third radical in the nominal root is /j/, and it is /aw/ if the third radical in the nominal root is /w/.

4.5.2.2. Present Tense Verbs

Imperfective aspect is demonstrated through certain prefixes and suffixes attached to the verbal root (table 4). For first person subjects, prefixes suffice to signify imperfective aspect. As for second and third person subjects, certain suffixes are essential to determine gender and number features- gender need not be specified for first person subjects because, as pointed out earlier, first person pronouns do not distinguish based on gender.

Of all dependent pronominals, four can appear with imperfective verbs: -ii “2sg.fem.”, -aa “2 or 3dual¹¹”, -uu “2 or 3pl.masc.” and -na “2 or 3pl.fem”. Phonological alterations triggered by combining these particles with verbs depend on verb structures. When all radicals of a verb are full-fledged consonants, it experiences no changes. But if the rightmost radicals are approximants or long vowels, various alterations are detected. The following paradigms in table 15 aptly characterize such phonological modifications.

Table 15

Imperfective verbs

<i>ya-ksuu</i> “clothe”	<i>ya-rmii</i> “throw”	<i>ya-hwaa</i> “love”	Dependent pronoun
<i>ya-ks-(uu)-na</i>	<i>ya-rm-(uu)-na</i>	<i>ya-hw-a(w)-na</i>	3pl.masc.
<i>ta-ks-(ii)-na</i>	<i>ta-rm-(ii)-na</i>	<i>ta-hw-a(y)-na</i>	2sg.fem.
<i>ta-ksuu-(na)</i>	<i>ta-rmii-(na)</i>	<i>ta-hw-ay-(na)</i>	2pl.fem.
<i>ya-ksuw-(aa)-ni</i>	<i>ya-rmiy-(aa)-ni</i>	<i>ya-hway-(aa)-ni</i>	3dual.

The first column’s verb is derived from *kasaa* with a long vowel at its end. The second verb in column 2 is derived from *ramaa*. In both forms, the long vowel originates from an approximant in the nominal root: /w/ for the former and /j/ for the latter, as illustrated in (4.5.2.1). Quite observable is the systematicity displayed by both verbs in terms of what alterations they undergo when imperfectivized. When the subject marker is a feminine

¹¹ This optionality in person is made possible by the kind of prefix a form takes (*ta-* requires a second person, while *ya-* a third person).

plural, the verb form, apart from the affixation of the suitable prefix, does not change at all as it is noticed in *ta-ksu-(na)* “clothe 2pl.fem.” and *ta-rmii-(na)* “throw 2pl.fem.”. But if the subject marker is a masculine plural (-uu) or a second person singular feminine (-ii), verb-final vowels are eliminated. The reason for final vowels’ omission is attributed to syllable restrictions. Being long vowels themselves, these subject markers when attached to a verb with a short or long vowel at its end will produce a form with more than two succeeding vowels, a feature disallowed as discussed earlier. The dual subject marker (-aa) resolves this problem by diphthongizing verb-final vowels as shown in row 5. The original approximant forming a radical of the nominal root reappears and formulates a diphthong immediately preceding the pronominal.

The verb on the third column of table 15, *ya-hw-aa* “to love”, exhibits even more systematicity as its terminal long vowel is diphthongized in all instances. Unexpectedly, a verb form can contribute to modifying the phonetic realization of a subject marker. -uu “pl.masc.” and -ii “2sg.fem.” become /w/ and /j/ respectively, as shown in the second and third rows of column 3. This observation provides a plausible explanation as to why Arabic grammarians unanimously represent these two pronouns by the morphological units *-wa* and *-ya* respectively. Then, these units vary in their realizations according to the phonological environments in which they occur. Ryding (2005) indicates that /w/ and /j/ can phonetically surface in a variety of forms, among which are as /uu/ and /ii/.

In summary, only verbs terminating in long vowels display diversity in phonological forms when imperfectivized. Such variation ranges from modifications in verb-final segments to modifications in subject markers themselves.

4.5.3 Preposition-pronoun Combinations

SA has a constellation of prepositions such as: *min* “from”, *ʕan* “on, about”, *ʕalaa* “on, upon”, *ʔilaa* “to, into, for”, *fii* “in, at”, *bi-* “with, through” and *li-* “to”. The latter two are proclitics, that is, they lean on nouns while the rest occur as independent units when their complements are noun phrases. Prepositions act as case assigners, requiring complements to be in genitive case. A logical conclusion ensues that only object pronouns can appear as complements to prepositions. Of all object pronouns, only the first person singular dependent pronoun (*ya*) can have an influence on the prepositions to which it cliticsizes. The following paradigm illustrates this influence.

Table 16

Prepositions

Prep. in isolation	<i>Min</i>	<i>ʕan</i>	<i>ʕalaa</i>	<i>ʔilaa</i>	<i>Fii</i>
Prep. with Dep.pro	<i>min-nii</i>	<i>ʕann-ii</i>	<i>ʕalay-ya</i>	<i>ʔilay-ya</i>	<i>fiy-ya</i>

(-ya) cliticization geminates preposition-final consonants as displayed in columns 2 and 3. As discussed earlier, SA does not have onsetless syllables. When realized as /-ii/, the first person singular pronoun requires terminal consonants to geminate in order to provide an onset for the syllable containing the pronominal. So, in the absence of gemination in *min-nii* “from me”, the form will be *min-ii* with the syllabification [min.ii] (CvC.vv). But, this form is impermissible since the second syllable has no onset and, thus, it triggers the gemination of the preposition-final consonant to provide a segment which can serve as its onset. As for prepositions with long vowels at their ends (columns 4, 5 and 6), their long vowels are diphthongized. This processes changes CvV syllables in prepositions to CvC.

4.6 Conclusion

Out of the detailed analysis presented in this chapter, a set of inferences can be drawn at this point delineating when dependent pronominals can function as clitics and where they tend to be affixal. In terms of host selection, it is evident that all dependent object pronouns can associate with all words of the lexical category (nouns, verbs and prepositions) indiscriminately. This suggests that they are clitics. In contrast, dependent subject pronouns are selective in that they specifically occur with verbs: a clue that they are more affixal. Affixal properties are more prominent in suppletive subject pronouns as they, besides being agreement markers, serve imperfect aspect realization. But, it sounds a bit premature to formulate definitive conclusions before investigating dependent pronominals syntactic distribution and what structural functions they fulfill. The major conclusions of this chapter can be summarized in the following points:

- a- Dependent pronouns are forms generated from their full counterparts via a reduction process, rendering subject pronouns a syllable shorter than their unreduced peers while object pronouns two syllables shorter.
- b- The variation of forms noted in some dependent pronouns is ascribed to them being subjected to some phonological processes that apply when they lean on host words. Consequently, this variation does not qualify as allomorphy.
- c- A range of phonological changes occur in host- pronoun combinations including vowel harmony, gemination, anaptyxis, epenthesis, and diphthongization. Pronouns realized as long vowels account for most alterations triggered on host words as their insertion lead to violations in syllabification.

d- Dependent subject pronouns are highly selective as they associate with verbs, a clue that they are affixal. Dependent object pronouns are less selective as they attach to verbs, nouns and preposition, a feature typical of clitics.

Chapter 5

THE SYNTACTIC DISTRIBUTION OF ARABIC PRONOMINALS

Following my discussion of the phonology of dependent pronouns in chapter four, this chapter is meant to investigate the distribution of all types of pronouns with the aim of establishing a clear insight into the syntactic functions they serve and, consequently, what kind of particles dependent pronouns are- clitics or affixes. I will start by providing an account of all the positions which independent pronouns can occupy in syntax. This step is meant to serve as a frame of reference for later comparisons with the functions dependent pronouns can undertake.

5.1 Distribution of Independent Pronouns

Independent pronouns are strong forms with a positioning partially similar to noun phrases (NPs) and determiner phrases (DPs¹²). They can occur as subjects in zero-copula sentences, and as arguments in verbal sentences. However, there are restrictions that render their occurrence in some positions ungrammatical. In what follows, every position potentially possible to be filled by a strong pronoun is epitomized and adequately explained. I start with subject and complement positions of nominal sentences.

5.1.1 Strong Pronouns in Zero-copula Sentences

As might have been clear in chapter two, there has been some controversy over the characterization of noun-initiated sentences in Arabic. Some analysts argue that sentences that begin with nouns are nominal even if they contain verbs at later positions, while others, on the other hand, view them as verbal sentences. This variation goes on to

¹² By DPs, I mean any phrase whose head is the definite article *ʔal-* with an NP complement.

include zero-copula sentences which are considered as verbal or nominal. These differences in views are significant as they give way to diverse assumptions central to related debatable issues (e.g. agreement asymmetries). However, the side of argument massively adopted in most Arabic grammar books is that they are nominal. Strong pronouns can serve as subjects in such sentences, positions which can possibly be occupied by NPs or DPs. Below are illustrative examples.

13) a. ?anta mujtahid-un

2sg.masc. assiduous-nom.

“You are assiduous” (adapted from Al-ghalaayini, 1993).

b. Huwa safir-u-naa lada al-majlis-i

3sg.masc ambassador-nom-1pl. at the-council-gen.

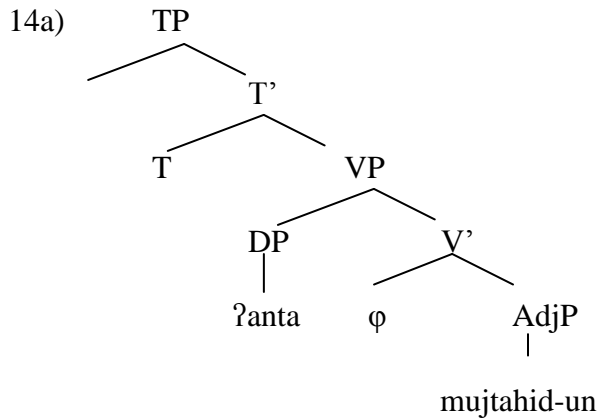
“He is our ambassador at the council” (Schulz, 2004)

c. ?anti wa hiya mujtahidat-aan

2sg.fem and 3sg.fem. assiduous-nom

“You and she are assiduous”

13a and b are straightforward examples where strong pronouns appear as subjects in zero-copula constructions: *?anta* “you” and *huwa* “he” respectively. Even though 13a and b are analyzed as verbless sentences, these pronouns will be sitting in the subject position, Spec-Vp. In such a case, 13a, for instance, will be represented schematically as follows:



13c exhibits that, like NPs and DPs, strong pronouns can be conjoined, a characteristic which has been emphasized in the literature (Gerlach, 2002). Besides being complements of zero-copula sentences, *mujtahid-un* “assiduous” and its dual variant *mujtahidat-aan*, in 13a and c respectively, are predicative adjectives, in which case they modify the preceding constituents. In this regard, strong pronouns behave in a similar manner to NPs and DPs in their susceptibility to modification.

One position an NP or DP can occupy but a strong pronoun cannot is that of a complement of a zero-copula sentence. Complements contribute new meanings to the overall interpretation of constructions. Being referential and definite, strong pronouns cannot exist as complements because their semantic content is already known. So, even though a strong pronoun might exist as a second constituent in a zero-copula construction, it is still construed as a subject, and any preceding constituent is better interpreted as a forwarded complement because it is the part which supplies new information. So, in any structure identical to the one below, the strong pronoun is argued to be a subject despite appearing as a second constituent.

14) ?arabiyy-un ?anaa

Arab-nom 1sg.

“I am an Arab”

In 14 above, *?anaa* “I” occupies a supposed complement position, but it serves as a postponed subject whereas *?arabiyy-un* “an Arab” is an advanced constituent which underlyingly originates as a complement. In other words, 14 is originally *?anaa ?arabiyy-un*, but the second constituent is focused as it is preposed.

5.1.2 Strong Pronouns as Arguments

One of the salient positions strong pronouns can occupy are argument positions in verbal sentences. Strong pronouns can appear as subjects and objects. The following are examples where strong pronouns operate as subjects.

15) a. *hum* *qara?-uu* *d-dars-a* (SVO)

3pl.masc. read.perf-3pl.masc. the-lesson-accu.

“They read the lesson”

b. *qara?-uu* *hum* *?ad-dars-a* (VSO)

read.perf-3pl.masc 3pl.masc. the-lesson-accu.

“They read the lesson” (Soltan, 2007)

In 15a and b above, *hum* “3pl.masc” appears as a pre or post-verbal subject just as NPs or DPs can do. However, a prominent quality setting pronouns apart from NPs and DPs in this regard is that pronouns require full agreement on verbs regardless of whether the structure is SVO or VSO. As indicated in chapter two, in VSO sentences whose subjects are NPs or DPs, agreement is shown to be incomplete; a verb agrees only in gender and person with a post-verbal subject. But, the constructions in 15a and b reveal verbs bearing full agreement. In other words, not only does the verb agree in person and gender with the subject in 15b but, also, in number. This systematicity in agreement when

subjects are pronouns has been touched upon sporadically in research as researchers have been more concerned with cases of agreement asymmetries (Soltan, 2007).

In a further similarity to NPs and DPs, strong pronouns functioning as subjects are conjoinable. When conjoined, strong pronouns vary in what sort of agreement they require on verbs, depending on the type of construction in which they occur (i.e. VS or SV) and, additionally, the relative order of conjuncts. To illustrate this variation, the following sentences are worth considering.

16) a. qaraʔ-na hunna wa hum d-dars-a (VSO)

read.perf-3pl.fem 3pl.fem. and 3pl.masc. the-lesson-accu.

“They (fem) and they (masc) read the lesson”

b. qaraʔ-uu hum wa hunna d-dars-a (VSO)

read.perf-3pl.masc 3pl.masc and 3pl.fem the-lesson-accu.

“They (masc) and they (fem) read the lesson”

c. hum wa hunna qaraʔ-uu d-dars-a (SVO)

3pl.masc and 3pl.fem read.perf-3pl.masc the-lesson-accu.

d. hunna wa hum qaraʔ-uu d-dars-a

3pl.fem and 3pl.masc read.perf-3pl.masc the-lesson-accu. (SVO)

Despite having conjoined subjects, verbs in 16a and b agree only with first conjuncts. In 16a, the verb bears the suffix *-na* “3pl.fem” which agrees with the third person plural feminine *hunna*. In 16b, the verb takes on the suffix *-uu* “3pl.masc” manifesting agreement with the third person plural masculine *hum*. Therefore, in VSO structures with conjoined strong pronouns as subjects, verbs display first conjunct agreement. Unlike 16a and b, 16c and d exhibits a peculiar agreement behavior. Both constructions comprise

verbs carrying the suffix *-uu* “3pl.masc” no matter how conjuncts are ordered; that is, verbs seem to agree with masculine conjuncts regardless of their positions. This unusual tendency is worth careful examination especially since it occurs in SVO structures characterized usually by complete agreement with pre-verbal subjects. In some languages, masculine terms are considered as dominant and unmarked and, consequently, can exist in contexts where they refer to groups of both genders (Baker, 2002:91). So, I believe that this is the case here. *-uu* “3pl.masc” undergoes a sort of feature impoverishment which allows it to be gender-neutral and, therefore, it can include both genders.

Despite functioning unrestrictedly as subjects, strong pronouns must meet certain syntactic stipulations in order for them to serve as objects. A strong object pronoun can exist in negated VSO constructions with a pre-pronoun exception particle (Al-ghalaayini, 1993). Unless these conditions are met, a pronominal object manifests as a clitic rather than as a strong form. Let us examine the sentence below.

17). *maa* *raʔay-tu* *ʔillaa* *ʔiyyaaka*
 Neg. saw-1sg. but 2sg.masc.

“I saw nobody but you”

As evident in 17, *ʔiyyaaka* “2sg.masc” is a strong pronoun occurring as an object. *ʔilla* “but” expresses an exception, and it is not a case assigner. Therefore, the choice of an object (accusative) pronoun is determined by the verb. *Maa* “neg.” is a mere negation particle which also plays no role in case assignment. In the absence of both particles, the sentence turns to be ungrammatical.

Object strong pronouns can exist in OVS structures with no constraints. Below is an example.

18) ?iyyaaka qaabal-naa

2sg,masc. met-1pl.

“We met you”

As it is observed, 18 is a typical exemplar of OVS constructions where *?iyyaaka* “2sg,masc” is an object. However, one may presume to argue at this point that 18 is a VSO sentence in which the object pronoun originates as a clitic attached to the verb but it is forwarded for the sake of focusing. More to the point, *qaabal-naa-ka* “meet-1pl-2sgmasc” is the underlying structure of 18 but it is transformed into an OVS clause. Being an enclitic, *-ka* “2sg,masc” cannot be forwarded because it will then lack the sort of host it needs to lean on and, consequently, an independent pronoun is used instead. However, some analysts, as pointed out in chapter four, contend that *?iyyaa* is the real pronoun, and *-ka* is a sheer suffix specifying to whom it refers (Al-afghaani, 1981). As I argued earlier, this analysis seems questionable as it sounds implausible to have a pronoun whose person, number and gender features are realized through suffixation. For pronouns, these features are inherently interpretable and need no demarcating suffixes (Radford, 2009).

One plausible argument which was built on the basis of structures similar to 18 above is that Arabic may lack true strong object pronouns; rather, all object pronouns are clitics. When unable to exist in a position, they receive a supportive phrase that allows them to be forwarded while they maintain their enclitic status. Put clearly, *?iyyaa* is a mere grammatical element which has no meaning whatsoever, but it serves as a host for

any enclitic brought forward (Fassi, 1993). This analysis sounds more plausible than taking *ʔiyyaa* as the actual pronoun whose features are marked through suffixes.

In addition to the environments specified above, a strong object pronoun can appear as an object to an action-denoting noun out of which a denominal verb can be derived. This class of nouns is distinct in that they require arguments just as verbs do. A strong object pronoun can surface as an argument to a noun of such kind. Below is an example.

- 19) ʔajib-tu min dharb-i-ka PRO ʔiyyaa-hu
 surprised-1sg. by hitting-gen-2sg.masc 3sg.masc
 “I was surprised by you hitting him”

In 19, *dharb* “hitting” is a noun in the genitive case and is made definite by its annexation to *-ka* “2sg.masc”. But being an action denoting noun, it requires arguments. Since it signifies an infinite action, I argue that it takes a null PRO as its subject and, consequently, *ʔiyyaa-hu* “3sg.masc” is an object. Only a strong pronoun can appear in this position.

A final point worthy of indication at this section is that two other positions, which can be occupied by NPs or DPs, cannot be filled by strong pronouns: construct states and as complements of prepositional phrases and quantifier phrases (PPs and QPs, respectively). As well be explained in the following section, these positions are exclusively occupied by NPs, DPs or clitic pronouns.

To summarize the chapter up to this point, strong pronouns demonstrate a quite similar positioning to normal NPs and DPs. They can function as subjects of zero-copula sentences, and arguments in verbal constructions. But, their existence in some slots might

have some restrictions (e.g. when they act as objects). On the other hand, they cannot appear at all in some positions, namely construct states and in PPs and QPs. Moreover, strong pronouns show no resistance to modification and coordination, a typical characteristic of strong personal pronouns in many languages (Cardinalletti and Starke, 199).

5.2 Distribution of Dependent Pronouns

5.2.1 Dependent Pronouns Replacing NPs and DPs

Scantly touched upon thus far, the distribution of dependent pronouns is explored in this section with a relative depth so as to figure out what kind of elements they are. Unlike strong pronouns which can appear as subjects in zero copula sentences, dependent pronouns cannot occupy these positions because, as enclitics, they always need be associated with a host (i.e. second position clitics). However, they have some features to share with NPs and DPs. Being referential and definite, dependent pronouns can perfectly function as second constituents in construct phrases where they express possessiveness or bring definiteness to otherwise indefinite entities, just as an NP or DP can function. Below are illustrative examples for this point (19 is repeated in 20c for easy reference).

20) a. haaḏaa bayt-u-ki
 this house-nom-2sg.fem.

“This is your house”

b. kitaabat-u-haa waadhihat-un
 writing-nom-3sg.fem legible-nom

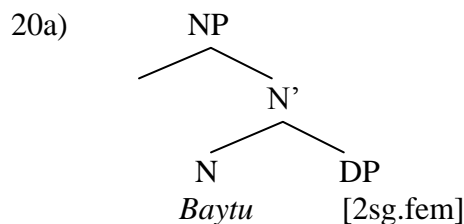
“Her writing is legible”

c. ʕajib-tu min dharb-i-ka PRO ʔiyyaahu

surprised-1sg. by hitting-gen-2sg.masc 2sg.masc 3sg.masc

“I was surprised by you hitting him”

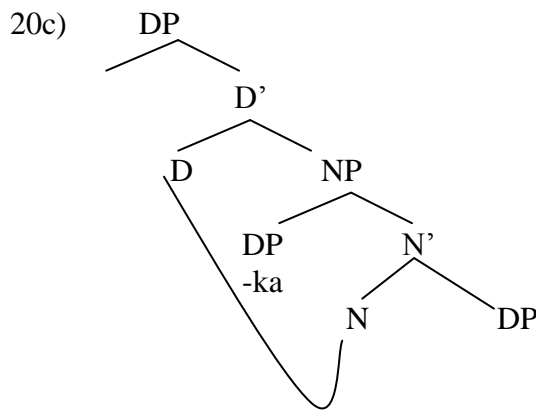
I argue that whether the meaning expressed by a clitic is definiteness or possessiveness is dependent upon the type of noun with which it associates. In 20a, *bayt* “house” is an underived basic stem. So, the meaning the clitic brings to it is possessiveness. But in 20b, *kitaabatu* “writing” is a deverbative noun as it is derived from *kataba* “he writes” and the clitic adds a meaning of definiteness to it. In other words, it does not allude to who possesses the writing but to who does it. By the same token, *dharb* “hitting” in 20c, a noun forming a base for verb derivation as noted earlier, is made definite by the clitic *-ka* “2sg.masc”. In all three cases, dependent pronouns are clitics as they appear in positions where an NP or DP can surface as well. I assume that this variation can be reflected in how these constructions are depicted schematically. When used for possessiveness, a clitic is a minimal DP projection complementing an NP whose head is the noun possessed. That is, I tend to think of *bayt-u-ki* “house 2sg.fem” in, 20a, as follows (the tree is confined to the construct phrase).



Each constituent originates as a bundle of features which are given phonological spellouts when all syntactic operations are complete. The defining DP could be a proper noun or DP whose head is a definite article. The most underspecified constituent which carries 2sg.fem features is the clitic *-ki* and so it is inserted at the PF. Late insertion and

underspecification principles proposed within DM lend credence for this view because they provide a plausible explanation as to why a strong pronoun cannot occur in this position. The notion of underspecification postulates that more specific rules take precedence over general ones (Bobaljik, 2012: 5). Just as third person singular *-s* would take precedence over any other rules relevant to person features in English (Bobaljik, 2012: 8), so would clitic pronominals insertion in Arabic. On the basis of underspecification, I argue that occurrence of pronominal clitics has priority over any other constituents, and only if a clitic insertion is syntactically impermissible will other potential elements, be they NPs or DPs, compete for a position.

Following Shlonsky's 1997 noun-raising account of construct states in Hebrew, I argue that construct states with definiteness-expressing clitics have an identical derivation. Shlonsky argues for an internal structure of construct states in which a clitic originates in the spec-position of an NP whose head is defined by the clitic. In other words, the pronominal clitic functions as an agent for the action denoted by the noun. To make this discussion tangible, consider the following schematic representation of the phrase *dharb-i-ka* "hitting 2sg.masc" incorporated in 20c (again the tree is confined to the construct state for the sake of simplification).



In the tree above, *dharb* “hitting” originates as an NP’s head with a DP specifier whose head features are “2sg.masc”. But since a noun to which definiteness is brought should be the first member in a construct phrase, the noun raises up to the head position of the highest DP. Once again, this schematization is supported by the late insertion principle as insertion applies only when the noun movement is done. This movement is responsible for the clitic insertion as Arabic syntax does not allow for the appearance of strong pronouns in post-nominal positions in construct phrases. However, the clitic inserted after the movement must be an object pronoun as it appears in a genitive case position, which means that it no longer serves as an agent and, therefore, a null PRO account is suggested earlier to resolve this problem. As will be shown in the following section, object clitics are susceptible to clustering. This trait provides a piece of evidence for the existence of a null PRO in 20c functioning as the agent of *dharb* “hitting”. If the null pronoun does not exist, *ʔiyyaahu* “3sg.masc” would have then leant on the noun after *-ka* “2sg.masc”. In other words, the phrase would have been uttered as *dharb-i-ka-hu* “hitting-gen-2sg.masc-3sgmasc”.

Unlike strong pronouns, dependent pronouns can function as complements to PPs and QPs, positions in which they replace NPs or DPs. Therefore, when occurring in these positions, I argue that they are clitics. Below are example sentences with dependent pronouns incorporated in PPs and QPs.

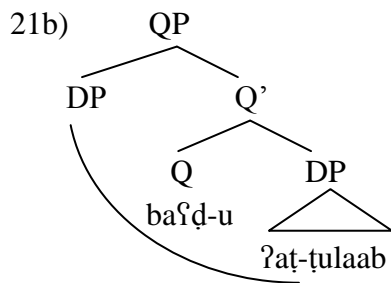
21) a. sallam-tu ʔalay-him
 greeted-1sg. on-3pl.masc.
 “I greeted them”

b. ʔaṭ-ṭulaab-u baʔḍ-u-hum mawjud-uu-na fi lmadrast-i

the-students-nom some-nom-3pl.masc present-nom at school-gen

“The students, some of them are at school”

In 21a, *-him* “3pl.masc” is a minimally projected DP complementing the PP in which it is incorporated. Schematically, the PP will be quite similar to the tree in 20a above: a PP phrase whose head is *ʃalaa* “on” with a DP complement that contains the pronominal clitic *-him*. In 21b, *-hum* “3pl.masc” surfaces within a QP. Quantifiers are considered indefinite and, therefore, they always need be annexed to definite constituents. It follows that a QP with a pronominal clitic as a complement constitutes a construct state in which the quantifier is made definite. Once again, I adopt Shlonsky’s noun-raising account to analyze such phrases. So, the QP in 21b can be depicted as follows.



In 21b, the DP *ʔaṭ-ṭulaab* “the students” originates as a QP complement but then raises up to the spec-position. With the DP raised up, the quantifier needs a defining constituent which has the same features as the DP. Therefore, the pronominal *hum* “3pl.masc” is inserted to fulfill the position. So, 21b has the following underlying structure:

21) b. baʃd-u ʔaṭ-ṭulaab-i mawjud-uu-na fi lmadrast-i
 some-nom the-students-gen present-nom at school-gen
 “Some of the students are at school”

What I am asserting here is that in both structures of 21b (the one up here and the one on page 74) the phrase occupying the spec-T is a QP. That is, even though the sentence starts with a DP in the surface form shown on page 74, this DP is a QP's specifier.

Despite being impossible to appear as subjects of zero-copula structures, dependent pronouns can replace NPs or DPs occupying these positions if they are preceded by complementizers. Arabic has a class of complementizers whose introduction to sentences transforms subjects from nominative to accusative case. To this class belong a number of elements, among which is *ʔinna* “that”. When used, *ʔinna* “that” allows an object clitic to replace DP or NP subjects. For the sake of concreteness, examples are provided below.

- 22) a. ʔaṭ-ṭaalibat-u mujtahidat-un
 the-student.fem- nom assiduous-nom
 “The student (fem) is assiduous”
- b. ʔinna aṭ-ṭaalibat-a mujtahidat-un
 comp. the-student.fem.-acc assiduous-nom
 “It is the case that the student (fem) is assiduous”
- c. ʔinna-haa mujtahidat-un
 comp-3sgfem. assiduous-nom
 “It is the case that she is assiduous”

In 22a, the DP *ʔaṭ-ṭaalibat-u* “the student.fem” is interpreted as a subject of a zero-copula sentence. A pronominal clitic cannot take that position but a strong pronoun can, as previously noted. In 22b, a complementizer is inserted changing the DP from nominative into accusative. The complementizer allows the clitic *-haa* to replace the DP *ʔaṭ-ṭaalibat-*

u. In fact, 22c showcases the single occasion in which a clitic can take the place of a subject in zero-copula structures.

5.2.2 Dependent Pronouns as Arguments versus as Agreement

Dependent pronouns can function as arguments and agreement markers. However, making a clear distinction in which environments they occupy such positions is inextricably related to stands held on sentence structures. That is, what could be construed as an argument by some analysts may be viewed as agreement by some others. For a better understanding of this point, the following sentence is worth examining.

23) *hunna* *qaabl-na-n-ii* *bi-lʔams-i*
 3pl.fem. met-3pl.fem-1sg. in-yesterday-gen.

“They met me yesterday”

In 23, *hunna* “3pl.fem” is the subject and requires a verb’s full agreement in person, number and gender (SVO). Thus, *-na* “3pl.fem”, a dependent pronominal, associates with the verb to manifest agreement with the pre-verbal subject. In this case, it is an affix. However, if *hunna* “3pl.fem” is interpreted as a topic, two possible arguments can be put forward addressing the function of *-na*. On the one hand, it can be an affix marking topic-comment agreement, and *qaabl-na-n-ii bi-lʔams-i* “met-3pl.fem-1sg yesterday” is dealt with as a sentential comment. Or, *-na* can be argued to be a pronominal clitic occupying a subject position, not an affix marking agreement. Nevertheless, I support the former argument contending that *-na* is an affix in this clause. 23 is a typical SVO construction in which *hunna* is the subject.

The difference setting clitics apart from affixes is that an affix associates with verbs during a sentence derivation whereas a clitic functions as an argument and,

therefore, remains a separate constituent until the PF phase when it has to lean on the verb as a result of being prosodically deficient. This argument is based on the fact that agreement occurs during derivation when syntactic merge triggers features valuation. In other words, a verb-pronoun combination takes place either at the syntactic component or later at the PF, depending on whether a pronominal is a clitic or an affix.

In 23, another dependent pronominal exists attached to the verb, /-ii/ “1sg.”. I argue that it serves as an object clitic regardless of variation in sentence structure analysis. As pointed out by Zwicky et al (1983), only a clitic can combine to a constituent with which another element is already combined. /-ii/ appears associated with a verb on which *-na* leans. Further evidence for this argument can be drawn from the sentence below.

24) ?anaa ?aʕtay-tu-ka-hu

I gave-1sg-2sg.masc-3sg.masc

“I gave it to you”

In 24, three dependent pronouns are joined to the verb: *-tu* “1sg”, *-ka* “2sg.masc” and *-hu* “3sg.masc”. The first is an affix indicating agreement with the pre-verbal subject *?anaa* “I”. But, the latter two are arguments occupying object positions. The fact that a cluster of object pronouns can appear consecutively associated with the same constituent strongly suggests that they are clitics. Furthermore, I argue on the basis of 23 and 24 that dependent subject pronouns are affixes. In both constructions, they co-occur with pre-verbal subjects to mark agreement. When existing in succession, dependent pronouns seem to follow a certain pattern of association in which first person pronouns appear first, then second person and, lastly, third person. This order sounds robustly linked to levels of

definiteness. Definiteness decreases based on person features, rendering first person the most definite followed by second person and then third person. A final point on 24 is that *-hu* “3sg.masc” is impersonal in this clause (i.e. it has a nonhuman referent). This is applicable to third person pronouns as they involve [+human] and [-human] features, and only through context can one make an inference to what a pronoun refers.

As a further enhancement to my argument that dependent object pronominals are always clitics and cannot serve as affixes, I offer the following sentences for consideration.

25) a. Ahmed-u qaabal-a l-muʕallim-a (SVO)

Ahmed-nom met-3sg.masc the-teacher-accu

“Ahmed met the teacher”

b. ʔal-muʕallim-a Ahmed-u qaabal-a (OVS)

the-teacher-accu Ahmed-nom met-3sg.masc

“The teacher, Ahmed met”

In 25a, *qaabal* “met” bears agreement with the preverbal subject Ahmed. *Imuʕallim* “the teacher” operates as an object. When preposed in 25b, *Imuʕallim* does not require verb agreement. In fact, not only is the verb sufficient without a particle to manifest agreement with the advanced object, the existence of such a particle would render the sentence ungrammatical. Therefore, if restructured as shown below, 25b will be ungrammatical.

25) b. *ʔal-muʕallim-a Ahmed-u qaabal-a-hu

the-teacher-accu Ahmed-nom met-3sg.masc-3sg.masc

“The teacher, Ahmed met”

This means that object clitics are direct proforms for NPs or DPs functioning as objects. Consequently, these clitics always serve as arguments and cannot be agreement affixes.

Dependent subject pronouns are unconjoinable, a piece of evidence for their affixal nature. But like independent pronouns, dependent object clitics are conjoinable.

Let us consider the following example sentences.

26) a. *jiʔ-tu *pro* wa Hind-u

Came-1sg and Hind-nom

“Hind and I came” (Soltan, 2007: 5)

b. raʔay-tu-hu wa Hind-an fi s-suuq-i

saw-1sg-3sg.masc and Hind-accu in the-market-gen

“I saw him and Hind in the market”

26a provides double evidence for the affixal nature of *-tu* “1sg”. First, a null *pro* is argued to be the subject and, second, it cannot be conjoined with the DP *Hind*. The only way to resolve the ungrammaticality of 26a is through giving the null *pro* an overt spellout. In other words, 26a can be restructured as follows.

26) a. jiʔ-tu ʔanaa wa Hindu

Came-1sg I and Hind-nom

“Hind and I came”.

In 26b, *-hu* “3sg.masc”, an object pronominal clitic, is conjoined with the DP *Hind*. This coexistence bolsters the argument that it is a syntactically independent constituent. This trait gives more evidence that pronominals as such are clitics, because affixes always defy coordination although, in some languages, even clitics are resistant to coordination (Cardinalette and Starke 1999).

5.3 Conclusion

The primary goal of this chapter has been to examine the syntactic distribution of all pronominals in SA. I have shown that strong pronouns can function as subjects in zero-copula sentences and arguments in verbal structures. Strong subject pronouns occur unrestrictedly as subjects. In contrast, strong object pronouns have restricted environments: in SVO, they occur only if a clause is negated and the pronoun is preceded by an exception word. They occur in OVS structures when an object clitic of a VSO is focused.

A key goal of this chapter was to explore the distribution of dependent pronouns in a quest to uncover what functions they satisfy. Two main points are made: first, dependent object pronouns are always clitics that can occur in construct phrases, PPs and QPs, positions strong forms cannot occupy. This clitic nature of dependent object pronouns is manifested through their conjoinability as well as their ability to occur in clusters and associate with a variety of word categories. Then, on the basis of DM underspecification principle, I argue that object clitics' existence takes precedence over strong pronouns. Second, I argue that dependent subject pronouns always function as agreement affixes. Even when a non-overt subject is used, they do not function as arguments but as agreements to null subjects.

Drawing on distribution variations, I argue that affixal pronouns associate with host words during derivation when features are valued. In contrast, clitics act as syntactically independent constituents which lean on host words only at the PF phase as a result of their prosodic deficiency.

Chapter 6

CONCLUSIONS

6.1 Thesis Summary and Contributions

This thesis has explored the phonological and syntactic relations between independent and dependent personal pronouns in Standard Arabic. Three major questions are posed: how are dependent pronouns formed from their strong peers? What phonological alterations do they engender in host words? What syntactic distribution do dependent pronouns have? Answers to these questions are believed to have been provided in chapters 4 and 5.

In chapter 1, I reviewed previous literature on the notion of cliticisation with the aim of furnishing an informative background for subsequent discussion. Chapter 2 was devoted entirely to abridged descriptions of SA grammar. The discussion was confined to phenomena relevant to the issue explored.

In chapter 3, I delineated the theoretical framework and apparatus employed in my analysis. I gave concise characterizations of syllable structure, vowel harmony, X-bar theory, feature valuation and certain principles of Distributed Morphology.

In chapter 4, I turned to the first step of my analysis in which I looked into the phonology of dependent pronouns. I argued therein that dependent pronouns are formed from their strong peers through a process of reduction. This reduction renders subject pronouns a syllable shorter than strong forms and object pronouns two syllables shorter. Few forms are shown to be suppletive. Then, I accounted for why some reduced pronouns have various forms, and I ascribed that to their subjugation to language phonology. So, such variation is not active allomorphy.

A double-aim section then was devoted to examining the variety of hosts on which reduced pronominals can lean. Reduced object pronouns turned out to be less selective than reduced subject pronouns as they can integrate to nouns, verbs and prepositions. Based on host selection, I argued that the former are clitics while the latter are affixes. Then, I concluded chapter 4 with investigating all possible alterations engendered in hosts when they combine with reduced pronouns. I demonstrated that certain combinations prescribed as ungrammatical are not based on linguistically sound reasons.

Chapter 5 strove to make clear the syntactic functions of all pronouns in SA. I have shown that strong pronouns can surface as arguments with specific restrictions on their occurrence as objects. Then, a detailed section discussed the distribution of dependent pronouns. I argued that dependent subject pronouns are mere affixes used to manifest verb-argument agreements, and that object pronouns are clitics that can function as arguments and complements in construct phrases, PPs and DPs. The places where dependent pronouns exist can, by no means, be filled by strong forms. I then argued, within the framework of DM, that object clitics take precedence in insertion over strong object pronouns: Only if a clitic existence is ungrammatical would a strong form surface.

Finally, to reflect the diversity in functions served by reduced pronouns, I proposed subclassifying them into affixes and clitics. Reduced subject pronouns are always affixes whereas object pronouns are clitics. This view is motivated by a similar, but not identical, analysis of pronouns in a number of European languages proposed by Cardinalletti and Starke (1999). In my analysis, I classify clitics as being second in the chain while affixes are the last. Both are preceded by strong forms. Affixal pronouns

combine with host words during the course of derivation in order to satisfy agreement requirements. In contrast, clitic pronouns behave as syntactically independent constituents and, consequently, combine with their hosts only at the PF phase as a result of their prosodic deficiency.

6.2 Future Suggested Research

In chapter 4, I have shown the various alterations dependent pronouns can engender in host words and how they change their syllable structures. It sounds intriguing to investigate whether such modifications can lead to stress shifts. Again, investigating this issue may require careful syntactic analysis. I also argued in chapter 4 that some forms which are prescribed as ungrammatical are not based on linguistically sound reasons. So, it may seem important to look into possibly similar phenomena.

In chapter 5, I proposed a model in which dependent subject pronouns are argued to function as affixes in all structures. But, I pointed out some potentially challenging arguments which can follow from variations in sentence analyses. I stated that if such variations remain unresolved, they will continue to lead to diverse analyses regarding related issues. So, it would be important to examine what linguistic phenomena can lead towards a reconciliation of such variations.

In general, this thesis investigated independent and dependent pronouns in Standard Arabic. It might be more revealing to study the same issue in the dialects spoken today throughout the Arab world. Those dialects are not prescribed but rather spoken natively and, thus, can reflect in a more tangible manner what functions pronominals serve.

REFERENCES

- Abboud, P. F., & McCarus, E. N. (1983). *Elementary modern standard Arabic*. Cambridge: Cambridge University Press.
- Abdel-Hafiz, A. (2005). Verb agreement in Standard Arabic: An analysis in the minimality program. *Journal of Language and Linguistics*, 4 (1), 100-120.
- Afgānī, S. A. (1981). *Al-mūğaz fī qawā'id al-luğat al-‘Arabiyyā*. Dimašq: Dār al fiqir.
- AlShammiry, K. (2007). *The clause structure of turaif Arabic*. Ph.D Dissertation, University of Kansas, Lawrence.
- Al-Sweel, A. I. (1983). *Word order in standard Arabic: a lexical approach*. PhD Dissertation, the University of Washington, Seattle.
- Anderson, S. (1992). *A-Morphous morphology*. Cambridge: Cambridge University Press.
- Anderson, S. (1993). Wackernagel’s revenge: clitics, morphology, and the syntax of second position. *Language*, 96 (1), 68-98.
- Aoun, J., Benmamoun, E., & Sportiche, D.(1994). Agreement and conjunction in some varieties of Arabic. *Linguistic Inquiry*, 2, 195-220.
- Aoun, J., Choueiri, L., & Benmamoun, E. (2010). *The syntax of Arabic*. New York:Cambridge University Press.
- Baker, M. (2002). *In other words: a coursebook on translation*. London: Routledge.
- Benmamoun, E. (2000). *The feature structure of functional categories: a comparative study of Arabic dialects*. New York: Oxford University Press.
- Bobaljik, J. D. (2012). *Universals in comparative morphology: suppletion, superlatives, and the structure of words*. Cambridge: The MIT Press.
- Bravmann, M. M. (1977). *Studies in Semitic philology*. Leiden: E.J. Brill.
- Brown, J. (2011). *Muhammad: a very short introduction*. Oxford, England: Oxford University Press.
- Cardinaletti A., & Starke M. (1999). The typology of structural deficiency: A case study of the three classes of pronouns. In H.V. Riemsdijk (Ed.), *Clitics in the languages of Europe* (pp. 145-235). Berlin: Mouton de Gruyter.
- Chomsky, N. (1995). *The minimalist program*. Cambridge: The M.I.T. Press.

- Comrie, B. (1990). *The Major languages of South Asia, the Middle East, and Africa*. London: Routledge.
- Fareh, S. (1995). Foregrounding devices and their functions in Arabic and English discourse. *Papers and Studies in Contrastive Linguistics*, 30, 119-130.
- Fassi, F. A. (1993). *Issues in the structure of Arabic clauses and words*. Dordrecht: Kluwer Academic.
- Gelderen, E. V. (1996). Parametrising agreement features in Arabic, Bantu languages, and varieties of English. *Linguistics*, 34, 753-767.
- Gerlach, B. (2002). *Clitics between syntax and lexicon*. Amsterdam: J. Benjamins.
- Ghalaayini, M. (1993). *Jami Ad-duruus Al-arabiyya*, in three volumes. Beirut: AlMaktaba al-asriyya.
- Gordon, R. G., & Grimes, B. F. (2005). *Ethnologue: languages of the world*. (15th ed.). Dallas, Texas: SIL International.
- Greenberg, J. H. (1950). The patterning of root-morphemes in Semitic. *Word*, 6, 162-181.
- Halle, M & Marantz, A. (1993). Distributed Morphology and the pieces of inflection. In K. Hale, & S. J. Keyser (Eds), *The view from building* (pp. 111-176). Cambridge: MIT Press.
- Halle, M. (1997). Distributed Morphology: Impoverishment and fission. In B. Bruening, Y. Kang, & M. McGinnis (Eds.), *MITWPL 30: Papers at the interface* (pp. 425-449). Cambridge: MITWPL.
- Halpern, J. (2009). *Word stress and vowel neutralization in modern standard Arabic*. Saitama, Japan: The CJK Dictionary Institute,. Retrieved from http://www.kanji.org/cjk/arabic/an_paper.pdf
- Harley, H., & Noyer, R. (1998). Licensing in the non-lexicalist lexicon: Nominalizations, vocabulary items and the Encyclopedia. In H. Harley (Ed.), *MITWPL 32: papers from the UPenn/MIT roundtable on argument structure and aspect* (pp. 119-137). Cambridge: MITWPL.
- Hayes, B. (1989). Compensatory lengthening in moraic phonology. *Linguistic Inquiry*, 20, 253-306.
- Holes, C. (1995). *Modern Arabic: structures, functions, and varieties*. London: Longman.
- Holes, C. (2004). *Modern Arabic: structures, functions, and varieties* (Rev.ed.). Washington, D.C.: Georgetown University Press.

- Hyman, L. (1985). *A theory of phonological weight*. Dordrecht: Foris. Reprinted, 2003, Stanford: CSLI.
- Kaisse, E. M. (1985). *Connected speech: The interaction of syntax and phonology*. Orlando, Florida: Academic Press.
- Khilil, A. (1999). *A contrastive grammar of English and Arabic*. Bethlehem: Bethlehem University Press.
- Krämer, M. (2003). *Vowel harmony and correspondence theory*. Berlin: Mouton de Gruyter.
- Kroch, A. & Santorini, B. (2007). *The syntax of natural language: An online introduction*. Retrieved from the University of Pennsylvania Web site: <http://www.ling.upenn.edu/~beatrice/syntax-textbook>
- Lansing, J. G. (1886). *An Arabic manual*. New York: Charles Scribner's Sons.
- McCarthy, J. (1981). A prosodic theory of nonconcatenative morphology. In J. A. Goldsmith (Ed.), *Phonological theory: The essential readings* (pp. 162-184). Oxford: Blackwell.
- Mohammad, M. (1989). On the Parallelism between IP and DP. In .H. Borer (Ed.), *the proceedings of WCCEL VII* (pp. 241-254). Stanford: CSLI.
- Mohammad, M. (1989). *The sentential Structure of Arabic*. PhD Dissertations, USC. Los Angeles.
- Mohammad, M. (1990). The problem of subject-verb agreement in Arabic: Towards a solution. In M. Eid (ed.), *Perspectives in Arabic linguistics, Volume I* (pp. 95-125). Amsterdam: John Benjamins.
- Pavel, S. (1974). *The personal pronoun system in modern standard Arabic: A morphophonological analysis*. ProQuest Dissertations & Theses (PQDT)
- Radford, A. (2009). *An introduction to English sentence structure*. Cambridge, UK: Cambridge University Press.
- Rahim, V. (2005). *Arabic course for English-speaking students: Durūs al-lughah a'Arabīyah*. (Enl. ed.). Leicester: UK Islamic Academy.
- Ryding, K. C. (2005). *A reference grammar of modern standard Arabic*. New York: Cambridge University Press.
- Schulz, E. (2004). *A student grammar of modern standard Arabic*. New York: Cambridge University Press.

- Shlonsky, U. (1997). *Clause structure and word order in Hebrew and Arabic: An essay in comparative Semitic syntax*. New York: Oxford University Press.
- Soltan, U. (2007). On agree and postcyclic merge in syntactic derivations: First conjunct agreement in Standard Arabic revisited. In E. Benmamoun (Ed.) *Perspectives on Arabic linguistics, Volume 14* (pp. 191-216). Amsterdam: John Benjamins.
- Spencer, A., & Luís, A. R. (2012). *Clitics: An introduction*. Cambridge: Cambridge University Press.
- Suleiman, Y. (2003). *The Arabic language and national identity a study in ideology*. Edinburgh: Edinburgh University Press.
- Trager, G. L., & Rice, F. A. (1954). The personal-pronoun system of Classical Arabic. *Language*, 30 (2), 224-229.
- Tucker, M. A. (2007). *Arabic clauses and subject positions: Evidence for a higher ground*. ProQuest Dissertations and Theses (PQDT).
- Vanderweide, T., Miller, J., Aronoff, M., & Grady, W. (2010). *Contemporary linguistics: An introduction* (6th ed.). Boston: Bedford, St. Martin's.
- Watson, J. C. (2007). *The phonology and morphology of Arabic*. Oxford: Oxford University Press.
- Wickens, G. M. (1980). *Arabic grammar*. Cambridge: Cambridge University Press.
- Wright, W. (1995). *A grammar of the Arabic language*. Cambridge: Cambridge University Press.
- Zwicky, A. M. (1977). *On clitics*. Bloomington: Indiana University Linguistics Club.
- Zwicky, A.M. & Pullum, G. K. (1983). Cliticization vs. inflection: English N'T *Language*, 59 (3), 502-513.
- Zwicky, A. M. (1985). Clitics and particles. *Language*, 61 (2), 283-305.