University of Wisconsin Milwaukee

UWM Digital Commons

December 2019

Information Structure in Standard Arabic Verbal Sentences

Salem Albuhayri
University of Wisconsin-Milwaukee

INFORMATION STRUCTURE IN STANDARD ARABIC VERBAL SENTENCES

by

Salem Albuhayri

A Dissertation Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

in Linguistics

at

The University of Wisconsin-Milwaukee

December 2019

ABSTRACT

INFORMATION STRUCTURE IN STANDARD ARABIC VERBAL SENTENCES

by

Salem Albuhayri

The University of Wisconsin-Milwaukee, 2019
Under the Supervision of Professor Hamid Ouali

This thesis investigates Information Structure (IS) in relation to the clausal architecture in Standard Arabic (SA). The attention is confined to word order variation and its role in structuring discourse. The structural positions with potential information structure import are argued to appear at the edges of phases, namely *v*P and CP. It presents an analysis which brings together the minimalist scheme as embodied in Chomsky (2000, onwards) and the cartographic approach to discourse as embodied in Rizzi (1997, 2001) and Cinque (1999). First, in chapter (2) a distinction is made between VSO and SVO clauses, in which I propose that the preverbal subject in SVO is ambiguous between two readings: i) a topic reading which involves the external merge of the subject in SpecCP, binding a *null* pro in Spec*v*P, and ii) a focus reading which involves subject movement from Spec*v*P to SpecTP in response to a composite probe on T. Clitic left-dislocated phrases are argued to originate in the same position as preverbal topical subjects and they bind resumptive pronouns internal to the thematic domain. The position of the complementizer, which always ends up higher than topics, is derived by head movement, induced by labeling requirements based on the assumption of the labeling algorithm following Chomsky (2008, 2013, 2015).

In chapter (3), the discussion is shifted to the midfield discourse layer, the *v*P edge. First, a detailed description of the structural conditions that regulate object shift is presented, followed by a proposal which assumes that OS is driven by a composite probe on *v,* therefore explaining the mixture of A and Ā characteristics it displays. However, the discussion is not confined to OS,

the transformation that usually receives most attention insofar as this area of the structure is concerned. Rather, a range of other constituents with the potential to appear at the *v*P edge, namely PPs, CPs, adverbs and secondary predicates, are investigated with the aim of establishing that SA has a midfield discourse layer similar to the CP edge. With regard to the interpretive effects associated with the *v*P edge, the overall picture that emerged is that whatever moves to this zone becomes more liable for a background interpretation, whereas the elements that are spelled out in the domain of *v*P are focused.

Chapter (4) is devoted to an investigation of the left periphery. I extend the discussion to the remainder of mathematically possible word orders derivable from SVO and VSO, including SOV, OSV and OVS, building on the derivational difference established between SVO and VSO in chapter (2). I demonstrate that the presence of multiple DPs in the left periphery induces i) contrastive topic plus focus readings when the lower DP arrives at its surface position by movement, and ii) topical readings that set the predicate in focus when they extremally merge in SpecCP. In the course of teasing apart the IS effects associated with the various permutations that result from movement to this area, I propose a non-movement analysis of floating quantifiers in SA in which they are argued to be base-generated in their clause-internal position and are co-indexed with a definite (mostly topical) constituent higher up in the structure. Then, I examine word order variation in answers to constituent questions. I show that clausal answers with preposed constituents are only felicitous in contexts where there is good reason to assume that some discourse participants have other conceivable alternative answers that contrast with the uttered one. As for fragments, I argue for a partial in-situ deletion approach which derives them from their clausal counterparts where answers are in clause-final positions.

Finally, the syntactic and semantic properties of exceptives in SA are examined in chapter (5), with the scope limited to exceptives in VSO clauses and how their syntax interacts with their IS effects. I argue that full exceptives can be analyzed as connected exceptives (CEs) with two configurations; one that has the excepted phrase as a DP-level adjunct in a *v*P-internal position and another that has the excepted phrase in a right-peripheral non-focused position. They also can function as free CP-level exceptives, in which case the excepted phrase originates in a second clause from which it moves to the left peripheral focus position while the remainder of the clause is deleted or gets phonologically suppressed at PF. As for incomplete exceptives, I argue that they too are CP-level exceptives in which the domain XP is a null *pro* and the excepted phrase is in focus. The analysis shows that exceptives have interpretative effects stretching beyond their truth conditions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

1	1st person
2	2nd person
3	3rd person
ACC	Accusative
AFF	Affirmative
EC	Epenthetic Consonant
EXT	Extended Mood Marker
FEM	Feminine
FM	Focus Marker
FOC	Focus
FV	Final Vowel
GEN	Genitive
IMPERF	Imperfective
IND	Indicative
LOC	Locative
MASC	Masculine
Neg	Negation
NOM	Nominative
NS	Nominalizer
PERF	Perfective
PL	Plural
SG	Singular

SUB	Subjunctive
TOP	Topic
VC	Verbal Case

ACKNOWLEDGMENTS

I was lucky to have been part of the department of linguistics at UWM for the past four years. I could not have asked for a better environment to pursue my goals. Anyone who pursued a doctoral degree recalls the challenges and sleepless nights they have been through and will always remember with gratitude the people whose presence during the journey has helped smooth things out. At UWM, there was no shortage of such people. The faculty, staff, students and guest speakers have all contributed to maximizing my gains and making my time at UWM a wonderful learning experience.

I have been blessed with a committee whose influence on my research cannot justly be represented by this dissertation. In all honesty, what I have learned from them stretches way beyond this work and words of acknowledgement would never do them justice but I will do my best. First and foremost, my sincere thanks go to my advisor prof. Hamid Ouali. I am deeply indebted to Hamid for his unwavering support and constant encouragement ever since I walked into his office to discuss the initial ideas for this work in the Fall of 2017. His persistent guidance and thoughtful suggestions have always pushed me to look into the issues I am exploring from various perspectives and to reconsider hasty conclusions. I will always recall how my visits to Hamid bailed me out of the difficult impasses I encountered, which in many occasions bordered on being intractable. Thanks, prof. Hamid.

I would like also to extend my thanks to prof. Nicholas Fleisher for his assistance, insightful questions and suggestions. In fact, my interest in information structure grew out of an advanced semantics class I took with Nicholas in the Fall of 2016. Despite the fact that the topic has ramifications that resonate through various disciplines, the way it was presented was sufficient to intrigue me and I decided to explore it in Arabic. I hope this work reflects what I have learned in that class

During my time in Milwaukee, I was truly blessed with supportive and faithful friends without whom the journey would not have been as easy and joyful. I am very grateful to Abdullah Alsubhi, Abdulrahman Aljutaili, Bader Alharbi, Mohammed Abuhaib, Salman Albardi, Saad Al-shahrani, Turki Alwahibee, Yahya Aldholmi and Yasser Albaty. Their presence in my life made me feel like home, and the fact that we shared interest in linguistics has influenced my work in many respects. I will always recall with happiness that I have been part of this wonderful group. Special thanks go to Mohammed Abuhaib and Turki Alwahibee. My arrival at UWM coincided with theirs and I had the privilege to share most classes with them. Mohammed and Turki are more like bothers to me. They were always available to offer their help whenever I needed.

There is no possible way I can put into words the appreciation and gratitude I owe to my family. If it were not for the sincere prayers, unwavering support and constant encouragement I received from my parents, brothers and sisters from the first day I arrived in Milwaukee, I would not have been able to achieve my goals. I am deeply grateful to them and it is to them all that I dedicate this work.

My first, last, and continual thanks go to the Almighty Allah who blessed

me with everything I have and everything I have achieved.

Chapter 1

1 INTRODUCTION

1.1 Introduction

Conversations in their essence are carried out to establish a common understanding of some aspect of the real or some imaginary world. This primary goal is accomplished via the utilization of the repertoire of discourse-structuring mechanics availed by the language used as a medium of conversation, i.e., different languages afford different procedures (Ladd, 1990; Lambrecht, 1994; Rooth, 1985, 1992). For instance, the primary discourse-structuring mechanism in English is prosody; stressing and destressing are used to tell focused and familiar information apart. Other procedures can be used, however, including cleft constructions and focus-associative elements like '*only*' and '*even'*. Languages such as Japanese and Korean, on the other hand, employ morphology and word order to structure discourse and therefore are dubbed as discourse-configurational languages (É. Kiss, 1995; Miyagawa, 2010, 2017). Noteworthy though is the repeated observation that these cross-linguistically diverse devices are not innocuous options, but rather carry out different functions. The general characterization of such devices and their functions in structuring the informational content of utterances is referred to as *Information Structure* (IS, hereafter).

Chafe (1976:27f) defines IS as a procedure for information packaging whereby a speaker accommodates his speech in response to the immediate contextual needs of his interlocutors through his encoding of several phenomena including *focus, givenness*, *topic* among others. This has the implication that speakers do not usually make random choices in the presentation of their thoughts but rather vary their lexical materials, syntactic devices and pronunciation in a manner that is commensurate with the context; a direct entailment of this is that contexts are depicted in and therefore are in principle retrievable from what speakers say. There exists a generally received

conviction that these discourse organization mechanisms *per se* do not usually influence the truth conditions of a sentence. However, it is by now well recognized that in addition to their role in information packaging some mechanisms may bring about truth-conditional differences (e.g., Jackendoff, 1972; Rooth, 1985, 1992; Krifka, 2008; Erlewine, 2014). For example, focus in the context of focus-sensitive adverbs such as '*only*' conveys the sense of exhaustivity, a sense that will be illustrated later. Taken together, these rudimentary descriptive statements suffice to illustrate that IS has far-reaching effects that resonate through phonology, syntax, semantics and pragmatics, and hence is a busy domain of inquiry infused with interdisciplinary questions.

Against this background, this thesis is intended to examine IS in Standard Arabic. The point of focus is word order and its role in structuring discourse, a subject matter that has received sporadic attention in the history of generative investigation of the language (e.g., Bakir, 1979; Ouhalla, 1994, 1997; Shlonsky,1997, 2000; Aoun et al., 2010). Nonetheless, the existing literature, for the most part, puts more emphasis on the syntactic aspects of word order variation at the expense of accompanying interpretations. This tendency has been animated by the pursuit of principled accounts for agreement patterns in the language. However, the little regard given to interpretation was on occasions a corollary of the working principles of the theoretical frameworks within which syntactic accounts were embedded; for example, object shift, a transformation that is by now admitted to bring different interpretations in its train, was deemed to take place for pure syntactic reasons in some early minimalist accounts, namely to check object case in a *spec-head* configuration (e.g., Ouhalla, 1994; Shlonsky, 1997). On the other hand, those works that accord equal attention to interpretation do not provide a comprehensive picture of IS in the language. The focus has largely been on the clausal edge, i.e., what is commonly identified as the left periphery (e.g., Shlonsky, 2000, Aoun et al., 2010). To the best of my knowledge, no work explores IS in SA in

relation to the clausal architecture in general and how different word orders relate to one another in terms of their felicity conditions. The situation being as such, the goal of this work is to bridge this gap by laying down a detailed analysis of IS in Standard Arabic verbal clauses couched within the recent minimalist accounts of clause structure in the language (mainly Soltan, 2007). The primary interest is in the syntactic means by which IS is manipulated. After these means are identified, potential associated interpretations are teased apart and formalized in terms of *Alternative Semantics*[1] (von Stechow, 1989; Rooth, 1985, 1992; Büring, 1997, 2003, 2016, a.o.).

1.2 A Note on Standard Arabic

The language under investigation is Standard Arabic (SA henceforth). I use this appellation as a compromise between Classical Arabic (CA) and Modern Standard Arabic (MSA). Even though it is undeniable that these two varieties have proclaimed differences, their morphology and syntax have almost remained unchanged. In the main, differences are confined to lexical and stylistic aspects. Some structures are also considered less frequent in MSA (see Ouhalla 1994 for some relevant discussion). Nonetheless, they basically demonstrate equal freedom in word order, which is in part ascribed to their rich morphology, and hence, for the most part, the analyses posited for the issues discussed here are assumed to extend to both.

---

[1] Throughout this work, I use the notion "interpretation" in a more inclusive sense to involve not only truth conditions but also felicity conditions pertinent to IS; by felicity conditions I mean the contextual circumstances that regulate structure use. This inclusive sense is used elsewhere in the literature (e.g., Wurmbrand, 2008; Bobaljik and Wurmbrand, 2012; Gutzmann, 2015). It is dovetailed with Kaplan's (1999) notion of *use conditions.* As Gutzmann (2015:7) puts it, "we now have two modes of expression in which content can be conveyed [….]. Some expressions convey only truth-conditional content (dog), others contribute only use-conditional content (damn), while others contribute both (cur)". This view extends to complex expressions as many need to be analyzed in terms of their truth as well as use conditions in order for their overall meaning to be fully captured. So, a sentence such as the following has two dimensions of meaning as illustrated in (i)a and (ii)b.

  i)   The damn dog howled the whole night.
          a. <u>Truth Conditions</u>: (i) is true if the dog howled the whole night
          b. <u>Use Conditions</u>: (i) is felicitously used if the speaker feels negatively about the dog

Although the use conditions in (i)b pertain to a lexical item, use conditions can be associated with structural forms.

It should be indicated, however, that there has always been an explicit concern over taking SA as a milieu for linguistic investigation, the reason being the overemphasized conception that it is a language that has no native speakers and thus does not warrant linguistic investigation since native intuitions are unobtainable. While it is true that SA is not the native language parents speak at home, there are various SA input sources that children have access to even before they join school, mostly embodied in children-oriented media programming. This early exposure combined with formal instruction when they join school allows educated Arabs to make reliable grammaticality and felicity judgments on SA data comparable to speakers of other languages. Support for this claim comes from research on language acquisition which reveals that, of all aspects of language, syntax and semantics have longer critical periods for acquisition (Ruben, 1999; Seol, 2005; Albirini et al., 2019).

One further reason to play down this concern is that the basic data under examination here is made up of sentences whose grammaticality is largely uncontroversial as they can be found in academic and formal writings. The large bulk of data is either drawn as it is or adapted from other previous research on SA (mainly Bakir, 1979; Fassi Fehri, 1993; Ouhalla, 1994, 1997; Mohammad, 2000; Benmamoun, 2000; Shlonsky, 2000; Soltan, 2007). However, in the construction of evidence for the arguments being developed I venture out of the confines of the literature to other relevant data whose grammaticality and felicity are checked out through judgments gleaned from Arabic experts and other fellow linguists.

As for why SA is selected as a testing ground for the relation of word order variation to IS, the answer is that SA manifests almost all possible orders, a characteristic attributed to its rich case morphology which preserves the grammatical functions of arguments no matter where they end up in the structure (see Holmberg 1986 and Neeleman 1994 for earlier arguments on the connection

4

between free word order and rich morphology). Dialects lack this freedom due to the fact that they have lost their case morphology. Aoun et al. (2010:47) report data from three Arabic dialects (Palestinian, Lebanese and Moroccan) which shows that they do not have SOV, OSV and OVS clauses. Lewis (2013:11) points up similar restrictions in Najdi Arabic where only SVO, VSO and VOS are dominantly attested. What ensues from these observations is that word order variation might not be as much revealing in these dialects as it is in SA. One might surmise that these dialects compensate for restrictions on order permutations by the utilization of other means such as lexical and intonational cues to mark IS, which falls outside the perimeter of interest of this thesis (for IS in Arabic dialects, see Owens & Elgibali 2009). Lastly, SA is particularly interesting due to its dual character of being an agreement language (like English and French) and a discourse-configurational language (similar to Japanese and Chinese).

1.3 Main Claims

As a synthetic language characterized by its copious morphology, SA demonstrates a great deal of syntactic flexibility; given a *lexical array* and barring certain limitations, all mathematically possible structural permutations can be derived. However, it would be surprising if this flexibility is reduced to parallel choices with no differences in interpretation. Economically speaking, it comes across as implausible if two orders can yield the exact same interpretation because the question that arises then is: <u>why the two orders?</u> Economy considerations come into play in adjudication between syntactic structures that are derived from the same lexical materials and have the same interpretation, filtering out uneconomical derivations, with economy defined as the derivational path with the least effort steps (Bošković, 1997; Collins, 2001; Hornstein, 2009; Wurmbrand,

2008; Bobaljik & Wurmbrand, 2012)[2]. Economy also holds of representations, not just derivations.

For concreteness, let us consider (1) below.

(1) a. ʔiʃtara-a   ʕalijj-un   kitaab-an   VSO
buy.PERF-3SG.MASC   Ali-NOM   book-ACC
'Ali bought a book.'

  b. ʕalijj-un   ʔiʃtara-a   kitaab-an   SVO
Ali-NOM   buy.PERF-3SG.MASC   book-ACC
'As for Ali, he bought a book.'

  c. ʕalijj-un   kitaab-an   ʔiʃtara-a   SOV
Ali-NOM   book-ACC   buy.PERF-3SG.MASC
'As for Ali, a [book]F he bought.'

  d ʕal-kitaab-u   ʕalijj-un   ʔiʃtara-a-hu   OSV
the-book-NOM   Ali-NOM   buy.PERF-3SG.MASC-it
'As for the book, Ali bought it.'

  e. ʔiʃtara-a   kitaab-an   ʕalijj-un   VOS
buy.PERF-3SG.MASC   book-ACC   Ali-NOM
'A [book]F Ali bought.'

  f. kitaab-an   ʔiʃtara-a   ʕalijj-un   OVS
book-ACC   buy.PERF-3SG.MASC   Ali-NOM
'A [book]F Ali bought.'

The sentences in (1) are derived from the same lexical materials and express the same proposition, namely '*Ali bought a member of the set denoted by the property 'book'*[3]. The simple observation that none is ruled out is a sound indication that each one carries out some interpretive function that the rest cannot. Ideally, nothing takes place for no reason. This intuition for the lack of complete interpretive isomorphism becomes more evidenced in the case of different syntactic forms that are derived from different lexical arrays but nevertheless can still express the same proposition. Let us consider the sentences below (adapted from Ward, 1985:2).

---

[2] In the history of the generative tradition, economy considerations are turned into conditions that are assumed to regulate derivations ensuring that only the simplest are passed to the interfaces. Among these conditions are Relativized Minimality (Rizzi, 1990, 2001; Frampton, 1991), the Minimal Link Condition, Attract Closest and Last Resort (Chomsky, 1995, 2000; Richards, 1997; Pesetsky, 2000) and the list goes on.

[3] The semantic denotation of indefinite nouns is still subject to debate with discussions revolving around whether they are property-denoting, individual-denoting or quantificational (see Partee 1986 for a discussion), and therefore I should point out that the term 'property' is used here only for the sake of simple exposition.

(2) a. John finished Chapter III.

    b. Chapter III was finished by John.

    c. It was Chapter III that John finished.

    d. What John did was finish chapter III.

    e. And finish Chapter III John did!

Ward (1985) argues that even though (2) shows that the proposition '*John finished Chapter III'* can be conveyed in several distinct ways, the use of different lexical materials in different syntactic arrangements is symptomatic of variation in felicity and interpretation. Thus, it is reasonable to conjecture that the choice of one syntactic form over another is not random. Speakers exploit these structural options to tailor their speech to meet diverse pragmatic ends, i.e., among truth-conditionally equivalent structures they opt for the one that is more context-appropriate.

In a seemingly different but in essence similar vein, Fox (1998, 2000) argues that Quantifier Raising (QR), a covert movement driven by semantic considerations, does not apply when its application is semantically vacuous. (3) below illustrates this point (Fox, 1998:22).

(3) a. A student admires every teacher.

    b. Every student admires every teacher.

Fox argues that, while QR in (3)a is scopally informative in that it can derive two readings based on which of the existentially quantified subject and the universally quantified object outscopes the other, (3)b is scopally uninformative and therefore is restricted to surface scope. He formulates this argument into a principle he calls *Scope Economy* which basically states that optional QR does not apply if the surface and inverse scope interpretations are not semantically distinct[4]. The point

---

[4] Fox's scope economy is nested in the belief that QR intrinsically comes in two flavors; QR that is driven by compositional requirements to remedy type mismatches, and optional QR that derives inverse scope. For instance, the movement of the object DP from its base-generated position in the sentence below is obligatory for compositional reasons in type-theoretic semantics, but its landing at the edge of *v*P, deriving the surface scope reading, or at SpecTP above the subject, deriving the inverse scope reading, is optional.

of relevance to our purposes is that since economy considerations are argued to push aside unin-

formative covert movement, there is good reason to believe that they are operative on overt move-

ment instantiated in (1). The motivation is that overt operations are more costly as they have more

ramifications at the interface levels.

Based on the basic observations above, the main claim I entertain throughout this work is

twofold. First, although the basic order in SA has been a subject of intense debate (e.g., Anshen &

Shreiber, 1968; Bakir, 1979; Ayoub, 1981; Fassi Fehri, 1982, 1993), for syntactic and semantic

considerations that will be elucidated in §2.2, I side with the analyses that argue for the basicness

and neutrality of VSO (e.g., Bakir, 1979; Fassi Fehri, 1993; Soltan, 2007). Second, I assume that

any word order other than VSO is designed to serve specific pragmatic objectives. The claim is

embodied in the following generalization.

(4) *Order Flexibility Generalization*

VSO is the basic and 'discourse neutral' word order in SA, and any disruption to
this order is accompanied with interpretative consequences pertinent to IS.

This generalization is not a complete novelty of this thesis but rather seems to have been underly-

ing some research at the clause level in SA, but mostly whenever other orders are discussed, they

do not get comprehensive treatments because some are usually dismissed as simply being 'awk-

ward' and less frequent. Moreover, even when SA as a VSO languages is stressed upon in most

works, some proceed after this assertion to reduce the difference between VSO and SVO, the sec-

ond salient order in the language, to the assumption that the subject moves to SpecTP in SVO in

---

i.   A student admires every tree. $\exists > \forall; \forall > \exists$
ii. [$_{TP}$ [a student] … [$_{vP}$ [every teacher] $_{vP}$ [[a student] … admires… [every teacher]]]] $\exists > \forall$
iii. [$_{TP}$ [every teacher] $_{TP}$ [a student] … [$_{vP}$ [every teacher] $_{vP}$ [[a student] … admires… [every $\forall > \exists$
     teacher]]]]

When the sentence is *every student admires every teacher*, Fox's scope economy precludes the derivation in (iii) and
lowering the subject back to Spec$v$P in (ii) at LF (logical form), as both would derive inverse scope, which is not
informative as far as this sentence is concerned.

8

response to EPP (see §2.1 below). This work is intended to exhibit that nothing is 'awkward' about these permutations. Rather, the truth of the matter consists in that each has its own felicity conditions that set it distinct from the rest, and that some of these conditions are so elaborate that they might not arise as much frequently as others, but whenever they do, typically a certain structure stands out as the most appropriate. As a caveat, it is worth noting that "basicness" in (4) is to be construed in the minimalist sense of the 'most economical derivation', not the transformational sense as the baseline deep structure from which others are derived via transformational rules (Chomsky, 1971), which was the basis for Bakir's (1979) investigation into clause structure in SA. However, the sense of "most economical" does not rule out the possibility that VSO can still be a step in the derivation of other structures.

By "disruptions" to VSO in (4), I mean in particular alterations that can be brought about by movement to vP edge, through object shift and other movement instantiations targeting the same position, and by movement to CP edge, via focus-fronting, topicalization and clitic left dislocation. Chomsky (2000, 2001) identifies vP and CP as phases and therefore constituents affected by the aforementioned transformations land in positions that correspond to phasal edges. Nonetheless, the general hypothesis espoused throughout, which assumes some sort of a feature inheritance scheme along the lines of Miyagawa (2010), is that movement with interpretive consequences may appear also in positions below phasal heads, viz., v and C. In addition to movement operations affecting the same lexical array, disruptions to VSO can be made via the use of lexical items that alter its discourse neutrality. In this connection, I discuss exceptive constructions in particular and the potential for exceptive markers to have interpretations associated with IS.

In addition to (4) which is a claim about IS, I observe that some permutations are accompanied with truth-conditional effects in the context of quantificational arguments in that they

disambiguate scope in formerly scope-ambiguous sentences[5]. So, unlike (5)a which is liable to surface and inverse scope readings, (5)b is liable to the surface scope reading only[6].

(5) a. qaraʔ-a   tˤaalib-un   kull-a   kitaab-in
         read.PERF-3SG.MASC   student-NOM   every-ACC   book-GEN
         'A student read every book.'   ∃>∀: ∀>∃

     b. qaraʔ-a   kull-a   kitaab-in   tˤaalib-un
         read.PERF-3SG.MASC   every-ACC   book-GEN   student-NOM
         'A student read every book.'   ∀>∃; *∃>∀

This observation has some implications, at the forefront of which is that shifting the quantifica-tional object in (5)b does not reconstruct at LF, contrary to what is characteristic of Ā-movement. Second, it lends further support to the general theme that word order variation is not a mere set of equivalent choices as some movement instantiations not only take place for pragmatic purposes but are also semantically informative as they seem to obligatorily shift scope[7]. This requires some careful examination into the nature of movement like the one in (5)b, a task undertaken in chapters 3 and 4. To the best of my knowledge, this connection between IS effects and scopal relations has not been detected before in SA although it has been a recurrent theme in the literature (e.g., Krifka, 1990, 2015; Partee, 1991). It means that some forms of this overt movement in the language carries out the function QR does in languages like English.

The sections thus far have been devoted to staking out the perimeter for this thesis. In the next section, the attention is shifted to an abridged presentation of the major data under examina-tion. They are divided into sets based on which part of the sentential architecture they belong to.

---

[5] Judgments on scope ambiguities in sentences such as (5)a is relatively unstable insofar as inverse scope is concerned. Some informants accept only the surface scope reading.
[6] This work is not primarily concerned with scope taking in SA, but rather with scope insofar as it is influenced by IS.
[7] In chapter 4, it will be shown that Wh-movement allows for reconstruction, unlike object shift.

1.4 Basic observations

1.4.1 *v*P Edge

*v*P edge is optionally targeted by movement of a number of constituents with different grammatical functions. Object shift (OS) epitomizes this kind of movement. It moves the object to a position mediating between the derived verb position under T and the subject base position in Spec*v*P, therefore deriving VOS clauses. Different constituents can undergo OS, at the forefront of which are definite and indefinite DPs (Soltan, 2007; Musabhein, 2009). Below are examples (Soltan, 2007:117f).

OS with definite DPs (6)b and indefinite DPs(7)b

(6) a. qaraʔ-a   zajd-un   ʔal-kitaab-a
   read.PERF-3SG.MASC Zayd-NOM   the-book-ACC
   'Zayd read the book.'

  b. qaraʔ-a   ʔal-kitaab-a zajd-un
   read.PERF-3SG.MASC the-book-ACC Zayd-NOM
   'Zayd read the book.'

(7) a. qaraʔ-a   zajd-un   kitaab-an
   read.PERF-3SG.MASC Zayd-NOM   book-ACC
   'Zayd read a book.'

  b. qaraʔ-a   kitaab-an   zajd-un
   read.PERF-3SG.MASC book-ACC   Zayd-NOM
   'Zayd read a book.'

In his development of the argument that SA is a non-A-movement language, Soltan (2007) brings up evidence to illustrate that OS shows the hallmarks of Ā-movement, principally reconstruction and preservation of binding relations, and, to a lesser extent, licensing of parasitic gaps. This argument entails that OS does not take place for mere syntactic reasons and consequently carries out discursive functions. Taking up Soltan's analysis, Musabhein (2009) argues for a contrastive-focus interpretation of OS. While this analysis captures an attested reading, it overlooks other possible interpretations for which there is abundant evidence. I demonstrate that the movement in (6)b and

(7)b suggests an oscillation between a contrastive focus and a contrastive topic reading, and propose that this oscillation is predictable based on the in/definiteness of the moved object. I also examine in more details the nature of this movement and whether it is uniformly Ā-movement.

In addition to DPs, *v*P edge can be the landing site for complement PPs and CPs as well as pronominal object clitics which obligatorily undergo OS. All are exemplified in the discussion in §3.3.4. The obligatory OS of clitics is argued to be a reflection of a topic that is realized optionally in the left peripheral topic position. PPs are liable to the same readings as DPs, namely a contrastive focus or contrastive topic reading. As for CPs, since complex arguments tend to appear sentence-finally, their movement to *v*P edge is shown to set the subject in focus.

The last piece of data pertaining to *v*P edge is secondary predication. Below are examples, adapted from Bakir (1979:57ff). The depictive can move alone as in (8)c, or along with the object as in (8)d.

(8) a. qaabal-a   zayd-un   ʕamr-an   m-ubtasim-an
         meet.PERF-3SG.MASC   Zayd-NOM   Amr-ACC   NS-smiling-ACC
         'Zayd met Amr (and he was) smiling.'

     b. qaabal-a   ʕamr-an   zajd-un   m-ubtasim-an
         meet.PERF-3SG.MASC   Amr-ACC   Zayd-NOM   NS-smiling-ACC
         'Zayd$_i$ met Amr (and he$_i$ was) smiling.'

     c. qaabal-a   m-ubtasim-an   zajd-un   ʕamr-an
         meet.PERF-3SG.MASC   NS-smiling-ACC Zayd-NOM   Amr-ACC
         'Zayd met Amr (and he was) smiling.'

     d. qaabal-a   ʕamr-an   m-ubtasim-an   zajd-un
         meet.PERF-3SG.MASC   Amr-ACC   NS-smiling-ACC Zayd-NOM
         'Zayd met Amr (and he was) smiling.'

Another aspect worthy of note is that (8)a is ambiguous as the depictive may be predicating of the subject or the object. It seems that when the object undergoes OS alone as in (8)b, the sentence is disambiguated in favor of a subject-oriented reading. Likewise, when the depictive moves alone as in (8)c, the same effect is derived. The only way to maintain the depictive object-oriented

reading is by movement of both as in (8)d, but the subject-oriented reading remains possible in this case. An attempt is made to account for these disambiguation effects of movement to *v*P edge, and the possible discursive interpretations are then raveled out.

The investigation of this diversity of elements that can move to the edge of *v*P is intended to establish that *v*P is topped with a discourse layer similar to CP; none of the movements that target this midfield zone takes place for syntactic reasons since these constituents can perfectly remain in their base-generated positions without evoking ungrammaticality.

1.4.2 CP Edge

1.4.2.1 Focalization, Topicalization and Clitic-left Dislocation

The second field of clause structure associated with IS is the left periphery (in Rizzi's 1997 terms) which can host foci, topics and clitic-left dislocated elements (CLLDs), among other things. Focus in SA is primarily expressed either through focal stress in *situ* as in (9)b or through syntactic movement as in (9)c (Ouhalla, 1997:11ff).

(9) a. ʔallafa-t   zajnab-u   riwaajat-an
         write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC
         'Zaynab wrote a novel.'

     b. ʔallafa-t   zajnab-u   [riwaajat-an]$_F$
         write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC
         'Zaynab wrote [a novel]$_F$.'

     c. riwaajat-an   ʔallafa-t   zajnab-u
         novel-ACC   write.PERF-3SG.FEM   Zaynab-NOM
         '[A novel]$_F$ Zaynab wrote.'

(10) a. ʔallafa-t   zajnab-u   r-riwaajat-a
         write.PERF-3SG.FEM   Zaynab-NOM   the-novel-ACC
         'Zaynab wrote the novel.'

     b. ʔar-riwaajat-a   ʔallafa-t   zajnab-u
         the-novel-ACC   write.PERF-3SG.FEM   Zaynab-NOM
         '[The novel]$_F$ Zaynab wrote.'

     c. ʔar-riwaajat$_j$-u   ʔallafa-t-haa$_j$ zajnab-u
         the-novel-NOM   write.PERF-3SG.FEM-it   Zaynab-NOM

'The novel, Zaynab wrote it.'

In (9)b, the object is placed in focus in *situ* through focal stress but when preposed as in (9)c it receives a contrastive focus reading (Moutaouakil, 1989; Ouhalla, 1997; Shlonsky, 2000). In (10), the object could either move from its thematic position to the pre-TP field, leaving behind a gap as in (10)b, or might be externally merged, binding a resumptive pronoun internal to the thematic domain as in (10)c. The latter transformation is what is recognized in the literature as CLLD (Ouhalla, 1997; Shlonsky 2000; Aoun et al., 2010). These structures are examined and a new proposal is advanced in which topicalization and CLLDs are collapsed into one category, i.e., the difference is argued to be purely terminological.

1.4.2.2 Constituent (wh) Questions

SA is basically a wh-movement language (Aoun et al, 2010). However, the landing site of the moved wh-word relies on whether or not there is a preverbal subject; wh-words cannot move past the preverbal subject. This led to the emergence of what is referred to as the ban on extraction across preverbal DPs (Fassi Fehri, 1993; Soltan, 2007). Below are illustrative examples.

(11) a. zajd-un   qaraʔ-a   kitaab-an
         Zayd-NOM   read.PERF-3SG.MASC   book-ACC
         'Zayd read a book.'

     b. *maaðaa   zajd-un   qaraʔ-a
         what   Zayd-NOM   read.PERF-3SG.MASC
         'What did Zayd read?'

As can be seen in (11)b, the wh-word cannot precede the preverbal subject '*Zayd*'. This observation holds true of focus-preposed constituents, too. '*The book*' in (11)a cannot move to a position higher than '*Zayd*'[8]. Focus and wh-questions can still be derived from SVO, however, by movement that lands below the subject. These observations are taken as a point of departure to present

---

[8] For ease of exposition, in the discussion sections throughout this work I use the English counterparts of the Arabic words instead of the common practice of using the Arabic words followed by the English translation.

a new perspective on the status of preverbal subjects in SVO, proposed as an extension of Soltan's (2007) analysis in which they are treated as topics whose merge-in position is SpecTP. Under this section, I discuss the different types of constituent question answers. First, the answer could be a full sentence in which the constituent that provides the new information appears in its canonical position in the sentence, i.e., in the merge-in position of the wh-word in the question (the original copy position). Second, it could be a full answer whose syntax is identical to that of the question; the constituent appears in the same position as the wh-word in the question. Third, the answer could be confined to the constituent that provides the new information. The first two types are called propositional or clausal answers, whereas the third is called fragment, short or elided answers (Xiang, 2016:2). The three types are exemplified in chapter 4) where an account of them is put forward.

1.4.3 Exceptive Constructions

Exceptive constructions in SA form the third set of data relevant to our purposes. The tendency to make universal claims is a characteristic ingrained in human nature, and therefore language provides strategies that help make qualifications (Hoeksema, 1987:100). Among these strategies is to make exceptions introduced by certain markers such as English *except* and *but* and their cross-linguistic counterparts. Exceptive structures raise a number of intriguing questions pertaining to their morphosyntactic properties as well as their semantic interpretation.

SA possesses a relatively large inventory of exceptive markers, including *ʔilla*, *ɣajr*, *siwaa*, *xalaa*, *ħaaʃaa* and *ʕadaa*, all of which have the meaning of '*except for'* or '*other than*'. These markers diverge in their morphosyntax but they pretty much have the same distribution. The constructions in which they appear can have different interpretations, which for the most part follow

from the internal syntax of the structure and not from the difference in the used marker. I follow traditional grammarians in the presentation of data, starting with *ʔilla* exceptives.

1.4.3.1 *ʔilla* Exceptives

An exceptive construction usually consists of an <u>exceptive marker</u> followed by an excepted phrase, which I will call the <u>excepted XP</u> (XP), and preceded by a domain from which the exception takes place, which I will call <u>the domain</u> (DXP). I call the combination of the exceptive marker and the excepted XP <u>the exception phrase</u> (EP). When these three constituents are present, the exceptive is traditionally called *full* or *complete* (Omar et al., 1994:468). Sometimes the domain XP does not exist. Another dimension for distinction between exceptive constructions is whether they are positive or negative. The domain might be formulated by a definite DP, a DP with a universal quantifier or by a negative polarity indefinite (NPI) in the context of negation. Below are illustrative examples with a definite DP as the domain XP.

(12) a. dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an/*un
          come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/*NOM
          'The students came, except for Zayd.'

    b. qaabal-tu   tˤ-tˤullaab-a   ʔilla   zajd-an
          meet.PERF-1SG   the-students-ACC   except   Zayd-ACC
          'The students came, except for Zayd.'

(13) a. maa   dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an/un
          neg   come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/NOM
          'The students didn't come, except for Zayd.'

    b. maa   qaabal-tu   tˤ-tˤullaab-a   ʔilla   zajd-an
          neg   meet.PERF-1SG   the-students-ACC   except   Zayd-ACC
          'I didn't meet the students, except for Zayd.'

Intrinsically, exceptives are regarded as performing a subtraction from a given domain of quantification (Fintel, 1994:104). They signal that the excepted XP is the only entity that is or is not in the predicate set based on whether the quantification is negated or not. This is reflected in (12) and (13) by the fact that '*the students*' denotes the domain XP set , of which '*Zayd*' is presupposed or

implicated to be part[9]. At the level of morphosyntax, as can be observed in (12) the excepted XP is marked for accusative case invariably whereas in (13) it can inflect for accusative or agree with the domain XP. Traditionally, agreement in case is analyzed as the result of the excepted XP being an apposition of the domain. This is especially discernable in (13)a where the DP '*the students*' is inflected for nominative and '*Zayd*' can either be nominative or accusative. In (13)b, it is accusative either way because '*the students*' is accusative. With this said, let us turn to (14) below which are even more interesting both syntactically and semantically. At the level of syntax, while (12) and (13) have an overt domain XP on which the exceptive marker operates, (14) does not, exemplifying what is traditionally called *non-full* or *incomplete* exceptives (Omar et al., 1994:469ff). Moreover, the excepted XP inflects for case based on its grammatical function in the structure. In (14)a, it is a subject inflected for nominative and in (14)b it is an object inflected for accusative.

(14) a. *(maa) dʒaaʔ-a   ʔilla   zajd-un/*an
          neg   come.PERF-3SG.MASC except   Zayd-NOM/*ACC
          'Nobody came but Zayd.'
          'Only Zayd came.'

      b. *(maa) qaabal-tu   ʔilla   zajd-an
          neg   meet.PERF-1SG   except   Zayd-ACC
          'I met nobody but Zayd.'
          'I met only Zayd.'

As illustrated by the translation, in both sentences the meaning is that the only argument of which the predicate is true is the excepted XP. This means that the maximal set of which the predicate '*came*' is true is a singleton set whose sole element is '*Zayd*'.

---

[9] Fintel (1994:102ff) remains neutral on whether the natural inference that the excepted XP is an element of the domain set is a presupposition or implicature, but he provides ample evidence that the *exhaustive* meaning associated with the excepted XP is derived by entailment.

1.4.3.2 *ɣajr* and *siwaa* Exceptives

The excepted XP that follows *ɣajr* and *siwaa* is invariably genitive while *ɣajr* and *siwaa* them-

selves inflect for case the same way excepted XPs in '*ʔilla'* exceptives do. Below are examples

with *ɣajr*, adapted from Omar et al. (1994:468f).

(15) a.   fahim-tu   kull-a   d-daruus-i   ɣajr-a
        understand.PERF-1SG   all-ACC   the-lessons-GEN   except-ACC
        dars-in   waaħid-in
        lesson-GEN   one-GEN
        'I understood all lessons, except for one (lesson).'

     b.   maa   zaar-a-n-ii   ʔaħad-un   ɣajr-a/u
        neg   visit.PERF-3SG.MASC-EC-me   one-NOM   Zayd-ACC/NOM
        zajd-in
        Zayd-GEN
        'Nobody visited me, except for Zayd.'

     c.   maa   zur-tu   ʔaħad-an   ɣajr-a/*u
        neg   visit.PERF-3SG.MASC-EC-me   one-ACC   except-ACC/*NOM
        zajd-in
        Zayd-GEN
        'I did not visit anyone, except for Zayd.'

As can be noticed in (15), the excepted XP is always genitive. *ɣajr* takes accusative in (15)a, ac-

cusative or nominative in (15)b, as it has the option to agree with the domain, and is accusative in

(15)c, either as a result of agreement with the accusative domain XP or as the default case. In non-

full exceptives, the excepted XP still inflects for genitive whereas *ɣajr* and *siwaa* inflects for case

based on its grammatical position. This is illustrated in (16).

(16) a.   maa   dʒaaʔ-a   ɣajr-u   zajd-in
        neg   come.PERF-3SG.MASC   except-NOM   Zayd-GEN
        'Nobody came but Zayd.'
        'Only Zayd came.'

     b.   maa   qaabal-tu   ɣajr-a   zajd-in
        neg   meet.PERF-1SG   except-ACC   Zayd-GEN
        'I met nobody but Zayd.'
        'I met only Zayd.'

1.4.3.3 Other Exceptives

xalaa, *ʕadaa* and *ħaaʃaa* exceptives have a restrained syntactic distribution as they cannot appear in non-full exceptives, exceptives that lack the domain XP[10]. Below are examples with *xalaa*.

(17) a. dʒaaʔ-a tˤ-tˤullaab-u xalaa zajd-an/in
   come.PERF-3SG.MASC the-students-NOM except Zayd-ACC/GEN
   'The students came, except for Zayd.'

  b. dʒaaʔ-a tˤ-tˤullaab-u maa xalaa
   come.PERF-3SG.MASC the-students-NOM except
   zajd-an/(*in)
   Zayd-ACC/GEN
   'The students came, except for Zayd.'

In (17)a, the excepted XP '*Zayd*' can either be accusative or genitive, but in (17)b, where it is preceded by the subjunctive marker '*maa*', it has to be accusative. *ʕadaa* behaves in the same manner. *ħaaʃaa* differs from both in that it cannot be preceded by '*maa*', but its exceptives have the same characteristics as (17)a.

Table (1) below summarizes the morphosyntactic properties of the types of exceptives previewed above. Recall that *ɣaj* and *siwaa* inflect for case in a manner parallel to excepted XPs in *ʔilla* constructions. The discussion of potential interpretations is delayed until the analysis section.

Table (1): Case Inflections in Exceptives				
	ʔilla	*ɣajr/ siwaa*	*xalaa/ ʕadaa*	*ħaaʃaa*
1. Full Positive Exceptives	ACC	GEN	-ACC -GEN	-ACC -GEN
2. Full Negative Exceptives	- ACC - via agreement with the domain XP	GEN	----	----
3. Non-full Exceptives	- via agreement with T or *v*	GEN	----	----
4. Exceptives with Subjunctive '*maa*'	----	----	-ACC	----

---

[10] In chapter 5, I only discuss *ʔilla, ɣajr* and *siwaa* as judgments on other markers in terms of IS effects are unstable.

1.5 Research Questions

The overarching question that stimulates this work follows from generalization (4), and focuses on the interpretive consequences that can result from structural disruptions to the VSO order. This question is decomposed into subquestions delineated as follows.

i. How is SVO, the other main word order in the language, derived? How does it interpretively differ from VSO?

ii. What are the syntactic and interpretive properties that are associated with the discourse layer of the *v*P phase?

iii. How is the left periphery structured in SA? What elements could it host and what are their interpretive contributions?

iv. How are fragment answers derived in SA, and how do they relate to the structure of the left periphery?

v. What is the syntactic structure of exceptive constructions?

vi. What interpretations do exceptive constructions have?

The first question is addressed in a separate preliminary chapter (chapter 2) that establishes the underpinnings for the rest of the dissertation. The second question formulates the major catalyst for chapter (3), in which several types of movement to the edge of *v*P are probed; the discussion is not confined to object shift. The third and fourth questions are addressed in chapter (4), which is dedicated to the left periphery. In chapter (5), I take up the last two questions.

1.6 Background and Theoretical Assumptions

The theoretical framework adopted in this thesis is a combination of the *Minimalist Program* (MP), developed by Chomsky (1995, 2000, 2001) and others, and *Alternative Semantics* (von Stechow, 1989; Rooth, 1985, 1992; Büring, 1997, 2003, 2016). In what follows, the basic tenets of the both are elucidated, with specific concentration on the notions that pertain to the proposed analysis. Further details on the applications of some of these tenets are expanded on in the course of analysis.

MP is reviewed in §1.6.1, followed by *alternative semantics* in §1.6.2. In §1.6.3, I present a concise delineation of the basic notions of IS.

1.6.1 The Minimalist Program (MP)

1.6.1.1 Major Themes

MP is the tipping point of over sixty years of research in generative linguistics. The foundational doctrine for generativists is that humans come to this world already primed for the task of language acquisition by virtue of possessing a species-unique language faculty that, given experience, enables them to acquire language. Thus, any theory of grammar should provide an account of the structure of this faculty (Chomsky, 1993, 1995). This goal is achieved by attempts to characterize the initial state of this faculty, which is assumed to be uniform and therefore is referred to as Universal Grammar (UG), and the terminal state of a specific-linguistic system attainment. UG is thought to set bounds for languages accessible to the human mind; it is within the confines of UG that language-specific grammars evolve, where a grammar of a language is taken to be a theory of the internalized linguistic system possessed by its speakers, which enables them to process sentences in that language in terms of production and interpretation. This bifurcated perspective on language has led to the emergence of the *Principles and Parameters* model which still underlies generative research (Chomsky & Lasnik, 1993; Bośkovič, 2013). *Principles* stand for the characteristics that are common across languages, while *Parameters* relate to language-specific properties.

With the advent of MP, superfluous levels of representation such as Deep Structure (DS) and Surface Structure (SS), which were among linguistic levels in the Government and Binding (GB) era, are dispensed with, as derivations came to be analyzed with the minimal amount of apparatus. This minimality is accomplished by the reduction of the generative procedure to two

components: a computational system and a lexicon (Chomsky, 2000:100). The computational system is composed of two primitive operations: *Merge*, external or internal, and *Agree*. Internal merge, sometimes referred to as *Move*, comprises two suboperations, known as *Copy* and *Remerge*. This composite character of *internal merge* led to the emergence of the Copy Theory of Movement, whose crux is that when a constituent moves, what it leaves behind is not a trace but rather a full-fledged but unpronounced copy (Chomsky, 1993). Chomsky (2012:3) argues that *Copy* and *Remerge* are not discrete operations; they are two components of internal merge. Internal merge results in the formation of chains, which are then subject to the Chain Reduction via deletion of all links in a chain except for one, usually the higher (Nunes, 1995). Chain Reduction is motivated for the purposes of linearization.

Movement (internal merge) is standardly split into A and Ā-movement. Several works have emerged over the years whose objective was to provide a systematic characterization of how the two types are distinguished (e.g., Chomsky, 1981, 1995; Mahajan, 1990, Déprez, 1990; Miyagawa, 2010). Although many characteristics have been identified, drawn mainly from the behavior movement shows in relation to reconstruction, binding, weak crossover effects (WCO) and parasitic gaps licensing, the major distinction has been framed in terms of syntactic positions, in which A-movement is associated with the positions of complements and specifiers of lexical categories and the functional categories that project directly from them, whereas Ā-movement is associated with functional categories and therefore appear, among other positions, in SpecCP, and as adjunctions to IP[11].

This dichotomy is reformulated under the phase theory with the outcome that Ā-positions are associated to the specifiers of phase heads (i.e., C and *v*) whereas A-positions are associated

---

[11] This positional distinction extends to external merge. Constituents that are directly merged in a non-A position are said to be in Ā positions.

with constituents that relate to the heads of phasal complements. However, this standard view is challenged by recent research (e.g., van Urk & Richards, 2015; van Urk, 2015; Georgi, 2014), which turns up evidence that the two types of movement are not as discrete as formerly thought, and that some displacement instances display properties of both. Consequently, van Urk (2015:24) reduces to the difference between the two to the kind of features that drive them. Movement instances driven by features such as [Wh] and [Top] are Ā, whereas those driven by φ-features are A-movement.

As for the question of how the computational system operates, a sentence derivation starts out with a selection of lexical items (LIs), which are then assembled binarily by the computational system to form hierarchical expressions (Chomsky, 2015:5). These expressions are sound-meaning combinations that interface with, provide instructions to and are constrained by the two external systems: the articulatory-perceptual system (Phonetic Form, PF) and the conceptual-intentional level (Logical Form, LF).

Agree, on the other hand, is an operation under which agreement relations are established. It was originally developed in Chomsky (2000) but it has undergone several reconceptualizations thereafter (Baker, 2003, 2008; Zeijlstra, 2008; Bjorkman & Zeijlstra, 2014; Preminger, 2014, a.o.). The common denominator across the various incarnations of *Agree* is that it involves two syntactic objects: a probe and a goal. The probe is usually a head, H, that lacks a specification for some feature F, whereas the goal is an XP that appears in the local domain of H and has F as a lexically specified feature. The core idea of *Agree* is that the probe receives a value for F that corresponds with its value on XP. *Agree* in this sense incorporates three steps: i) the probe identifies a local goal, ii) it then enters into an *Agree* relation with that goal, and iii) eventually F on the probe gets the same value it has on the goal (valuation).

In *Problems of Projection*, commonly referred to as PoP, Chomsky (2013, 2015) posits a third primitive operation, the labeling algorithm, which he assumes to be responsible for giving labels to the syntactic objects that result from derivations. Further details on the workings of this operation are held in abeyance until the analysis section when it is invoked to account for some phenomena.

1.6.1.2 Phases and Feature Inheritance

Among the central development MP witnessed since its inception is the assumption that a sentence derivation proceeds in 'building blocks' or 'incremental chunks', called *phases*, which are transferred cyclically to the interface levels by an operation termed *Transfer* or *Spellout* (Chomsky, 2001, 2005, 2008). At first, *spellout* was assumed to apply at a single point in the syntactic derivation, but a number of other works that laid out the foundations for the phase theory (e.g., Uriagereka, 1999; Epstein, 1999; Epstein et al., 1998; Chomsky 2000, 2001) argue that it applies multiply, entailing that the syntactic computation is accessible to the interfaces at various points while the derivation is still unfolding; it is these transfer points that are identified as *phases*.

Even though the array of syntactic objects that form phases is still subject to research and may show parametric variation, Chomsky (2001:12) points out that phases are "propositional" in nature, and therefore are most likely confined to the verbal layer (*v*P), which is the domain for argument structure, and the complementizer layer (CP) in which force is encoded. A phase is typically split into a domain and an edge; the domain corresponds to the complement of the phase head, whereas the edge corresponds to its specifiers (Chomsky, 2001, 2004; Rackowski & Richards, 2005; Gallego & Uriagereka, 2007; Gallego, 2010, 2012).

This set-up ushers in a new perspective on issues such as subjacency, cyclic movement and the interspersion of external and internal merge. For instance, cyclic movement is now attributed

to the *Phase Impenetrability condition* (Chomsky, 2000, 2004) which states that only the head of a phase and its edge are accessible to further operations, and consequently if a constituent is to move to a higher phase, it should be present at the edge of its respective phase by the time its domain is spelled out.

Soon after the introduction of the phase theory, Chomsky (2005, 2008) argues that phase heads are the triggers of syntactic computations as they are the locus of grammatical features which set derivations in motion. The tense head on its own lacks the necessary qualifications to act as a probe. Features are inherited by the heads of phase complements in an operation referred to as *feature inheritance* (FI). FI is empirically supported by the observation that any operation beyond initial merge takes place within phases, substantiating the view that the elements triggering these operations are merged on phase heads, φ-features being one such elements (Miyagawa, 2010:16)[12]. Chomsky (2008:143) cites that lack of agreement in exceptional cases marking structures (ECM) as evidence for the argument that φ-features originate on C. Below are illustrative examples.

(18) a.   John believes Mary to be honest.
      b.   John believes Mary and Sue to be honest.

The infinitival complement in (18) does not show agreement variation on the verb '*be'* despite the fact that the subject is singular in (18)a and plural in (18)b. Chomsky deduces two conclusions from this structure. First, these complements are TPs, i.e., they are complementizerless. Second, the absence of agreement in these constructions is evidence that φ-features originate on C. Further

---

[12] "Phi" is a cover term for person, number and gender features, and some scholars extend it to include animacy and definiteness or specificity (Dikken, 2011:857). In this work, I use it the same way it is used in the literature on Arabic to refer to person, number and gender, although I assume later that number is a separate feature. The subgrouping of these features might be parametric as Baker (1985, 2010, 2011) reports that some languages may show agreement in number and gender but not in person.

empirical evidence comes from languages where agreement inflections appear on C. Below are

examples from West Flemish taken from Carstens (2003:393)[13].

(19) a. kpeinzen   *dan*-k   (ik)   morgen   goan
      I-think   that-I   (I)   tomorrow   go
      'I think I will go tomorrow.'

     b. kpeinzen   *Da-j*   (gie)   morgen   goan
      I-think   that-you   (you)   tomorrow   go
      'I think that you will go tomorrow.'

     c. kvinden   *dan*   die   boeken   te   diere   zyn
      I-find   that-PL   the   books   too   expensive   are
      'I find those books too expensive.'

As can be observed in (19), the complementizer agrees with the embedded subject in φ-features,

an observation that gives more currency to the argument that these features originate on C.

    In his treatment of agreement in discourse configurational languages (e.g., Finnish, Japa-

nese), Miyagawa (2010) extends Chomsky's (2005, 2008) feature inheritance approach to account

for movement to clause-initial positions that takes place for discursive purposes. He argues that

discourse is represented by formal features that are valued in the course of derivation the same

way φ-features are valued. He calls this proposal *Strong Uniformity*, (20)b, reflecting a stronger

version of Chomsky's (2001) *Uniformity Principle* given in (20)a (cf. Rizzi, 2006:102).

(20) a. *Uniformity Principle* (Chomsky, 2001:2)
      In the absence of compelling evidence to the contrary, assume languages to be uniform,
      with varieties restricted to easily detectable properties of utterances.

     b. *Strong Uniformity* (Miyagawa, 2010:12)
      All languages share the same set of grammatical features, and every language overtly
      manifests these features.

Miyagawa maintains that discourse features, which he symbolizes as δ-features, originate on C

and are then inherited by T the same way φ-features are inherited by T in agreement languages

---

[13] The glossing is maintained as it is in Carstens. I follow this procedure throughout this work for examples quoted from languages other than SA.

and are equally responsible for A-movement[14]. Below is Miyagawa's scheme adapted from Miya-
gawa (2017:4).

(21)   a. Agreement-based languages   b. Discourse-configurational languages
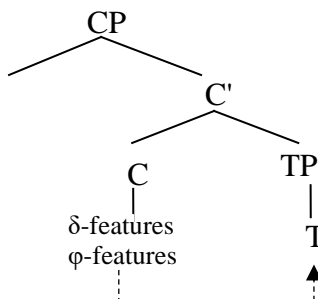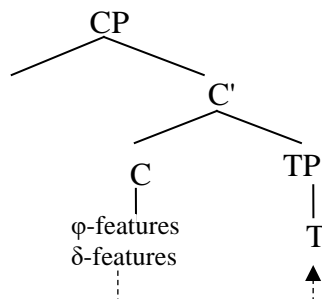
Building on Miyagawa (2010), Jiénez-Fernández and Spyropoulos (2013) go a step further and

argue for a strict parallelism between C-T and *v*-V, suggesting that *v* also enters derivations with

both agreement and discourse features what are then passed on to V.

However, Chomsky et al. (2017, 2019:10ff), in their critical evaluation of the basic primi-

tives of UG, point out that discourse-related features are *ad hoc* and unnatural as they are not

inherent to lexical items, i.e., unlike φ-features and categorial properties, no lexical item can plau-

sibly be claimed to have a topic or focus feature from the lexicon (see Fanselow 2006 and Horvath

2010 for similar views). With that said, these features represent a stark violation of the *Inclusive-*

ness Condition, which precludes the introduction of extraneous objects, such as traces, X-bar levels

and other labels, during a sentence derivation[15].

Despite this criticism, in the analysis to come I follow Miyagawa (2010) in his feature

inheritance-based analysis of discourse configurations, but assume that only focus is encoded as a

---

[14] He argues that discourse-configurational languages also have φ-features although agreement in such features may
not be reflected by morphology.

[15] This view extends to cartographic approaches to discourse which heavily depend on the presence of discourse-
related features (e.g., Cinque, 1999; Rizzi, 1997, 2004, 2016). Cartography is rejected outright by Chomsky et al.
(2017:27) on the grounds that the cascades of projections postulated for various areas of clause structure cannot pos-
sibly be learned, and there is no conceivable evidence that a child could rely on to learn these templates from experi-
ence.

morphosyntactic feature in the syntax. This assumption is based on general as well as language-specific considerations. Focus can, to a large extent, be regarded along with [Wh] as two sides of the same coin, and the presence of the latter as a formal feature is incontrovertible since there exist items in the lexicon that have in their inherent meaning the sense of expressing questions. Moreover, SA has several morphemes that are used for emphasis, which translates into focus (examples will be provided later on). This route accords with Baker's (2010:346) argument that interesting cross-linguistic subregularities are missed by simply assuming complete syntactic uniformity even in the face of significant morphological diversity.

1.6.1.3 How Does Word Order Fit?

A clarification is in order at this juncture. Generative linguists throughout the history of the tradition have always been committed to the notion of *structure dependence* as a curious property of syntactic operations (e.g., Chomsky, 1972; Crain and Nakayama, 1987; Rizzi, 2013)[16], i.e., the various instantiations of displacement, binding relations and ellipsis, among others, are all based on structure and linear order has nothing to bear on them[17]. A classic example in support of this property is auxiliary movement in yes/no questions in English as in (22) below, adapted from Chomsky et al. (2017:5).

(22) a.   The tall man [who is from Italy] is happy.
     b.   Is the tall man [who is from Italy] __ happy?
     c.   *Is the tall man [who__ from Italy] is happy?

---

[16] All the compositional rules delineated in the semantic system proposed by Heim and Kratzer (1998) are structure-dependent too.

[17] Bruening (2014) takes issue with the complete neglect of word order and argues that, while structure dependence has ample evidence, there still exist some applications of syntactic operations for which structure dependence provides no explanation whereas word order does. His data is drawn, for the most part, from binding relations. However, this debate is put to the side for our purposes here in favor of the mainstream perspective that espouses structure dependence.

Approaches that adhere to the view that linear order is what determines the domain of syntactic operations would have difficulty explaining why (22)c is ungrammatical. For instance, a tentative hypothesis that the rightmost auxiliary is what undergoes movement can easily be counterexemplified. Consider (23).

(23) a. John is the man who is from Italy.
    b. Is John __ the man [who is from Italy]?
    c. *Is John is the man [who __ from Italy]?

As can be seen, an explanation that derives from linear order would compel inconsistent statements to characterize the facts in (22) and (23). Worse still, even if inconsistency does not arise within a language, such accounts are usually highly parochial that they are bound to miss out innumerable cross-linguistic commonalities that are by now so evident that they cannot be glossed over. In other words, they have no potential for generality. That being the case, I do not intend to take an opposing position to *structure dependence* as a well-established property of language, but lest the discussion of word order would spark off the question of how it rhymes with a framework that, as far as syntactic displacement is concerned, builds nothing on linearity, a word to brush off any possible confusion is imperative.

Word order is not disconnected from structure but rather is argued to follow from it as a reflection of c-command relations[18] (e.g., Kayne, 1994, 2010; Fox & Pesetsky, 2005). However, the derivation of all the syntactic permutations that are investigated here is structure-dependent, and their linear order is only relevant insofar as it reflects the pragmatic notions of foregrounding and backgrounding, which are intertwined with the notions of focusing and topicalization. Any movement that takes place for pure morphophonemic reasons at the PF branch is not considered. So, word order is not deemed as a factor defining domains for the application of syntactic

---

[18] A category α c-commands β if α does not dominate β and every γ that dominates α dominates β (Chomsky, 2015:31).

operations, but rather as a conduit through which the speaker-hearer "knowledge base" that constitutes the background for sentence interpretation can be channeled and unraveled. Word order has been a recurrent theme in the discussion of discourse-configurational languages, as it is one of the demarcating lines that distinguish this class of languages.

1.6.2 Alternative Semantics

Alternative semantics is a framework that is intended to characterize the semantics of a number of linguistic phenomena, including focus, questions and implicature (Rooth, 2016:19). The basic concept behind alternatives is that the production and interpretation of speech involves in addition to what is uttered in a given context what could have also been uttered. In other words, what the speaker chooses not to say plays a significant role in the determination of the felicity of what he says (Fălăus, 2015:1). On this view, the framework is as much pertinent to pragmatics as it is to semantics.

Rooth (1985, 1992) argues that focus on a constituent indicates the relevance of a set of propositions obtained by introducing alternatives in the position of that constituent. These alternatives, though relevant, are excluded pragmatically as a function of focus. Based on this conceptualization, Rooth proposes that the semantic component of the grammar should have two abstract concepts that stand for two kinds of semantic values, viz., ordinary semantic value and focus semantic value, notationally represented as $[\![\alpha]\!]^O$ and $[\![\alpha]\!]^F$, respectively. To illustrate both, let us consider the two examples below.

(24) a. [Mary]$_F$ likes Sue.
    b. Mary likes [Sue]$_F$.

(24)a and (24)b have the same truth conditions as they are both true iff Mary likes Sue. This reflects their ordinary semantic value. As for their focus semantic values, they diverge in terms of the

position where alternatives are introduced. Below is an illustration of this divergence (Rooth, 1992:76).

(25) a. $[\![\,[\text{Mary}]_F \text{ likes Sue}]\!]^F = \{\text{like } (x, \textbf{Sue}) \mid x \in E\}$

    b. $[\![\text{ Mary likes } [\text{Sue}]_F]\!]^F = \{\text{like } (\textbf{Mary}, y) \mid y \in E\}$

(25)a illustrates that (24)a conjures up alternatives of the form '*x likes Sue*', whereas (25)b illustrates that (24)b conjures up alternatives of the from '*Mary likes y*', with x and y ranging over a domain of individuals relevant in the context of either sentence. On this view, the focus semantic value could be conceived of as the set of answers to a question that targets the position of focus. For example, the alternative set in (25)a can be viewed as answers to the question '*who likes sue?*', and in (25)b as answers to '*who does Mary like?*'.

Büring (1997, 2003, 2016) shores up Rooth's two-dimensional semantics by proposing a third semantic value, designated as topic semantic value (usually contrastive), represented as $[\![\alpha]\!]^{CT}$[19]. The contrastive topic value is basically a set of sets of propositions, each of which represents the set of answers to a question under discussion (QUD), which need not be explicit. In a sense, this implies that the topic semantic value can be regarded as inducing alternative questions. This is reflected in the observation that for a contrastive topic use to be felicitous, it typically co-occurs with an instance of focus on another constituent. Below are examples from Büring (2016:2f) to show how the distinctions between the focus semantic value and the contrastive topic semantic value is fleshed out.

(26) $[\text{She}]_{CT}$ wants to kick $[\text{me}]_F$ out.

---

[19] Constant (2012, 2014) argues, based on data on contrastive topics in questions, that the introduction of a topic value to the semantic component as a third semantic value is superfluous. He proposes a Topic Abstraction operator presented within a conservative semantics that requires nothing beyond the focus value to derive topic alternatives. A common dominator this work shares with Constant's is that I eventually do not postulate the existence of a formal feature for topic either (as will be shown in chapter 2). The abbreviation CT is used for expository purposes.

Büring points out that three semantic values can be distinguished for (26). The ordinary semantic value denotes the truth conditions of the sentence, namely that it is true iff whoever individual, in the context of the utterance, is picked out by the pronoun '*she*' wants to kick out the speaker. The second semantic value is the focus semantic value, which simply indicates the relevance of other propositions of the form '*she wants to kick x out*', which are excluded pragmatically. The third semantic value is the topic semantic value which is represented in (27) below[20].

(27) a. $[\![$ [She]$_{CT}$ wants to kick [me]$_F$ out $]\!]^{CT+F}$ = **{** {she wants to kick me out, she wants to kick John out, she wants to kick Mary out, …}, {Sue wants to kick me out, Sue wants to kick John out, Sue wants to kick Mary out…}, …..**}**

b. $[\![$ [She]$_{CT}$ wants to kick [me]$_F$ out $]\!]^{CT+F}$ = {Who does she want to kick out, Who does Sue want to kick out, ….}

In (27)a, the contrastive topic value of (26) is represented as a set of sets of propositions, each of which can be reconceptualized as the set of possible answers to an explicit or implicit QUD, as illustrated in (27)b. The first subset in (27)a contains possible answers to the first question in the set in (27)b, and the second subset in (27)a are possible answers to the second question in (27)b, and the list can go on. The constituent questioned in each is the element in focus in (26), and every question has a substitution in the CT position; in the first, the contrasted topic is '*she*', and in the second, it is '*Sue*'. So, the two questions can be re-expressed in the overarching question: *'who do* ***they*** *want to kick out?'*, with '*they*' referring to a common ground set of individuals of which '*She*' and '*Sue*' are elements. To sum up, the contribution of a contrastive topic is that it gives rise to a set of alternative questions labeled in the literature as a family of questions or a question strategy (Roberts, 1996; Büring, 1997, 2003; Hagstrom, 1998; Krifka, 2001, 2011; Constant, 2012, 2014).

---

[20] I follow Büring (2016) in his use of the notation $[\![\alpha]\!]^{CT+F}$ to denote contrastive topics since they are typically accompanied by focus but I depart from him in that I do not assume that topics are represented by a formal feature in the syntax in SA.

Interpretive consequences brought about by syntactic displacement that disrupts the VSO order are predominantly accounted for in terms of the three reviewed semantic values identified by Rooth (1992) and Büring (2016). In the next section, I turn to a presentation of the major concepts that are protenant to our purposes.

1.6.3 Basic Notions of IS

The landscape of IS research is predominated by the tendency to single out one aspect or another of IS and examine it in a certain language or set of languages (e.g., Kuno, 1972; Kuroda, 1972; Reinhart, 1981; Rooth, 1992; Bianchi & Fracarelli, 2007; Neeleman et al., 2009), but there have been some works that took stock of its basic notions across languages, attempting to reduce inflation in terminologies that roughly designate the same phenomena (e.g., Chafe, 1976; Büring, 1997, 2003; Krifka, 2008; Partee, 1991). Chafe (1976) identifies a constellation of notions, including *givenness, contrastiveness, definiteness, focus* and a set of language-particular flavors of *topics*. Krifka (2008) reviews Chafe's work and categorizes these concepts based on whether they relate to Common Ground (CG) content or management. A full-fledged discussion of these notions is beyond the scope of this work, and therefore I adopt Büring's (1997) tripartition of IS into *focus*, *background* and *topic*. This position is not taken as a matter of convenience but rather for the assumption that all other notions fall out from these three (as will be shown throughout this work). The topic and focus semantic values reviewed above may be sufficient to illustrate what topic and focus mean, but in what follows I offer an abridged review of both concepts as well as the notion of CG, starting with the latter which is of practical relevance to the way contexts are modelled later on in the analysis sections.

1.6.3.1 Common Ground

A conversation is usually played out against the backdrop of information held by participants. Stalnaker (2002:701) points out that this information or knowledge is conceived of as speakers' presuppositions which are susceptible to modification in the course of a conversation. Büring (1997:33) gives an intensional definition for CG. To conceptualize this definition, suppose a conversation is established between two participants, *Ana* and *Bert*. Each participant enters the conversation with some presupposed beliefs, which can be modelled as a set of propositions and subsequently the set of worlds that result from the intersection of these propositions ($\cap$MB or $\cap$SB, with MB and SB standing for *Ana's* belief set and *Bert's* belief set, respectively). In Büring's perspective, CG represents a set of worlds each of which either *Ana* or *Bert*, or both, consider(s) possible, i.e., it is the union of *Ana's* belief worlds and *Bert's* belief worlds (($\cap$MB) $\cup$ ($\cap$SB))[21]. It follows from this conception that it is the differences between speakers' belief sets that allow for CG modifications. Modifications come about in the form of *presupposition accommodation* and *assertions* (krifka, 2008:245). Below are illustrative examples adapted from Krifka (2008:245f).

(28) a. I have a cat, and I had to bring my cat to the vet.
     b. I had to bring my cat to the vet.
     c. #I had to bring my cat to the vet, and I have a cat.

(28)a is an assertion consisting of two clauses, the first of which introduces the information that the speaker has a cat, a proposition that conforms with the presupposition of the second clause. In

---

[21] Some researchers (e.g., Murray, 2014; Anderbois, 2014; Faller, 2019) define the CG to be the set of worlds that results from the intersection of the sets of conversers' presuppositions. This contrast with Büring's conception might have its roots in Stalnaker' (1978) notion of *context set*. Stalnaker points out that the every conservation participant has own context set, which consists of his presuppositions. If the presuppositions of all participants are the same, the context is defined as non-defective, and if their presuppositions are inconsistent, the context is defined as defective. Defining the CG as the intersection of conversers' presuppositions seems to restrict contexts to non-defective ones, while Büring's definition allow for defective contexts.

(28)b, the presupposition is not explicitly introduced but rather has to be accommodated implicitly by the addressee. The former epitomizes the modification of CG via assertions and the latter via assertion as well as presupposition accommodation. (28)c, on the other hand, is odd since by the time the second clause introduces the information that the speaker has a cat, this information is already present in the CG by accommodation as a presupposition for the first clause; if the truth of the first clause comes across uncontested by the addressee, its presupposition must be accommodated.

Based on the above conceptualization of conversations as modifications to CG, Büring (1997) and Krifka (2008) distinguish between two types of CG: the input CG and the output CG. The input CG is the set of presuppositions shared by speakers, and the output CG is the input CG after the addition of an assertion and its presupposition (if it has any). So, in a context where *John threw the baseball* is uttered, the output CG would throw out from the input CG all the worlds in which this proposition is false. This can be formalized as follows, with CG' standing for the output CG.

(29) CG'=CG∩P ∧ P= John threw the baseball

(29) means that the newly formed CG is the result of the intersection between the propositions in the input CG with the asserted proposition.

1.6.3.2 Topic

Giving precise definitions for IS notions is not an easy task due in part to different authors sometimes using the same notion to designate different phenomena, and in part to them following different authors in the choice of terminology even when they are not necessarily in disagreement as to what phenomena they designate. As far as topichood is concerned, definitions vary based on which criteria are considered conclusive in signaling a topic. Jackendoff (1972), Gundel (1974)

and Chomsky (1977) define topics based on their syntactic and phonetic characteristics. Others abstract away from linguistic cues and provide a psychological definition posited in terms of speakers' intentions and interests (e.g., Schachter, 1973; Garcia, 1975); a topic is what represents the center or focus of a speaker's intention. What is of concern here is the linguistic characteristics of topics.

A notable syntactic attribute of topics is their tendency to appear sentence-initially. This is reflected in the strong preference in discourse to associate topicality with the grammatical subject or any expression that appears in its position. Below are examples from Reinhart (1981:62).

(30) a. Felix goes out with Rosa
    b. Rosa goes out with Felix.

Although the two sentences in (30) convey the same proposition, the proposition is understood to be about *Felix* in (30)a and about *Rosa* in (30)b. This led to the emergence of the binary distinction between 'topic' and 'comment' (Gundel, 1974, Reinhart, 1981; Partee, 1991; Rizzi, 1997; Krifka, 2008). This distinction affords the simplest way to define 'topic'; Partee (1991) defines it as the part of a sentence that corresponds to 'old' information which invokes a certain referent in the mind of the addressee and a 'comment' as the 'new' information provided about that referent[22].

Two approaches that conform with this general 'aboutness' nature of topics have emerged. The first, call it the *entity-based approach*, is embodied in Reinhart's (1981) proposal in which she conceptualizes topics as entries in the *context set* under which the propositions that remain uncontested when they come up in the course of conversation are listed. In other words, topics are hooks or anchors for these propositions. She presents an assortment of tests to detect topics, including; i) liability to be introduced by the expression 'as for', ii) embeddability under 'they said

---

[22] Reinhart (1981) takes issue with the notion of 'old' information and cites data where the designation 'old' is true of the comment and 'new' is true of the topic. However, her 'new' topics will be shown in chapter (4) to be an instance of focus the first time they figure in discourse, which saves the general hunch of topics as 'old' information.

about', iii) referentiality and iv) their conveyance of existential presuppositions. The second approach, call it the *question-based approach*, is put forward in Büring (1997, et seq.), in which a topic is viewed as the pivot of a '*what about*' question, which could be drawn from a question strategy, i.e., a set of questions (see §1.6.2 above).

The 'aboutness' notion to which both approaches relate might look as an oversimplification of what topics are because it does not provide a deterministic measure to identify them; a sentence in principle could be about any of the entities denoted by its referential parts. Nevertheless, it supplies the necessary ingredients for our analysis in this work in which I show that topics are associated with certain positions in the structure.

1.6.3.3 Focus

Similar to topic, the notion of focus has been defined in different ways, but the most prominent of which is in terms of the duality of focus and presupposition. Jackendoff (1972:230) defines 'a sentence focus' as the part that denotes information which is assumed by the speaker not to be shared by the hearer. Presupposition, on the other hand, is taken to be the part that denotes shared information. As for how focus is marked, Chomsky (1971) takes it to be the element that receives primary stress in the sentence. However, stress is not the only way to mark focus, as many languages require or at least allow focused constituents to move to designated positions in the clause (see Rizzi (1997) for an extensive discussion). In a more technical semantic sense, the contribution of focus is that it provides a resolution for a variable within a presuppositional frame (i.e., a function). Below is the representation proposed by Jackendoff (1972:246).

(31) Focus $\in \lambda x.$ Presupp$_s$ (x)

(31), in Jackendoff's terms, means that the focused constituent is a member of the presuppositional set, i.e., it satisfies the presuppositional function. So, in a sentence like *'JOHN wrote a letter'*,

focus on 'John' indicates that it satisfies the presuppositional function *'λx. x wrote a letter'*. This view is consistent with the Roothian alternative semantics delineated above.

It is in terms of this perspective to focus that the analysis provided for constructions with focus is presented. It is assumed to provide a value for a variable existing within a presupposition function.

1.7 Outline of the Thesis

This thesis is organized as follows. Chapter 2 provides a comprehensive examination of the differences between SVO and VSO, and to a lesser extent other clauses. Accordingly, I propose that the preverbal DP in SVO is either a topic base-generated in a left-peripheral position or a focus that arrives to its surface position by movement. I also propose in this chapter a feature-inheritance account of the left periphery in SA whereby [Q] and [Focus] are inherited by a head lower than C, namely T. In chapter 3, I turn to the first field in the structure which can host IS positions, namely *v*P edge. The account furnished there shows that *v*P is topped with a discourse layer that, similar to the left periphery, can host topics and foci. Instead of a feature-inheritance account of the discourse layer at the *v*P edge, I propose that this midfield discourse positions are the result of features being associated with the lower copy of *v*, which usually vacates *v*P to a higher projection (more in line with Gallego's 2014 account of feature inheritance in terms of the copy theory of movement). Chapter 4 is devoted to a thorough examination of the left periphery given the VSO-SVO distinction drawn in chapter . I investigate the contributions of topics, CLLDs and focus and how they interact with one another in structuring discourse, providing evidence for readings that have formerly been unnoticed. In the course of discussion, I put forward a non-movement analysis of floating quantifiers in SA, which captures the morphological and distributional properties of their associate DPs. I allocate a section for constituent questions and the structurally variant answers

they can receive; how these answers are derived and how different they are in terms of their semantics and discourse effects. Chapter 5 examines exceptive constructions and provides an account of how they contribute in the organization of the informational content of discourse. The argument put forward is that they SA has connected DP-level exceptives as well as free CP-level exceptive. Chapter 6 summarizes the conclusions of the thesis and provides guidelines as to what related issues are still in need for further investigation.

Chapter 2

2 CLAUSE STRUCTURE IN SA: VSO VS. SVO

This chapter is intended to present an account of the differences between VSO and SVO clauses with the purpose of gaining more insight into the structure of verbal clauses in general in SA. After reviewing the debate on the status of both structures and investigating their behavior with regard to short and long-distance extractions in §2.1, 2.2, and 2.3, I present my analysis in §2.3.3, in which I propose that preverbal subject DPs can either be topics base-generated in SpecCP or foci whose position is derived by movement to SpecTP. This account is embedded in a feature-inheritance approach to the left periphery mostly in line with Miyagawa (2010, 2017). I then turn to some ramifications of the proposal which pertain to φ-agreement in the context of focused subjects, to the complementizer position and to long-distance extractions of subjects. I address these issues in §s 2.5, 2.6 and 2.7 respectively.

2.1 The Debate

The inspiration for this study is the generalization in (4), namely that VSO is the basic and discourse neutral structure in SA, and that any structural disruption to it is concomitant with interpretive consequences. Despite the fact that word order variation has been pulled into the discussion of a myriad of issues in the language, the debate on which order is basic persists and even though there is an overwhelming tendency to regard VSO as basic, accounts that assume the contrary still exist (see Bakir (1979) for a thorough review up to that point in time and Aoun et al. (2010) for a recent discussion). Haddad and Wurmbrand (2016), in their investigation of agreement patterns in raising constructions in the context of appropinquation verbs in SA, reduce the difference between SV and VS orders to the mechanism by which φ-valuation takes place, which implies that the two structures are basically the same interpretively. So, for the most part arguments lack uniform

syntactic and semantic substantiation, i.e., what might be considered as basic from a syntactic perspective might be otherwise from a semantic perspective in that it has connotations beyond its truth conditional meaning.

The question of which order is basic has oftentimes been animated by pursuit of accounts for the patterns of φ-features agreement in SVO and VSO, where full agreement is attested only in the former as demonstrated in (32) below[23] (Mohammad, 1989, 1990; Fassi Fehri, 1993; Ouhalla, 1994, 1997; Aoun et al., 1994, 2010; Soltan, 2007).

(32) a. ʔal-fatajaat-u   qaraʔ-na   d-dars-a
       the-girls-NOM   read.PERF-3PL.FEM   the-lesson-ACC
       'The girls read the lesson.'

   b. qaraʔa-*t*   l-fatajaat-u   d-dars-a
       read.PERF-3SG.FEM   the-girls-NOM   the-lesson-ACC
       'The girls read the lesson.'

Different accounts have emerged but they could generally be subsumed under three major perspectives. The proposal put forward in the first is that VSO is derived from SVO. Both start out with the subject in its VP-internal position, SpecVP, following the predicate-internal subject hypothesis pioneered by a number of authors (e.g., Kitagawa, 1986; Kuroda, 1988; Speas, 1986). V then rolls up to T and the subject to SpecTP. In both cases, agreement is established in a spec-head configuration, deriving full agreement in both. However, in VSO, V raises further to a higher functional head to check some formal feature, and the held hypothesis is that this step leads to the morphological quirk of *agreement loss* (Aoun et al., 1994). This analysis is schematized in (33).

(33) a. [TP SUB… T+V… [VP ~~SUB~~… ~~V~~…]]]   SVO

   b. [FP…F+ T+V [TP SUB… ~~T+V~~… [VP ~~SUB~~… ~~V~~…]]]   VSO

---

[23] Recall that the notion of a basic structure throughout this work is reconceptualized in the minimalist sense of the one that has the most economical derivational path.

The second approach endorses the opposite route of argumentation, namely that SVO is derived from VSO, the difference being that, in SVO, T is endowed with strong features that attracts the subject to its specifier, whereas, in VSO, T does not have such features and hence the subject remains in Spec*v*P. Under this approach, agreement in VSO is established between T and a null expletive in SpecTP, and thus person and number features on T default to third person singular but gender gets its value from the thematic subject (Mohammad, 2000; van Gelderen, 1996). Below is the schematization of this account.

(34) a. [$_{TP}$ SUB… T+V… [$_{vP}$ ~~SUB~~… ~~V~~…]]]   SVO

　　 b. [$_{TP}$ EXP… T+V… [$_{vP}$ SUB…~~V~~…]]]   VSO

The third approach is that the two orders instantiate syntactically and interpretively different structures, and therefore neither is derived from the other (Soltan, 2007). The grounds he has for this argument can be summarized in four aspects: i) preverbal subject DPs have to be referential, ii) they require resumption in the context of deontic modals whose experiencer arguments are PPs and in adjunct and coordinate structure islands, iii) their case can be changed by lexical case assigners such as complementizers, and finally iv) the observation that idiomatic readings of sentences cannot be maintained in SVO clauses. Accordingly, Soltan argues that the preverbal DP in SVO is base-generated in SpecTP, which he considers as a topic position, and it binds a null pronoun in the thematic domain. Variation in agreement patterns is attributed then to a difference in the featural content of the tense head in both as shown in (35). He considers gender as a separate feature represented as *CLASS*, while φ-features are confined to person and number. The argument he proposes then is that defective agreement in VSO is the outcome of a last resort default valuation at PF due to the failure of syntax to license person and number.

(35) a. [$_{TP}$ SUB$_i$… T$_{EPP/φ/CLASS}$ … [$_{v*P}$ *pro$_i$*… *v**+V… [$_{VP}$…~~V~~…]]]   SVO

b. [_TP_ … T_DEFAULT/CLASS_… [_v*P_ XPs… _v*_+V… [_VP_…V̶…]]]   VSO

This diversity has had ramifications on which order is basic, and it is against this background that the next section presents arguments for the basicness and neutrality of VSO.

2.2 Discourse Neutrality of VSO

With the debate delineated above in mind, I side with Soltan (2007) and argue that the two structures are different syntactically and interpretively. I argue that VSO is the basic and discourse-neutral order[24]. Discourse neutrality means that it is the one with the least contextual restrictions on its use. Evidence for its neutrality is derived from semantic and pragmatic considerations. First, among the diagnostics used for the neutrality of a given structure is its soundness as an answer to the general state of affairs question '*what happened*' (Büring, 1997:58f) or *'What is new'* (van Urk, 2015:95). Below is the example Büring provides from German.

(36) a. What happened?
      b. [PETER hat   dem   MÄCHEN das   BUCH gegeben.]F
          peter   has   the   girl   the   book given
          'Peter gave the girl the book.'

Büring uses this diagnostic to argue that the prosody in (36) reflects the normal distribution of stress across an utterance and thus does not alter the neutrality of the structure, hence its felicity as an answer with the entire proposition being in focus. The neutrality of a structure indicates that it is composed such that its constituents have equal footings in terms of their contributions to the overall message it conveys; none is focused, topicalized or marked as given. Applying this diagnostic to SA, one finds that VSO is the only structure that felicitously answers the question '*what happened*'. Consider *(*37*)* below (cf. Bakir, 1979:13).

(37) a. maaðaa   ħadaθ-a
          what   happen.PERF-3SG.MASC

---

[24] Its basicness in the adopted sense is established in §1.3 when a derivational distinction is drawn between VSO and SVO.

'What happened?'

b. ʔiʃtara-a   ʕalijj-un   kitbaa-an   VSO
    buy.PERF-3SG.MASC   Ali-NOM   book-ACC
    'Ali bought a book.'

c. #ʕalijj-un   ʔiʃtara-a   kitbaa-an   SVO
    Ali-NOM   buy.PERF-3SG.MASC   book-ACC
    'As for Ali, he bought a book.'

d. #ʕalijj-un   kitbaa-an   ʔiʃtara-a   SOV
    Ali-NOM   book-ACC   buy.PERF-3SG.MASC
    'As for Ali, a [book]F he bought.'

e. #ʔiʃtara-a   kitbaa-an   ʕalijj-un   VOS
    buy.PERF-3SG.MASC   book-ACC   Ali-NOM
    'A [book]F Ali bought.'

f. #kitbaa-an   ʔiʃtara-a   ʕalijj-un   OVS
    book-ACC   buy.PERF-3SG.MASC   Ali-NOM
    'A [book]F Ali bought.'

With the exception of (37)b, the sentences in (37) cannot serve as felicitous answers to the question in (37)a for the reason that they either have a familiar or focused constituent, or a combination of both. '*Ali*' in (37)c is part of the common ground shared by interlocutors by virtue of being a topic (it could also be a focus as will be shown momentarily). The same is true of (37)d, but the latter has a further source of nonneutrality reflected in the object being in focus. In (37)e and (37)f, '*a book*' is placed in focus via OS and movement to the left periphery, respectively. The inference that transpires then is that, since (37)b is the only felicitous answer, it is the only neutral one.

Another piece of evidence for the neutrality of VSO comes from interaction with the sentential negation particle '*maa*'. Ouhalla (1993) indicates that '*maa*' is sensitive to the presence of focus and, in case of focus-fronting to the left periphery, there is an adjacency requirement that '*maa*' immediately precede the focused constituent. I observe that when '*maa*' negates a VSO with no focus, it functions as an ordinary sentential negation in that it asserts the negation of the whole proposition, i.e., it assumes its typical propositional logic semantics as a truth functional operator

which flips the truth value of the proposition it takes as an argument. However, it behaves completely differently when it operates on an SVO clause. Consider the illustrative examples below.

(38) a. maa   qaraʔ-a   zayd-un   ʔal-kitaab-a
         not   read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
         'Zayd didn't read the book.'

     b. maa   zayd-un   qaraʔ-a   ʔal-kitaab-a
         not   Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC
         'It is not Zayd that read the book.'

Although, truth conditionally, (38)b expresses the same meaning as (38)a, it has the pragmatic influence of giving rise to the presupposition that '*somebody read the book*', but that the reader is not '*Zayd*'. In other words, the negation legitimizes the inference that the proposition holds for some other alternative from the set $\{x$ read the book $\mid x \in$ PERSON$\}$, which is the focus semantic value for the proposition with '*Zayd'* in focus. This is not to say that negation in (38)b is a constituent negation; it is still a clausal negation but it is sensitive to the informational structure of the sentence which licenses the presuppositional frame '*λx. x read the book*' (this point is discussed with more elaboration in chapter 4 where negation is conceptualized in such context as a tripartite construction in the sense of Partee (1991,1993) which builds on the semantics of quantificational adverbs proposed in Lewis (1975)). What is important for our present purposes is that since '*maa'* negates the whole proposition in (38)a, it is evidence that none of its constituents assumes a specific discourse status.

The same conclusion is drawn from the interaction with the focus sensitive adverb *faqatˤ* 'only'. Ever since Jackendoff (1972), it has become well-recognized that the interpretation of words such as *even, only* and *just* is tied up with focus and presupposition. For example, focus in the context of 'only' is exhaustive in that the focused element is construed as the sole element that turns the presuppositional part into a true proposition. Consider the following examples from

Rooth (1992:77) in a scenario where Mary introduced Tom and Bill to Sue and there were no other introductions.

(39) a. Mary only introduced [Bill]_F to Sue.
     b. Mary only introduced Bill to [Sue]_F.

The focus on *Bill* in (39)a makes the sentence false in the context of the assumed scenario. The presuppositional frame for (39)a is 'λy. *Mary introduced y to Sue*'. As Rooth expounds, 'only' transmits the sense that if Mary has the property of 'introducing somebody to Sue', then it is the property of 'introducing Bill to Sue', which is not the case under the given scenario since Mary also introduced Tom to Sue. (39)b, on the other hand, is true under the same scenario. It has the presuppositional frame 'λy. *Mary introduced Bill to y*'; the sense conveyed in this instance is that if Mary has the property of 'introducing Bill to somebody', then it is the property of 'introducing Bill to Sue', which is obviously the case.

With truth conditional effect of 'only' in mind, let us subject VSO and SVO clauses in SA to this test. Substituting *maa* in (38)a for *faqatˁ* derives the meaning that among all the propositions relevant in the context of the utterance, the only one that is true is that '*Zayd read the book*', i.e., the subject of exhaustification is the entire proposition. Conversely, substituting *maa* for *faqatˁ* in (38)b asserts that among all the contextually relevant (salient) individuals that can satisfy the presuppositional frame 'λx. *x read the book*', '*Zayd*' is the only one that makes the proposition come out true. These observations demonstrate that, unlike the SVO structure in (38)b which is decomposed into a focused constituent and a presupposition, the VSO structure in (38)a is discourse-neutral, hence the association of *faqatˁ* with the entire proposition.

The neutrality of VSO is further corroborated by examining the subjects it licenses as opposed to SVO. While VSO is indiscriminate because its subject can be definite or indefinite, the subject of an SVO clause has to either be definite or specific[25]. Below are illustrative examples.

(40) a. ʔatˤ-tˤaalib-u   qaraʔ-a   ʔal-kitaab-a
       the-student-NOM   read.PERF-3SG.MASC   the-book-ACC
       'The student read the book.'

      b. tˤaalib-un   mudʒtahid-un   qaraʔ-a   ʔal-kitaab-a
       student-NOM   assiduous   read.PERF-3SG.MASC   the-book-ACC
       'An assiduous student read the book.'

      c. ? tˤaalib-un   qaraʔ-a   ʔal-kitaab-a
       student-NOM   read.PERF-3SG.MASC   the-book-ACC
       'A student read the book.'

The form of the subject (40)a and (40)b shows that it has to be referential, i.e., it is associated with an existential presupposition which ensures the presence of an entity in the context set about which the assertion is made. Recall that referentiality is one of the defining topical characteristics posited in Reinhart (1981). The preverbal indefinite subject in (40)c is acceptable when there are contextual cues that give more weight to its specificness. These observations lead to the conclusion that the subject of SVO has some informational status that sets it apart from normal subjects, which further backs up the postulation that SVO is not discourse neutral. The heterogeneity of subjects in VSO, on the other hand, is more evidence for its neutrality.

As the reader might have noticed, the pieces of evidence mustered from interactions with *maa* 'not' and *faqatˤ* 'only', on the one hand, and referentiality, on the other, lead us in two directions. While the former indicates that the preverbal subject functions as a focused constituent, the latter shows that it is topical in the sense of Reinhart (1981). I will return to this bifurcation shortly

---

[25] Specificity can be brought about by a constellation of mechanisms, including modification, coordination with a definite or a modified indefinite, nominalization, to name few.

and advance an argument that it can be either, i.e., a topic or a focus, and it is only through structure and context that one can discern which one is meant.

The discussion up to this point has relied on semantic and pragmatic criteria to establish the claim that, among all permutations, VSO is discourse neutral. Bakir (1979:10) argues that VSO is the unmarked word order and therefore, from a syntactic perspective, tolerates a greater range of changes in mood, tense, aspect, etc., and is more available for embedding, nominalization and other syntactic operations. This is evidenced in that, while SVO appears in embedded contexts under the complementizers *ʔinna* 'verily that' and *ʔanna* 'that', VSO appears under a broader class of complementizer-like elements such as *ʔan* 'to, that', *lan* 'not.imperfective', *ʔiðan* 'in that case/then' as well as optative *ħattaa* and *kaj,* both meaning 'in order to' or 'so that'; all these particles encode subjunctive mood[26] (Alblushi, 2011:78ff). VSO is also the structure that can appear in jussive mood, under which conditional and imperative moods are subsumed. Jussive mood is prompted by a number of particles including *lam* 'not.perfective', *lamma* 'not yet', *laa* 'don't' and the command-denoting particle *li* (Alblushi, 2011:80)[27]. Notwithstanding the illicitness of VSO under *ʔinna* and *ʔanna*, it still has a wider distribution insofar as mood is concerned. Moreover, as will be shown later, unlike SVO, VSO has no restrictions on wh and focus movement.

In addition to the contrasts above, one more reason for the assumption that VSO is neutral is that in ambiguous contexts, where the subject and object are not distinguished by case morphology, there is always a preference for a VSO reading. Below are examples adapted from Bakir (1979:15).

(41) a. dˤarab-a   musaa   l-fataa

---

[26] The complementizer status of these elements has been a subject of debate, much of which is dedicated to *ʔan*, which is for some linguists a complementizer that embeds non-finite clauses (see Creshler et al., (2016, 2017a, 2017b) and Habib (2009) for a review). This debate is of no relevance here and thus is skated over.

[27] The argument here is that these particles are usually followed by a VS structure in which the subject is an overt DP or a null *pro* co-indexed with a topical subject that is situated higher than such particles.

| | hit.PERF-3SG.MASC | Musaa.NOM/#ACC | the-boy.ACC/#NOM |

'Mussa hit the boy.'

b. dˤarab-at   lajlaa   musaa
    hit.PERF-3SG.FEM   Layla-NOM   Musaa.ACC
    'Layla hit Musaa.'

c. dˤarab-a   lajlaa   musaa
    hit.PERF-3SG.MASC   Layla-NOM   Musaa.ACC
    'Musaa hit Layla.'

(41)a is ambiguous between a VSO and a VOS parsing due to the lack of overt case morphology that can set the grammatical functions of subject and object apart[28]. In an out of the blue context where grammatical and contextual cues are wanting, there is a preference for a VSO parsing. The cues might sometimes come in the form of morphosyntactic features other than overt case, as is the case in (41)b and (41)c, where the subject is identified through verbal agreement: '*Laylaa*' in the former and *'Musaa'* in the latter. What transpires from this is that order variation is tolerated only as far as information on the grammatical functions of constituents is retrievable by some other means. Taken together, these facts, in addition to those represented by (37), give more weight to the neutrality of VSO, not only in relation to SVO, but in relation to the entire set of mathematically possible order permutations.

To sum up, this section has established VSO as the neutral order in SA. While this assumption is not novel and in fact has received evidence in the relevant literature, the evidence presented here is more diverse and lays down firmer groundwork for the upcoming section, in which I shift the discussion to SVO.

---

[28] The lack of case morphology on these arguments is attributed to syllable structure restrictions. SA does not permit three vowels in a row, particularly if they are of different qualities. As case inflections for nominative and accusative are /-u/ and /-a/ respectively, their overt realization on '*Musaa*' and *'the boy'* in (41)a would violate this restriction.

2.3 SVO and Preverbal Subject DPs

The discussion of the status of preverbal DPs in SVOs has been dominated by oscillating disputes. As indicated in § 2.1, many accounts consider it as a subject that originates in the thematic domain and then A-moves to SpecTP to check agreement (e.g., Mohammad, 1989; Fassi Fehri, 1989; Koopman & Sportiche, 1991). In some others, it is a topic whose merge-in position is SpecTP (Soltan, 2007). In either case, there is an observation that extraction across preverbal subject DPs is typically banned. In what follows, I use this observation as a syntactic litmus to gain more insight into the position a preverbal subject DP occupies, starting with a delineation of how it is presented in the relevant literature.

2.3.1 Extraction over Preverbal DPs

The nature of the ban on extraction has been designated inconsistently in the literature. Fassi Fehri (1993:64) puts it as "no constituent may be extracted over a topic", whereas Soltan (2007:52) uses a general formulation linking the ban to preverbal DPs, allowing for the implication that it applies to topics or preverbal subjects. The ban is reflected in the ungrammaticality of (42)b and c below (see Shlonsky (2000:330) for the same argument)[29].

(42) a. zajd-un   qaraʔ-a   kitaab-an
          Zayd-NOM   read.PERF-3SG.MASC   book-ACC
          'Zayd read a book.'

     b. *kitaab-an   zajd-un   qaraʔ-a
          book-ACC   Zayd-NOM   read.PERF-3SG.MASC
          'A [book]_F Zayed read.'

---

[29] This limitation is not attested in VSO clauses as focus and wh-movement can take place across the subject to the domain preceding the verb. Below is a modified version of (42) to illustrate this point.

i.   qaraʔ-a   zajd-un   kitaab-an
     read.PERF-3SG.MASC   Zayd-NOM   book-ACC

ii. kitaab-an   qaraʔ-a   zajd-un
     book-ACC   read.PERF-3SG.MASC Zayd-NOM

iii. *maaðaa   qaraʔ-a   zajd-un
     what   read.PERF-3SG.MASC Zayd-NOM

50

c. *maaðaa   zajd-un   qaraʔ-a
   what   Zayd-NOM   read.PERF-3SG.MASC
   'What did Zayd read?'

With (42)a as the baseline structure, the object cannot be extracted across '*Zayd',* neither for focus

nor for a constituent question as in (42)b and (42)c, respectively. The argument Fassi Fehri has for

restricting the ban to extraction over topics is drawn from instances of movement across subject

DPs in nominal clauses and embedded verbal clauses as illustrated by (43) and (44), in the same

order (ibid:64f, see also Bakir (1979:171f) for similar examples).

(43) a. man   ʔanta   muntaqid-un
         who   you   criticizing-NOM
         'Who are you criticizing?'

     b. mataa   ʔanta   ʔaatin
         when   you   coming.NOM
         'When are you coming?'

(44) a. man   ħasib-ta   ʔanna   r-radʒul-a   dˤarab-a
         who   think.PERF-2SG.MASC   that   the-man-ACC   beat.PERF-3SG.MASC
         'Who did you think that the man has beaten?'

     b. mataa   ħasib-ta   ʔanna   r-radʒul-a   ʔataa
         when   think.PERF-2SG.MASC   that   the-man-ACC   come.PERF-3SG.MASC
         'When did you think that the man came?'

Fassi Fehri reduces the conspicuous mismatch observed between (42), on the one hand, and (43)

and (44), on the other, to a violation of the Empty Category Principle (ECP) defined in terms of

barriers and the relational notion of *government* (Chomsky, 1981, 1986; Rizz, 1982, 1990). In a

nutshell, he assumes that the rich agreement morphology on the verb in (42) is an indication of an

AGR projection, whose head is nominal in nature and it hosts the subject in its specifier. He then

supposes that AGR is a governing head, and in order for it to be transparent for antecedent gov-

ernment[30], the antecedent should have passed through its specifier at some point in the derivation,

---

[30] A category α antecedent-governs another category β if and only if α c-commands β and both are co-indexed. This configuration can derived via movement in which β would be a copy of α.

a condition that cannot be met with the subject occupying SpecAGRP, hence the ungrammaticality of (42) as an ECP violation. As for (43), the argument is that AGRP does not necessarily host the subject, implicating that the subject remains in its predicate-internal position or moves to a position lower that AGRP. Either way, AGRP does not act as a barrier or intervener for government since its specifier is available for the moving wh-word, therefore deriving the question without engendering ungrammaticality. As for (44), the difference that sets it apart from (42) is that the matrix verb L-marks the embedded CP or AGRP in the sense that it assigns a theta role to it. The assumption then is that when AGRP is not L-marked, as in (42), it acts as a barrier for extraction and government, whereas when it is L-marked as in (44), extraction is possible.

Concluding his argument, Fassi Fehri (1993:66) reaffirms that long-distance movement is still banned when the embedded clause has a topic as the ungrammaticality of the sentence below shows.

(45) *ʔajj-u   ridʒaal-in   ħasib-ta   ʔanna   l-walad-a
       which-NOM   men-GEN   think.PERF-2SG.MASC   that   the-boy-ACC
       dˤarab-uu-hu
       beat.PERF-3PL.MASC-him
       '*Literally:* Which men did you think that the boy, they beat him?'

The embedded subject in (45) is wh-extracted across the left dislocated embedded object, which can serve as a topic. This observation seems as an exception to the L-marking account put forth in explication of (44), or more accurately, L-marking does not make embedded clauses with a topic transparent to antecedent government and extraction. This kind of constraint is not peculiar to SA either. In their quest to explain it, some authors (e.g., Rochemont, 1989; Lasnik & Saito, 1992; Müller & Sternefeld, 1993) claim that the ungrammaticality of such structures is due islandhood induced by topicalization. Below are English examples that show the same pattern (Rochemont, 1989:147).

(46) a. *What Does John think that bill, Mary gave to?

b. *This is the man who that book, Mary gave to.

I will return to this assumed blockage of movement across embedded topics shortly and provide evidence that movement can take place across embedded topics even though questions of the form in (45) remain a bit intractable.

The first point of criticism that stands out in the face of this account is theoretical, consisting in that it involves no longer motivated notions. It has been established ever since Chomsky (1995) that AGR projections are minimalistically suspicious in that they live and die in the syntax because agreement morphology usually ends up vacating the head of an agreement projection and getting pronounced on some other head, (e.g., T), and so does the argument that moves to its specifier. They therefore have no import whatsoever at the interfaces.

Second, the notion of government in its early incarnations which have pervasive applications in every module of grammar in the GB literature (e.g., Case Theory, Theta Theory, Binding Theory, etc.) is abandoned; it is no longer considered as a primitive relation within the theory of grammar and the linguistic phenomena that were accommodated by appeal to government-based accounts are captured by domains defined in light of the simple relation of c-command. Antecedent government which formulates an indispensable part of the account reviewed above is superseded by the *Phase Impenetrability Condition*, which plays the same role of enforcing strict locality in successive-cyclic movement (Chomsky, 2000). Hornstein et al. (2005) and Boeckx (2006) illustrate that the notion of government has fallen out of interest due to the degenerate character it had in the pre-minimalist era when its definition was revised on almost a case by case basis, which

eventually pared down its explanatory power[31]. By the same token, the notion of *barriers* ceases to exist and is rather 'recycled' under MP in the relatively more principled one of *phases*, which are taken to correspond to *convergent chunks* defined in terms of their satisfaction to the interface conditions (see §1.6 for a review).

In addition to these theoretical qualms, in the following section I show that the account sketched above fares badly on the empirical side, with data exhibiting that some of its predictions are not borne out.

2.3.2 Do Topics Matter in Extraction?

The conclusion drawn from the preceding discussion is that the proscription on movement past the preverbal DP obtains in verbal root clauses and across embedded topics. In what follows, this conclusion is called into question. With '*Zayd*' in (42)a, repeated in (47)a below, assumed to be in SpecTP, the proscription implies that wh-questions and focus-fronting cannot be derived from SVO. As it turns out, this is an inaccurate inference as both kinds of movement are licit when the landing site is below the preverbal subject DP as shown in (47)b and (47)c below.

(47) a. zajd-un   qaraʔ-a   kitaab-an
        Zayd-NOM   read.PERF-3SG.MASC   book-ACC
        'Zayd read a book.'

    b. zajd-un   kitaab-an   qaraʔ-a
        Zayd-NOM   book-ACC   read.PERF-3SG.MASC

---

[31] Government was first defined in terms of mutual c-command involved in a sisterhood relation and then redefined in terms of m-command. Two constituents are said to be in an m-command relation if neither dominates the other, and both are contained within the same maximal projection (Hornstein et al, 2005:79). This definition unifies head-complement and spec-head relations. After this remodeling, the notion of government finally assumed the following definition (Hornstein et al, 2005:115).
  i.   Government
          α governs β iff
          (i)   α m-command β and
          (ii)   there is no barrier γ that dominates β but does not dominate α.
  ii.   Barrier
          γ is a barrier iff
          (i)   γ is a maximal projection and
          (ii)   γ is not a complement.

'A [book]_F Zayed read.'

   c.   zajd-un   maaðaa   qaraʔ-a
        Zayd-NOM   what   read.PERF-3SG.MASC
        'What did Zayd read?'

Cross-linguistically, clause-initial constituents in such structures are argued to be topics. Below are examples from English and Bulgarian, taken from Chomsky (1977:94) and Lambova (2003:1), respectively.

(48) a.   * To whom, as for this book, should we give it?

       b.   As for this book, to whom should we give it?

       c.   (As for) John, who do you think saw him.

(49) a.   Decata   MAMA   šte   vodi   ne   cirk
            Childern-the.TOP   Mom.FOC   will   take   to   circus
            'The kids, MOM will take to the circus.'

       b.   *MAMA   Decata   šte   vodi   ne   cirk
            Mom.FOC   Childern-the.TOP   will   take   to   circus
            'The kids, MOM will take to the circus.'

In (48) and (49), 'as for this book', 'John' and 'Decata' are characterized as topics, and have to precede questions and focus just as observed for the SA data in (47). To capture this distributional fact, Lambova (2003) proposes an articulated left peripheral structure along the lines of Rudin's (1986) whereby topics are analyzed as adjunctions to CP and focused constituents as adjunctions to IP as schematized in (50).

(50)   [_{S'/CP} TOPIC [_{S'/CP} COMP [_{S/IP} FOCUS [_{S/IP}….]]]]   (Lambova, 2003:1)

The question that arises at this juncture is: with the facts in (47) through (49) as food for thought, does the proscription against extraction across preverbal DPs in SVO sentences still seem to exist? Or is it an inaccurate characterization of the facts? In brief, the data in (47) through (49) can be taken as a sound indication that the assumed obstruction of movement is a misrepresentation of the possibility that the preverbal subject DP is base-generated in a left peripheral position that

precedes that landing sites of wh and focus movement. To avoid jumping to conclusions and to fully address these questions, let us widen our database by the examples in (51) in which the embedded subject is definitely in a topic position (adopted from Bakir, 1979:141).

(51) a. mataa   qult-a   ʔinna   muħammad-an   ʔalijj-an
     when   say.PERF-3SG.MASC   that   Mohammed-ACC   Ali-ACC
     raʔaa
     see.PERF.3SG.MASC
     'When did you say that Mohammed saw Ali?'

    b. ʔajna   zaʕam-ta   ʔanna   ʔalijj-an   faatimat-a
     where   claim.PERF-2SG.MASC   that   Ali-ACC   Fatima-ACC
     qaabal-a
     meet.PERF-3SG.MASC
     'Where did you claim that Ali met Fatima?'

Unlike (45), in (51)a and (50)b the embedded subjects *Mohammed* and *Ali*, respectively, are undoubtedly topical since both are followed by the focus-preposed embedded object; they are in the Ā-domain. The DPs that precede focused constituents are cross-linguistically analyzed as topics in cartographic approaches (e.g., Rizzi, 1997, 2004; Rizzi & Shlonsky 2007; Belletti, 2004; Haegeman, 2006). If the argument that movement across topics unequivocally obtains, the prediction is that both would be ungrammatical, which is not the case. Baltin (1982) and Culicover (1996) provide similar data from English where topicalization-induced islandhood does not hold, therefore putting such argument into a quite precarious position. In (52), extraction for relativization and wh-question across the topicalized constituent in bold is shown to be grammatical[32].

---

[32] As a caveat, the topicalized elements in (52) are argued to have moved to their clause-initial position. They can be interpreted as topics or focus (Kuroda, 1972; Kuno, 1972). In the literature on English that I am aware of, the term *topicalization* is used as a cover term for topics and foci.

(52) a. He is a man *to whom* **liberty** we could never grant. Baltin (1982:17)

b. I was wondering *to what kinds of people* **books like these** Culicover (1996:460)
you would actually have given if you had had the chances.

To square the ungrammaticality of (46) with the grammaticality of (52), Culicover (1996) attrib-

utes this *selective opacity* to the type of constituents that have undergone movement; in particular,

he argues that when they are both DPs as in (46), ungrammaticality arises for the reason that this

categorial identity makes it harder to identify which gap is identified with which DP[33].

At any rate, the theme that comes out of these cross-linguistic observations is twofold. First

movement across topics seems licit, otherwise sentences like (51), or (52) for that matter, would

remain inexplicable. Second, the fact that (51)a &b allow for extraction although their embedded

subjects are in a topic position signifies that a topical interpretation of the embedded subjects in

(44) cannot be ruled out, contra the prediction of Fassi Fehri (1993). Noteworthy is that focus from

embedded clauses is also admissible parallel to the long-distance wh-movement shown in (44) and

(51), and both yield ungrammaticality when their ultimate landing site precedes a preverbal subject

DP in the matrix clause, as the examples in (53) below demonstrate.

(53) a.
Ɂalijj-un	ðˤann-a		Ɂanna	fahd-an	qaraɁ-a
Ali-NOM	think.PERF-3SG.MASC		that	Fahd-ACC	read.PERF-3SG.MASC

kitaab-an
book-ACC
'Ali thought that Fahd read a book.'

b.
Ɂalijj-un	maaðaa	ðˤann-a		Ɂanna	fahd-an
Ali-NOM	what	think.PERF-3SG.MASC		that	Fahd-ACC

qaraɁ-a
read.PERF-3SG.MASC
'As for Ali, what did he think Fahd read?'

c.
Ɂalijj-un	kitaab-an	ðˤann-a		Ɂanna	fahd-an
Ali-NOM	book-ACC	think.PERF-3SG.MASC		that	Fahd-ACC

qaraɁ-a
read.PERF-3SG.MASC

---

[33] See Keine (2016:239) for data that challenges this required categorial mismatch between extracted and topicalized
constituents, and for an explanation based on what he calls 'horizons'.

'As for Ali, [A book]F he thought Fahd read.'

d. *maaðaa   ʔalijj-un   ðˤann-a   ʔanna   fahd-an
    what   Ali-NOM   think.PERF-3SG.MASC   that   Fahd-ACC
    qaraʔ-a
    read.PERF-3SG.MASC
    'What did Ali think Fahd read?'

e. *kitaab-an   ʔalijj-un   ðˤann-a   ʔanna   fahd-an
    book-ACC   Ali-NOM   think.PERF-3SG.MASC   that   Fahd-ACC
    qaraʔ-a
    read.PERF-3SG.MASC
    '[A book]F Ali thought Fahd read.'

Unlike (53)b and c, in which the long-extracted constituent ends up below the preverbal subject in the matrix clause, (53)d and e are ungrammatical because it moves past the matrix preverbal subject in direct alignment with the root extractions illustrated in (42).

The previous discussion brings about two questions that beg for principled answers. First, since movement across topics appears to be licit, how the ungrammaticality of (45) can be explained away; or if you will, how could its ungrammaticality be squared with the grammaticality of (51)? Second, recall that, as we have noted in §2.2, interactions with focus sensitive elements such as *maa* 'not' and *faqatˤ* 'only' in root SVO clauses supports the conclusion that preverbal subject DPs can function as focus. Taken together with the observations previewed in this section, they beget the question: what is the exact status of the preverbal subject DP? As it turns out, an answer to the first question is proven recalcitrant at this point and can lead to a digression from the main concern for the moment which is to establish the status of preverbal subject DPs in SVO. Therefore, this question is deferred until the end of the chapter where I tie the ribbons of some arguments that come up in the course of the discussion leading up to that point and then provide a somewhat speculative view on why (45) is ungrammatical. In the meantime, I shift the discussion to the second question, viz. the status of the preverbal subject DP in SVO.

58

2.3.3 Analysis

To account for the distributional and interpretive properties elucidated by the data discussed hith-
erto, in a nutshell I propose that the presumed proscription on extraction across preverbal DPs in
SA is an inaccurate rendition of a clausal hierarchy in which these DPs are either topics that project
in a position higher than wh-questions and focus or are themselves in focus. In either case, the
subject is in an Ā-position[34].

Evidence for the topical status in drawn from several undeniable parallelisms with CLLD
and the fact that a topical subject can alternate freely in position with a CL-dislocated DP. When
in focus, a preverbal subject has certain limitations that excludes the possibility of a topical inter-
pretation, among which is that it does not allow another focus neither below it nor above it. It also
blocks the derivation of wh-questions because wh-movement targets the same position. A focused
preverbal subject also does not need to be definite. The structure posited to assimilate these argu-
ments is presented from a minimalist perspective that avoids the downsides of cartographic ap-
proaches. The rest of this section will be devoted to a detailed exposition of this account.

As a prelude, let us review Rizzi's (1997) seminal work on the discourse layer of structure
which amounted to his proposal of the *Split-CP Hypothesis*. Rizzi's work came out as a continua-
tion of a research scheme which was burgeoning at the time, referred to as *Cartography*. This line
of research was pioneered by Larson (1988) who argued for a decomposition of the lexical layer
of structure (VP) into two projections, one nesting the other in what came to be known later as the
VP-shell, which was adopted in various formulations in subsequent research (e.g., Chomsky, 1995;
Kratzer, 1996). Shortly afterwards, Pollock (1989) and Chomsky (1991) followed suit and ex-
tended the scheme to the grammatical layer, IP, to which agreement projections were introduced.

---

[34] I use the term 'Ā-position' for the sake of simplicity at this stage since this position is associated with a discourse
function. However, it will be shown later that this position in fact displays hybrid A and Ā properties.

The culmination of the scheme came in the form of Rizzi's (1997) extension of cartography to the discourse layer, CP, which brought about the structure in (55) as a proposal for the left periphery (ibid:297). This proposal is based on typological evidence from some Romance and Germanic languages. . (55) is derived from sentences like (54) from Italian (Rizzi, 1997:295f).

(54) a. Credo che a Gianni, GUESTO domani, gli dovremmo dire
       C   Top   Foc   Top   IP
    'I believe that to Gianni, THIS, tomorrow we should say.'

   b. Credo che   domani, a Gianni, GUESTO   gli dovremmo   dire
       C   Top   Top   Foc   IP

   c. Credo che   GUESTO a Gianni, domani,   gli dovremmo   dire
       C   Foc   Top   Top   IP

(54)a exhibits that a focus projection can mediate between two topic projections. (54)b and c, on the other hand, show that topic projections on either side of the focus projection can be recursive, but the focus projection cannot be. The crux of this proposal is that functional categories are mapped to designated positions which cannot be assimilated under a single CP. The argument then, as indicated in Rizzi (1997) and Cinque (1999), is that this hierarchy of functional heads is universal, but the cross-linguistic presence of each head is what is prone to parameterization, i.e., the lower TopP, for instance, may not project in some languages (e.g., SA) but ideally no language would have FroceP projecting below TopP.

(55)

```
            ForceP
              |
            Force'
           /      \
        Force⁰    TopP*
                    |
                  Top'
                 /     \
              Top⁰     FocP
                         |
                       Foc'
                      /     \
                   Foc⁰     TopP*
                              |
                            Top'
                           /     \
                        Top⁰     FinP
                                   |
                                 Fin'
                                /     \
                             Fin⁰      IP
```
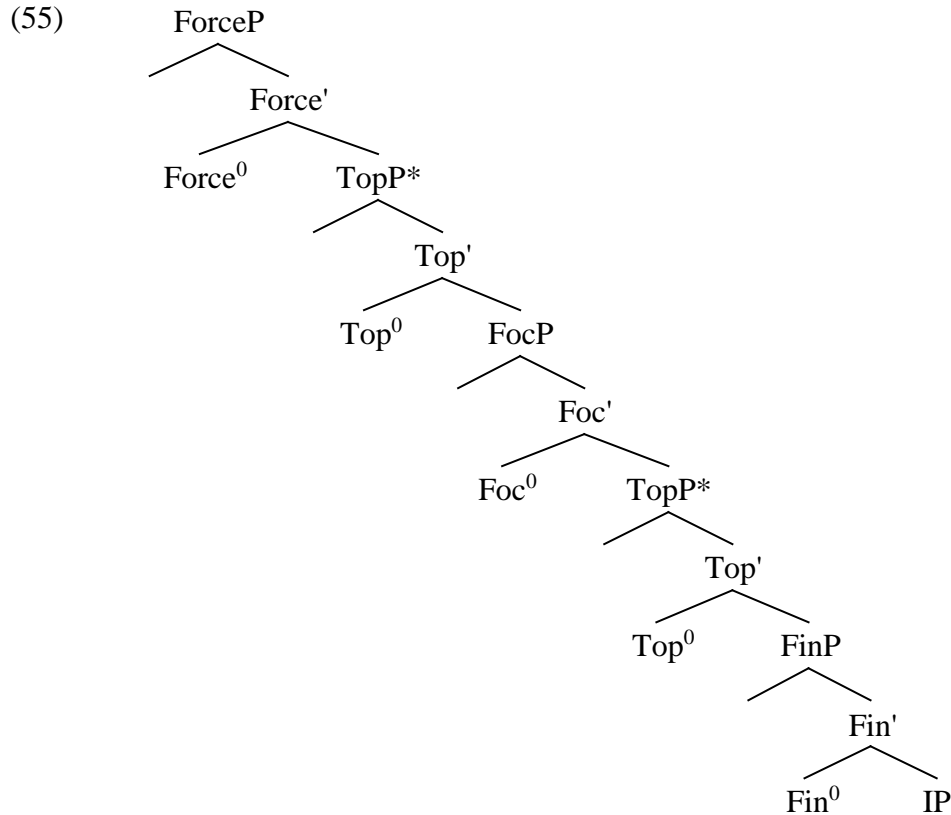
It has been established in the relevant literature on SA that a low topic projection does not figure in structure (e.g., Ouhalla, 1997; Shlonsky, 2000; Aoun et al., 2010). Below is the structure as put forth in Shlonsky (2000:331)[35].

(56) ForceP > TopicP* > FocP<FinP [IP…

(56) shows that SA aligns with the cross-linguistic observation that the topic projection is recursive while the focus projection is non-recursive, i.e., a unique focus projection. Moreover, there is a strict adjacency requirement that focus fronting and wh-words be followed immediately by the verb, a requirement that is analyzed as a case of subject-verb inversion, insinuating that when focus projects in (56) the complex under the inflectional head (tense head) inverts its position with the

---

[35] The structure provided in Shlonsky (2000:331) is not as much detailed as it is in (56) for he does not include ForceP and FinP, but his formulation does not deny their existence and their exclusion seems to be for the sake of notational simplicity. The exact syntactic structure he gives is the one below.

  i.   …. TopicP* > FocP….[IP

subject in SpecIP (Ouhalla, 1994; Aoun et al., 2010). This adjacency generalization is embedded in the view that SpecIP is an A-position[36].

However, Ouhalla and Shlonsky's analyses are susceptible to the same criticism as the cartographic scheme in general, which, despite its functionality, has been encountered with various objections by subscribers to MP as indicated in §1.6.1. Chomsky et al. (2017:27) argue that the cascades of projections postulated for various areas of clause structure cannot possibly be learned, and there is no conceivable evidence that a child could rely on to learn these templates from experience. This tension between MP and cartography has sparked and continues to spark demands that the linguistic phenomena addressed by appeal to the latter be readdressed within a framework that meshes well with the theoretical spirit of the former.

It was not until Chomsky (2005, 2008) that a workable alternative to the cartographic analysis embodied in (55) came into existence in the form of feature inheritance (FI henceforward), for which theoretical foundations and empirical substantiation is reviewed in §1.6.1. Therefore, building on Chomsky (2005, 2008) and following Miyagawa (2010, 2017), I argue that [uFoc] and [uQ] features originate on C in SA and are inherited by T. The set-up then is that, when the preverbal subject DP in SVO serves as a topic, it is externally merged in SpecCP, binding a null *pro*

---

[36] To be concrete, under this view the sentence in (iii) below can be derived from (ii) by subject-verb inversion. The analysis I develop here and in chapter 4 presents an argument that it can only be derived from (i) where the subject remains in Spec*v*P.

i.   ʔallafa-t   zajnab-u   riwaajat-an
     write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC
     'Zaynab wrote a novel.'

ii.   zajnab-u   ʔallafa-t   riwaajat-an
     Zaynab-NOM   write.PERF-3SG.FEM   novel-ACC
     'Zaynab wrote a novel.'

iii. riwaajat-an   ʔallafa-t   zajnab-u
     novel-ACC   write.PERF-3SG.FEM   Zaynab-NOM
     '[A novel]$_F$ Zaynab wrote.'

in Spec*v*P, and that wh-questions and focus are derived by movement to SpecTP. This is schema-tized in (57)[37].

(57)

```
                        CP
                      /    \
                   DPⱼ      CP
                           /    \
                          C      FocP/QP (TP_max)
                         ⋮        /      \
                        ⋮    XP_[iFoc]/[iQ]    TP
                    FI  ⋮                    /    \
                        ⋮                   T      vP
                        ▶            [uFoc]/[uQ]    △
                                                  proⱼ.....
```
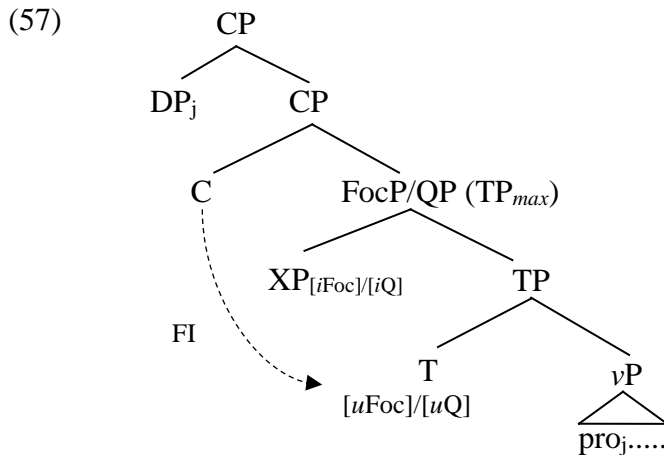
In some respects, (57) builds on Soltan's (2007) argument that preverbal subject DPs in SVOs are topics base-generated in SpecTP, a position he takes to be an Ā-position. (57) pushes this argument one node higher in the structure by assuming that preverbal DPs, when they are topics, are base-generated in SpecCP. SpecTP is reserved for focus and wh-movement. However, (57) diverges from Soltan's account in that it leaves room for the evidenced reading in which a preverbal subject in SVO can be focused (as shown in §2.2). Under this reading, the argument I espouse is that it moves from Spec*v*P to SpecTP. In other words, I argue that an SVO is ambiguous between a topical reading derived via external merge to SpecCP and a focused reading derived from VSO via move-ment to SpecTP. The topical reading requires the DP to be referential, while the focus reading does not. This interpretive variability of the preverbal subject is not peculiar to SA or VSO languages. Kuno (1972:269) indicates that *'John'* in a sentence like *'John kissed Mary'* can be interpreted in four different ways; *'John'* might be interpreted as a theme, a contrast, an exhaustive listing or as

---

[37] SpecTP is labeled as FocP or QP based on the workings of the labeling algorithm as proposed in Chomsky (2013, 2015), in which, when a head and a phrase in its specifier share a feature, the feature is passed up as the label. This becomes clearer when the labeling algorithm is reviewed in the coming sections to account for how the complemen-tizer ends up higher than topical constituents in SpecCP. Moreover, when focus is accompanied with specific mor-phology on the focused constituent (as will be shown shortly), the constituent is thought to come with this morphology from the lexicon and it is what gives value to [*u*Foc] on T.

a neutral description of the state of affairs in which case it would be an apt answer to the question *'what happened?'*. The first three readings can be rephrased in the sentences below, respectively.

(58) a. Speaking of John, he kissed Mary.

     b. John Kissed Mary, but Bill did not.

     c. John (and only John) kissed Mary.

(58) is evidence that SVO is susceptible to variation in the interpretation of the subject even in languages where SVO is the basic clause structure.

Before I proceed to discussing how (57) captures the observations previewed so far and providing evidence for the array of assumptions it relies on, there are two remarks that should be made. First, we are now in position to project in what sense VSO is basic. VSO clauses are argued to be derived via V-to-T movement with the subject remaining in its thematic position, Spec*v*P, the same account given in Alexiadou and Anagnostopoulou (1998), Benmamoun (2000), Soltan (2007) and Haddad and Wurmbrand (2016)[38]. However, I depart from these works in what I argue is the trigger for this V-to-T movement in a sense that will be illustrated in § 2.6.2. SVO, on the other hand, requires, besides the movement of the verb to some higher projection above *v*P, either the movement of the subject to SpecTP for focus or the establishment of a dependency relation between a subject externally merged to SpecCP and a null *pro* in Spec*v*P.

Second, I should point out that CLLD constituents are argued to appear in SpecCP. I argue that they are topics on a par with preverbal topical subject DPs in SVO, and that the designation 'CLLD' is a mere terminological difference. CLLD is a cover term used to designate non-subject

---

[38] Chomsky (1993) is among the first works that attempted a minimalist account of this movement by appeal to the mysterious notion of feature strength. He points out that, in Romance and Romance-like languages, φ-features are strong and therefore attract the verb, while in English they are weak. In the literature on SA, the motivation for V-to-T movement varies from work to another. In Alexiadou and Anagnostopoulou (1998), for instance, it is taken to be one way the EPP feature of T is valued. Benmamoun (2000), on the other hand , assumes that it is induced by a categorial [+V] feature on T. Both notions have fallen out of interest in recent minimalist literature.

DPs that appear in the left periphery (e.g., Ayoub, 1981; Bakir, 1980; Moore, 1988). Below are examples from Shlonsky (2000:327).

(59) a. katab-a   l-walad-u   r-risaalat-a
         write.PERF-3SG.MASC   the-boy-NOM   the-letter-ACC
         'The boy wrote the letter.'

     b. ʔar-risaalat-u   katab-a-***haa***   l-walad-u
         the-letter-NOM   write.PERF-3SG.MASC-**it.**FEM   the-boy-NOM
         'As for the letter, the boy wrote it.'

     c. *ʔar-risaalat-u   katab-a   l-walad-u
         the-letter-NOM   write.PERF-3SG.MASC   the-boy-NOM
         'As for the letter, the boy wrote.'

     d. *risaalat-un   katab-a-***haa***   l-walad-u
         letter-NOM   write.PERF-3SG.MASC-**it.**FEM   the-boy-NOM
         'As for a letter, the boy wrote it.'

Three observations stand out as typical of CLLD; i) a LD phrase has to be definite, ii) inflected for nominative case and iii) related to a resumptive pronoun (Aoun et al., 2010:209). The clitic related to a LD-phrase can appear as a direct object, a genitive clitic, or a dative clitic (ibid:200). If a LD-phrase is not resumed or definite as in (59)c and (59)d, then the structure is illicit. Shlonsky (2000) remains agnostic on whether a LD phrase arrives to its surface position via movement or external merge. However, a movement analysis can be refuted empirically, the reason being that LD-phrase can relate to an island-internal pronominal. (60) shows a LD-DP related to a resumptive pronoun in an adjunct island.

(60) ʔalijj-un   qaabal-tu-hu   qabl-a   ʔan   yu-qaabil-a-***hu***
     Ali-NOM   meet.PERF-1SG-him   before-ACC   SUB   3SG.MASC-meet-SUB-him
     ʔaħmad-u
     Ahmed-NOM
     'As for Ali, I met him before Ahmed met him.'

Shlonsky argues that LD-phrases are in SpecTopP, assuming Rizzi's (1997) enriched CP system. One more interesting observation about LD-phrase is that they can positionally alternate

unrestrictedly with the preverbal subject DP (Bakir, 1979; Shlonsky, 2000). (61) showcases this

free alternation (see Shlonsky (2000:328) for similar examples).

(61) a. ʔal-walad-u   katab-a   r-risaalat-a
        the-boy-NOM   write.PERF-3SG.MASC   the-letter-ACC
        'The boy wrote the letter.'

   b. ʔar-risaalat-u   l-walad-u   katab-a-***haa***
        the-letter-NOM   the-boy-NOM   write.PERF-3SG.MASC-**it.**FEM
        'As for the letter, and as for the boy, he wrote it.'

   c. ʔal-walad-u   r-risaalat-u   katab-a-***haa***
        the-boy-NOM   the-letter-NOM   write.PERF-3SG.MASC-**it.**FEM
        'The boy, the letter, he wrote it.'

This positional freedom is a typical characteristic of phrases that are adjoined to the same node.

Therefore, I assume that LD-phrases are adjoined to CP the same way preverbal subjects are. The

interpretations of such sentences are approached in the discussion of the left periphery in Chapter

4, but it suffices to know for the moment that CLLD are topics that merge in SpecCP.

   Against the backdrop of (57), let us now turn to the question of how extraction patterns are

captured. First, the observation that focus and wh-words cannot move past the preverbal DP is the

result of the latter being a topic base-generated higher than the landing site of both or to it being

focused and already occupying SpecTP. Consider (62), repeated from (42) and (47), in light of the

structure in (55).

(62) a. zajd-un   qaraʔ-a   kitaab-an
        Zayd-NOM   read.PERF-3SG.MASC   book-ACC
        'Zayd read a book.'

   b. *kitaab-an   zajd-un   qaraʔ-a
        book-ACC   Zayd-NOM   read.PERF-3SG.MASC
        'A [book]F Zayed read.'

   c. zajd-un   kitaab-an   qaraʔ-a
        Zayd-NOM   book-ACC   read.PERF-3SG.MASC
        'A [book]F Zayed read.'

Taking (62)a as the baseline structure, I propose that (62)b is ungrammatical either because the

preverbal subject DP '*Zayd'* is a topic sitting in SpecCP or a focus in SpecTP. In the first case,

'*book'* cannot be moved across it or, more accurately, does not need to move across it since SpecTP is the focus position. In the second, the subject occupies the focus position, SpecTP, and as indicated, it is already established in the literature (e.g., Ouhalla, 1997; Shlonsky, 2000) that SA shows the same limitation on focus as the Romance and Germanic languages in that the focus projection cannot be recursive, i.e., only one constituent can undergo focus fronting.

Second, (57) dissolves the requirement that focus and wh-words be adjacent to verbs, a phenomenon explained as T-to-C movement (subject-auxiliary inversion in traditional terms). This requirement is now derived as a result of FI. This FI-based approach to adjacency can be conceptualized to some extent as an amelioration of a precedent account proposed in É. Kiss (1995), in which a functional projection (FP) is assumed to host a moving focused phrase in languages with a designated focus position such as Hungarian (the same proposal is adopted for SA in Ouhalla, 1997). É. Kiss argues that V moves to the head of FP to enable F to assign focus to the moved constituent in a spec-head configuration. Although the feature [+Focus] is hosted by the head of FP, its assignment to the focused constituent can only be established when the head is lexicalized, and V is one way F is lexicalized[39]. Below are examples from Hungarian (É. Kiss, 1995:36).

(63) a.   JÁNOSNÁL$_i$ volt   Mari   magasabb   t$_i$
      JOHN-BY   was   Mary   taller
      'Mary was taller than JOHN.'

    b.   JÁNOSNÁL$_i$ magasabb   Mari   t$_i$
      JOHN-BY   taller   Mary
      'Mary is taller than JOHN.'

    c.   *JÁNOSNÁL$_i$ Mari   magasabb   t$_i$
      JOHN-BY   Mary   taller

In (63)a and (60)b, F is lexicalized by the movement of the verb and the comparative adjective to it, respectively. The sentence is ungrammatical when F is not lexicalized as in (60)c. This proposal

---

[39] The mainstream argument is that imperfective verbs in SA do not move as far as T (e.g., Benmamoun, 2000), in which case T might be occupied by some other elements like negation or focus might be hosted by some lower head.

in essence derives from conceivable parallelisms between nominative case licensing in English and focus assignment in languages with a designated focus position. In our current account, the spirit of this 'necessary' lexicalization comes in the form of FI since [*u*Foc] is inherited by T which is usually lexicalized through V movement.

The structure in (57) is shown to account for the facts, but it rests on two premises which are still in need for evidence. In particular, I need to show that i) discourse features originate on C in SA and ii) that the assumption of a [*u*Foc] feature does not fall within the realm of stipulative features that run afoul of the *inclusiveness condition* (Fanselow, 2006; Chomsky et al., 2017). First, the postulation of feature inheritance in SA is not merely theoretical, but rather has empirical grounds deducible from the lack of left peripheral positions in clauses embedded under *ʔan* in comparison to those embedded under *ʔanna* and *ʔinna*. To illustrate this, let us consider (64).

(64) a.   ja-surr-u-n-ii   ʔan   ja-dʒtaaz-a
          3SG.MASC-please.IMPERF-IND-EC-me   SUB   3-pass.IMPERF-SUB.SG.MASC
          ʔalijj -un   l-ixtibaar-a
          Ali-NOM   the-exam-ACC
          'It pleases me that Ali passes the exam.'

     b.   *ja-surr-u-n-ii   ʔan   ʔalijj -un
          3-please.IMPERF-IND.SG.MASC-EC-me   SUB   Ali-NOM
          ja-dʒtaaz-a   l-ixtibaar-a
          3-pass.IMPERF-SUB.SG.MASC   the-exam-ACC
          'It pleases that Ali passes the exam.'

     c.   *ja-surr-u-n-ii   ʔan   l-ixtibaar-a
          3SG.MASC-please.IMPERF-IND-EC-me   SUB   the-exam-ACC
          ja-dʒtaaz-a   ʔalijj -un
          3-pass.IMPERF-SUB.SG.MASC   Ali-NOM
          'It pleases that Ali passes [the exam]F.'

     d.   *ja-surr-u-n-ii   ʔan   ʔalijj -un
          3SG.MASC-please.IMPERF-IND-EC-me   SUB   Ali-NOM
          l-ixtibaar-a   ja-dʒtaaz-a
          the-exam-ACC   3-pass.IMPERF-SUB.SG.MASC
          'It pleases that Ali passes [the exam]F.'

As can be observed, (64)a is the only licit sentence. The rest, where the subject precedes the verb, (64)b, the object is focus-fronted, (64)c, or the subject and object appear before the verb, (64)d, are all ungrammatical. I take the illicitness of movement to positions between ʔan and the verb as evidence that clauses under this particle lack the discourse layer[40]. Now, compare (64) to the clauses embedded under ʔinna in (65).

(65) a. ʔinna   ʕalijj-an   ʔidʒtaaz-a   l-ixtibaar-a
          that   Ali-ACC   pass.PREF-3SG.MASC   the-exam-ACC
          'Verily, Ali passed the exam.'

     b. ʔinna   ʕalijj-an   l-ixtibaar-a   ʔidʒtaaz-a
          that   Ali-ACC   the-exam-ACC   pass.PREF-3SG.MASC
          'Verily, Ali passed [the exam]F.'

     c. ʔinna   l-ixtibaar-a   ʕalijj-un   ʔidʒtaaz-a-hu_i
          that   the-exam-ACC   Ali-NOM   pass.PREF-3SG.MASC-it
          'Verily, as for the exam, Ali passed it.'

     d. *ʔinna   l-ixtibaar-a   ʕalijj-un   ʔidʒtaaz-a
          that   the-exam-ACC   Ali-NOM   pass.PREF-3SG.MASC
          'Verily, Ali passed [the exam]F.'

Unlike clauses embedded under ʔan, clauses under ʔinna and ʔanna must be SVOs as in (65)a. They can also be SOV as in (65)b where the object is focus-fronted, or OSV (or SOV for that matter) where the object is a CLLD as in (65)c. Ungrammaticality arises when the structure is

---

[40] Usama Soltan (personal communication) points up that ʔan clauses might have a left-peripheral layer under certain embedding predicates such as *'want'*. Below are examples (Usama's examples).

i.   ʔaraad-a   zajd-un   ʔan   ja-rħal-a   ʕalijj-un
     want.PERF-3SG.MASC   Zayd-NOM   SUB   3-leave.IMPERF-SUB.SG.MASC   Ali-un
     'Zayd wanted Ali to leave.'

ii. ʔaraad-a   zajd-un   ʕalijj-an   ʔan   ja-rħal-a
     want.PERF-3SG.MASC   Zayd-NOM   Ali-ACC   SUB   3-leave.IMPERF-SUB.SG.MASC
     'Zayd wanted [Ali]F to leave.'

The sentence in (ii) is undeniably grammatical. One way to account for this sentence is to assume that *'Ali'* is merged as an object to *'want'* and it binds a null *pro* that functions as subject for *'leave'*. Evidence for this argument is derived from the fact that *'Ali'* is accusative in (ii), i.e., if it originates as subject in the embedded clause and focus-moves to a left-peripheral position within the same clause, the prediction is that it should maintain its nominative case. However, one might still argue that the case inflection is altered due to ECM by the matrix verb. Adverbials that modify the matrix subject can be utilized to test the position of *'Ali'* in (ii), i.e., if they can only precede *'Ali'*, then *'Ali'* is positioned within the embedded clause. However, an adverbial like *'yesterday'* seems to be equally acceptable before or after *'Ali'* in (ii). Therefore, I would leave it as an open question for future research to determine what role embedding predicates play in regulating the discourse characteristics of their clausal complements.

OSV with the object being focused as in (65)d[41]. Note that (c) is distinct by the resumptive pronoun and nominative case, which mark that the object is not focused. The upshot of this is that clauses under *ʔinna* and *ʔanna* have a discourse layer (left periphery), whereas those under *ʔan* do not, i.e., the projection of the discourse layer is contingent on the embedding C. Since the complementizerness of *ʔinna* and *ʔanna* is uncontroversial, a C-to-T feature inheritance account can safely be posited[42]. This data could equally be used to back up claims that *ʔan* is not a complementizer, or at the very least to argue that it is a deficient complementizer that has no discourse features, and consequently the clauses it heads have no discourse layers. Emonds (2004:77) brings up identical data form English in which *to*-complement clauses lack the discourse layer, as opposed to *that*-complement clauses which have a discourse layer. Consider (66) below.

(66) a. Bill warned us **that** [*flights to Chicago* we should try to avoid].
       b. *Bill warned us [*flights to Chicago* **to** try to avoid].

The topical phrase *'flights to Chicago'* can be long-extracted from the complement position of the verb '*avoid*' to the discourse layer, CP, under the complementizer *'that'* in (66)a, while its long-extraction to the discourse layer with *'to'* (66)b yields ungrammaticality. A conclusion ensues from this to the effect that '*to*' is parallel to *'ʔan'* in the lack of a discourse layer in the clause it introduces. This again casts doubts on the complementizerness of *'to'* (see Pesetsky 2019 for a thorough

---

[41] The ungrammaticality of (65)d is usually attributed to the assumption that the complementizer cannot be followed by a focused constituent. Under (57), its ungrammaticality is put down to the argument that either *'Ali'* is a topic and therefore cannot be preceded by a focus, or because '*Ali*' is focused itself and thus does not allow anther focus besides it. More will be said about this in chapter 4.

[42] Gallego (2014) recasts Chomsky's feature inheritance by his argument that the relation between phase heads and feature-inheriting heads is that of identity, i.e., phase heads start out in the head position of their complements and therefore the latter are copies of the former. On this view, feature inheritance is derived via the copy theory of movement (Chomsky, 1993; Nunes, 1999, 2004, among others). This perspective is intended to account for cases where T agrees with a constituent and C with a different constituent as is the case in West Flemish, i.e., the uninterpretable phi-features on C and T end up having distinct goals and values. Agreement on C and T in the context of relative clauses in SA seems to support this line of reasoning but I put aside the data in this regard for their irrelevance to our purposes here. However, in chapter 3, I argue that unlike the CP phase, the discourse layer of the *v*P phase is not the result of feature inheritance by the head of its complement, V, but is rather due to *v* movement to a higher projection leaving its features on the lower copy; this corresponds to Gallego's view of feature inheritance.

discussion of *'to'* and a new proposal on its syntax). (66) also gives currency to the association of features with C heads.

The second premise that requires evidence is that the postulation of focus as a formal feature is not a pure stipulation. As indicated, formal features related to IS are still debated. Many scholars doubt the existence of *bona fide* morphosyntactic features for IS (e.g., Chomsky et al., 2017; Fanselow, 2006). Many objections have been leveled at the assumption of a [+focus] feature, when the role of this feature is only to establish the relation between pitch accent and the informational structure of the sentence (Williams, 1997; Zubizarreta & Vergnaud, 2006). As Kratzer and Selkirk (2019:7) put it, "there is no necessary link between prosody and information structure. Cross-linguistically, information structure notions can be spelled out segmentally, prosodically, tonally, or not at all, and can moreover show syntactic behavior, like triggering movement, even without having any distinctive prosodic properties". In essence, this remark implies that intonational or prosodic cues are not sufficient to conclude that IS notions have to be represented by formal features over which the computational system can operate. However, one might conjecture that if a language has some grammatical reflexes in the form of movement or particles that are used exclusively to mark IS, then that language has *bona fide* morphosyntactic features corresponding to such effects (Aboh, 2007, 2010; Kratzer & Selkirk, 2019). Let us consider the examples below from Gungbe (Aboh, 2007:289).

(67) a. Sɛ́sínú wɛ̀ dà Àsíàbá
        Sessinou Foc marry Asiaba
        'SESSINOU married Asiaba.'

    b. Mɛ́nù wɛ̀ dà Àsíàbá
        who Foc marry Asiaba
        'Who married Asiaba?'

In (67), the particle *wɛ̀* is a focus marker that appears in a left-peripheral head position and attracts focused constituents to its specifier. This connection between some particles and certain

informational functions is common. Kuno (1972:270) draws a distinction between the Japanese

particles *wa-* and *ga-* based on their IS-related contributions. He argues that *wa-* marks anaphoric-

ity, genericity or contrasted elements, whereas *ga-* is either neutral or exhaustive.

Drawing on this line of research, I argue that the postulation of a formal focus feature in

SA is warranted. The lexicon in the language has a number of items that appear for the exclusive

purpose of marking a constituent as focused. Among these markers is *ʔinna, ʔinnamaa* and *qad*,

identified in the Arabic tradition as *ħuruuf-u t-tawkiid*, which can be translated into 'corroboration'

or 'confirmation' particles. Ouhalla (1997:22) argues that *ʔinna* and *qad* are sentential focus mark-

ers. To pin down the semantics of these particles, let us take a short excursion into the notion of

verum, which is dovetailed with the notion of affirmation or confirmation. Gutzmann et al. (2017)

indicate that this notion was first introduced by Höhle (1992) to designate cases where an accent

is used to emphasize the truth of a proposition. (68) is an example from German.

(68) Peter   <u>HAT</u>   den   Hund   getreten
       Peter   has   the   dog   kicked
       'Peter DID kick the dog'   (Gutzmann et al., 2017:4)

Several researchers give this phenomenon the designation "Verum Focus" (e.g., Höhle, 1992 (as

cited in Gutzmann et al. (2017)), Lohnstein & Stommel, 2009; Krifka, 2008). It was first assumed

to be only realized by an accent on some expression in the sentence, but Gutzmann et al. (2017)

provide cross-linguistic evidence that this phenomenon can either be realized by an accent or lex-

ically. (69) shows examples from Spanish and Dutch, respectively.

(69) a.   <u>Bien</u>   ha   cantado   la   soprano
         indeed   has   sung   the   soprano
         'The soprano DID sing.'

      b.   Ik   heb   het   boek   <u>WEL</u>   gelezen
         1sg   have   the   book   PRT   read
         'I DID read the book.'   (Gutzmann et al., 2017:14)

In (69)a, verum is realized lexically by the clause-initial element *Bien* 'indeed' and in (69)b by the

accented particle *WEL*. In SA, *ʔinna* usually figures in contexts where its use emphasizes the truth of the proposition it embeds; its use in an out of the blue context, where there is no contextual cue that the veracity of the proposition might be in dispute, is infelicitous. Therefore, following Gutzmann et al. (2017), Albuhayri and Ouali (to appear) propose that *ʔinna* is a lexical verum particle whose function is to relate a proposition to a question under discussion (QUD), and is subject to the following felicity condition:

(70) $[\![\text{VERUM}]\!]^c$ (p)= √, if $\{p, \neg p\}$=QUD (c)[43]   (Gutzmann et al., 2017:9)

(70) means that verum is only felicitous in a context where the veracity of the proposition given is at issue. The set $\{p, \neg p\}$, which simply includes a proposition and its negation, is the set of alternatives induced by the question '*whether P*?' in the sense of alternative semantics. The contribution of this particle is to rule out the possibility of the proposition being false, i.e., it eliminates $\neg p$. This is how the notion of affirmation and emphasis associated with *ʔinna* is captured. What transpires from this approach to the function of *ʔinna* is that it is a lexicalization of verum. I adopt this argument here and extend it to *ʔinnamaa* and *qad*[44]. However, it is worth noting that *qad* has this meaning only when the sentence it embeds is perfective. When it is imperfective, *qad* conveys a modality sense with an existential quantificational force. In the perfective, it could also have an epistemic evidential sense (cf. Fassi Fehri, 1993, 2004).

In addition to verum markers, SA has morphemes for constituent focus, among which is the suffix /-n/ and its variant /-nna/, which attach to verbs, and *la* which attaches to preverbal arguments as well as verbal and non-verbal predicates. Below are illustrative examples.

(71) a.   la-ʔa-ndʒaħ-a-nna   fii   l-ixtibaar-i
           FM-1SG-pass.IMPERF-VC-FM   in   the-exam-GEN

---

[43] $\neg p$ denotes the negation of the proposition *p*.
[44] I maintain the mainstream argument that verum is a form of focus as in Krifka (2008) and Lohnstein & Stommel (2009), unlike Gutzmann et al. (2017) who dissociate it from verum on the grounds that it co-occurs with focus.

'I will definitely pass the exam.'

b. ʔinna   zaid-an   la-muhaadʒir-un
    that   Zayd-ACC   FM-emigrating-NOM
    'Verily, Zayd is [emigrating]F.'

c. la- ʔanta   ʔaðkaa   min   ʔax-ii-ka
    FM-you   smarter.NOM   than   brother-GEN-your
    '[You]F are smarter than your brother.'

These particles are used exclusively for emphasis, which I take to correspond with focus. They have no influence on the sentence other than inducing alternatives in the position of the constituent to which they affix. Therefore, they formulate a sufficient basis for the assumption that focus in SA is a formal feature whose valuation is reflected, among other things, by visible morphology[45].

In addition to the language-specific properties previewed above, research has shown that there is a close relation between focus and wh-questions reflected in their interaction in question-answer pairs (see §1.6.2) and their exclusion of each other in many languages, of which SA is shown to be a case in point. On this view, focus as a formal feature might also be warranted, as question features are justifiable by the availability of lexical items that solely express questions. In principle, the two features share the characteristic that alternatives are introduced in some high-lighted position; as indicated, the ordinary semantic value of a question is the set of alternatives generated by substitution in the position of wh-word. This connection led to the assumption that

---

[45] I should point out that this assumption may not necessarily carry over to other discourse-configurational languages. As indicated, formal features are still among the controversial aspects of language, splitting up the landscape into two blocs: the first (e.g., Miyagawa, 2010, 2017) subscribes to the view that they are part of UG and that they follow from the *uniformity condition* proposed in Chomsky (2001:2), while the other subscribes to the view that they are not. Sigurðsson (2003:243ff), for instance, advocates the universality of features so much so that even in languages where morphological and syntactic evidence for the their valuation is wanting, features are posited as being present but silent. He refers to this as '*The Silence Principle'*. On the other hand, Zeijlstra (2008) argues that they are not part of UG but are rather susceptible to parametric variation and that their emergence rests on input and language experience. This argument explains why some languages for instance have agreement morphology, indicating the presence of uninter-pretable phi-features, whereas some others do not, indicating the possible absence of uninterpretable phi-features. While I offer no specific argument in this regard, Zeijlstra's view might be taken as a backdrop against which the cross-linguistic presence or absence of focus as a formal feature can be resolved.

wh-phrases and focus phrases bear the feature [F] and are licensed by the same head. (e.g., Haegeman 1995; Rizzi, 1997, 2004; Aboh 2004).

What distills from the above discussion is that focus in SA can be valued in three ways: i) phonological stress at PF (as shown in Ouhalla, 1997), ii) morphological merger of a focus marker or iii) syntactic movement. In Chomsky's (2000, 2001), syntactic movement is put down to an EPP feature, but I depart from this assumption in that I take movement to be the way through which LF can retrieve information on grammatical relations, i.e., agreement, that are not reflected by overt morphology. I consider it as a form of what Miyagawa (2010:35) terms as *Probe-goal Union* (PGU), which boils down to the requirement that a goal move to the neighborhood of the probe. This comes about in the form of head-to-head movement or movement that creates a spec-head configuration (cf. Rizzi 2006:100). So, focus movement in (57) is attributed to PGU. Note, however, that unlike early minimalist accounts, PGU is not a representational condition specifying under which structural relation agreement must be established but rather is a depiction of an option through which agreement can be flagged up. PGU in this sense is a form of the *identification requirement* or *condition* (Rizzi, 1982; McCloskey, 1986; Ouhalla, 1993) which ensures the recoverability of features from the linguistic properties of surface strings.

It remains to show why SA is not argued to have a morphosyntactic feature for topic. The reason is that, unlike focus, topical constituents do not have specific morphology in SA, nor are they associated with syntactic movement, as shown above. As matter of fact, topical constituents do not have to appear overtly in the structure if the context is rich enough for them to be retrievable. When the topic is the subject, the verb usually shows rich agreement morphology and this is what makes SA a null subject (pro-drop) language along with languages like Italian, Spanish and Russian- there is much literature that relates rich agreement to null argument licensing (e.g., Taraldsen

75

1978; Chomksy, 1981; Rizzi, 1982, 1986) although there are radical pro-drop languages that are also non-agreement such as Chinese. Moreover, referentiality and nominative case are not peculiar to topics and therefore cannot be considered as topic-markers. Likewise, obligatory resumption associated with dislocated internal arguments cannot be considered a morphological realization of a topic feature as it usually occupies the thematic position with which the topic have a dependency; the topicalized constituent ends up composing with the predicate in the position of the resumptive pronoun.

However, the claim here (for the lack of a topic feature) is conservative as it does not rule out the existence of topic as a formal feature in other languages. In fact, some languages do have particles that are used exclusively to mark topics; for example, -*wa* in Japanese (Kuno, 1972; Heycock, 1993, 2008; Tomioka, 2008), -*ne* in Chinese (Shao, 1989; Constant, 2011, 2014) and *na-* in Tagalog (Freeze, 1992; Harley, 1995) are all argued to be topic markers. All are exemplified respectively below.

Japanese (Kuno, 1972:27)
(72) John *wa* watakusi   no   tomodati   desu
      John   I   's   friend   is
      'John is my friend.'

Chinese (Shao, 1989:174)
(73) Māma měi-tiān wǎnshàng hěn wǎn cái   huí-jiā.
      mom every-day night   very late only.then return-home
      Bàba ne, gāncuì jiù bù   huí-lái.
      dad NE simply just not   return-come
      'Every day mom doesn't come home until late. Dad ne, doesn't even come back at all.'

Tagalog (Harley, 1995:120).
(74) *na-*   sa   babae   ang   sanggol
       BE   at   woman   *TOP* baby
      'The baby is with the woman.'

Therefore, the argument for the lack of topic as a formal feature in SA aligns with Zeijlstra's (2008) view that that features are not part of UG but are rather susceptible to parametric variation.

2.4 Interim Summary

This chapter thus far has reestablished with ubiquitous evidence the discourse neutrality of VSO. Then, SVO is contrasted with VSO in terms of extraction patterns, and accordingly, it is argued that SVO clauses are ambiguous between a topical or focus reading of the preverbal subject. This argument is embedded in a feature inheritance-based account of the left periphery whereby topics are argued to be base-generated in SpecCP, while focused and wh-questioned constituents are derived by movement to SpecTP. I have shown evidence that the assumption of feature inheritance is not merely theoretical but is rather grounded in the observation that root and embedded clauses with overt (non-defective) complementizers can have a discourse layer. The account also relies on the assumption that only focus is represented as a formal feature in SA due primarily to the fact that the lexicon of SA has several particles that mark clausal and constituent focus. In what follows, I move on to a pursuit of answers to some puzzles that follow from the account detailed above as well as the predictions it makes, starting with verbal agreement with focused subjects in SVO.

2.5 Subject Focus and Agreement

I have argued that a preverbal subject in SVO functions either as a topic or a focus. Agreement under both interpretations is rich, reflected in the verb inflection for all φ-features. However, recall that even though the clause is SVO with both readings, the derivation is assumed to be different. A preverbal topical subject is base-generated in SpecCP, while it binds a null *pro* in Spec*v*P, in which case rich agreement is not a surprise because it follows from the *pro* identification condition (Rizzi, 1982; McCloskey, 1986 among others) as Soltan (2007) argues. The puzzle arises when the subject is in focus since it is argued to arrive at SpecTP by movement driven by [*u*Foc]; the verb here also shows rich agreement morphology. Below are examples.

(75) a. Ɂatˤ-tˤullaab-u   qaraɁ-uu   Ɂal-kitaab-a
         the-students-NOM   read.PERF-3PL.MASC   the-book-ACC

'The students read the book.'

b. maa   ʔatˤ-tˤullaab-u   qaraʔ-uu   ʔal-kitaab-a
    not   the-students-NOM   read.PERF-3PL.MASC   the-book-ACC
    'It is not the students that read the book.'

As argued earlier, (75)a is ambiguous between a topical or focused reading of the subject, but (75)b only has the latter reading. The question is fleshed out now; if the movement to SpecTP takes place for discourse purposes, i.e., driven by a [*u*Foc] on T, how does it happen that it is concomitant with full φ-features agreement, a characteristic that is usually paired with A-movement? Put differently, since agreement in discourse features is the trigger of movement in accordance with Miyagawa's (2010) PGU condition, the prediction is that φ-agreement would remain defective. In other words, (75)b would show the form in (76), which is obviously not the case.

(76) *maa   ʔatˤ-tˤullaab-u   qaraʔ-a   ʔal-kitaab-a
        not   the-students-NOM   read.PERF-3SG.MASC   the-book-ACC
      'It is not the students that read the book.'

It has been noted in the literature that three types of subjects exist: i) narrow subjects which partake in agreement, ii) broad subjects which are analyzed as a second specifier in TP and do not take part in agreement, and iii) topicalized and focused subjects (Doron & Heycock, 1999, 2009; Heycock & Doron, 2003; Landau, 2009; Alexopoulou et al., 2004; Haddad & Wurmbrand, 2016). Topicalized and focused subjects are epitomized by (75). Narrow subjects correspond with subjects in VSOs, which remain in the thematic position. The second type, broad subjects, is demonstrated by the following example from Hebrew (Doron & Heycock, 1999:71).

(77) a. ruti   yeS   la   savlanut
        Ruti   there-is   to-her   patience
        'Ruti has patience.'

b. ruti   sof-a   le-naceax
    Ruti   end-hers   to-win
    'Ruti will end up winning.'

The task at hand is to give an explanation of how a focused subject gives rise to full φ-features agreement, thereby behaving as a narrow subject.

Two logical possibilities suggest themselves as mechanisms to account for full agreement with focused subjects. The first is to consider focus movement as in instance of A-movement and the second is to assume that Ā-movement can induce φ-agreement. Both trends exist in the literature. It is not unusual for a verb to agree with a constituent outside the A-domain. In fact, Kimball and Aissen (1971:241) report data on relativization constructions from a dialect of English in which the verb in a relative clause agrees with the wh-operator, which in turn agrees with the head noun. Below are their examples.

(78) a. Mark knows the people who Clark thinks are in the garden.
b. Mark knows the people who Clark think are in the garden.

As can be noticed, the verb *'think'* in this dialect can agree with the subject *'Clark'* as in (78)a or with *'who'* whose φ-features are determined by agreement with the plural head noun *'people'* as in (78)b. Baker (2008:75) discusses the same examples and points out that they are indicative, among other things, of the existence of *upward agreement* as an option in language. Compared to (78), the agreement pattern in (75)b looks less radical since the verb still shows agreement with the subject which, despite movement in response to a discourse feature, is still in the domain of T.

Following from the first possibility alluded to above, full agreement in (75)b can be ascribed to the assumption that SpecTP is still an A-position based on positional definitions of A and Ā-movement and therefore whenever the subject moves to that position it is predicted to engender full φ-features agreement (Baker, 2003; Miyagawa, 2010). Data from non-case languages shows that this assumption seems applicable not only to subjects but to any phrase dislocated to SpecTP (recall that dislocation is also an operation that takes place for discourse purposes). As Baker (2003:112) points out, there are constructions in Kinande, a Bantu language, in which the verb

79

does not agree with the thematic subject but rather with any nominal expression that ends up in SpecTP. The common characteristic among these agreed-with phrases is that they have to be either definite or specific. Illustrative examples are provided below (ibid:113).

(79) a. Omukali   mo-a-seny-ire   olukwi   (lw'-omo-mbasa).   (SVO)
        woman.1   AFF-1.S/T-chop-EXT   wood.11   LK11-LOC.18-axe.9
        'The woman chopped wood (with an axe).'

     b. Olukwi   si-lu-li-seny-a   bakali   (omo-mbasa).   (OVS)
        wood.11   NEG-11.s-PRES-chop-FV   women.2   LOC.18-axe.9
        'Women do not chop wood (with an axe).'

     c. ?Omo-mulongo   mw-a-hik-a   omukali.   (LocVS)
        LOC.18-village.3   18.S-T-arrive-FV   woman
        'At the village arrived a woman.'

As can be seen, the verb in (79)b and (79)c does not agree with the subject '*woman*' but rather with the preposed object and inverted locative respectively. Baker expresses this observation in the biconditional given in (80)a, which he contends is a parameter for polysynthetic languages such as Kinande. Accordingly, Baker proposes that the agreed-with preverbal NP in the constructions in (72) is a dislocated NP merged as a second specifier (i.e., adjunction) to T, while the first specifier is a *pro* as shown in (80)b (Baker, 2003:109ff).

(80) a. A verb X agrees with an NP Y if and only if Y is in a dislocated, adjunct position.

     b. [$_{TP}$ NP$_i$ [$_{TP}$ *pro*$_i$ T $\langle$Agr$_i\rangle$+Verb ... [$_{VP}$ t_i ...]]]

While agreement as expressed in the biconditional is assumed to be established between the dislocated NP and T, the structure proposed in (80)b suggests that agreement is mediated by *pro*, i.e., the preverbal NPs can technically be dealt with as broad subjects in the sense of Doron and Heycock (1999), Heycock and Doron (2009) and Alexopoulou et al. (2004). This account also has the implication that agreement with nominals is strictly valued in a downward fashion, i.e., once the goal has moved to a position c-commanding the probe.

Let us turn back to the data from subject focus in SA and see whether an account along the lines of Baker's would work. Setting aside the difference that the preverbal NPs in (79) are dislocated while the DP in (75)b is focused as they both in the end appear in SpecTP for discourse purposes, we find that Baker's analysis cannot be extended to SA for three reasons. First, it predicts that any XP attracted to SpecTP by [uFoc] on T would give rise to full φ- features agreement, which is not the case since SA is a subject-agreement language; T does not enter into an agreement relation in φ-features with a focused object, and instead shows defective agreement with the subject in Spec$v$P as given in (81)a below. Second, unlike dislocation which is confined usually to DPs, SpecTP as a focus position in SA can host constituents that cannot be coindexed with a *pro,* such as temporal adverbs as exemplified in (81)b. Third, unlike dislocated elements in Baker's account, focused constituents in SA are not base-generated but rather arrive at SpecTP through movement (see §2.3.3).

(81) a. ʔal-kitaab-a   qaraʔ-a   ʔatˤ-tˤullaab-u
          the-book-ACC   read.PERF-3PL.MASC   the-students-NOM
          'It is the book that the students read.'

     b. sˤabaħ-an   wasˤal-a   zajd-un
          morning-ACC   arrive.PERF-3SG.MASC   Zayd-NOM
   'It was in the morning that Zayd arrived.'

Miyagawa (2010:99) recasts Baker's analysis in a form that does not assume the presence of a *pro.* In a nutshell, Miyagawa, based on observations on how specific and definite subjects interact with wh-questions in Kinande, argues that (79)a is derived by subject movement to SpecTP as in (82)a, whereas the (79)b and (79)c are derived by movement of the object and locative to the specifier position of an intermediate projection, between TP and CP, symbolized as αP, as schematized in

(82)b[46]. SpecTP and SpecαP are argued to be A-positions. In other words, although the three in-stantiations of movement induce agreement, the subject induces agreement on T whereas the object and locative induce agreement on α. The difference between the two heads is that T values case whereas α does not. Miyagawa's motivation for this differentiation is his argument that, despite the literature arguing that Kinande is a non-case language, SpecTP is a nominative case position in this language but its valuation does not have overt morphology, an argument that follows from his *Strong uniformity* principle (see §1.6.1).
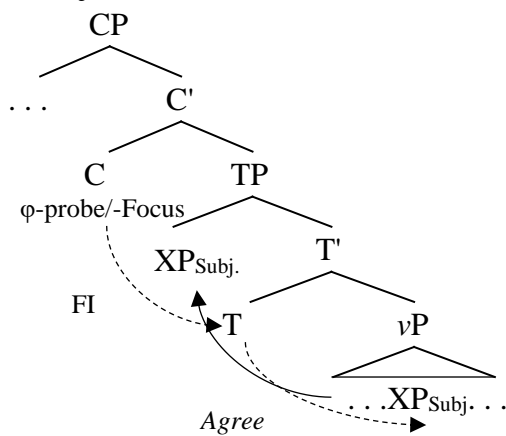
(82) a. Subjects   b. Non-subjects
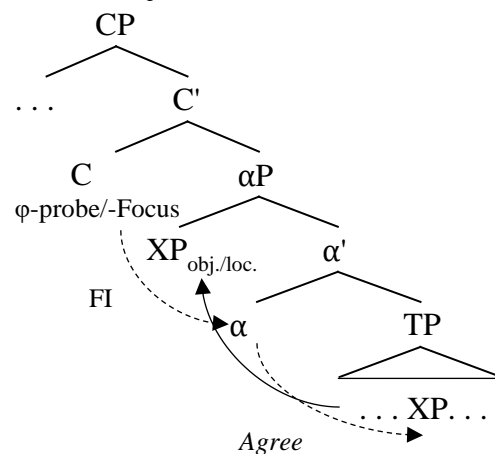
[46] The motivation for this dissociation between dislocated subjects and other phrases is derived from data where agreement must hold with the subject. Miyagawa (2010), based on similar observations made by Progovac (1993) and Schneider-Zioga (2007), notes that the requirement that the agreed-with phrase in Kinande has to be definite or specific in suspended in the context of wh-questioned subjects. Below are examples (Miyagawa, 2010:100)

i.   Iyondi   yo   u-kandi-gul-a   esyongoko?
      who   that   AGR-will-buy   the.chickens
      'Who will buy the chickens?'
ii   *Iyondi   yo   esyongoko   si-kandi-gul-a?
      who   that   the.chickens   AGR-will-buy
      'Who will buy the chickens?'

The assumption is that the subject in (i), being a wh-word in the left periphery, is in a non-case position and therefore must have received its case earlier in the derivation, i.e., that it must have appeared in SpecTP at some point in the derivation even though it is not definite or specific. This prediction is borne out since the verb shows agreement with the subject.In (ii), besides the wh-questioned subject, the object is preposed and the verb shows agreement with it. It is ungrammaticality is due to, as Miyagawa argues, the φ-probe inheritance by T and this probe is valued by the subject in its way to the left periphery. Since agreement in such case must be with the subject, it is evidence that subject dislocation is distinct from dislocation of other phrases in that the two target different projections.

A crucial aspect of Miyagawa's analysis is that the φ-probe does not enter into an agree relation the moment it is inherited by T or α. It enters such a relation only when an XP is raised to its specifier to satisfy a [-Focus] feature on T or α ([-Focus] is responsible for the derivation of dislocation in his analysis).

On the face of it, the dissociation assumed in (82) looks promising in that it provides a mechanism that evades the prediction that T should agree in φ-features with non-subject phrases, a prediction that follows from an analysis along the lines of Baker's. To be concrete, let us consider (81)a again. Suppose that [uFoc] is inherited by α in non-subject focus (instead of T as assumed in my proposal in (57)) and by T in subject focus, while [uφ] is inherited by T in either case. When *'the books'* is attracted by [uFoc] on α as in (82)b, φ features still agree with the subject in the thematic domain as they are present on T. On the other hand, the subject in (75)b, repeated in (83) for easy reference, is attracted by a [uFoc] on T which also possesses [uφ] and therefore it shows subject agreement, an assumption that is consistent with (82)a and my proposal in (57).

(83) maa   Ɂatˤ-tˤullaab-u   qaraɁ-uu   Ɂal-kitaab-a
      not   the-students-NOM   read.PERF-3PL.MASC   the-book-ACC
      'It is not the students that read the book.'

While it seems tempting to follow this line of analysis, it has two major drawbacks. First, why should subject focus be different from focus of non-subjects? That is, while Miyagawa's approach is warranted under the assumption that dislocation is recursive and therefore an argument that subject dislocation can target a projection that is different from dislocated non-subjects is tenable, this argument, when transposed to focused subject agreement in SA, lacks such substantiation due to the consensus that focus is non-recursive (see §2.3.3). Why should not a subject be focused by movement to SpecαP, in which case φ-agreement would remain defective? Second, Miyagawa's account has a timing component, which weakens its explanatory power. The assumption that

agreement in φ-features can only be established after a phrase is attracted to the specifier of the relevant head by some other feature, [-Focus] in Kinande case, is stipulative. In other words, why is it not possible for [uFoc] and [uφ] to probe separately but simultaneously with the potential for the latter to be valued as defective and then the subject raises to SpecTP in accordance with Miyagawa's PGU to satisfy [uFoc], therefore deriving a construction like (76)?

To address these questions, I maintain from Baker (2003, 2008) and Miyagawa (2010) the general concept that φ agreement may follow from a structural configuration that is formed by movement in response to discourse features. However, I present it within the scheme of a *composite probe*, a notion I borrow from Coon and Bale (2014) and van Urk (2015). Various approaches have emerged to deal with agreement and formal features as the relevant literature grew larger to incorporate data from more languages. One point of variation is whether features can probe for goals separately or in unison. For instance, φ features are analyzed in some early works as a bundle of features on T that are valued by one goal (Gallego, 2007:200), but burgeoning research continues to turn up cross-linguistic agreement patterns in some languages (e.g., Icelandic, Georgian, Algonquian, among others) that are best accounted for if features are allowed to probe separately and target different goals (e.g., Béjar, 2003; Béjar & Rezac, 2003; Sigurðsson & Holmberg 2008; Sigurðsson, 2010; Preminger, 2011).

To preserve this fruitful line of argument (i.e., separate probes) which has proved to have a wide empirical coverage and at the same time sustain an explanation for data where agreement suggests that features probe together as a bundle, Coon and Bale (2014) propose the concept of *fused or composite probes,* which boils down to an *optional* operation whereby two probing features can fuse and therefore act as a composite probe with the outcome that they inseparably converge on the same goal. Although the original proposal of feature fusion in Coon and Bale (2014)

is presented in relation to person and number features with evidence from Mi'gmaq, van Urk (2015), based on data from Dinka and other languages, takes up this notion and postulates that in principle there is no restriction on the kind of features that can fuse to form a composite probe. His evidence derives from instances where movement in reaction to discourse features are accompanied by φ-agreement along the way; data includes patterns of φ-agreement that are triggered by movement for wh-questions, topicalization and relativization (see (78) for examples from English). Below are examples from topicalization in Dinka (van Urk, 2015:19).

(84) a. Mìir   à-càa   ___   tîi̠ŋ.
          giraffe   3S-PRF.1SG   see.NF
          'A giraffe, I have seen.'

      b. Kɔ̂ɔc-kê̱   áa-cí̠i   Bôl   ké   yɔ̱̂ɔk   [CP kê̱ nhiàr ___ Àyén].
          people-these 3P-PRF.OV   Bol.GEN   3PL   find.out.NF   c   love.SV Ayen
          'These people, Bol has found out love Ayen.'

In (84), '*giraffe*' and '*these people*' originate in the position indicated by the sentence-internal solid lines. In both instances, they engender φ agreement (person and number in particular) on the perfect auxiliary as demonstrated by the highlighted prefixes. van Urk (2015) argues that (84)a and (84)b are derived from the a configuration in which the φ probe is fused with [Top] and [Wh], respectively, as schematized in (85) below (ibid:56).

(85)
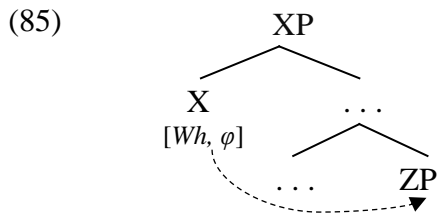
The argument van Urk advances is couched in a scheme in which the distinction between A and Ā-movement is keyed to the kind of attracting feature (see §1.6.1). On this view, a certain position can be A in a certain construction and Ā in another based on the featural content of the head with which it establishes agreement.

van Urk (2015:56) points out that this approach predicts that movement resulting from agreement with fused probes that are made from discourse and φ-features should display properties from both extremes of the spectrum, i.e., A and Ā properties. For instance, he shows that movement triggered by such probes does not exhibit the strict locality that is usually associated with φ-agreement; a composite probe skips over a potential goal if its featural structure formulates a subset of the features on the fused probe. Moreover, he demonstrates that, when WCO, anaphor binding, and reconstruction for condition C in Dinka are examined in relation to movement induced by composite probes, movement consistently shows properties of A-movement and properties of Ā-movement. With this system at hand, the sentence in (78)b can plausibly be accounted for along the same lines. One might argue that the availability of (78)a and (78)b in this variety of English is attributed to an optionality as to whether the φ probe fuses with the feature that derives the movement of the relative wh-operator on not; when they remain separate, (78)a is derived, and when they fuse, (78)b is derived.

Following the same reasoning, to account for the rich φ-agreement concomitant with subject focus in SA exemplified in (83) I propose that, in the case of subject focus, the two features [uFoc] and [uφ] fuse to form a composite probe which selects the subject in unison as their goal, in which case the subject moves to SpecTP in accordance with Miyagawa's PGU condition; the resultant structure gives rise to full φ-agreement. However, these features remain separate in non-subject focus. To illustrate, subject focus is derived from the syntactic configuration shown in (86)a, while focus of non-subjects is derived from (86)b in which [uφ] probes the subject whereas [uFoc] probes for a different goal.

(86) a. Subject Focus   b. Non-subject Focus
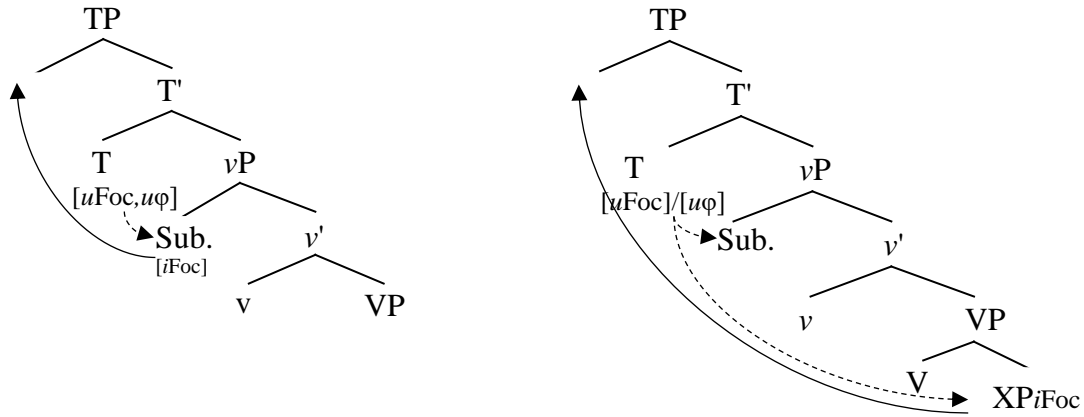
Notice that while van Urk invokes the notion of a composite probe to capture cases where the component features converge on the same goal, i.e., they do not establish an agree relation with different goals, the postulation of a composite probe in (86)a is to explain away that lack of the possibility that the component feature, [*u*Foc] and [*u*φ], probe separately when they target the subject, a possibility under which φ features would receive the unattested defective valuation[47]. This analysis, while it preserves the assumption that movement for discourse purposes can give rise to φ-agreement from Baker (2003, 2008) and Miyagawa (2010), it circumvents the aforementioned shortcomings that arise from extending either to subject focus in SA. Moreover, it has a further advantage in that it maintains a uniform position for subject and non-subject focus (SpecTP) and reduces the difference embodied in the former being accompanied with full φ-agreement to whether φ features probe on their own or as one unit along with [*u*Foc].

The literature on φ-agreement directionality is characterized by diametrical arguments. On the one hand, there are accounts that propose agreement is uniformly *downward* with the probe always c-commanding the goal, an approach referred to as *downward agreement* or *upward valuation* (e.g., Chomsky 2000, 2001; Bošković, 2007; Preminger, 2013; Preminger and Polinsky,

---

[47] I remain imprecise as to why agreement in a VS clause is defective but use this observation as an argument that if φ features probe on their own, they would not receive full valuation. However, defective agreement may be attributed to number being a separate feature which can probe only upwards while person and gender form a disparate probe that probes only downwards, and therefore when the subject remains in Spec*v*P number receives a default value.

2015). On the other hand, some accounts propose an opposing approach in which agreement is uniformly *upward* with the goal always c-commanding the probe, referred to as *upward agreement* or *downward valuation* (e.g., Koopman, 2006; Zeijlstra, 2012; Wurmbrand, 2012, 2014). With these two approaches as the two ends of the continuum, a reconciliatory approach has emerged with the view that agreement is *variable*, i.e., it can be upward or downward (e.g., Baker, 2008; Bjorkman & Zeijlstra, 2014; Carstens, 2016; Keine & Dash, 2019). The analysis proposed above aligns with the *variable* approach in that it shows that a verb agrees downwardly with the subject in VSO, but upwardly when the subject is focus-moved to SpecTP. It also conforms with the cross-linguistic observation that agreement relations in which the goal ends up higher than the probe are usually characterized by rich morphology (see Bjorkman and Zeijlstra 2014 for a discussion).

As indicated, this line of analysis which assumes a fused probe predicts that subject focus would show properties of A and Ā-movement, as pointed up by van Urk (2015) about this kind of movement in general. The standard characteristics that sets the two types apart include the ability of A-movement to create new binding relations, avert WCO effects and to typically not show re-construction (Mahajan, 1990; Chomsky, 1993, Fox, 1999; Miyagawa, 2010). Below are illustrative examples (Miyagawa, 2010:60)

(87) a.   Who$_i$ t_i seems to his$_i$ mother t_i to be smart?
     b.   John$_i$ seems to himself$_i$ to be t_i smart.
     c.   Everyone has been not turning in their papers.

'*Who*' in (87)a is base-generated as a subject for the predicate '*smart*' and then raises to the subject position of the matrix raising predicate '*seem*' and then Ā-moves to form the wh-question. Although the lower trace in the A-chain combining the two traces does not c-command the pronoun '*his*', this movement does not give rise to WCO effects. In (87)b, subject raising creates a new binder for the reflexive '*himself*'. Finally, Miyagawa (2010) points out that the universal quantifier

in (87)c is very hard, if not possible, to be read within the scope of negation, indicating that it does not reconstruct.

The investigation of these properties in the context of focused subjects in SA turns out to be recalcitrant. WCO and creating new binding relation is particularly hard to establish for subject focus since the subject starts out higher than internal arguments. Unlike English, SA is also argued to lack raising constructions (Mohammad, 2000; Soltan, 2007), and even in the context of ap-propinquation verbs where Haddad and Wurmbrand (2016) argue it exists, the assumed raising predicate does not subcategorize for an internal argument of any sort (not even PPs) and therefore remains invalid since the raised subject does not move across another DP. However, data on scope interactions shows the duality in properties of focus movement. Let us consider the sentence in (88) and (89) below.

(88) a. qaraʔ-a   tˤaalib-un   mudʒtahid-un   kull-a   kitaab-in
          read.PERF-3SG.MASC   student-NOM   assiduous-NOM   every-ACC   book-GEN
          'An assiduous student read every book.'   ∃>∀: ∀>∃

      b. tˤaalib-un   mudʒtahid-un   qaraʔ-a   kull-a   kitaab-in
          student-NOM   assiduous-NOM   read.PERF-3SG.MASC   every-ACC   book-GEN
          'An assiduous student read every book.'   ∃>∀: ∀>∃

(89) a. lam ja-qaraʔ   tˤaalib-un   mudʒtahid-un   kull-a   kitaab-in
          not 3-read.IMPERF   student-NOM   assiduous-NOM   every-ACC   book-GEN
          'An assiduous student did not read every book'   ∃>∀: ∀>∃

      b. tˤaalib-un   mudʒtahid-un   lam ja-qaraʔ   kull-a   kitaab-in
          student-NOM   assiduous-NOM   not 3-read.IMPERF   every-ACC   book-GEN
          'An assiduous student read every book.'   ∃>∀: ?/*∀>∃

The VSO clause in (88)a allows for both scope readings and so does its counterpart with the fo-cused subject in (88)b. However, in the context of predicate negation, the scenario is different. While (89)a preserves both scopal readings between the subject and object, an inverse scope read-ing in (89)b is highly unlikely and the surface scope reading is more salient with the preverbal focused subject taking wide scope over the universal quantifier. The inverse scope reading in (88)b

is result of subject reconstruction to Spec*v*P, a position lower than the position to which the universal quantifier is QRed for interpretation. This reconstruction option does not seem to be available in (89)b. This observation illustrates that the focused subject can reconstruct for scope but does not have to. Reconstruction is characteristic of Ā-movement, whereas the lack thereof is typical of A-movement.

Interestingly, SpecTP as a focus position in SA provides a unique observation that reconciles positional definitions of A and Ā-movement (Mahajan, 1990; Chomsky, 1986; Miyagawa, 2010, a.o.) with featural definitions in the sense of van Urk (2015). To visualize this, consider (90).

(90) a. qaabal-a   kull-u   tˤullaab-i-[hi]$_{k/*j}$ [zajd-an]$_j$
        meet.PREF-3SG.MASC   all-NOM   students-GEN-his   Zayd-ACC
        'All his$_{k/*j}$ students met Zayd$_j$.'

    b. [zajd-an]$_j$ qaabal-a   kull-u   tˤullaab-i-[hi]$_{k/j}$
        Zayd-ACC   meet.PREF-3SG.MASC   all-NOM   students-GEN-his
        'It is Zayd$_j$ whom all his$_{k/*j}$ students met.'

In (90)a, the pronoun *'hi'* cannot be co-indexed with the object, otherwise a condition C violation would arise. In (90)b, by contrast, the reading is licensed with *'Zayd'* binding the pronoun, but for it to be available, the focused object should not reconstruct. This leads to two conclusions. First, this kind of movement does not reconstruct for condition C, a characteristic typical of A-movement (Fox, 1999; Miyagawa, 2010). Second, it creates a new binding relation and it does not give rise to a WCO effect, characteristics typical of A-movement too (Miyagawa, 2010). To make sense of this observation considering that *'Zayd'* has moved in response to [*u*Foc] specifically as assumed in (86)a, one might conjecture that that the specifier position of a head that has the potential to host a composite probe would display A and Ā properties even if it is targeted by movement that is driven by a non-composite probe. This data also offers a new window into the dual nature of focus movement in SA in general.

To sum up, the observation that subject focus in SA is accompanied with full φ agreement is proposed to be the result of [*u*Foc] and [*u*φ] fusion into one probe, in which case [*u*φ] does not probe the subject separately and therefore defective agreement does not arise. Combining the data in (88), (89) and (90), one notice that SpecTP as a focus position in SA exhibit properties of both types of movement, A and Ā-movement, and therefore an assumption is made that once a head has the potential to host a composite probe, its specifier positions would display this combination of properties. This assumption reconciles traditional positional definition of A and Ā-positions with the new arguments that their difference can be keyed to the attracting features. In the next section, I move on to the discussion of the complementizer position and how it follows from the proposal in (57).

2.6 Complementizer Position

The proposal in (57) which assumes that topical subjects in SVO and CLLD both merge in SpecCP raises the following question: how does the complementizer end up higher than both in (65), re-peated in (91) below?

(91) a. ʔinna   ʕalijj-an   ʔidʒtaaz-a   l-ixtibaar-a
        that   Ali-ACC   pass.PREF-3SG.MASC   the-exam-ACC
        'Verily, Ali passed the exam.'

    b. ʔinna   l-ixtibaar-a   ʕalijj-un   ʔidʒtaaz-a-hu*i*
        that   the-exam-ACC   Ali-NOM   pass.PREF-3SG.MASC-it
        'Verily, as for the exam, Ali passed it.'

As shown, *ʔinna* is higher than the preverbal subject in (91)a and the LD phrase in (91)b. To account for this, let us take an excursus to Chomsky's (2008, 2013, 2015) labeling algorithm (LA) in which he argues that labels are determined based on a set of simple computational principles. I argue that the requirements and workings of this operation are what is responsible for the deriva-tion of the complementizer position. To begin with, providing the groundwork for this argument

requires reviewing the principles of LA and discussing its applications one notch lower in the structure, namely at the level of *v*P.

2.6.1 The Labeling Algorithm (LA)

2.6.1.1 The System

The body of literature dedicated to how syntactic objects derived by merge are labelled is substantial, the most recent of which includes Chomsky (2008, 2013, 2015), Cecchetto and Donati (2007), Epstein et al. (2014, 2017), Carstens et al., (2015), Ott (2017), Rizzi (2016) and van Gelderen (2015), among others. In its latest incarnation, the labeling mechanism is assumed to work in a fashion identical to Agree, i.e., based on minimal search defined in terms of c-command (Chomsky, 2013). The simplest configuration that results from merge is one that combines a head and its complement, {H, XP}, in which case the resulting syntactic object is labelled after H since it is closer to the mother node[48]. By way of schematic illustration, let us consider (92).

(92)   a.   b.
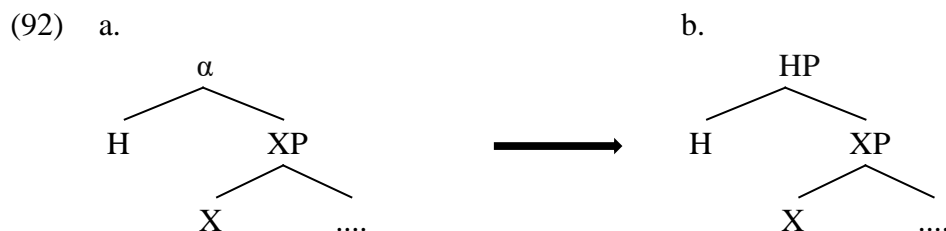
For α in (92)a to be labeled, LA searches for the closest head, which is H in this case and therefore the label is resolved as HP as shown in (92)b. Ott (2011:64) models this labeling procedure in the statement in (93), which has the implication that LA can determine which element is a head based on whether this element is a simple LI or a complex constituent made up of smaller LIs. That is, LA adjudicates between H and X in (92) through minimal search, skipping over XP since it is a complex constituent.

---

[48] Chomsky (1995:358) defines closeness as follows: a probe X which c-commands two goals Y and Z is closer to Y than to Z if Y c-commands Z.

(93) *Labeling by Minimal Search*
For any syntactic object K = {α, β}, α is the label if α is an LI and β is an XP.

Besides the syntactic form in (92), Chomsky (2013) points up some problematic configurations whose labels cannot easily be determined, one of which is a constituent that combines two phrases, one at the traditional bar level in X-bar theory terms and the other in the specifier position. This is schematized below, adapted form Rizzi (2016:107).

(94)

$$\alpha$$

H₁P — H₂P

H1 .... H2 ....
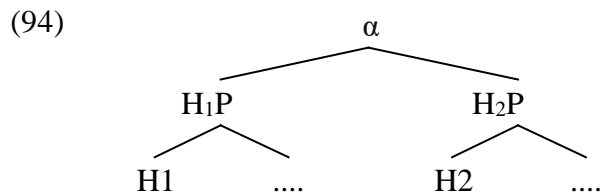
(94) shows that H1 and H2 are equidistant from the mother node α, resulting in a gridlock that makes α unlabellable. Chomsky (2013:46) outlines two possible ways to break this impasse. First, either H₁P or H₂P moves out of α, rendering the lower copy and, by implication, its head invisible to LA since it becomes part of a discontinuous chain; the mother node then is labelled after the head of the remaining phrase. Thus, if the configuration in (94) corresponds to the traditional maximal *v* projection, with H₁P being the external argument and H₂P the *v*-bar level, H₁P movement would resolve the labeling standstill, and α would have the label *v*P[49]. Interestingly, this movement captures the effects previously put down to EPP, making the postulation of EPP needless, which is a welcome result since it has been among the most controversial constructs in the theory.

The second approach is for the two heads {H1,H2} to share a formal feature (e.g., [+wh] or phi-features), in which case the feature is what is passed on as a label for α. This approach has

---

[49] In English and English-like languages, the movement of the external argument breaks the labeling standstill at the level of *v*P, but re-establishes the same problematic configuration one notch higher in the structure, viz., at the TP level. In that position, the problem is solved by virtue of agreement; in view of the observation that T usually agrees in φ-features with the subject in its specifier, the maximal projection of T is now labeled as <phi,phi> (Chomsky, 2013, 2015; van Gelderen, 2015).

its roots in Cecchetto and Donati (2007) and it builds on the cartographic hypothesis that heads and features are not substantially different (Cinque & Rizzi, 2008). It depicts labeling as an operation that is parasitic on agreement and therefore provides an explanation for a collection of agreement-related displacements. For instance, Rizzi (2016) utilizes it to derive his (1997) split-CP, i.e., the representational topic and focus projections are now derivationally established as a consequence of labeling through shared features.

2.6.1.2 Theoretical Justifications and Empirical Merits of LA

What is a label and why is it important? As Cecchetto and Donati (2015:29) put it, "the intuition of the notion "label" is that a group of words retains some of the properties of one (and only one) of the words that make up the group". In the same vein, Chomsky (2007) emphasizes that labels mark which element of a complex object determines its role in further computation and interpretation. At first, labels were analyzed as the product of the projection principle whereby elements are divided into selectors and selectees (Collins, 2002; Chomsky, 2008). In particular, selectors, which are considered as *probes* in feature-driven syntax theories, determine labels. In the pre-minimalism era, the projection principle was thought to be satisfied at DS and must remain represented at all levels afterwards (Chomsky, 1986:84). However, with the dispensation of DS under minimalism, labels are outsourced to the operation "LA" which operates in the course of derivation with repercussions that arguably extend to the interfaces (Chomsky, 2013).

As Ott (2011:63) indicates, since the objects formed by *merge* are symmetric sets which, by definition, do not contain information about headedness and linearization, labeling is the mechanism by which this symmetry is broken. So, at PF labels play a role in linearization as well as in facilitating prosodic decisions in terms of which constituents receive certain intonation contours

(ibid). As for LF, Rizzi (2016:105) points out that labels must be present at this level in order for selectional requirements, i.e., thematic relations, to be checked.

On the empirical side, LA furnishes an alternative to EPP as illustrated above. EPP in its original formulation which associates it with the tense head (Chomsky, 1995) and its later generalization to phase heads in the form of Edge Features (Chomsky, 2008) and to non-phase heads (Cable, 2012) has been among the most suspicious notions in the theory especially in the context of successive cyclic movement due to its look-ahead nature (see Bošković 2007 and Chou 2013 for an extensive discussion). This criticism can be summarized in Boeckx and Grohmann's (2004:4) description of EPP as the "unmotivated motivation for movement". This criticism led to the emergence of alternative proposals which come in the form of unidirectional *downward agree* (e.g., Bošković 2007 where an NP moves to a higher position to value its unvalued case) or *upward agree* (e.g., Zeijlstra, 2008; Bjorkman & Zeijlstra, 2014). LA is another alternative which has the advantage that it unifies the motivation for A and Ā-movement. Chomsky (2015:7) states that both are now driven by labeling failures, which force a moving phrase to keep on moving until it arrives at a position that brings it in a spec-head configuration with an agreeing head, in which case the node that combines both receives a label that conforms with their shared features. To illustrate, consider the sentence below adopted from Rizzi (2016:115).

(95) a.   John thinks [C_{decl} [Bill read [which$_Q$ book]]]

 b.   * John thinks [α [which$_Q$ book] [C_{decl} [Bill read ___]]]

 c.   [β [which$_Q$ book] [C_Q [John think [α___ C_{decl} [Bill read]]]

LA by shared features captures the necessary continuation of movement in (95)b. *'which book'* cannot stop in the embedded SpecCP because it creates an XP-YP configuration identical to (94) which makes α unlabellable since the embedded C does not share a feature with *'which book'*. For

the structure to be salvaged, the wh-phrase has to move all the way to the specifier of the matrix

C with which it shares the feature [Q] with the outcome that β can be labeled as QP.

With the system of labeling delineated above as a background, the next section is devoted

to how LA works in SA, and perhaps in VSO languages in general, providing a starting point for

the account I propose for the complementizer position based on LA.

2.6.2 Labeling in SA

In SA, the structure in (94) appears at the *v*P level, but unlike English, neither of the two solutions

envisaged by Chomsky (2013) seems to be applicable. In recent analyses of VSO clauses (e.g.,

Mohammed, 2000; Soltan, 2007), they are argued to result from V rolling up through head move-

ment (HM) to *v* and ultimately to T, with the external argument remaining in *situ*, i.e., Spec*v*P. Let

us consider (96) and (97) which illustrates the problematic stage in the derivation that is equivalent

to (94).

(96) qaraʔ-a   tˤ-tˤaalib-u   l-kitaab-a
      read.PERF-3SG.MASC   the-student-NOM   the-book-ACC
      'The student read the book.'

(97)
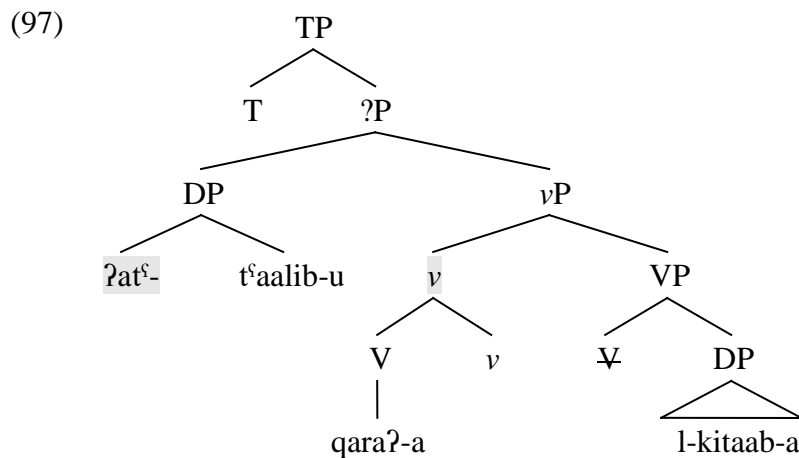
The label of (?P) remains unresolved since the head *v* and the DP head *ʔal* 'the' are at an equal

distance from the dominating node. There is no evidence that the subject DP or *v*P moves out of

(?P). Moreover, *v* and the subject DP do not have features in common since uninterpretable φ-

features are on T, and they can receive values through Agree with the subject in *situ* (Soltan, 2007). In languages where *v* has its own set of φ-features, they are usually valued by agreement with the object, not the subject (Chomsky, 2000, 2001; Baker, 2008).

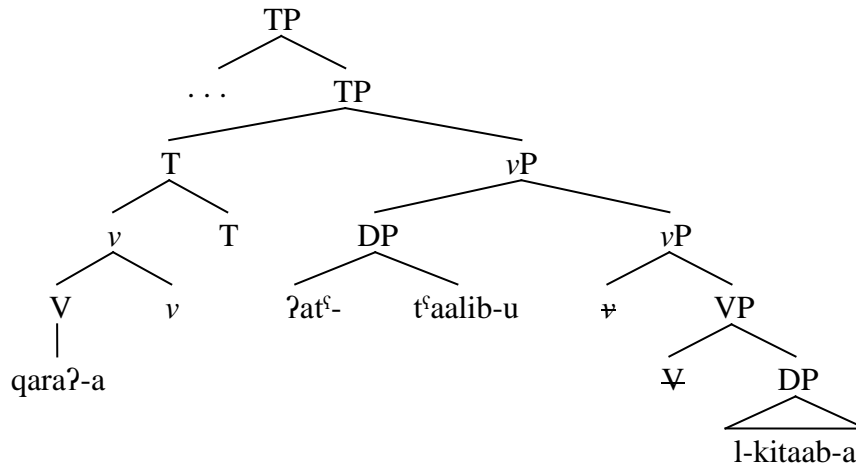Since none of the two conceivable solutions Chomsky (2013) points up is applicable, I propose that *v*+V-to-T movement is what enables (?P) to be labelled[50]. However, with Chomsky's argument that the lower copy of the moved element becomes invisible to labeling, (?P) would then be labeled DP, which is an undesired result since semantically speaking this node is propositional, i.e., it is of type <t>. I therefore enhance the proposal with the ancillary assumption that, unlike phrasal movement, the lower copy in an HM chain remains visible to the algorithm and its becoming a viable label for the syntactic object in question has the conceptual justification that HM indicates an extension in the moved head domain. This concept of domain extension has occurred in various guises in generative grammar. For example, in Chomsky (1986) V-to-T (INFL at the time) HM is taken to eliminate the barrierhood of VP, implying that VP is extended. In a similar fashion, Chomsky (1993, 1995) argues that head movement extends checking domains of moving heads (see Hornstein et al. 2005 and Den Dikken 2006, 2007 for ample discussion). Recently, Gallego and Uriagereka (2006) and Gallego (2007:116) argue that *v*-to-T movement pushes the *v*P phase upwards in the structure, a process they call *phase sliding*. So, with these views in mind, I assume that, following HM, (?P) is labelled as *v*P, as shown in (98).

---

[50] While this proposal is developed independently for labeling in SA since the Spring 2018, a recent publication, specifically Vercauteren (2017), came to my attention in which an identical proposal is made for labeling in Romance languages. Vercauteren (2017:73) points out that since in Romance languages "all verbs (can) move to TP […] some instances of 'head'-movement [can be reduced] to labeling conflicts, and as such the application of label-driven movement [can be widened]".

(98)

```
                          TP
                  ┌────────┴────────┐
                ...              TP
                         ┌────────┴────────┐
                       T                  vP
                  ┌────┴────┐      ┌───────┴───────┐
                 v         T     DP              vP
             ┌───┴───┐        ┌───┴───┐     ┌─────┴─────┐
            V        v      ʔatˤ-  tˤaalib-u  v̶        VP
            │                                      ┌────┴────┐
          qaraʔ-a                                 V̶        DP
                                                         ╱─────╲
                                                        l-kitaab-a
```

Chomsky (2013) points out that labels have to be resolved by spell-out, i.e., when a phase is transferred to the interfaces. This entails that the HM in (98) must take place in the narrow syntax[51], contrasting the accounts assuming that it occurs post-syntactically (at PF) due to its countercyclic nature, derivation qua adjunction, and lack of semantic effects (Chomsky, 2001; Boeck & Stjepanović, 2001; Lasnik, 1999, among others). Nevertheless, countervailing arguments that HM, or at least some of its manifestations, takes place in the narrow syntax also exist. For instance, Matushansky (2006) argues that the lack of interpretive consequences is insufficient *per se* to relegate HM to the PF component; A-movement does not have semantic effects and nonetheless there is a consensus that it occurs as part of feature valuation in the narrow syntax. There is also a growing body of literature that argues for HM having semantic effects (e.g., Lechner, 2006, 2007; Iatridou & Zeijlstra, 2013; Roberts, 2010), with empirical evidence drawn from various linguistic aspects, including the relative scope of modals and negation, the licensing of Negative Polarity Items (NPIs) as a result of subject-auxiliary raising, to name few. Below is an example from Roberts (2010:8).

---

[51] Two questions are usually raised with regard to HM in contexts like (98). The first is whether it is a case of *v*-to-T movement or a case of remnant VP movement, i.e, the syntactic identity of the moved structure. The second question is whether this movement takes place in the syntax proper or at PF. The answer to the first question is that it is a genuine HM in SA. When the object vacates VP, it lands at *v*P edge in a position higher than the subject (see §3.3.1 below). As for the second question, the account given here is that it is part of the syntactic component.

(99) a. *I saw anyone. (Not licensed)

b. Did you see anyone? (Questions)

As can be seen, the NPI object *'anyone'* is licensed only after T-to-C movement in (99)b. Roberts (2010:17) concludes from sentences like (99) that HM is part of the syntactic component. Moreover, Gallego (2007:12), based on similar examples, reaches the same conclusion since HM plays a role in clause typing. For instance, T-to-C movement in (99)b changes the clause type from a statement into a question. Insofar as SA is concerned, *v*-to-T movement derives VSO clauses which are interpretively different from SVOs as has been shown with ample evidence in §2.2. i.e., if *v* remains in situ with tense lowering down to it at PF (via affix hopping for instance) the structure would be SVO. Given these observations, the assumption that the instantiation of HM in (98) is part of the narrow syntax is not without roots and is already independently motivated in the literature. Labeling is only one more argument building in the same direction.

2.6.3 LA-based Account of Complementizer Position

Looking back at (91), repeated in (100) for easy reference, we find that it has the same problematic configuration, as shown in (101), which is confined to the relevant part of the structure.

(100 a. ʔinna   ʕalijj-an   ʔidʒtaaz-a   l-ixtibaar-a
          that   Ali-ACC   pass.PREF-3SG.MASC   the-exam-ACC
          'Verily, Ali passed the exam.'

b. ʔinna   l-ʔixtibaar-a   ʕalijj-un   ʔidʒtaaz-a-hu_i
     that   the-exam-ACC   Ali-NOM   pass.PREF-3SG.MASC-it
     'Verily, as for the exam, Ali passed it.'

(101
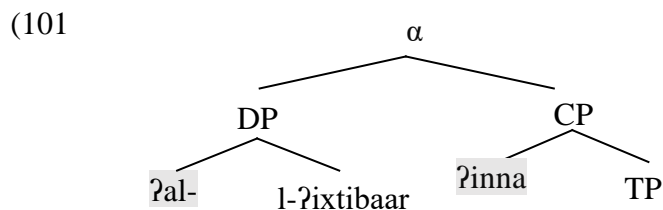
As is the case at the *v*P level, Chomsky's (2013) options are inoperative here, too. The movement of the DP '*Ali*' means that it re-adjoins α, creating the structure below.

99

(102)

```
                          α'
                ┌─────────┴─────────┐
               DP                    α
            ┌───┴────┐          ┌────┴────┐
          ʔal-    ʔixtibaar    D̶P̶       CP
                                      ┌───┴───┐
                                    ʔinna    TP
```
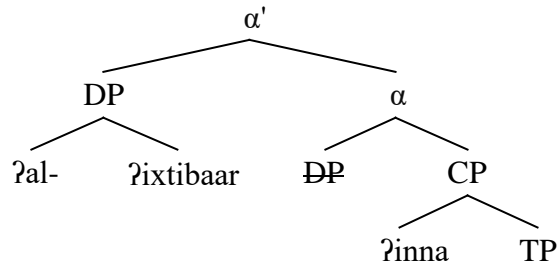
On the empirical side, this short movement is not typical in the Ā-domain and in fact is not attested in the language. Theoretically, the literature on Ā-movement reveals, based on cross-linguistic evidence, that some forms of this movement are constrained. One of the constraints reflects a prohibition of local movement of a specifier of an XP to re-adjoin the same XP (Chomsky, 2008; Murasugi & Saito, 1999; Bošković, 1997). It is semantically uninformative and syntactically unmotivated. Erlewine (2016:154) posits a similar constraint on too short Ā-movement and terms it *Spec-to-Spec Anti-locality*. It states that "Ā-movement of a phrase in the specifier of XP must cross a maximal projection other than XP". In other words, for a spec-to-spec movement to be licit in the Ā-domain, there has to be a maximal projection, say, ZP, such that ZP c-commands the launch position and is c-commanded by the landing position.
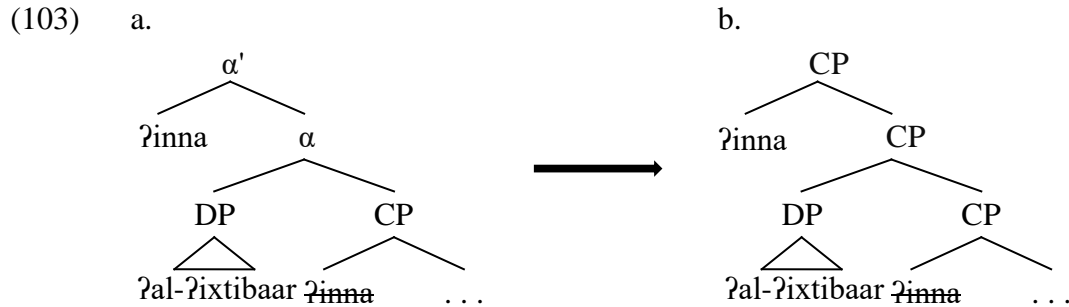
Similar objections are raised with regard to the movement of TP since it would mean moving a complement of an XP to the specifier position of the same XP, a movement that, to the best of my knowledge, has no manifestation elsewhere in SA. Moreover, this movement is unattested cross-linguistically, an observation that led to the emergence of another constraint in the literature (e.g., Pesetsky & Torrego, 2001; Abels, 2003) labelled as *Comp-to-Spec* constraint in Erlewine (2016). Moreover, Abels (2003:116ff) argues that TPs cannot move and strand C.

Moving to the second approach pointed up by Chomsky (2013), we find that, for it to be operable, the complementizer in (101) must agree with the DP '*Ali*' in some relevant formal feature, in which case the feature is passed as the label for α. [Topic] is what springs up as the possible candidate for the relevant feature. However, unlike focus, which is argued to be a formal feature

in SA (see §2.3.3), evidence for topic as a formal feature is lacking. So, the head complementizer and the DP '*Ali*' have no shared features in (101).

In view of the above reflections, I propose that the indeterminacy in (101) is resolved the same way it is resolved in the lower phase (*v*P), namely via HM of C above α, creating the new node α'. Below is the schematization.

(103)   a.   b.

α'		CP

Ɂinna   α   ⟶   Ɂinna   CP

DP   CP   DP   CP

Ɂal-Ɂixtibaar ~~Ɂinna~~   . . .   Ɂal-Ɂixtibaar ~~Ɂinna~~   . . .

'*Ɂinna*' head-moves out of α, giving way for it to be labeled as CP on the assumption that HM indicates an extension in the domain of the moved head. The newly created projection, α', is then labeled as CP with no competition, since it is a typical head-complement configuration, rendering *Ɂinna* as the closest head to α'.

However, the account for the complementizer position provided above seems to be challenged by a piece of data, in which the complementizer has the option to appear in between two CLLD phrases. Below are examples.

(104) a. zajd-un   Ɂinna   sˤadiiq-a-hu   dˤarab-tu-hu
            Zayd-NOM   that   friend-ACC-his   hit.PERF-2SG.MASC-him
            'As for Zayd, verily, I hit his friend.'

        b. Ɂinna   zajd-an   sˤadiiq-u-hu   dˤarab-tu-hu
            that   Zayd-ACC   friend-NOM-his   hit.PERF-2SG.MASC-him
            'Verily, as for Zayd, I hit his friend.'

As can be seen, *Ɂinna* has the option to surface in between the two phrases '*Zayd*' and '*his friend*'. This is exclusive to *Ɂinna* as it is ungrammatical in the case of *Ɂanna,* which does not figure in

root clauses. For the time being, there is no definite argument as to why the structure in (104)a is permissible. Based on the account above, the structure has to be as in (104)b invariantly.

There are two possible approaches to tackle this variability. The first follows from Arregi and Pietraszko's (2018, 2019) new theory of HM, put under the term *generalized head movement*, in which they bring up evidence showing that the highest copy of a moved head may not necessarily be the one that is pronounced at PF. For instance, in a three-step HM chain, the middle or lower copy might be the one that gets pronounced. They argue that this theory is empirically well-grounded and theoretically well-motivated as it displays that head-raising and head-lowering (upward and downward head displacement[52]) are epiphenomenal, thus reducing the difference between the two to which copy of a moved head is pronounced at PF. Building on this perspective to HM, one might entertain the argument that *ʔinna* in (104)a moves all the way to its position in (104)b, with the difference put down to an optionality at PF as to which copy is pronounced. However, an account along this line needs independent substantiation, especially with the observed complication that HM is concomitant with a shift in the accusative case inflection from '*his friend*' in the former to '*Zayd*' in the latter. Furthermore, there is more than meets the eye here. The difference between (104)a and (104)b does not seem to be purely phonological. They demonstrate different syntactic behavior in terms of their embeddability and recursivity; only the latter can grammatically surface as an embedded clause as shown in (105). Moreover, unlike the post complementizer topics in (105)b, a pre-complementizer topic is characterized by its non-recursivity as shown in (105)c.

(105) a. ?/*qul-tu   zajd-un   ʔinna sˤadiiq-a-hu   dˤarab-tu-hu
          say.PERF-2SG.MASC   Zayd-NOM   that friend-ACC-his   hit.PERF-2SG.MASC-him
          'As for Zayd, verily, I hit his friend.'

---

[52] This duality in head movement directions led to a division of labor between two operations, with upward displacement analyzed as part of the syntactic component, while the downward head displacement is analyzed as an instance of PF *merger* or *lowering* (e.g., Halle & Marantz 1993; Bobaljik, 1995; Embick & Noyer 2001).

b.   qul-tu   ʔinna   zajd-an   sˤadiiq-u-hu   dˤarab-tu-hu
    say.PERF-2SG.MASC   that   Zayd-ACC   friend-NOM-his   hit.PERF-2SG.MASC-him
    'Verily, as for Zayd, I hit his friend.'

c.   *zajd-un   sˤadiiq-u-hu   ʔinna   ʕalijj-an   dˤarab-a-hu
    Zayd-NOM   friend-NOM-his   that   Ali-ACC   hit.PERF-3SG.MASC-him
    'As for Zayd and as for his friend, verily Ali hit him.'

In addition to this disparity in embeddability and non-recursivity, '*Zayd*' in (104)a is naturally followed by a pause that sets it apart from the rest of the sentence. Not only do these observations cast doubts on the reduction of the difference between both to a PF optionality as to which copy of a moved head is pronounced but they also set the scene for the second approach embodied in the notion of *hanging topics* (HT).

The diagnostics employed to identify HTs vary due to the different language-specific properties they display (e.g., Benincà, 1988, 2001; Benincà & Polletto, 2004; Cinque, 1982, 1990, 2014; Grohmann, 2003; Frey, 2004; Rizzi & Cinque, 2016). They are summarized in (106) as stated in Benincà and Polletto (2004:64f) as well as Badan and Del Gobbo (2011:76).

(106) a.   Category: HTs can only be DPs.
      b.   Recursivity: only a single HT position per clause is available
      c.   Resumption: an HT has to be associated with a resumptive pronoun or epithet.
      d.   Embedding: HTs are restricted in some types of embedded clauses such as relatives.
      e.   Order in relation to LD: HTs always precede LDed XPs.
      f.   Order in relation to C: unlike LDed XPs, an HT has to precede the complementizer.

Tests (106)a through (106)b are illustrated by the Italian sentences given below adopted form Benincà & Polletto (2004:63-66). The sixth test is illustrated by (110) from Chinese (Badan and Del Gobbo, 2011:76).

(107) a. Giorgio, ai nostri amici, non parlo mai di lui.
Giorgio to the our friends not talk never of him
'Giorgio, to our friends, I never talk of him.'

b. ***ai nostri amici, Giorgio, non parlo mai di lui.**
to our friends Giorgio not talk never of him

(108) a. *Gianni, questo libro, non ne hanno parlato a lui.
Gianni this book they of-it haven't talked to him

b. A Gianni, di questo libro, non gliene hanno mai parlato.
to Gianni of this book they of it haven't talked to him
'They did not talk to Gianni about this book.

(109) a. *Una persona **che** questo libro non ne parlerà mai.
a person that this book not of-it will talk never

b. *Una persona questo libro **che** non ne parlerà mai.
a person this book that not of-it will talk never

(110) a. *Zicong na ge nubaizi ni gen ta jiehun le, zhe-ge jia jiu meiyou yi ke anning.
since that CL girl you with her marry MOD this CL house then no have a-CL quietness

b. Na ge nuhaizi zicong ni gen ta jiehun le, zhe ge jia jiu meiyou yi ke anning.
that CL girl since you with her marry MOD this CL house then not have a-CL quietness
'That girl, ever since you married, this house hasn't had a quiet movement.'

Example (107)a represents the order HT-LD, since only the second topic can be a PP. The reverse

order in (107)b is ungrammatical. Moreover, (107)a also shows that a HT has to be associated with

a resumptive pronoun, *'him'* in this case. They also show that a HT can only be a DP. The PP in

(107)b cannot function as a HT. Example (108)a shows that that two HTs cannot project in the

same clause, hence the ungrammaticality of the sentence. When both topics are PPs, which rules

out the possibility of one being an HT, the sentence is possible as in (108)b. (109) shows that the

HT '*this book*' cannot figure in a relative clause, which provides evidence for the root nature of

HTs. Based on data like this, Cinque (2014:199) points out that HTs are a root phenomenon and

therefore are less liable to embedding or appearing in adjunct temporal or locative clauses. He

further indicates that, unlike regular topics, a clause can host only one HT, i.e., an HT projection

cannot be recursive. Finally, (110) is evidence that an HT has to precede the complementizer when

they both appear in the same structure; the HT *'that girl'* cannot follow the complementizer *Zicong* 'since'. With data primarily from Italian, Benincà (2001), Benincà and Polletto (2004), Frascarelli (2007) and Bianchi and Frascarelli (2010) indicate that HTs usually appear high in the structure with no syntactic connection to the rest of the sentence, i.e., the node that combines a hanging topic with a sentence is not a CP.

Taking into account these cross-linguistic arguments and the empirical observations in (105), I propose that the two structures in (104) are syntactically different in that (104)a instantiates an HT, namely '*Zayd*'. (105) illustrates that what precedes the complementizer cannot be recursive or embedded. Resumption is not a decisive test in SA since CLLDed XPs are always resumed regardless of whether they are HTs or not. (105) is also evidence that a HT should precede CLLD and C. This proposal affords us explanations for two questions. First, the lack of connection between a hanging topic and the rest of the clause explains why (104)a is unamenable to embedding. '*Zayd*' and the CP might be combined through a discourse node, rather than a CP, and hence cannot be embedded. Second, this discourse node shows why '*Zayd*' in (104)a does not lead to a conflict in labeling within the clause. What transpires from this proposal is that the two sentences in (104) are syntactically different and therefore the idea that the initial DP challenges the account of complementizer movement does not hold.

In summary, the theme that emerges from the discussion in this section is that the ordering of the complementizer is derived by the requirements of labeling that are worked out via HM. Theoretically, this proposal that HM can play a role in labeling has the advantage of unifying this movement with phrasal movement in that both are utilized as mechanisms for the resolution of labeling failures. In the following section, I discuss the connection between labeling via HM and Gallego's (2007) notion of phase sliding. This connection has something to bear on the question

of why long-distance wh-questions that target subjects are ungrammatical, a question to which I return in §2.7.

2.6.4 Implications of Labeling via HM

I have proposed in the previous section that labeling failures can be sorted out via HM, in addition to the two mechanisms proposed in Chomsky (2013, 2015), namely phrasal movement and shared features. My proposal is inspired by several previous accounts that argue HM can satisfy traditional EPP (e.g., Alexiadou & Anagnostopoulou, 1998; Haddad & Wurmbrand, 2016) and that HM eliminates *barrierhood* (Chomsky, 1986) and extends the domain of a moved head (Chomsky, 1993; Gallego & Uriagereka, 2006; Gallego, 2007). Gallego (2007) calls this domain extension *phase sliding* when the moved head is phasal. In what follows I explore this connection between labeling through HM and *phase sliding,* a connection that will be relevant to the discussion in §2.7. Interestingly, phase sliding influences transfer domains in that it increases their number within a clause (Gallego, 2007:119). To illustrate, Gallego argues that *v*-to-T movement adds another transfer layer to the structure as illustrated in the schematizations below, where transfer domains are identified by the grey squares (ibid:111).

(111)　　a. Before *v* Movement　　　　　　b. After *v*-to-T Movement
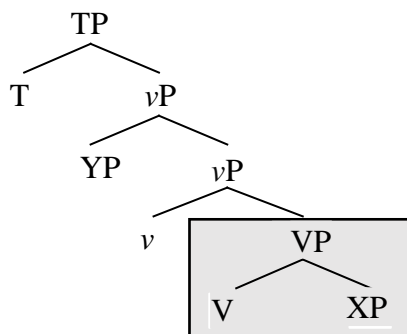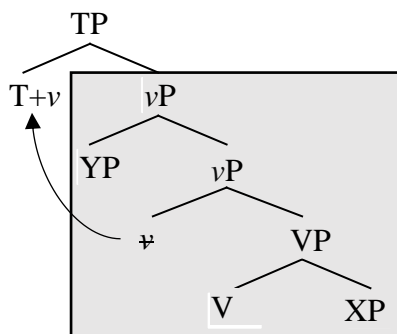
As soon as *v* is externally merged in (111)a, the domain of the *v*P phase (i.e., VP) is sent off to the interfaces, based on Chomsky's (2001) conceptualization of phases. Then, when *v* proceeds to T through HM, a new transfer domain is induced, consisting of the of complement of T, i.e., *v*P. I

follow Gallego in this argument, and put emphasis on a direct entailment it leads to, which is that if a constituent is present at the edge of vP by the time VP is transferred and this constituent has a feature that is yet to be licensed (valued), it has to move to SpecTP by the time vP is transferred induced by v-to-T movement (see §2.7 below for some applications of this argument).

This argument extends to the CP domain where I argue that labeling is also sorted out via HM. To illustrate, let us consider (112) where the grey squares indicate transfer domains again.

(112)   a. Before C Movement   b. After C Movement

a. Before C Movement:
CP
├─ C
└─ TP (transfer domain)
   ├─ T
   └─ vP

b. After C Movement:
α'=CP
├─ C
└─ α=CP (transfer domain)
   ├─ YP
   └─ CP
      ├─ C̶
      └─ TP
         ├─ T
         └─ vP
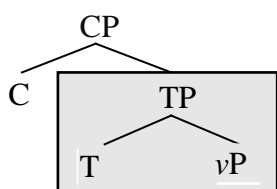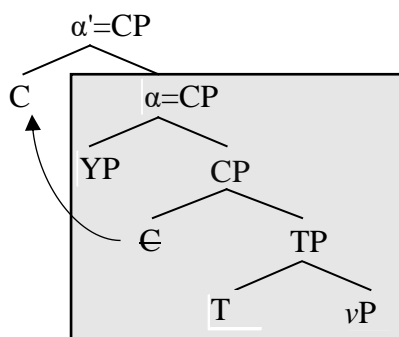
Once C is externally merged in (112)a, its complement is spelled out, i.e., TP is the domain of the CP phase. In (112)b, YP is externally merged as a topic in SpecCP (as I have argued in §2.3.3, therefore creating the projection α, which is unlabellable (see §2.6.3 above)). C moves out creating the new projection α', with the outcome that both projections (α and α') are labelled as CP. In a fashion parallel to the vP phase as delineated in (111), HM in (112)b induces another transfer domain, i.e., α is transferred to the interfaces by the time C moves, creating α'.

The doubling of transfer domains in the CP layer as illustrated in (112) provides an explanation for an observation about TopPs. Exploring the relation between Rizzi's *cartography* of the left periphery and *phasehood* as proposed in Chomsky (2001), Ginsburg (2009) and Totsuka (2015) conclude that TopPs are phases. (112), which combines labeling via HM with Gallego's notion of *phase sliding*, derives this observation without further ado. When the lower copy of C in (112)b is merged, its complement is spelled out. Then, YP is externally merged, deriving α. When

C moves to solve the labeling standstill at α, α is transferred. If a new topical XP is merged in Specα'P, C would have to move higher, yet inducing a new transfer domain. This entails that a topic is always merged in the specifier position of a phase head.

With the argument represented in (111), I return, in the following section, to the question of why long-distance wh-extractions of embedded subjects is ungrammatical.

2.7 Long-Distance Extraction of Subjects

Recall that in the discussion of long-distance extractions in §2.3.2, we came to the conclusion that movement across topics is not banned but the sentence in (45) repeated below remained inexplicable.

(113) *ʔajj-u   ridʒaal-in   ħasib-ta   ʔanna   l-walad-a
       which-NOM   men-GEN   think.PERF-2SG.MASC   that   the-boy-ACC
       dˤarab-uu-hu
       beat.PERF-3PL.MASC-him
       '*literally:* Which men did you think that the boy, they beat him?'

'which men' is extracted from the embedded subject position. Which-type of questions are usually considered as D(iscourse)-linked, as indicated in Aoun et al. (2010:132ff). In root questions, they can appear with a gap or a resumptive pronoun but in long-distance wh-questions they have to be resumed. Below are examples adapted from Aoun et al. (2010:135).

(114) ʔajja   marriidˤ-in   qul-ta   ʔanna   naadia   zaara-t-*(hu)
       which   patient-GEN   say.PERF.2SG.MASC   that   Nadia   visit.PERF-3SG.FEM-(him)
       'Which patient did you say that Nadia visited him?'

(115) ʔajja   marriidˤ-in   zaara-t-(hu)   naadia
       which   patient-GEN   visit.PERF-3SG.FEM-(him)   Nadia
       'Which patient did Nadia visit (him)?'

While resumption is optional in (115), it is obligatory in (114). One might argue that the ungrammaticality of (113) is attributed to the lack of resumption, and this is supported by the fact that with resumption, the sentence turns grammatical as shown below.

(116) ʔajj-u   ridʒaal-in   ħasib-ta   ʔanna-*(hum)   l-walad-a

which-NOM	mean-GEN	think.PERF-2SG.MASC	That-they	the-boy-ACC

dˤarab-uu-hu
beat.PERF-3PL.MASC-him
'*literally:* Which men did you think that, the boy, they beat him?'

However, obligatory resumption is not an explanation but rather another observation that requires

an explanation. Additionally, long-distance wh-questions that target subjects require resumption

even with wh-words that are not usually d-linked. Compare the subject question in (117) to the

object question in (118). Resumption is obligatory in (117).

(117) man   ħasib-ta   ʔanna-*(hu)   l-walad-a   dˤarab-a-hu
       who   think.PERF-2SG.MASC That-him   the-boy-ACC   beat.PERF-3SG.MASC-him
       '*literally:* Who did you think that he beat him?'

(118) man   qul-ta   ʔanna   naadia   zaara-t-
       who   say.PERF.2SG.MASC   that   Nadia   visit.PERF-3SG.FEM
       'Who did you say that Nadia visited?'

These facts strongly suggest that the unacceptability of the long-distance wh-extraction in (113) is

peculiar to subjects and has nothing to do with movement across the topic in the embedded clause,

namely *'the boy'*. To gain more insight into the nature of the puzzle in (113), let us consider the

variation below.

(119) ?/ʔajj-u   ridʒaal-in   ħasib-ta   l-walad-a
       which-NOM   mean-GEN   think.PERF-2SG.MASC the-boy-ACC
       dˤarab-uu-hu
       beat.PERF-3PL.MASC-him
       'Which men did you think they beat the boy?'

Following Soltan (2007), one can argue that *'the boy'* in (119) is based-generated in the object

position of the verb *'think'*, while it binds the resumptive pronoun '*hu'* in the object position of

the embedded verb *'beat'*, and that this explains why subject extraction is acceptable here; it is not

preceded by a topic in the embedded clause and therefore extraction is licit. However, an analysis

along these lines will leave unexplained sentences like (118) (see also §2.3.2 for more data show-

ing that movement across topics is licit). Nonetheless, (119) remains illuminating as it does not

contain an overt complementizer in the embedded clause, which might provide a new perspective on the problem.

With these considerations in mind, I would like to propose an account for the ungrammaticality of (113) in terms of the well-known *that-trace* phenomenon. Notice that in all subject extractions, the verb always shows full agreement with the extracted subject, which means that the subject must have landed in SpecTP at some point in the derivation before it proceeds to the matrix clause, leaving behind a copy (or trace). Recall that the position of a complementizer is derived by movement as I have argued in the preceding section. So, I suggest that the adjacency of the lower copy of C to the copy (or trace) of the subject in the embedded SpecTP is what gives rise to ungrammaticality. To illustrate, consider the structure given below for the question in (113).

(120) [TP ʔajj-u ridʒaal-in [vP *pro* ħasib-ta [CP ʔanna [α/CP l-walad-a ʔanna [TP ʔajj-u ridʒaal-in dˤarab-uu-hu [vP ʔajj-u ridʒaal-in [VP dˤarab-uu-hu]]]]]]]

The derivation in (120) proceeds as follows. *'which men'* starts out in the embedded SpecvP and then moves to SpecT in accordance with (111), a movement that results in full agreement on T. Then, the complementizer *ʔanna* 'that' merges in the structure followed by the merge of *'the boy'* in its specifier. The merger of C and *'the boy'* creates a labeling conflict at the level of α that is resolved by *ʔanna* movement which allows α to be labelled as CP and the newly created projection as CP as proposed in § 2.6.3. When the matrix verb *'think'* is merged, *'which men'* moves to the matrix clause. The latter movement creates a *that-trace* type effect between the lower copy of *ʔanna* and *'which men'* shown by the highlighted parts of the structure, leading to the sentence being ungrammatical. This effect can be averted by resumption as in (116) or if the complementizer is null as in (119). As for of why the subject cannot move from the embedded SpecTP once it arrives there, a potential reason is that SpecTP is a criterial position for subjects since it induces full agreement, and hence once a subject moves to that position, it cannot move out of it (Rizzi &

Shlonksy, 2006; Rizzi, 2006). Any other element can still move out of this position in its way up to the matrix clause. So, the source of ungrammaticality in (120) is a combination of *that-trace* effect and the subject being in a criterial position.

In sum, the illicitness of subject extraction from embedded clauses is traced back to the traditional *that-trace* effect, which is provoked in this case by the adjacency of the lower copy of the complementizer and the copy of the subject in the embedded SpecTP, which is a criterial position for subjects. If this account is on the right track, it provides more support to the proposal that the overt complementizer position is derived via movement forced by labeling conflicts and is not the mere product of external merge in its surface position.

2.8 Concluding Remarks

In this chapter, VSO has been re-established as the basic and discourse-neutral order in SA. Then, I have put forward a proposal in which preverbal subjects in SVO are argued to be either topics externally merged in SpecCP or foci, in which case they arrive to their surface position through focus movement. Based on the patterns of extractions in VSO and SVO structures, I have proposed that wh-questions and focus are derived by movement to SpecTP, whereas topics are base-generated in SpecCP, a proposal presented within a feature inheritance approach to the left periphery.

It turns out that this argument poses a question with regard to the complementizer position. To answer the question, I have resorted to Chomsky's (2013, 2015) LA and ended up proposing that, like phrasal movement, HM can also be taken to occur as a mechanism to resolve labeling failures, i.e., the complementizer occurs clause-initially due to HM induced by LA. Finally, I have shown that the illicitness of long-distance extractions of subjects is most likely due to a *that-trace* effect that results from an adjacency between a low copy of the complementizer and a copy of the subject in the embedded SpecTP.

Chapter 3

3 THE MID-FIELD: *v*P EDGE

3.1 Introduction

The preceding chapter has been devoted to setting the stage for the investigation of IS in relation to the clausal architecture in SA. In this chapter, I survey movements that land at the edge of the lower phase (*v*P), and attempt to uncover their structural properties and IS effects. Object DPs (definite and indefinite), prepositional phrases, clausal arguments, temporal and locative adverbs as well as secondary predicates can move to *v*P edge. These categorially different constituents are discussed below in the same order. The examination of this range of movements aims to establish that the *v*P edge is not confined to object shift but rather instantiates a discourse layer that can host any constituent within the domain of the phase on a par with the CP phase whose discourse layer is well-established cross-linguistically (e.g., Rizzi, 1997, 2004; Cinque, 1999; Belletti, 2004). Movement of internal arguments to the designated field is usually grouped under the operation "Object Shift". The first section below is an overview of movement to *v*P edge across languages. It is intended to set a backdrop for the examination of this zone of the clause in SA.

3.2 Background

The main syntactic transformation that lands at the *v*P edge is object shift (OS henceforth). Vickner (2006:405) defines OS as "a leftward movement of a DP from a position inside VP to a position outside VP but inside the same clause". In VSO languages (e.g., SA and Irish), OS is a syntactic displacement whereby an object moves out of VP to a position mediating between the canonical subject position, SpecvP, and the derived verb position, presumably under T (Soltan, 2007; Carnie & Bobaljik, 1995). This locates the object at the edge of the verbal phase. In some languages (e.g., Persian as argued by Karimi 2005), the displaced object is tucked in below the subject. The

treatment of OS in the literature has been influenced by evidence drawn from Scandinavian and Icelandic languages as well as languages such as German and Japanese, which demonstrate a movement akin to OS known as object scrambling (Bobaljik, 1995; Thráinsson, 2001).

As for the nature of OS, research is replete with opposing arguments, but they generally bifurcate into two major camps. Some analyses, on the one hand, consider OS as a form of A-movement which takes place to check formal features such as case and object agreement in some linguistic systems and hence lands in the specifier of an object agreement projection (AgrOP) external to VP, an argument that falls in line with early minimalism when agreement was thought to hold uniformly in a spec-head configuration (e.g., Chomsky, 1993; Holmberg & Platzack, 1995; Chomsky & Lasnik, 1993; Jonas & Bobaljik, 1993; Bures, 1992). On the other hand, some argue that it is an Ā-movement or at least a movement that is associated with IS effects (e.g., Müller & Sternefeld, 1994; Zwart, 1996; Mikkelsen, 2011). The latter position is taken based on the semantic effects this movement gives rise to. For instance, Diesing (1996) argues that OS in the clausal domain is concomitant with specificity and definiteness effects; only definite DPs or specific in-definite DPs can lend themselves to OS. These semantic effects gave rise to the assumption that vP has a left periphery with focus and topic projections similar to Rizzi's (1997) split-CP (e.g., Zubizarreta, 1998; Jayaseelan, 2001; Belletti, 2004). The third approach to OS is that it takes place for pure phonological and prosodic considerations (Erteschik-Shir, 2005).

OS is subsumed under a broader class of movements which target objects. These movements differ in their structural conditions from a language to another. Holmberg (1985, 1986) observes that object movement in Icelandic is contingent on verb movement from VP (see (122) below where '*ekk*' is standardly assumed to mark the edge of vP), an observation modelled into

what came to be known in subsequent relevant literature as Holmberg's Generalization, which is given below (Holmberg 1985:184).

(121) Object Shift: Move an object NP leftwards within the X-bar projection of its governing verb, when this verb is phonetically empty.

Conversely, Thráinsson (2001) reports that an object in German can move even when the verb maintains its VP-internal position. Below are illustrative examples from Icelandic and German, respectively (Thráinsson, 2001:148)

(122) a. Nemandinn   las   ekki   bókina   Icelandic
          student-the   read   not   book-the
          'The student didn't read the book.'

      b. Nemandinn   las   bókina$_i$ ekki   t$_i$
          student-the   read   book-the   not
          'The student didn't read the book.'

(123) a. Der   Student   hat   nicht   das   Buch   gelesen   German
          the   student   has   not   the   book   read
          'The student hasn't read the book.'

      b. Der   Student   hat   das   Buch   nicht   gelesen
          the   student   has   the   book   not   read
          'The student hasn't read the book.'

The difference illustrated by (122) and (123) led to the standard distinction between OS and scrambling, i.e., Icelandic has OS while German has scrambling. What sets both distinct is the structural conditions that regulate them as only the former requires a phonetically empty V. Holmberg (1986) points out that, in addition to the condition of verb movement, OS in Icelandic takes place only in the context of a finite verb as observed in (122). German scrambling, by contrast, can appear in the context of non-finite verbs as well as in periphrastic constructions which contain an auxiliary and a main verb as evidenced in (123)b (Vikner, 2006; Bobaljik, 1995). Bošković (2004:102) indicates that (122)b in Icelandic is blocked in periphrastic constructions even when the verb moves out of VP. Below is his example where we can see that the object 'the books' cannot undergo OS.

(124)   ?*Halldór   hefur   lesið   bækurnar$_i$ ekki   t$_i$

Halldór   has   read   the-books   not
'Halldór has not read the books.'

Besides the structural conditions identified above, Collins and Thráinsson (1996), with data

from Icelandic again, consider the applicability of OS in double object constructions (DOCs) and

conclude that, although several factors come into play, including stress, person, and animacy of

the objects, the general picture that emerges is that OS of the indirect object or both the indirect

and direct objects (IO & DO) is licit but the shift of the DO across the IO seems to be illicit.

Taking research on Scandinavian languages as a starting point, Gallego (2013), in his dis-

cussion of the *v*P periphery in Romance languages, demonstrates that object movement outside

VP in these languages is also accompanied by verb movement to a position preceding the moved

object. He, nevertheless, argues that object movement is divided into two different strategies: OS

and VP-fronting. The availability of these two strategies is not a matter of optionality within the

same language but is rather subject to a specific parametric cut such that the former appears in

Western Romance languages (Galician, European Portuguese, and Spanish) whereas the latter ap-

pears in Central-Eastern varieties (Catalan and Italian). Below are schematizations of the two

structures (ibid:410). Unlike (125), the object in (126) is deeply embedded within the fronted VP

and therefore does not c-command the subject.

(125)

```
                    T'
              _____|_____
             |             |
          [T[v V]         vP
                      _____|_____
                     |           |
                  OBJECT        vP
                            _____|_____
                           |           |
                        SUBJECT       v'              OS in Western Romance
                                 _____|_____
                                |             |
                               t_v           VP
                                         _____|_____
                                        |           |
                                       t_V        t_OBJECT
```

(126)

```
                          vP
                 ┌────────┴────────┐
               VP                  vP
             ┌──┴──┐        ┌───────┴───────┐
             V OBJECT    SUBJECT           v'
                                      ┌─────┴─────┐
                                     tv          VP
                                            ┌─────┴─────┐
                                           tV        OBJECT
```
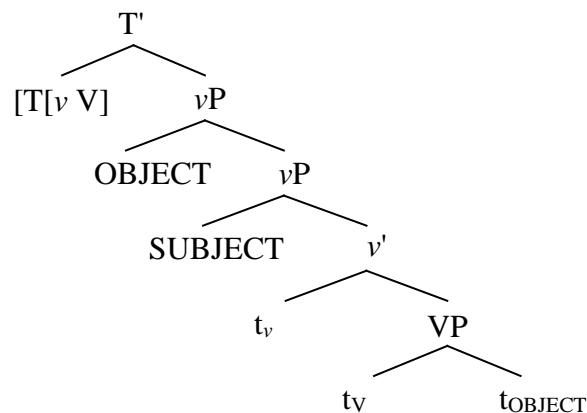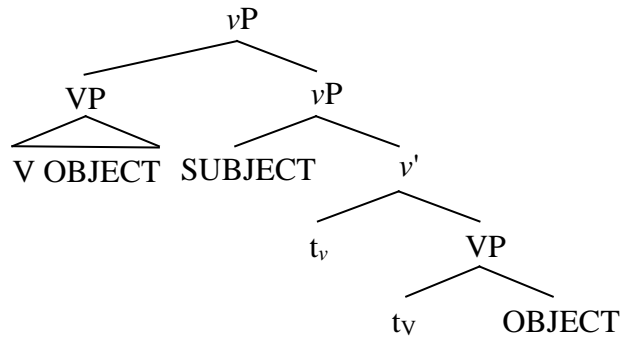
OS in Central Eastern Romance

In addition to the question of the structural conditions that regulate movement to the edge of *v*P, one further question usually raised in this connection concerns identification of the constituents that are liable to movement to that zone. This question was first taken up in Holmberg (1986) who reports that movement of the type shown in (122)b is found also in Mainland Scandinavian, including Danish, Norwegian and Swedish provided that the object is an unstressed definite pronoun. The sentences in (127) show that OS of a full DP, namely '*the* book', yields ungrammaticality in the three languages.

(127) a.   *Studenten   læste   bogen   ikke t_i Danish
       b.   *Studenten   leste   boken$_i$ ikke t_i Norwegian
       c.   *Studenten   läste   boken$_i$ inte t_i Swedish
            student-the   read   book-the   not
            'The student didn't read the book.'   (Thráinsson, 2001:150)

Moreover, Holmberg points out that while OS is optional in the case of full DPs in Icelandic, it becomes obligatory in the case of pronominal objects as shown by the sentences below.

(128) a.i   *Nemandinn   las   ekki   hana   Icelandic
       a.i   *Studenten   læste   ikke   den   Danish
       a.iii   ?Studenten   läste   inte   den   Swedish
               student-the   read   not   it
               'The student didn't read it.'

       b.i   Nemandinn   las   hana$_i$ ekki t_i Icelandic
       b.ii   Studenten   læste   den$_i$ ikke t_i Danish
       b.iii   Studenten   läste   den$_i$ inte t_i Swedish
               student-the   read   it   not
               'The student didn't read it.'   (Thráinsson, 2001:150)

All the sentences in (128)a are ungrammatical because the pronominal object cannot be left in its base-generation position but instead has to move to *v*P edge as shown by the counterparts in (128)b. That is, as far as pronominal objects are concerned, Icelandic and Mainland Scandinavian behave alike in that pronominals must undergo OS. It is important to note that, in all the cases reviewed above, the object is definite. Movement of indefinite DPs is restricted (Holmberg, 1986; Bobaljik, 1995; Diesing 1996). Gallego (2013:413) finds out that some Romance languages (e.g., Spanish) exhibit parallelism with Icelandic in not confining OS to unstressed pronouns as shown in (129), where the full DP object *carta* 'letter' shifts to *v*P edge.

(129)   Leyó   la   carta   María
        read-PST-3.SG   the   letter María
        'María read the letter.'

Thráinsson (2001) and Bošković (2004) highlight one further point of divergence among languages with respect to movement to the midfield; some languages (e.g., Icelandic) allow only the movement of objects of verbs to the edge of *v*P while others allow the movement of PPs and APs as in the case of secondary predication (e.g., German).

In summary, movement to the edge of *v*P is subject to parametric variation which follows from the different structural properties it displays which mainly relate to whether or not it requires verb movement as well as to what constituents can move. With this abridged review of movement to the mid-field in some relevant languages as a background, the next section turns to an investigation of this zone in SA, with the aim of finding out the structural conditions that regulate movement to it as well as the interpretive consequences this movement might have. Another aim is to contribute to the line of research that targets this area of the structure and examine with what languages SA patterns and most importantly what further observations it can provide about this zone.

3.3 *v*P Edge in SA

In what follows, I show that the *v*P edge in SA instantiates a mid-field discourse layer that can host internal arguments as well as spatiotemporal adverbs and secondary predicates. This aligns SA with Icelandic in that it allows the movement of internal arguments to this zone and equally aligns it with German in that it allows non-argument constituents originating with the domain of *v*P to move to its edge. To begin with, object movement to the *v*P edge is investigated in the following subsections under the cover term OS and an attempt is made to delineate the structural conditions that govern its derivation and how much structure is moved: OS or VP-fronting. I then examine the kind of movement it instantiates, namely A or Ā-movement, and the interpretations it gives rise to.

3.3.1 Object Shift (OS): Structural Conditions

As indicated above, different languages demonstrate different constraints on OS. SA patterns with Icelandic and Spanish in the observation that OS is conditional on verb movement out of *v*P. Below are illustrative examples.

(130) a. qaraʔ-a   zajd-un   ʔal-kitaab-a
        read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
        'Zayd read the book.'

      b. qaraʔ-a   ʔal-kitaab-a   zajd-un
        read.PERF-3SG.MASC   the-book-ACC   Zayd-NOM
        'Zayd read the book.'

(131) a. kaana   ja-qaraʔ-u   zajd-un   ʔal-kitaab-a
        was   3-read.IMPERF-SG.MASC   Zayd-NOM   the-book-ACC
        'Zayd was reading a book.'

      b. kaana   ja-qaraʔ-u   ʔal-kitaab-a   zajd-un
        was   3-read.IMPERF-SG.MASC   the-book-ACC   Zayd-NOM
        'Zayd was reading the book.'

      c. */?kaana   ʔal-kitaab-a   ja-qaraʔ-u   zajd-un
        was   the-book-ACC   3-read.IMPERF-SG.MASC   Zayd-NOM
        'Zayd was reading the book.'

It has already been established that the verb in sentences like (130)a moves to T (see §2.6.2), which makes OS in (130)b licit. The sentences in (131) are designated as complex tense constructions (CTCs) which are dealt with mostly as instantiating a biclausal structure (e.g., Fassi Fehri, 1993; Ouali & Fortin, 2007; Soltan, 2007; Ouali, 2018). The major evidence for this kind of analysis derives from the observation that the main verb can have tense as well; it can have the past tense form just as the verb *'be'* does. However, setting this debate aside, one can argue that (131)b and (131)c still serve to illustrate that an object can shift only when the verb from which it receives its thematic role has moved from its respective VP to a position higher than the position of the shifted object. Moreover, (131)b demonstrates that OS in SA does not take place in the context of finite verbs only.

The question that follows from this observation is: why does this restriction obtain? One answer springs from Fox and Pesetsky's (2005) translation of Holmberg's Generalization, pointed up in (121), into an analysis of this phonological restriction in terms of cyclic linearization. Their proposal is rooted in the crucial assumption that linearization strings are established on a phase-by-phase basis. They also dispense with Chomsky's (2001) *phase impenetrability condition* (see §1.6.1.2). For them, any element within the domain of a phase can still move out of the phase so long as its linearization relations with other constituents in the phase where it originates are pre-served in subsequent linearization statements. To illustrate how the system works, suppose that the VP in (131)a is spelled out as soon as *v* is merged. This will yield the linearization string in (132), where "<" stands for precedence relations following Fox and Pesetsky's notation.

 (132) **VP**: '*read < the book*'

Suppose now, in line with Fox and Pesetsky's reasoning that movement is still possible, that the object subsequently moves to Spec*v*P. By the time the second phase, CP, is linearized, the string

that is produced is the one in (133). Obviously, the linearization statements in (132) and (133) impose contradictory requirements on the phonological component; the former states that the verb precedes the object whereas the latter states that the reverse order obtains.

(133) **CP**: '*kaana < the book <* VP

To salvage the structure, the verb must move out of VP to re-establish the relation in (132) when the next phase is spelled out. To reconcile this explanation with the grammaticality of scrambling across verbs in German as shown in (123)b, one might argue that the difference can be reduced to the timing of object extraction. In German, it seems that the object undergoes movement before VP is linearized, whereas in SA and Icelandic object movement seems to follow VP linearization and the verb has to move to a higher position to re-establish the linearization statement yielded at the VP level, otherwise the derivation does not converge at PF due to linearization contradictions.

Recall that Gallego (2013) argues that VOS clauses In Romance languages can be the result of OS or VP-fronting (see (125) and (126)). The VP-fronting analysis is formerly proposed for Italian in Zubizarreta (1998) and Belletti (2004). This raises the question of whether SA is an OS or VP-fronting language. Two diagnostics stand out as ways to pinpoint what kind of movement a given language has. First, Gallego (2013:442) emphasizes that there is a previously unnoticed correlation between deriving VOS via OS and the licensing of VSO in Romance languages. He refers to this correlation as the VOS-VSO Generalization.

(134) VOS-VSO Generalization
If a Romance language generates VOS through object shift, then it licenses VSO.

This correlation represents a parametric cut between OS and V-fronting languages. Even though the generalization in (134) is formulated in relation to Romance language, I argue that, since SA is a VSO language, this is an indication that VOS in the language is derived by OS, i.e., it patterns with Galician, European Portuguese and Spanish in Gallego's analysis. The logic behind this

argument is that since the verb moves out of *v*P in VSO anyway, the object can move separately to further derive VOS.

The second diagnostic is brought to the fore in Belletti (2004) who points out that VP-fronting makes the prediction that the possibility of the object binding into the subject from the derived position of VP should be ruled out, because the object in this case does not c-command the *in situ* subject since it is embedded within the fronted VP. This prediction is borne out in Italian. Let us consider the following dialogue (Belletti, 2004:36).

(135) A: Chi   ha   salutato   Gianni?
          who   have-3.SG greeted   Gianni
          'Who greeted Gianni?'

      B: *Hanno   salutato Gianni$_i$ i propri$_i$ genitori
          have-3.PL greeted   Gianni   the own parents
          'His own parents have greeted Gianni.'

The inability of the object '*Gianni*' in B's sentence to bind the anaphor *propri* 'own' within the subject DP *i propri genitori* 'his own parents' is evidence that the object movement is not a case of OS but is rather a case of VP-fronting, in which case '*Gianni*' does not c-command the subject. A fortiori, the reading under the binding relation shown in B's sentence is not possible under a reconstruction analysis since it leads to a condition C violation. This does not mean that reconstruction is not possible in Italian in such construction. Consider (136) (Belletti, 2004:36).

(136) A: Chi   ha   baciato   la propria moglie?
          who   have-3.SG kissed   the own   wife
          'Who kissed his own wife?'

      B: Hanno   baciato   la   propria$_i$ moglie tutti i   candidati$_i$
          have-3.PL kissed   the   own   wife   all the   candidates
          'All the candidates have kissed their own wife.'

As can be seen in B's answer in (136), the anaphor *propria* 'own' maintains its binding relation with the universally quantified subject *candidati* 'candidate', therefore deriving the co-variation reading which entails that VP-fronting can reconstruct in Italian.

With this demarcating line as a backdrop, Gallego (2013) reinforces earlier observations

made by Ordóñez (1998) that Spanish is characterized by the ability of a shifted object to bind a

pronoun within the subject. Consider the following pair of sentences (ibid:416).

(137) a. Recogió   cada   coche$_i$ su$_i$ propietario
          pick-up-PST.3.SG   each   car   its   owner
          'Its owner picked each car up.'

      b. No   regãnó   a   ningún   niño$_i$ su$_i$ madre
          not   scold-PST.3.SG   to   no   child   his   mother
          'His mother did not scold any child.'

(137) illustrates that, unlike Italian, a shifted object in Spanish c-commands the *in situ* subject and

therefore *coche* 'car' and *niño* 'child' bind the anaphor *su* 'it/his'. This is evidence that Spanish is

a language that has OS as Gallego argues.

Since SA is already shown to pattern with Western Romance languages, of which Spanish

is a member, in terms of Gallego's VOS-VSO Generalization, the prediction is that it is going to

pattern with Spanish also with regard to Belletti's diagnostic of binding. Turning to SA and apply-

ing this diagnostic, we find that this prediction is borne out as the sentences below show.

(138) a. qaabal-a   kullu   t^{ˤ}ullaab-i-hi$_{*j/k}$ muʕallim-an$_j$
          meet.PERF-3.SG.MASC   all-NOM   students-GEN-his   teacher-ACC
          'All his students met a teacher.'

      b. qaabal-a   muʕallim-an$_j$ kullu   t^{ˤ}ullaab-i-hi$_{j/k}$
          meet.PERF-3.SG.MASC   teacher-ACC   all-NOM   students-GEN-his
          'All his students met a teacher.'

The pronoun *'his'* in (138)a cannot bind the object *'teacher'* as is illustrated. However, when the

object moves in (138)b, the reading is licensed, thus supporting the view that this movement is an

instance of OS, not VP-fronting. In other words, (138)b could not have been derived from (139)

by VP-fronting, assuming, for the sake of argument, that the subject remains in Spec*v*P[53].

(139) kull-u   t^{ˤ}ullaab-i-hi$_{*j/k}$ qaabal-a   muʕallim-an$_j$

---

[53] It is already established in Chapter 2 that the subject in SVO structures like (139) cannot be in Spec*v*P. It is either in SpecCP or SpecTP.

all-NOM   students-GEN-his   meet.PERF-3.SG.MASC   teacher-ACC
'All his students met a teacher.'

A final observation about the structural properties of OS in SA is that it is characterized by its clause-boundedness. Unlike movement to the left periphery which permits that movement of an embedded object all the way to the left periphery in the matrix clause, long-distance OS of an embedded object to the matrix vP edge yields ungrammaticality. This local nature is reflected by the contrast between the following pair of sentences.

(140)   a.   kitaab-an$_i$ ðˤann-a   zajd-un   ʔanna   ʕaliyy-an
          book-ACC   think.PERF-3SG.MASC   Zayd-NOM   that   Ali-ACC
          qaraʔ-a   t$_i$
          read.PERF-3SG.MASC
          'It is a book that I thought Ali read.'

       b.   *ðˤann-a   kitaab-an$_i$ zajd-un   ʔanna   ʕaliyy-an
          think.PERF-3SG.MASC   book-ACC   Zayd-NOM   that   Ali-ACC
          qaraʔ-a   t$_i$
          read.PERF-3SG.MASC
          'It is a book that I thought Ali read.'

This clause-boundedness is typical of OS and has been observed in other languages (e.g., Icelandic as Vikner 2006 illustrates). I return to this characteristic in the following section in which I investigate whether OS is A or Ā-movement.

3.3.2 OS: A or Ā-movement

As indicated, cross-linguistic analyses differ in their characterization of OS, with some considering it as a form of A-movement that takes place in reaction to formal feature valuation such as object case, and the others arguing that it is a form of Ā-movement that takes place for discourse purposes. In SA, OS has been discussed in relative detail in Soltan (2007) and Musabhien (2009).

In early minimalist accounts where subject and object agreement are established within AgrP situated within the inflectional domain of the clause (Pollock, 1989, Chomsky, 1993), Ouhalla (1994:53) argues that OS in (130)b creates an A-chain whose tale is a theta position and its

head is a case-marked position. The difference between (130)b and (130)a is said to follow from whether movement takes place in the narrow syntax or at LF. However, this approach is untenable under an Agree-based analysis of agreement. In the course of his development of the argument that SA is a non-A movement language, Soltan (2007:117ff) analyzes OS as an instance of Ā-movement. He indicates that this view is warranted considering that OS has interpretive consequences; OS is typically accompanied with definiteness and specificity interpretations. Moreover, A-movement is standardly driven by case and agreement requirements, which is not obvious in the case of OS, since the canonical order, VSO, shows that these features are valued with no movement. Although Soltan (2007:123) concludes that licensing of parasitic gaps is not an accurate test for the status of OS, I argue that (141)b is still regarded as less deviant than (141)a when the resumptive pronoun is replaced with a gap. The conclusive test Soltan counts on is that OS maintains binding relations and does not create new binding relations. (142) illustrates the latter property (cf. Soltan, 2007:123ff).

(141) a. naʃara-t hind-u ʔal-maqaalat-a$_i$ duuna ʔan
publish.PERF-3SG.FEM Hind-NOM the-article-ACC without SUB
tu-raaʒiʕ-a-***haa***$_i$ \\(*****e***)
3SG.FEM-review.IMPERF-SUB-it
'Hind published an article without reviewing it.'

b. ?naʃara-t ʔal-maqaalat-a hind-u duuna ʔan
publish.PERF-3SG.FEM the-article-ACC Hind-NOM without SUB
tu-raaʒiʕ-a-***e***$_i$
3SG.FEM-review.IMPERF-SUB-PG
''Hind published an article without reviewing it.'

(142) a. laam-a zajd$_i$-un nafs-a-hu$_i$
blame.PERF-3SG.MASC Zayd-NOM slef-ACC-him
'Zayd blamed himself.'

b. laam-a nafs-a-hu$_k$ zajd$_k$-un
blame.PERF-3SG.MASC slef-ACC-him Zayd-NOM
'Zayd blamed himself.'

As can be seen in (141)b, OS licenses the gap in the adjunct clause, although the sentence is a bit degraded. (142)b shows that OS does not destroy binding relations; the reflexive is still bound by the subject. Notwithstanding that the evidence deduced from these sentences is unobjectionable, I argue that it is insufficient to side with the conclusion that OS is a case of Ā-movement. There is evidence that OS can license new binding relations and also seems to degrade reconstruction, because a quantified object takes scope in its derived position. The first trait is already exemplified in (138)b, which I repeat below for easy reference, and the second is exemplified by (144).

(143) qaabal-a   muʕallim-an$_j$ kullu   tˤullaab-i-hi$_{j/k}$
       meet.PERF-3.SG.MASC   teacher-ACC   all-NOM   students-GEN-his
       'All his students met a teacher.'

(144) a. qaraʔ-a   tˤaalib-un   kull-a   kitaab-in
          read.PERF-3SG.MASC   student-NOM   every-ACC   book-GEN
          'A student read every book.'   ∃>∀: ∀>∃

      b. qaraʔ-a   kull-a   kitaab-in   tˤaalib-un
          read.PERF-3SG.MASC   every-ACC   book-GEN   student-NOM
          'A student read every book.'   ∀>∃; */?∃>∀

As I have indicated earlier, the binding relation between *'a teacher'* and *'his'* in (143) is illegitimate prior to OS due to a condition C violation (cf. the Spanish example in (137)). In other words, OS in (143) bleeds condition C, which is checked at LF according to Fox (1999:159)[54].

In addition to the conclusion that OS can license new binding relations, this sentence is evidence that OS does not give rise to WCO effects; even though the lower copy of *'a teacher'* does not

---

[54] Bleeding condition C is a characteristic of A-movement as shown by the sentences below (Takahashi & Hulsey, 2009:395).
   i.   The claim [that John$_i$ was asleep] seems to him$_i$ to be correct.
   ii. Every argument [that John$_i$ is a genius] seems to him$_i$ to be flawless.

Since in both cases the co-referentiality of the R-expression 'John' with the pronoun is licit, it is in an indication that somehow 'John' is not present in the lower copy of the raised subject in the subject position of the adjectives 'correct' and 'flawless', respectively. Takahashi and Hulsey argues that wholesale late merger is what derives this effect, which they call 'anti-reconstruction effects'.

c-command the pronoun *'his',* the sentence is still grammatical. Both are typical characteristics of A-movement (Mahajan, 1990; Chomsky, 1993, Fox, 1999; Miyagawa, 2010).

Turning to (144), we notice that (144)a allows both scopal interpretations whereas in (144)b OS has a disambiguating effect as the surface scope reading is very likely the only one available. What transpires from (143) and (144) is that OS does not reconstruct, which is again a typical trait of A-movement. In fact, these heterogeneous characteristics of OS and movements akin to it in other languages have been a recurring theme in the literature which strives to pinpoint their exact status. For instance, Mahajan (1990) studies scrambling in Hindi and comes to the conclusion that it has properties that pattern with rules like *passivization* (in the traditional trans-formational sense) and properties that pattern with QR, i.e., it has A and Ā-movement properties.

The puzzle that arises from the set of data reviewed above can be formulated in the ob-servation that the lower copy of OS in some instances is the one that is interpreted at LF (e.g., (142)), while in some others the higher is the one that is interpreted (e.g., (144)), i.e., reconstruc-tion is not obligatory and sometimes is ruled out, a phenomenon identified in Takahashi (2006) and Takahashi and Hulsey (2009) as 'anti-reconstruction' effects. There are two plausible direc-tions to approach this conflicting data: i) we assume that OS is a case of Ā-movement based on (141) and (142) and consequently pursue an account of why reconstruction does not take place in (143) and (144); or ii) we assume that OS is A-movement based on (143) and (144) and pursue an account of why it licenses parasitic gaps and maintains binding relations in (141) and (142), respectively. Since A-movement usually takes place to license some feature without whose val-uation the derivation would not converge, the first option seems to be the reasonable route to take; the VSO counterparts of the VOS constructions at issue above are grammatical. The

126

prediction is that they would have been otherwise should OS be a case of A-movement. There-

fore, I proceed in what follows with the first option as the premise.

Relevant literature reveals that one approach stands out as a potential route to account

for (144)b, namely Lebeaux's (1988) notion of *Late Merge* and its extension by Takahashi and

Hulsey (2009). This notion was first introduced into the theory to ravel out the puzzle sentences

like the following present (Freidin, 1986:179).

(145) a. *[Which report that John$_i$ was incompetent]$_j$ did he$_i$ submit t$_j$?
       b.   [Which report that John$_i$ revised]$_j$ did he$_i$ submit t$_j$?

Although both sentences are wh-questions, the first is ruled out because it gives rise to a condition

C violation, i.e., the bracketed constituent reconstructs to the object position of the verb '*submit*'

at LF and consequently the R-expression "*John*' is placed within the c-command domain of the

pronoun '*he*'. The question that arises is: how is (145)b different? Lebeaux (1988) posits late merge

to answer this question. This operation allows some constituents to be inserted into the structure

countercyclically (ibid), i.e., it does not target the root node. Based on this notion, the difference

between the two sentences lies in that the relative clause '*that John revised*' in the second is intro-

duced into the structure after the wh-phrase has moved to SpecCP. That is, the lower copy of the

bracketed phrase only contains the DP '*which report*'. By contrast, the wh-phrase complement

'*that John was incompetent*' in (145)a is introduced into the structure earlier in the derivation; in

particular, it is merged in the base-generation position of '*which report*' as an object to '*submit*'

and therefore the lower copy contains the entire expression. So, the difference between (145)a and

(145)b is not that the former shows reconstruction whereas the latter does not, but rather consists

in the amount of structure that undergoes reconstruction.

Late merge, under this formulation, is regulated by complementation properties of lexical

items such that only adjuncts can be merged late. Lebeaux (1998) derives this complement-adjunct

asymmetry from Chomsky's (1981) *Projection Principle.* Adjuncts are liable to late merge because they are not lexically selected as opposed to complements which have to merge as soon as their selecting heads are merged in the structure. Given these assumptions, this asymmetry precludes any pursuit of explanation on the basis of late merge under Lebeaux's formulation since it is confined to adjuncts in Ā-position. Neither *'teacher'* in (143) nor *'book'* in (144)b is an adjunct. '*Book'* is merged as complement to the determiner *kull* 'every', while '*teacher'* is a bare NP that merges directly in as complement to V or as complement to a null existential determiner. So, for a late merge account to be applicable, it might need to be regulated by principles of grammar other than *the projection principle.*

Extending this late merge approach to other linguistic phenomena, Takahashi (2006) and Takahashi and Hulsey (2009) propose another flavor of the notion which they call *Wholesale Late Merger.* Under this approach, late merge is not only available for the well-known cases of adjuncts but extends also to restrictors of determiners (Takahashi & Hulsey, 2009:387). For instance, they argue that late merge is responsible for the surface scope reading between '*every argument'* and '*seem'* in the following sentence.

(146) Every argument seems to be correct.

Takahashi & Hulsey (2009:388f) argue that the restrictor term '*argument'* in (146) is merged late in the structure. The derivation of the sentence proceeds as follows.

(147)   a. Base structure   b. Det movement
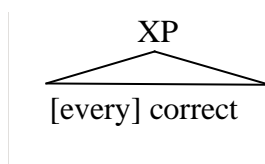
c. Merger of a restrictor

```
              ZP
             /  \
[every[argument]]   YP
                   /  \
            seems to be   XP
                         /  \
                    [every]  correct
```

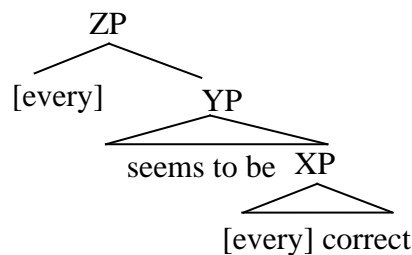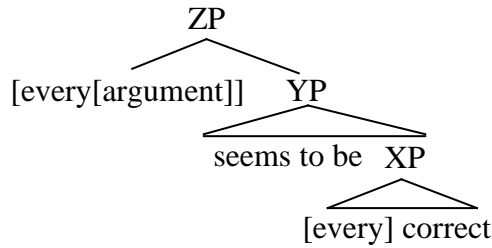The argument embodied in (147) is that '*every argument*' takes scope over the verb '*seem*'. This reading, which rules out reconstruction, is derived by late merge of the restrictor '*argument*'. This entails that the lower copy in the subject of position of the adjective '*correct*' contains only the determiner '*every*' which is converted by Fox's (1999, 2002) Trace Conversion into an object that receives the same interpretation as the syntactic objects traditionally called traces, i.e., it is dealt with as a variable that is bound by a lambda-abstract that is introduced at the level where the restrictor argument is merged. In this way, the 'anti-reconstruction' effect is derived.

With whole sale late merger at our disposal, one might argue that the 'anti-reconstruction' effect observed in (144)b is traced back to late merge. The derivation starts out with *kull* 'every' merged as complement to the verb '*read*' and by the time the determiner shifts to *v*P edge, the restrictor term '*book*' is inserted. This entails that the determiner's scope would be as high as the point where its restriction is merged (cf. Fox & Nissenbaum 1999), therefore capturing the 'anti-reconstruction effects' it displays.

Notwithstanding the elegance of this approach, its extension to the data in (143) and (144) is theoretically and empirically problematic. Takahashi and Hulsey's (2009) extension of the notion of late merge takes it to the realm of A-movement since (146) is a typical raising construction in which the embedded subject A-moves to the matrix subject position. Moreover, they argue that wholesale late merger in A-chains is not without restraints as observations indicate that it looks to be parasitic on case checking or valuation. Their argument follows from the assumption that '*every argument*' in (146) as a constituent must receive case, a standard assumption that follows from the

case theory (Chomsky, 1981). Since the lower position in the first step of the derivation in (147) is not a case position while the matrix position in the third step is, they argue that wholesale late merger is only possible if the higher position, the one where the late merge takes place, is a case position. In other words, wholesale late merger of restrictors is deviant if the position to which the determiner moves is an Ā-position. With this correlation as the key determinant of late merger of restrictors, a late merger account of (144)b is unfounded. First, the launch site of movement, the complement of *v*, is definitely a case position. This is a well-established assumption and is evidenced by the grammaticality of (144)a where the determiner bears the accusative case inflection valued by *v*. Second, the determiner and the restrictor receive different case inflections, of which the former is the only one valued structurally by *v*. The genitive case on the restrictor is inherent and thereupon cannot be anchored to the position of late merge. Therefore, the movement in (144)b is not an instance of displacement that takes place from a non-case to a case position.

As it turns out, there is no logical way to reconcile both incarnations of late merge upon which an explanation for (143) and (144) can be based. Any alternative that unties Takahashi and Hulsey's assumed interplay between case and wholesale late merger would take us back to square one, i.e., it destroys the explanation provided for the asymmetry in (145) since it would eliminate the distinction between complements and adjuncts formulated on the basis of case. In particular, it makes the prediction that (145)a should be grammatical, contrary to fact.

Due to the limitations of the late merge approach, I argue that the characteristics noticed in (141) through (144) can best be accounted for by a composite probe approach following van Urk (2015) (see §2.5 for an application at the TP level). As indicated, this approach does not require a definitive determination of whether movement is A or Ā if it is induced by a composite probe that combines φ-features as well as a discourse feature. Not only does this approach require no

130

determination but in fact it predicts that a movement of such kind is bound to reflect a hybrid of A and Ā properties. Since OS is assumed to take place for interpretive purposes as Soltan (2007) and Musabhien (2009) argue, and as I will elaborate further in §3.3.3 below, I propose that it is derived by a composite probe on *v* which is a combination of [*u*φ] and [*u*Foc][55]. These features are not passed down to V the way features are passed down from C to T as proposed for the left periphery in chapter 2. Instead, as *v* head-moves to T in VSO clauses, the complex of features it has remains on its lower copy, an account I base on Gallego (2014) who argues that the syntactic relation between phase and non-phase heads must be regarded as that of identity; non-phase heads (heads of phase complements) are copies of phase heads. Under this perspective, FI (feature inheritance) is in essence reconceptualized as a case of the lower copy of a moved phase head maintaining the complex of features. The proposal is schematized in (148) below.

(148)
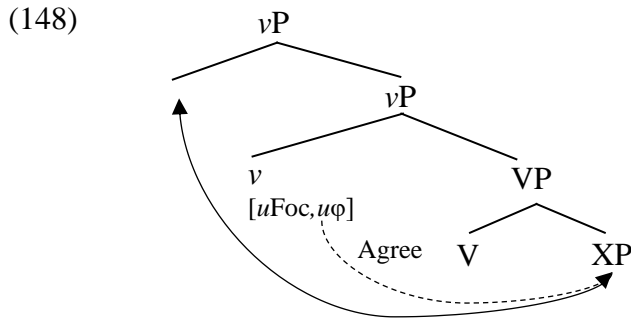
Building on the assumption that *v* is what values the case of the object as accusative and the assumption that case is not a probing feature but rather is valued as a by-product of an agree relation that is initiated by φ-features, I assume that *v* in SA has its own set of uninterpretable φ-features and that this set is responsible for the initiation of agreement with the object even though this agreement does not have a morphological reflection on the verb (see Chomsky, 2000, 2001; Baker, 2008).

---

[55] The postulation of [*u*Foc] is subjected to a re-evaluation by the end of the chapter after the interpretive consequences of movement to the *v*P edge are teased apart.

Since OS, by definition, targets objects, I postulate that it is due to *v* having a discourse feature that probes the object in unison with φ-features as a composite probe. Under this approach, the hybrid properties OS displays are turned from a problem into a prediction. With data from Dinka and some Bantu and Austronesian languages, van Urk (2015:56) points out that such movement acts like A-movement in terms of binding in that it does not give rise to WCO effects, therefore explaining the grammaticality of (143). He also indicates that it should be able to license parasitic gaps and avoid obligatory reconstruction, thus explaining (141) and (144). Below are examples from Dinka in which a topicalized constituent does not give rise to WCO (ibid:110). As can be seen, the variable binder *'every'* binds the pronoun in (149)b.

(149) a. Thọ̈k-dé$_{k/*i}$ à-cé̤   dhùk   é̤bé̤n$_i$ kâac.
           goat.CS-SG.3SG   3S-PRF.SV   boy   every   bite.NF
           'His$_{k/*i}$ goat has bitten every boy$_i$.'

       b. Dhùk   é̤bé̤n$_i$ à-cí̤i   Thọ̈k-dé$_{i/k}$ ___   kâac.
           boy   every   3S-PRF.SV   goat.CS-SG.3SG   bite.NF
           'Every boy$_i$, his$_i$ goat bit.'

In addition to capturing the hybrid properties OS exhibits, the proposal in (148) provides an explanation for the clause-boundedness nature of OS exemplified by (140) in the previous section; since OS takes place in response to a composite probe constituted from [*u*φ] and [*u*Foc], the prediction is that an embedded object cannot land permanently in the matrix Spec*v*P because it cannot value [*u*φ] on the matrix verb.

To sum up, this section has looked into the hybrid characteristics OS demonstrates and after a critical evaluation of what kind of movement it is, a proposal is put forward in which OS is assumed to take place as a result of agreement with a composite probe on *v*. This analysis turns the problem of heterogenous characteristics into a prediction since the composite probe that triggers movement is an amalgamation of φ-features and focus. In the next section, I turn to an examination of the discourse contributions OS makes.

3.3.3 OS: IS Effects

Building on Soltan's (2007) argument that OS takes place for interpretive purposes, Musabhien (2009:242f) claims that OS is an instance of contrastive focus in the middle of the clausal architecture in SA. His evidence is based primarily on i) OS liability to co-occur with negative continuations that pick out the object, and ii) from the grammaticality of wh-words in the same position. Below are illustrative examples.

(150) a. qaraʔ-a   zaid-un   ʔal-kitaab-a
     read.PERF-3SG.MASC Zayd-NOM   the-book-ACC
     'Zayd read the book.'

   b. qaraʔ-a   l-kitaab-a   zaid-un laa l-qisˤsˤat-a
     read.PERF-3SG.MASC the-book-ACC Zayd-NOM not the-story-ACC
     'Zayd read [the book]$_F$, not [the story]$_F$.'

   c. qaraʔ-a   maaðaa zaid-un
     read.PERF-3SG.MASC what   Zayd-NOM
     'What did Zayd read?'

Despite his argument for a contrastive focus interpretation of OS, Musabhien (2009) distinguishes between this position and the CP edge focus position, shown in (151), by his indication that (151) is more emphatic.

(151) ʔal-kitaab-a   qaraʔ-a   zaid-un
   the-book-ACC read.PERF-3SG.MASC Zayd-NOM
   '[The book]$_F$ Zayd read.'

Language-specific and cross-linguistic evidence suggests that the contrastive focus reading of OS in SA might be an oversimplification. There is more to be unraveled. While the reading in (150)b is undeniable, it is insufficient to conclude that OS derives only contrastive focus. Actually, this reading is not what transpires naturally unless the object, besides its movement, is pronounced with some phonological prominence. In the absence of phonological prominence, it is more acceptable for the continuation to single out the unmoved subject, as in (152).

(152) qaraʔ-a   l-kitaab-a   zaid-un laa ʔalijj-un
     read.PERF-3SG.MASC the-book-ACC Zayd-NOM not Ali-NOM

'[Zayd]F read the book, not [Ali]F.'

So, the first piece of evidence Musabhien (2009) provides is inconclusive. As for the grammaticality of a wh-word appearing in the same position, the question in (150)c can serve as an echo question that inquires about familiar information that is either shared by interlocutors or has occurred in previous immediate discourse, i.e., familiar information placed in focus.

In addition to the aforementioned language-particular objections, Holmberg (1999:41), in his analysis of object movement in Scandinavian languages, indicates that unfocused elements are what usually undergo movement, i.e., less prominent constituents move to the edge of *v*P, leaving behind focused materials. This argument explains why pronominal object clitics, for example, obligatorily undergo OS, a characteristic that is attested in SA as will be shown shortly. Before I proceed to my account of what these observations indicate, let us see whether they hold for indefinite DPs. Below is a variation of (150).

(153) a. qara?-a   zaid-un   kitaab-an
          read.PERF-3SG.MASC   Zayd-NOM   book-ACC
          'Zayd read a book.'

     b. qara?-a   kitaab-an   zaid-un   laa   qisˤsˤat-an
          read.PERF-3SG.MASC   book-ACC   Zayd-NOM   not   story-ACC
          'Zayd read [a book]F, not [a story]F.'

     c. ??/*qara?-a   kitaab-an   zaid-un   laa   ?alijj-un
          read.PERF-3SG.MASC   book-ACC   Zayd-NOM   not   Ali-NOM
          'Zayd read [a book]F, not [a story]F.'

Comparing (153) to (152), we find that, while, in the case of definite DPs, a subject-oriented negative continuation is more acceptable, with indefinite DPs, it is unacceptable as reflected in (153)c. This tells us that OS of definite DPs serves more discursive functions.

Based on the above observations, I argue that definite DPs affected by OS oscillate between a contrastive focus and a contrastive topic reading, with the latter being the more natural one as it results from the mere disruption OS makes to VSO clauses. The former requires the

shifted object to be produced with phonological prominence. Indefinite DPs, on the other hand, seem to only support the contrastive focus reading.

(152) is the first piece of evidence in favor of the contrastive topic reading of shifted definite DPs. As indicated in §1.6.2, contrastive topics are usually accompanied by a focus somewhere in the structure (CT+F), the function of which is to define the domain of contrast[56]. In (152), the object, '*the book*', is a contrastive topic, and the subject '*Zayd*' is a focus. (152) is a valid answer to the question '*who read the book?*'. The CT+F reading is felicitous in case there is another piece of writing in the context, which was also read, but the speaker does not know who read it, or knows but does not tell who did. The other relevant, but unsettled question, could be '*who read the story*?'. Both questions can be conceptualized as part of the overarching question '*who read them?*', with '*them*' referring to a set of written elements that is part of the CG shared by the speaker and hearer. On this account, (152) has three semantic values delineated as follows.

(154) a. $[\![\text{qara?-a l-kitaab-a zaid-un }]\!]^0 = 1$ iff Zayd read the unique z s.t. z is a book

b. $[\![\text{qara?-a l-kitaab-a zaid-un }]\!]^F = \{\text{read }(x, \text{the book}) \mid x \in E\}$

c. $[\![\text{qara?-a l-kitaab-a zaid-un}]\!]^{CT+F} = \{$ {<u>Zayd</u> read **the book**, <u>Ali</u> read **the book**, <u>Omer</u> read **the book**, …}, {<u>Zayd</u> read **the story**, <u>Ali</u> read **the story**, <u>Omer</u> read **the story**…}, …..}

(154)a denotes the ordinary semantic value, in Rooth's (1992) terms, which shows the sentence truth conditions. (154)b is the focus semantic value which indicates the relevance of other alternatives in the position of '*Zayd*'. The CT+F semantic value, represented in (154)c, induces a set of sets of alternatives, each of which has the same topic, the elements in bold, with variant alternatives in the position of the domain of contrast, the underlined elements. The first set in (154)c

---

[56] The CT reading of shifted definite DPs can still be attributed to the [*u*Foc] on *v*, i.e., a CT is the result of a topic placed in focus. The accompanying focus reading of the subject can be ascribed to a tendency to place default focus on a clause-final constituent.

can be reconceptualized as the set of answers to the question '*who read the book?*', as opposed to the second set which has answers for the question '*who read the story?*'.

The second piece of evidence for the CT+F reading comes from interaction with focus-sensitive particles. Below are examples with the sentential negation *maa* and the polar question marker *ʔa*.

(155) a.

maa	qaraʔ-a	zajd-un	ʔal-kitaab-a
not	read.PERF-3SG.MASC	Zayd-NOM	the-book-ACC

'Zayd didn't read the book.'

b.

maa	qaraʔ-a	l-kitaab-a	zajd-un
not	read.PERF-3SG.MASC	the-book-ACC	Zayd-NOM

'[Zayd]F didn't read the book.'
'Zayd didn't read [the book]F.'

c.

ʔa	qaraʔ-a	zajd-un	ʔal-kitaab-a
Q	read.PERF-3SG.MASC	Zayd-NOM	the-book-ACC

'Did Zayd read the book?'

d.

ʔa	qaraʔ-a	l-kitaab-a	zajd-un
Q	read.PERF-3SG.MASC	the-book-ACC	Zayd-NOM

'Did [Zayd]F read the book?'
'Did Zayd read [the book]F?'

While (155)a negates the entire proposition, (155)b is ambiguous between two readings as elucidated by the translation, and the difference between the two is in the kind of presupposition they legitimize. The first gives rise to the inference that a proposition of the form '*x read the book*' holds true*,* with x being an individual other than '*Zayd*', whereas the second gives rise to the inference that a proposition of the form '*Zayd read x*' obtains, with x referring to a piece of writing other than '*the book*'. The same line of argumentation can be run for (155)c and (155)d. The question in (c) inquires about the veracity of the whole proposition, while in (d), it inquires whether '*Zayd*' is the agent of the presupposed event '*read the book*', or whether '*the book*' is the object acted on in the presupposed event '*Zayd read*'.

Further evidence for a CT+F reading of VOS clauses with definite object DPs is obtained from the felicity of pair-list readings. Below is an example.

(156) qaraʔ-a   l-kitaab-a   zajd-un
       read.PERF-3SG.MASC   the-book-ACC   Zayd-NOM
       , wa   l-qisˤsˤat-a   ʔalijj-un,   wa ….
       , and   the-story-ACC   Ali-NOM,   and ….
       'Zayd read the book, and the story Ali, and ….'

The list can go on to incorporate other elements that provide substitutions in the CT position and the F position. Pair-list readings can further be utilized to make use of a diagnostic indicated by Büring (2016:5) in which he argues that in F+F constructions, the lower focus cannot move across the higher one, whereas a CT can move across a focus higher in the structure. In (156), the coordination with other pairs is true even if the first clause is a VSO, i.e., (157) below is felicitous.

(157) qaraʔ-a   zajd-un   l-kitaab-a
       read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
       , wa   l-qisˤsˤat-a   Aliyy-un, ..   , wa
       , and   the-story-ACC   Ali-NOM, ..   , and
       'Zayd read the book, and the story Ali, and ….'

The CT+F reading provides insight into the descriptive statement that the middle field focus position is less emphatic than focus-fronting to the left edge as in (151); unlike the latter, the former introduces alternatives in two positions since the presuppositional part of the structure has alternatives in the CT position as well.

Now, we turn to the case of indefinite object DPs. As can be seen in (153), indefinite DPs support a focus reading of the shifted object, and are less likely to have a CT+F reading as shown by the degraded status of (153)c. OS in this context is an indication of specificity, i.e., though the object is indefinite, it is not quantificational. It rather denotes a variable conditioned by being an element of the set '*book*'[57] and this variable is specific in that it is part of the knowledge base of

---

[57] While definite DPs are usually of type <e> (they can also be of type <et, t> via type-shifting rules (see Partee (1987) for details) and quantificational DPs are either <<et>, <et, t>> or <et, t> based on their restriction, indefinite DPs do not have a regular semantic type. Heim (1982) argues that an indefinite DP denotation is reduced to a variable and a condition on the domain of that variable (e.g., book(x)) and that any quantificational sense that might, at first sight, seem to be tied with the indefinite itself is in fact contributed by other elements in the structure such as quantificational determiners or adverbs as argued by Lewis (1975).

the speaker, but not necessarily the hearer. The semantics of this specific indefinite object can therefore be modelled as follows[58].

(158) $[\![kitaab\text{-}an]\!] = \lambda P_{<e,t>}. \exists!x \ [book(x) \ \& \ P(x)]$

(158) indicates that there exists a specific variable that is an element of the set *'book'* and of which some proposition is true. The literature on specificity is so large and distinguishes between different types of specificity (see Ionin (2006) for a review). However, the specific sense denoted by (158) is presuppositional in that it presupposes the existence of one element that belongs to the set denoted by the property '*book'* such that this element is known to the speaker. Building on Fodor and Sag's (1982) referentiality approach to such indefinites, Heusinger (2011:9) refers to them as 'referential intentions', meaning that the speaker has a particular referent in mind[59].

The discussion of argument DPs affords us the conclusion that the interpretations they receive when they undergo OS are predictable depending on in/definiteness of the argument. Definite arguments have the potential for a contrastive focus reading or a contrastive topic plus focus reading, with the subject being the element in focus and hence the domain of contrast for the contrasted topics. On the other hand, indefinite DPs seem to support the contrastive focus reading only. These varied readings offer an explanation as to how OS is typically associated with the

---

[58] Specific indefinites are known for their wide scope. However, there is an ongoing debate as to how their wide scope is cashed out, with the leading views being that it is in terms of QR or a Choice Function. One advantage for the choice function approach is that it generates wide scope with no need for covert movement at LF, therefore explaining why indefinites appearing within syntactic islands can sometimes have wide scope readings (Reinhart, 1997). As far as the data under discussion is concerned, no position on either approach is imperative. The specificity of indefinites in the data in hand is derived by virtue of its overt movement in the syntax, rendering both approaches irrelevant.

[59] I should point out (thanks to Usama Soltan) that property-denoting NPs can also undergo OS. Below is an example.

    i.   ja-qraʔ-u   kutub-a   taariix-in   zajd-un
          3-read.IMPERF-SG.MASC   books-ACC   history-GEN   Zayd-NOM
          'Zayd reads history books.'

The interpretation in (i) is that the NP can be referential but does not necessarily have to be. Specificity here can be modificational in that it shows what kind of books *'Zayd'* reads.

semantic effects of definiteness and specificity (Soltan, 2007:116); shifted definite objects are topics while indefinite objects are specific.

The last point at issue under this section is what is called obligatory OS of pronominal objects. The literature on clitics is filled with controversy over their potential to be in prominence, with the largely held perspective being that clitics are deaccented elements, and that their tendency to cling onto appropriate hosts is a consequence of their phonological deficiency (Gerlach, 2002:2). As a result, an argument that an object clitic undergoes OS for interpretive purposes is hard to bear out. The data in question is repeated below.

(159) a.   qaraʔ-a-***haa***   zajd-un
              read.PERF-3SG.MASC-it   Zayd-NOM
              'Zayd read it.'

      b.   *qaraʔ-a   zajd-un   -haa/ hijaa
              read.PERF-3SG.MASC   Zayd-NOM   -it/ it
              'Zayd read it.'

While pronominal clitics are taken to be definite in that they are referential, (-*haa*) in (159)a cannot have a topical interpretation, as is argued for definite DPs. The pronoun refers to an entity in the context and sometimes to a definite LD-DP as in (160).

(160)   ʔal-qisˤsˤat-u   qaraʔ-a-***haa***   zajd-un
             the-story-NOM   read.PERF-3SG.MASC-it   Zayd-NOM
             'As for the story, Zayd read it.'

In (160), (-*haa*) is a resumptive pronoun bound by the LD object. In other words, aside from the interpretive consequences of dislocation, the structure can still be classified as an OVS. In the absence of the LD-object, the clitic is just a referential resumptive pronominal that links the utterance to an entity that constitutes a topic for discussion and is part of the CG; Pesetsky (1987) introduces the term (d)iscourse-linking to designate the latter case. The cliticization to V is also attested in the OSV version of (160), with the subject and object as topics. Consider (161).

(161) a.   ʔal-qisˤsˤat-u   zajd-un   qaraʔ-a-***haa***

		the-story-NOM	Zayd-NOM	read.PERF-3SG.MASC-it	
		'As for the story, Zayd read it.'			
b.	? ?al-qisˤsˤat-u	zajd-un	qara?-a-***haa***	huwaa	
	the-story-NOM	Zayd-NOM	read.PERF-3SG.MASC-it	he	
	'As for the story, Zayd read it (himself).'				

It is not obvious from (161)a whether the clitic moves to *v*P edge or remains in the thematic object position internal to VP and cliticises to the verb at PF. However, if (161)b, where the subject-bound null *pro* in Spec*v*P is given an overt realization, is grammatical, it is evidence that the clitic moves to *v*P edge, similar to (159)a.

What transpires from this discussion is that the movement of the clitic is driven by phonological requirements and hence cannot be considered as a genuine instance of OS. The topical status of the element to which it refers derives from its being part of the CG, regardless of whether it appears explicitly in the structure as in (160) or remains covert. Since the pronominal function is to relate to an aboutness topic, it falls with what Frascarelli and Hinterhölzl (2007:88) call *familiar topics*, which they define as a given or accessible constituent that is typically destressed and hence realized in a pronominal form; when the pronominal is overtly linked with a pre-established aboutness topic as in (160), it is defined as a *continuing topic*. This analysis of OS of clitics in SA concurs with Erteschik-Shir (2005) and Vogel (2006) who ascribe the process to pure phonological reasons. Vogel (2006) argues that obligatory OS in Scandinavian is a reflection of a restriction against the occurrence of weak functional words at the edges of larger prosodic domains.

In this section the range of potential interpretative consequences of OS of DPs is discussed and evidence is provided that they vary based on the definiteness of the shifted DP. As for clitic objects, evidence suggests that their presumed obligatory OS looks to be dictated by their phonological deficiency, and therefore can be relegated to PF. In the next section, the

discussion is switched to PPs and CPs that move to *v*P edge. The aim of investigating this range

of constituents is to furnish ample evidence that *v*P edge in SA hosts a discourse layer and is not

confined to OS.

3.3.4 Movement of PPs and CPs to *v*P Edge

As heavy materials are usually placed clause-finally, forwarding PP and CP arguments must take

place for some interpretive reasons. SA has no restrictions over the elements that can move to

*v*P edge. PP and CP arguments in SA can also be affected by OS.

(162) a.　taħaddaθ-a　　　　　　zajd-un　　　　maʕa　　　ʕalijj-in
　　　　　talk.PERF-3SG.MASC　　Zayd-NOM　　with　　　Ali-GEN
　　　　　'Zayd talked to Ali.'

　　　b.　taħaddaθ-a　　　　　　maʕa　　　ʕalijj-in　　zajd-un
　　　　　talk.PERF-3SG.MASC　　with　　　Ali-GEN　　Zayd-NOM
　　　　　'Zayd talked to Ali.'

(163) a.　ʔblaɣ-a-n-i　　　　　　　　　ʕalijj-un　　ʔanna　　l-baab-a
　　　　　tell.PERF-3SG.MASC-EC-me　　Ali-NOM　　that　　the-door-ACC
　　　　　m-uɣlaq-un
　　　　　NS-closed-NOM
　　　　　'Ali told me that the door is closed.'

　　　b.　ʔblaɣ-a-n-i　　　　　　　　　ʔanna　　l-baab-a　　　m-uɣlaq-un
　　　　　tell.PERF-3SG.MASC-EC-me　　that　　the-door-ACC　　NS-closed-NOM
　　　　　ʕalijj-un
　　　　　Ali-NOM
　　　　　'Ali told me that the door is closed.'

This salient interpretation for (162)b and (163)b is that the subject is set in focus. Therefore,

similar to definite DPs, the forwarded PP and CP seem to designate given information. Evidence

for this reading derives from the felicity of subject-oriented negative continuation in both. More-

over, pair list readings are felicitous where the second member is an alternative to the subject

and the first is a constituent that correspond to a PP or any of its sub-constituents. By way of

illustration, (164) is provided.

(164)　taħaddaθ-a　　　　　　　maʕa　　ʕalijj-in　　zajd-un　　　wa　　maʕa　ʕamr-in
　　　　talk.PERF-3SG.MASC　　with　　Ali-GEN　　Zayd-NOM　　and　　with　Amr-GEN

ʔaħmad-u   wa   ….
Ahmed-NOM   and   ….
'Zayd talked to Ali, and to Amr Ahmed….'

PP arguments parallel definite DPs also in their liability for a focus reading, specifically if their shift is accompanied with some phonological prominence.

(165)   taħaddaθ-a   maʕa   ʕalijj-in   zajd-un   laa   maʕa   ʕamr-in
        talk.PERF-3SG.MASC   with   Ali-GEN   Zayd-NOM   not   with   Amr-GEN
        'Zayd talked to Ali, not to Amr.'

This reading is degraded in (163)b even when there is a phonological prominence somewhere in the shifted CP.

(166) a.   ?? ʔblaɣ-a-n-i   ʔanna   l-baab-a   m-uɣlaq-un
          tell.PERF-3SG.MASC-EC-me   that   the-door-ACC   NS-closed-NOM
          ʕalijj-un   laa   l-naafiðat-a
          Ali-NOM   not   the-window-ACC
          'Ali told me that the door is closed, not the window.'

      b.   ?? ʔblaɣ-a-n-i   ʔanna   l-baab-a   m-uɣlaq-un
          tell.PERF-3SG.MASC-EC-me   that   the-door-ACC   NS-closed-NOM
          ʕalijj-un   laa   l-maftuuħ-un
          Ali-NOM   not   the-window-NOM
          'Ali told me that the door is closed, not open.'

To conclude, shifted PPs have the same readings as definite DPs, namely a focus reading or a CT+F reading, with the contrastive topic being the DP complement of the preposition. CPs, on the other hand, seem to only support the reading where the subject is set in focus as a function of shifting the CP. A major commonality between DPs and PP and CP arguments is that in most cases what moves is interpreted as part of the background information in some sense (whose movement can place them in focus)[60], while what is left in the vP is interpreted as focus. Even in the case of an indefinite DP, the existential interpretation is dismissed; it has to be specific, as indicated. Thus, the broader picture that emerges from the discussion of OS in SA is in tune with

---

[60] These structures are liable to an F+F reading, where what moves to the edge of vP is focused given information, whereas what is left behind is focused, and only the latter is read contrastively, hence the liability of negative continuations picking them out.

Biskup's (2009:12) generalization that constituents that move to the edge of a phase are usually construed as part of the background information whereas constituents spelled out in in the domain are usually in focus. The shifted arguments, regardless of their syntactic size, are spelled out in the next higher phase since, based on the assumption that a spell-out domain contains the complement of a phase head, these constituents are out of *v*P by the time *v*-complement is spelled out. In the next subsection, I move on to temporal and locative adverbs, which can also appear at the edge of *v*P.

3.3.5 Temporal and Locative Adverbs

The study of adverbs requires careful attention as we will be treading on a relatively not well-charted territory, at least as far as SA is concerned; they have been pulled into the discussion of other aspects of the language, most notably tense and aspect (e.g., Fassi Fehri, 2003, 2012). Moreover, what contributes to the complexities of adverbs exploration is that they do not belong to a uniform category. APs, PPs, NPs and CPs can all function as adverbs. Crosslinguistically, arguments have emerged to the effect that adverbs have canonical orderings (e.g., Cinque, 1999, 2004) and hence cannot move about freely in the structure, i.e., subversive movement that results in uncommon orderings is usually restricted. Costa (2000) revisits Cinque's hierarchy and argues for a distribution based on inherent semantics, prosodic structure and categorial status of adverbs.

A common observation is that the merge-in positions of adverbs are diverse, which entails that a movement analysis of an adverb that appears somewhere in the structure might not easily be established; it might have been externally merged in that position. Unlike argument movement which is conceived of as motivated by valuation of formal features, adverbs, being adjuncts, do not usually enter into feature valuation and their occurrence is not obligatory.

143

Chomsky (2015:34) points out that this unrestrictedness in positions is an indication that adjuncts are not interpreted as if they have moved from some more deeply embedded position. Adverbs have no morphological properties that require XP-adjunction and thus do not form chains by XP-adjunction (ibid:303).

Due to these facts, the discussion here is very limited in scope as it is confined to adverbs that can merge low in the structure, and can appear in the middle-field presumably via movement. Cinque (1999:16) points out that, among all adverbs, temporals and locatives are unordered, and they have the option to appear after the *v* complement, thus bearing the nuclear focus of the sentence. Fassi Fehri (1997:20) argues that this type of adverbs appear low in SA as well. Their function is to modify predicates via their specification of the location or time frame within which an event unfolds. Below are examples adapted from Bakir (1979:55ff).

(167) a. ju-qaabil-u muħammad-un ʕalijj-an fii
3SG.MASC-meet.IMPERF.IND Mohammed-NOM Ali-ACC at
l-dʒaamiʕat-i ɣad-an
the-university-GEN tomorrow-ACC
'Mohammed meets Ali at the university tomorrow.'

b. ju-qaabil-u fii l-dʒaamiʕat-i muħammad-un
3SG.MASC-meet.IMPERF.IND at the-university-GEN Mohammed-NOM
ʕalijj-an ɣad-an
Ali-ACC tomorrow-ACC
'Mohammed meets Ali at the university tomorrow.'
'Mohammed meets, at the university, Ali tomorrow.'

c. ju-qaabil-u ɣad-an muħammad-un ʕalijj-an
3SG.MASC-meet.IMPERF.IND tomorrow-ACC Mohammed-NOM Ali-ACC
fii l-dʒaamiʕat-i
at the-university-GEN
'Mohammed meets Ali at the university tomorrow.'
'Mohammed meets, tomorrow, Ali at the university.'

As can be observed, the locative and temporal adverbs can move to the edge of *v*P as in (167)b and c, respectively. Negative continuations picking out the unmoved adverb are felicitous, and so are those picking out the forwarded one. Under the former reading, the moved adverb becomes

part of the background information while under the latter it is focused. However, the latter interpretation requires some phonological prominence on the moved adverb.

An additional observation about these adverbs is that they can both appear at *v*P edge as in (168)a; the reverse order where '*tomorrow*' precedes '*at the university*' is also licit. Variation is so unrestrained that adverbs can appear there alongside the shifted object, (168)b, in any mathematically possible order.

(168) a. ju-qaabil-u   fii   l-dʒaamiʕat-i   ɣad-an
3SG.MASC-meet.IMPERF.IND   at   the-university-GEN   tomorrow-ACC
muħammad-un   ʕalijj-an
Mohammed-NOM   Ali-ACC
'Mohammed meets Ali at the university tomorrow.'

      b. ju-qaabil-u   fii l-dʒaamiʕat-i   ɣad-an
3SG.MASC-meet.IMPERF.IND   at the-university-GEN   tomorrow-ACC
ʕalijj-an   muħammad-un
Ali-ACC   Mohammed-NOM
'Mohammed meets Ali at the university tomorrow.'

This so liberal variation in positions at the edge of *v*P is a good indication that these moved constituents have the same informational status. This multiple movement seems to establish a partition between background and focused information. In (168)a, the object is set in focus whereas in (168)b the subject is set in focus. These readings are evidenced by negative continuations which are more likely to be single out the sentence-final constituent than to single out any of the forwarded ones. Again, this observation is in line with the view that movement that drags a constituent outside the spell-out domain of the phase makes it part of the background, while constituents that remain within the spell-out domain of the phase are the focused part of structure.

3.3.6 Secondary Predication at *v*P edge

Secondary predication is commonly divided into two categories: depictives and resultatives (Bruening, 2018:538). A depictive portrays a state of an argument referent that obtains throughout the duration of the event denoted by the main predicate, while a resultative characterizes a

culmination state of an argument referent, which is brought about by the event. The literature

contains several competing arguments as to what syntactic structure secondary predication has.

On the one hand, there is the view that they are small clauses in which the DP is an argument of

the secondary predicate but not of the main predicate, especially in the case of resultatives (e.g.,

Kayne, 1984; Harely, 2005, 2008). On the other hand, Ramchand (2008:121) proposes a hybrid

analysis in which the DP and secondary predicate form a small clause but the DP moves out of

this clause to become an argument of the main predicate.

Unlike resultatives which can only be predicated of direct objects, depictives can be pred-

icated of both direct objects and subjects (Rothstein, 2004:60). The discussion is confined here

to depictives since, as far as information structure is concerned, movement to vP edge is assumed

to yield the same interpretation for both. However, as depictives can be predicated of objects

and subjects, there are cases where a sentence-final depictive is ambiguous between an object

and a subject-oriented reading. Below are examples.

(169) qaabal-a   zaid-un   ʕamr-an   m-ubtasim-an
       meet.PERF-3SG.MASC   Zayd-NOM   Amr-ACC   NS-smiling-ACC
       'Zayd met Amr (and he was) smiling.'

The depictive '*smiling*' in (169) can be true of *'Zayd'* or '*Amr'*. This ambiguity interacts in

interesting ways with movement to vP edge. Let us consider (170).

(170) a.   qaabal-a   ʕamr-an   zayd-un   m-ubtasim-an
          meet.PERF-3SG.MASC   Amr-ACC   Zayd-NOM   NS-smiling-ACC
          'Zayd$_i$ met Amr (and he$_i$ was) smiling.'

     b.   qaabal-a   m-ubtasim-an   zayd-un   ʕamr-an
          meet.PERF-3SG.MASC   NS-smiling-ACC Zayd-NOM   Amr-ACC
          'Zayd$_i$ met Amr (and he$_i$ was) smiling.'

     c.   qaabal-a   ʕamr-an   m-ubtasim-an   zayd-un
          meet.PERF-3SG.MASC   Amr-ACC   NS-smiling-ACC Zayd-NOM
          'Zayd met Amr (and he was) smiling.'

When the object undergoes OS in (170)a, the depictive is disambiguated in favor of a subject-oriented reading, and the same effect holds when the depictive moves alone in (170)b. The object-oriented reading is maintained only when the object and depictive move together as in (170)c. However, in (170)c, the subject oriented-reading is still possible. Thus, the question that arises is: how does this happen? And what does it tell us about the structure of depictives?

One of the prominent analyses for both types of depictives is that object-oriented depictives are VP adjuncts, whereas subject-oriented depictives are *v*P adjuncts. For example, Richardson (2007:138) provides the following schematic representation for the sentence *she ate the meat raw drunk.*

(171)

```
                vP
          _____|_____
        vP             AP
     ___|___          /\
   she      v'      drunk
          ___|___
         v       VP
             ____|____
           VP         AP
          _|_        /\
        ate  meat   raw
```
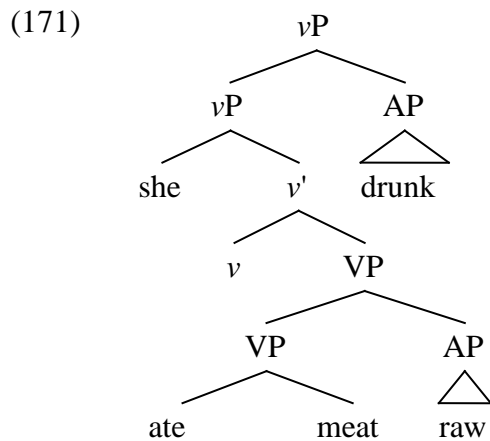
Bruening (2015:13) argues for a different structure in which the relevant argument c-commands the depictive. This is shown below (VoiceP is equivalent to *v*P for him, following Kratzer (1996:120f)).

(172)

```
                    VoiceP
                 /         \
              NP            Voice'
              /\          /      \
            she      Voice'       DepP(2)
                    /     \         /\
                 voice     VP     drunk
                          /    \
                        NP      V'
                        /\     /    \
                     meat    V      DepP(1)
                            |          /\
                           ate        raw
```
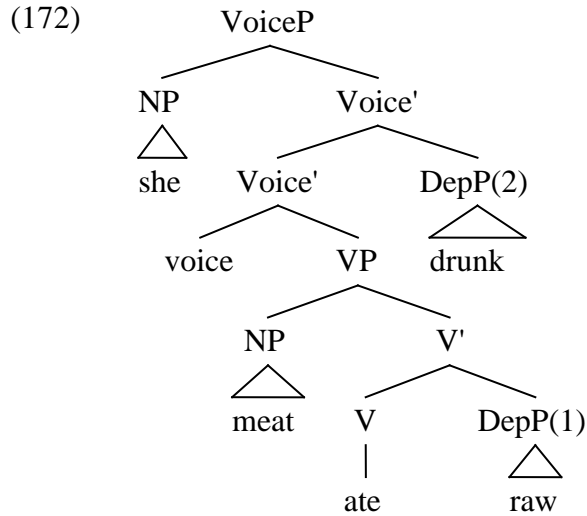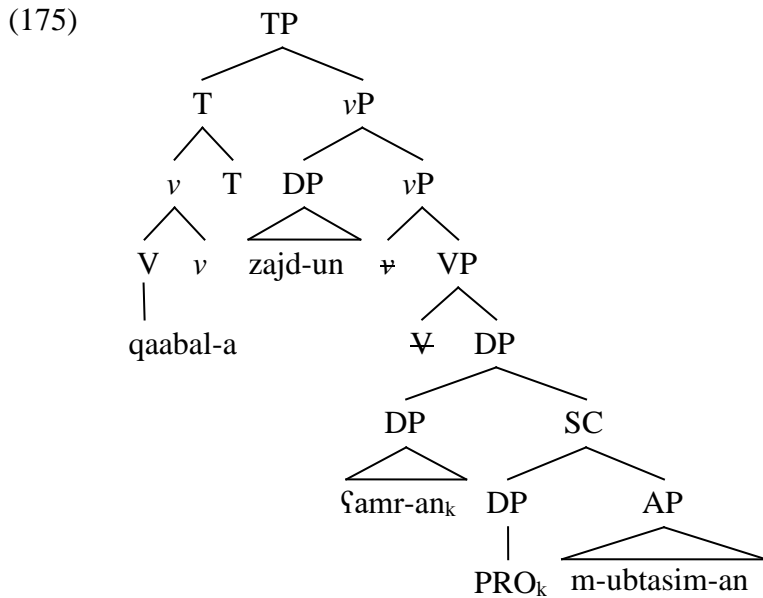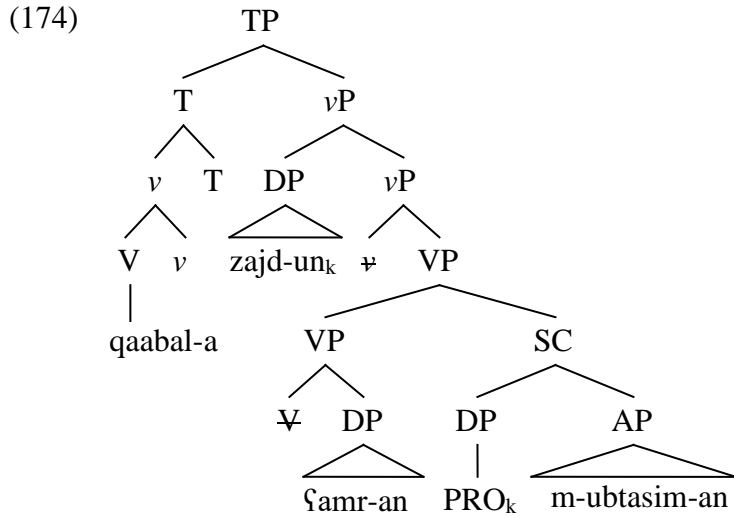
Unlike Richardson, Bruening also assumes that the depictive is a complement of a D(epictive)

P(hrase), whose head has a specific semantics that derives the appropriate composition.

Abstracting away from whether or not there is a null depictive head, I follow Bruening

in the assumption that the relevant argument must c-command the depictive. The reason is that

in SA the depictive can have an overt pronominal that is bound by the argument. (173)b below

showcases this as the depictive cooccurs with an overt referential pronoun. The fact that the

pronoun can be bound by the subject or the object without being in violation of condition B

indicates that the depictive forms some sort of a domain within which the pronoun is free.

(173) a. qaabal-a   zajd-un   ʕamr-an   m-ubtasim-an
           meet.PERF-3SG.MASC   Zayd-NOM   Amr-ACC   smiling-ACC
           'Zayd$_i$ met Amr$_j$ (while he$_{i/j}$ was) smiling.'

       b. qaabal-a   zajd-un   ʕamr-an   [wa   **huwaa**
           meet.PERF-3SG.MASC   Zayd-NOM   Amr-ACC   while   **he**
           m-ubtasim-un]
           smiling-NOM
           'Zayd$_i$ met Amr$_j$ (while he$_{i/j}$ was) smiling.'

The structure I argue for based on the above observations is that a subject-oriented depictive is

a VP adjunct while an object-oriented depictive is a DP/NP adjunct. The adjunction analysis is

standard since the depictive is not selected, i.e., its presence in the structure is not dictated by

the *projection principle*. Both have a null PRO which has the optionality to be realized overtly as in (173)b. Therefore, the ambiguity in (174)a stems from whether it has the structure in (174) or the one in (175) at LF.

(174)

```
                    TP
              ┌──────┴──────┐
              T             vP
           ┌──┴──┐      ┌────┴────┐
           v    T      DP        vP
        ┌──┴──┐      ┌─┴─┐     ┌──┴──┐
        V    v     zajd-unₖ    v̶    VP
        │                         ┌──┴──┐
     qaabal-a                    VP        SC
                              ┌──┴──┐   ┌───┴───┐
                             V̶   DP   DP       AP
                                ┌─┴─┐   │    ┌──┴──┐
                             ʕamr-an  PROₖ  m-ubtasim-an
```

(175)

```
                    TP
              ┌──────┴──────┐
              T             vP
           ┌──┴──┐      ┌────┴────┐
           v    T      DP        vP
        ┌──┴──┐      ┌─┴─┐     ┌──┴──┐
        V    v     zajd-un     v̶    VP
        │                         ┌──┴──┐
     qaabal-a                    V̶    DP
                                    ┌──┴──┐
                                   DP      SC
                                 ┌─┴─┐  ┌───┴───┐
                              ʕamr-anₖ  DP       AP
                                        │     ┌──┴──┐
                                      PROₖ  m-ubtasim-an
```

These two structures provide an explanation as to how the sentences in (170) are derived. The disambiguation effect noticed in (170)a-b is the result of deriving both from (174); the object undergoes OS in the former, whereas in the latter the adjunct depictive moves. In either case, the depictive is subject oriented. However, (170)c is ambiguous because it could be the result of

149

moving both the object and the depictive in (174) separately, or moving the object plus its adjunct depictive as one unit in (175). Since the depictive in (175) is an NP adjunct, it cannot be extracted on its own (Fox & Nissenbaum,1999; Nissenbaum, 2000).

For the informational import of the movement in (170), the salient reading is that the rightmost constituent that remains within *v*P is focused. This is evidenced, among other things, through the observation that a negative continuation is more likely to single out this constituent that any of those that moved to *v*P edge. Again, this accords with Biskup's (2009) generalization that, as far as IS is concerned, the constituents that remain within the spell-out domain of *v* are focused while those that move up the structure and consequently are spelled out within the spell-out domain of C become part of the background. In addition to this reading, as was the case with other constituents, the constituents at *v*P edge in (170) can also be in focus provided that they are pronounced with some phonological prominence.

To sum up, this section has looked briefly into secondary predication in SA with exclusive focus on depictives. A syntactic structure for subject and object-oriented depictives is proposed and it turns out that it provides a plausible account for the disambiguation effects that result from the different movement instantiations that target *v*P edge in these constructions.

3.4 Implications of IS effects

The discourse contributions investigated in §3.3.4 through §3.3.6 points in the direction that what moves is somehow mapped into the background information. How could this be reconciled with the proposal presented in (148) in particular and with a system that assumes focus as the only discourse feature in SA in general? As far as OS is concerned, I assume that the shifted object moves in response to the composite probe in (148) which only has focus as a discourse feature. The CT reading of definite objects is then derived by an interplay between definiteness

and focus, whereas indefinite objects are in focus due to the focus feature only. As for the question of why the subject is liable to focus readings in OS constructions too, I believe that this might have nothing to do with agreement as *v* agrees with the object but rather follows perhaps from some phonological rules that places focus on sentence-final constituents that otherwise should not be final.

As for the rest of constituents including PPs, CPs, adverbs and secondary predicates, their movement to the edge of *v*P cannot be associated with a definitive formal feature when they are not in focus. For instance, they cannot be dealt with as topics. They simply get mapped into the background of the discourse and assume the status of presupposed information[61]. Therefore, my speculation is that they instantiate free movement that is not triggered by a specific feature. All in all, a system that assumes focus as the only discourse feature is still founded.

3.5 Concluding Remarks

In this chapter, the edge of the lower phase, *v*P, has been explored in details. I have presented a detailed description of the structural conditions that regulate OS and, following an investigation of its properties, I put forward a proposal which assumes that OS is driven by a composite probe on *v,* therefore explaining the mixture of A and Ā characteristics it displays. I then proceeded to an examination of the interpretive effects OS engenders and argued that it can give rise to a CT+F reading of the object and subject in the context of definite objects and a focus reading of the object in the context of indefinite objects. This variation in interpretation is the result of an interplay between focus and definiteness. The remainder of the chapter was devoted to an investigation of a range of other constituents that can move to *v*P edge, namely PPs, CPs, adverbs and

---

[61] This liability for interpretation as part of the background information could be taken as an argument for another discourse feature, probably [Givenness]. However, I refrain from making the assumption that this feature exists since, to the best of my knowledge, SA does not have specific morphology for this feature, which is the criterion I based my assumption of [Focus] on.

secondary predicates. The overall picture that emerged from the discussion is that whatever moves to the edge of vP becomes more liable for a background interpretation, whereas the elements that are spelled out in the domain of vP are focused.

Chapter 4
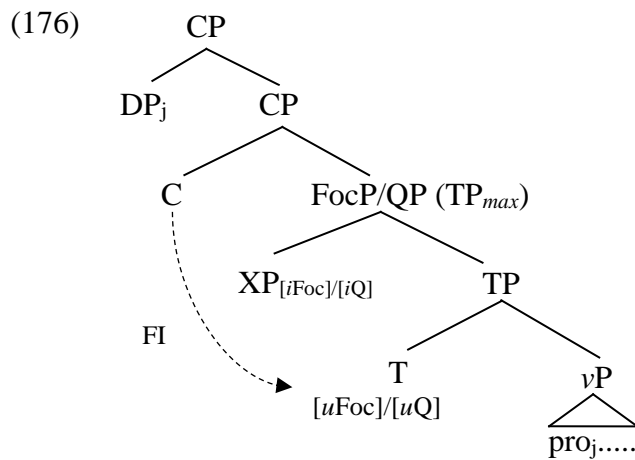
4 THE LEFT PERIPHERY: CP EDGE

4.1 Introduction

The preceding chapter has looked into the mid-field discourse zone, *v*P edge. I have examined the VOS structure from syntactic and semantic-pragmatic perspectives. I have also investigated a range of constituents that can move to that zone with the aim of establishing that *v*P edge is a discourse layer and is not confined to OS, the sole phenomenon discussed with relative details in the literature. In this chapter, I switch my focus to the left periphery, CP edge. I investigate its structure based on the proposal in (57) which is assumed to represent the derivational difference between VSO and SVO clauses.

I discuss the left periphery in SVOs and VSOs in §s 4.3 and 4.4, respectively. In view of the fact that the left periphery is a well-established discourse layer in the clausal structure and that the concentration of this thesis is variability in word order, I focus mainly on the presence of argument DPs in this area of structure either through displacement or base-generation with a dependency relating to a thematic position. The discussion covers the rest of mathematically possible word order permutations, including SOV, OSV and OVS. I also revisit SVO with more elaboration on its interpretive associations since what is presented in chapter (2) were prefatory remarks that were kept to the level necessary to argue for a distinction between SVO and VSO. In each case, I present arguments for their syntactic derivation and the kind of IS-related interpretations they give rise to. In §4.5, I conclude the chapter by an exploration of the syntax and semantic-pragmatic properties of answers to constituent questions.

4.2 SVO vs. VSO

As indicated, the left periphery has received most attention in the literature (e.g., Ouhalla, 1993, 1997; Shlonsky, 2000; Aoun et al., 2010). However, these works do not provide a comprehensive account of the interpretative consequences that go with the various constituents that appear in this zone, a gap I attempt to bridge here. The other shortcoming is brought forth by the first and consists in the observation that there has always been a conflation between SVO and VSO. However, recall that I have, to a certain extent, sided with Soltan (2007) that the two structures are different and argued for an extension of his proposal so that SVO is derived as in (57), repeated in (176).

(176)

CP
- DP$_j$
- CP
  - C
    - FI (dashed arrow to T)
  - FocP/QP (TP$_{max}$)
    - XP$_{[iFoc]/[iQ]}$
    - TP
      - T
        - $[u$Foc$]/[u$Q$]$
      - vP
        - pro$_j$.....

The structure in (176) represents SVO in which the subject is interpreted as a topic. What is significant is that this proposal parts ways with Soltan's account in that it maintains that SVO can be derived from VSO via focus movement of the subject from Spec*v*P to SpecTP. In either case, the subject of SVO is not neutral in terms of its discourse contribution.

This proposal is a middle of the road account between the *structural view* which advocates the argument that preverbal subjects are grammatical subjects derived by movement to SpecTP (as an option to satisfy EPP) and the *topical view* which advocates the argument that preverbal subjects are invariably topics base-generated in SpecTP. In this account, preverbal subjects always have a discourse function, but when in focus, they arrive at their surface position by movement. However,

I should point out that this account is not put forward out of a reconciliatory spirit but rather after an examination of a wide range of data that points in this direction, namely the direction that pre-verbal subjects are either topical or focused. To the best of my knowledge, this data has not been considered in its entirety and from all aspects (syntax, semantics and pragmatics) whenever the difference between SVO and VSO is subjected to scrutiny. Together with these merits, (176), as pointed up in §2.3.3, is not only devised to pin down the derivational differences between SVO and VSO but is also an argument that extends to non-subject topics; topics are all base-generated in SpecCP while focus is derived by movement to SpecTP.

With this essential distinction in mind, the left peripheries in SVO and VSO are predicted to manifest some differences. Therefore, the discussion is split up into two sections, each of which addresses one type of clause, starting with SVO.

4.3 The Left Periphery in SVO

4.3.1 Topical Subjects

An SVO with a non-focused subject is a typical case of *topic-comment* structure; Rizzi (1997) refers to this kind of structure as a high predication, to indicate that the complement to the pre-verbal DP, which is high in the complementizer system, is regarded as the constituent predicating over the DP. In his cartographic system, the predicate is Top^0 and its complement. In our proposal, the predicate is C complement. The first basic question that I address is how the semantic denotation of an SVO with a topical subject in SpecCP is computed. The account is straightforward as it derives from the predicate having a variable whose value is fixed by the topic. The topic combines with the predicate via predicate abstraction as delineated in the rule given below (Heim & Kratzer, 1998:186). Predicate abstraction creates a derived predicate with a variable whose value is filled in by some constituent higher up in the structure (Nissenbaum, 2000).

(177) *Predicate Abstraction* (PA)

Let α be a branching node with daughters β and γ, where β dominates only a numerical index i. Then, for any variable assignment a, $[\![\alpha]\!]^a = \lambda x \in D.\ [\![\gamma]\!]^a$.

The standard assumption is that PA is induced by movement. That is, when a constituent moves from a certain position, it leaves behind a variable which it binds from its derived position, therefore creating a λ-operator adjacent to that position. However, Rezac (2011:278) points out that PA can also be established configurationally when a DP externally merged in a non-thematic position has a dependency with a resumptive pronoun or a null pro in the thematic domain. Below are the three relations under which PA is triggered (ibid).
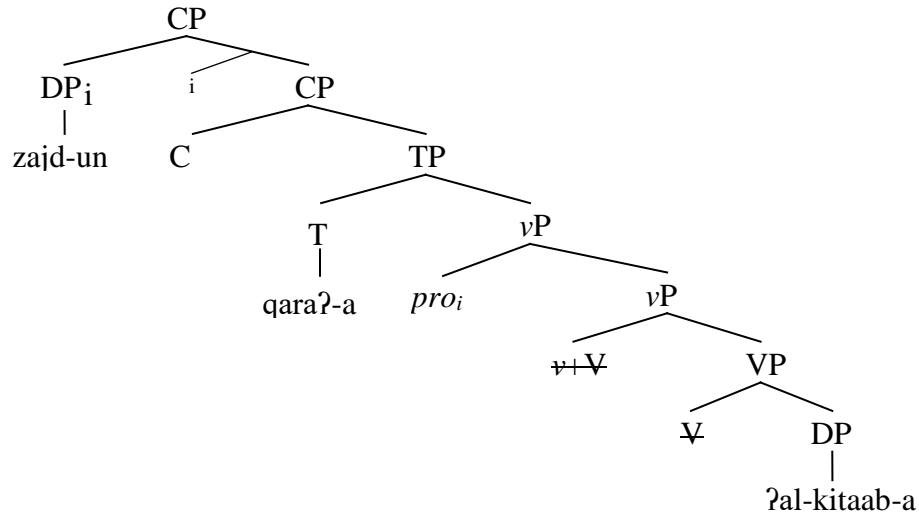
(178) Interpretation of non-thematic positions

a. DP $[_\beta\ i_{H0}\ [_\alpha\ \ldots \text{pronoun}_i \ldots]]] \Rightarrow [\![\beta]\!]^g = \lambda x.\ [\![\alpha]\!]^{g[i\to x]}$
where DP is Merged and i is the lexical content of H^0

b. DP $[_\beta\ i\ [_\alpha\ H^0 \ldots t_i \ldots]]] \qquad \Rightarrow [\![\beta]\!]^g = \lambda x.\ [\![\alpha]\!]^{g[i\to x]}$
where DP, i, t_i are introduced by Move

c. PRO $[_\beta\ i\ [_\alpha\ H^0 \ldots t_i \ldots]]] \qquad \Rightarrow [\![\beta]\!]^g = \lambda x.\ [\![\alpha]\!]^{g[i\to x]}$
as above, but PRO is an uninterpreted pronoun

Under the topical reading of the preverbal subject, the sentence in (179) is easily mapped onto the structure in (176), yielding the structure in (180) (irrelevant details are omitted) whose semantic denotation is computed by (178)a.

(179) zajd-un   qaraʔ-a   ʔal-kitaab-a
Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC
'Zayd read the book.'
'As for Zayd, he read the book.'

(180)

```
                            CP
                ┌───────────┴────────────┐
            DPᵢ         i            CP
             │                ┌───────┴────────┐
          zajd-un             C              TP
                                     ┌────────┴────────┐
                                     T                vP
                                     │          ┌──────┴──────┐
                                  qaraʔ-a     proᵢ          vP
                                                     ┌────────┴────────┐
                                                   v+V̶             VP
                                                              ┌──────┴──────┐
                                                             V̶            DP
                                                                           │
                                                                      ʔal-kitaab-a
```

By the time the semantic derivation reaches TP, it yields the proposition '*x read the unique z such that z is a book*'. This proposition which has a variable that can only be resolved by a contextual assignment is reopened by PA to become [λx. x read the unique z such that z is a book] in which '*Zayd*' is plugged as an argument deriving the proposition *'Zayd read the unique z such that z is a book'.*

After we have delineated how the semantic denotation of an SVO with a topical subject is computed, the question now is: what interpretation does this topic assume? As indicated in §1.6.3, ever since Chafe (1976) many proposals have been advanced arguing for finer flavors of topics. This typological literature reveals that a constellation of flavors are distinguished, including hanging topic, contrastive topic, framing topic, aboutness topic, shifting topic, familiar topic, given topic, and continuing topic (Benincà & Polletto, 2004; Bianchi & Frascarelli, 2010; Cinque, 1990, 1999; Frascarelli, 2007; Frascarelli & Hinterhölzl, 2007; Frey, 2004; Krifka, 2008; Reinhart, 1982). Some authors argue that these types of topic, when they coexist, show a strict hierarchy. For instance, Frascarelli and Hinterhölzl (2007:88) argue that German and Italian show the hierarchy in (181). (182) are examples from Italian (ibid:96) with ST, CT and FT representing shifting topic, contrastive topic and familiar topic, respectively.

(181) *Topic Hierarchy*
       Shifting topic [+aboutness] > Contrastive topic > Familiar topic

(182) a. Io,   inglese   nonl'   avevo   mai   fatto.   ST>FT
          I   English   not it (CL) have.PAST.1SG   never   done
          'I never studied English before.'
      b. Io   francamente   questa   attività   particolare   non   me   la
          I   frankly   this   activity   particular   not   to.me(CL)   it(CL)
          ricordo.   CT>FT
          Remember.1SG
          'Frankly, I do not remember that particular activity.'

The pronoun *Io* 'I' and the NP *inglese* 'English' in (182)a are a shift topic and familiar topic in the same order. In (182)b, the same pronoun and the NP *questa attività* 'this activity' are contrastive and familiar topics respectively. By transitivity, the hierarchy in (181) is derived. However, I depart from this literature in that I argue that encoding these distinctions in the syntax is superfluous because a topical constituent can receive different topical interpretations based on the context in which it is uttered, i.e., the interpretation is determined pragmatically. I have already shown that the mid-field discourse layer in SA can host contrastive and familiar object topics (see §3.3.3).

With these details at hand, let us return to the question of what topical interpretation '*Zayd'* has in (179). There are at least two discursive functions that can easily be detected here. First, it can function as an aboutness topic which is part of the CG. This interpretation can be conceptualized as an answer to an implicit question of the form: *what about Zayd?*. It can also serve as an answer to more specific questions such as '*what did Zayd read?'* Or '*what did Zayd do?'*, in which case the answer to the former would partition the comment in (179) into a focused constituent and a presupposition as in (183)a whereas an answer to the second will set the entire comment in focus as (183)b[62].

(183) a.   Topic> [$V_{presupposition}+O_F$]$_{coemment}$

---

[62] (183) is evidence that focus and topic are adequate to tease apart other discourse functions as I have assumed in §1.6.3 following Büring (1997, 2003).

b.　Topic> [VP$_{comment}$]$_F$

This aboutness reading does not require a rich context. All it requires for its felicity is a scenario where *'Zayd'* is a referent known by the discourse parties. The addition the proposition makes to the CG is the assertion that some property holds of him. This conceptualization of aboutness is modelled in Reinhart (1982:80) under what she calls the *pragmatic assertion* of a sentence. This approach to aboutness splits up the meaning of a sentence that has a topic into two parts: the referent of the topical expression, and the property expressed by remainder of the sentence[63]. Under this view, discourse contexts are structured into individuals, and properties that are said to hold of them. Büring (2016) refers to this kind of topics as *thematic topics* and points up that they correspond to CLLD in Romance and *wa*-marked expressions in Japanese. Below are his examples from Catalan and Japanese.

(184)　a.　Les pomes, jo no　　les　　he　　　　　vist.
　　　　　the apples, I　NEG　them　have.1SG　　　seen
　　　　　'The apples, I have not seen them.'

　　　b.　ano　　inu-wa　　　kinoo　　　kooen-de　　John-o　　　kande-simatta
　　　　　that　　dog-WA　　　yesterday　park-at　　　John-ACC　　bite-ended up
　　　　　'That dog bit John in the park yesterday.'

In addition to the aboutness reading, since a sentence can be conceptualized as an answer to a question, '*Zayd'* in (179) can also assume a contrastive topic interpretation which comes about if the implicit question is rather drawn from a family of questions and the proposition leaves at least one of them unsettled (Roberts, 1996; Büring, 1997, 2003; Hagstrom, 1998; Krifka, 2001, 2011; Constant, 2012, 2014). The CT reading is evidenced by the felicity of the continuation in

---

[63] This approach to aboutness has been met with some conceptual criticism. Krifka (2008:265) points out that it presupposes that information in human communication is organized such that it can be said to be 'about' things and this does not follow from a general definition of information. A full-fledged discussion of this issue would take us far afield but it suffices to say that the account here is confined to sentences with topics and is not a claim about information in general. For detailed potential responses to Krifka's concern, see Büring (2016) and the references therein.

(185) in which '*Zayd'* is paired with a focused constituent in the comment, namely the object, which forms the domain of contrast (pair-list readings). It is these pairings that the assertion adds to the CG.

(185) zajd-un   qaraʔ-a   ʔal-kitaab-a   wa   ʕaljj-un   ʔal qisˤsˤat-a
       Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC   and   Ali-NOM   the-story-ACC
       'Zayd read a book and Ali [read] the story.'

The sentence in (185) is felicitous in a scenario where for example we have a set of three readers {Zayd, Ali, Omar} as part of the CG but only the speaker knows what each one of them read. The sentence settles two questions "*what did Zayd read*? and *what did Ali read?"*, and leaves unsettled the question *what did Omar read?*. The topical element in the unsettled question, *Omar* in this case, is identified as a *residual topic* (Büring, 1997:69).

The upshot of the discussion above is that a preverbal topical subject can be interpreted as an aboutness or a contrastive topic based on contexts, i.e., both interpretations are possible without assuming a difference in the position it occupies in the syntactic hierarchy which gives more currency to the proposal that the various types of topics arise as a result of contextual variation and thus need not be encoded as features in the syntax proper. Further support for this view comes from Büring (2016) who points up that the examples in (184) are also liable to contrastive topic readings without any change in position.

4.3.2 SOV with Overt Pronouns

Preverbal subjects in SVO can appear along with overt pronouns that presumably occupy Spec*v*P, or SpecTP, an option that is plausibly offered and accommodated by the structure in (176). This is exemplified in (186).

(186) a.   ʔatˤ-tˤullaab-u   qaraʔ-uu   hum   kitaab-an
             the-students-NOM   read.PERF-3PL.MASC   they   book-ACC
             'The students, they read a book.'

       b.   ʔatˤ-tˤullaab-u   hum   qaraʔ-uu   kitaab-an

the-students-NOM   they   read.PERF-3PL.MASC   book-ACC
'The students, they read a book.'

Previous research shows that the overt pronoun in (186) has received two treatments (Fassi Fehri, 1999; Soltan, 2007). Fassi Fehri's account follows from a fundamental difference between his view of agreement in SVO and the view of the mainstream literature. For him, the agreement morphology associated with the verb in (186)a is not an affix but rather the grammatical subject which has undergone an incorporation operation into the verb. In light of this perspective, the overt pronoun *hum* 'they' is analyzed as a parenthetical or an appositive that doubles the weak subject pronoun for the purposes of focus (ibid:114).

For Soltan (2007), the subject in SVO is a *null pro*, as indicated in chapter (2), and the affix attached to the verb in (186)a is an agreement morphology, an argument that falls in line with the mainstream literature. Accordingly, he considers the strong pronoun as the subject of the sentence (i.e., it is a realization of the *null pro* in Spec*v*P). This pronoun is liable to coordination with an overt DP as shown below which is a variation of (186)a.

(187) qara?-uu   [hum   wa   hunna]   kitaab-an
       read.PERF-3PL.MASC   they   and them.FEM   book-ACC
       'They read a book.'

Notice that the verb shows full agreement with the first pronoun only[64]. As it turns out, (187) is also evidence that the pronominal is not a parenthetical or appositive since it would be predicted not to take part in structural relations such as coordination. In other words, if *hum* 'them' is an appositive to *-uu* 'them', as Fassi Fehri argues, how can the grammaticality of *hunna* 'them.FEM' surfacing along with it be accounted for? The relation of an appositive and its anchor has to reflect

---

[64] It is on the basis of this argument status of the pronoun, which he argues hold when the pronoun precedes the verb, that Soltan (2007:60) formulates the generalization that "full agreement is always required when the subject is (or includes as a first conjunct) a pronominal, whether that pronominal is overt or null, and whether it occurs in pre- or postverbal position".
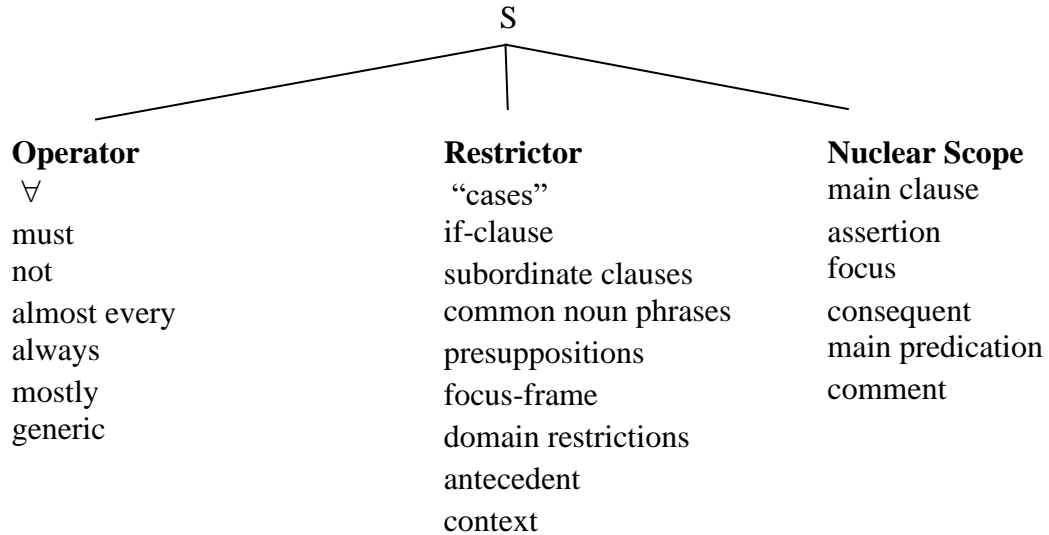
a one-to-one correspondence. Another serious challenge to the appositive perspective is posed by scopal interactions with negation which will be illustrated momentarily.

In view of these observations, I follow Soltan (2007) and argue that the strong pronoun in (186)a is an overt realization of the assumed *null pro* in Spec*v*P in SVO. It serves the function of putting the preverbal DP in focus. Evidence for this interpretation comes from two sources: i) the felicity of negative continuations which pick out the strong pronoun and ii) the interaction with negation which licenses the inference that the sentence, to the exclusion of the pronoun, is presupposed. Both are shown below (for (188)a, cf. Soltan, 2007:40f).

(188) a. Ɂatˤ-tˤullaab-u   dʒaaɁ-uu   <u>hum</u> laa   ɁaabaaɁ-u-hum
           the-students-NOM   come.PERF-3PL.MASC   they   not   parents-NOM-their
           'As for the students, they came, not their parents.'

     b. Ɂatˤ-tˤullaab-u   <u>maa</u>   qaraɁ-uu   <u>hum</u>   kitaab-an
           the-students-NOM   not   read.PERF-3PL.MASC   they   book-ACC
           'As for the students, it is not them who read a book.'

(188)a is evidence that the pronoun sets the preverbal DP in focus and so is (188)b which licenses the inference that *somebody read a book* but it is not the students. Therefore, the same sentence allows for a positive continuation which turns the presuppositional frame into a true proposition. This continuation might be *'bal muʕallim-u-hum'* *'*but their teacher'. This is not to say that negation in (188) is a constituent negation. Rather, its function is conceptualized in the sense of analyses which treat clausal negation as an operator that has a tripartite construction similar to quantificational determiners and adverbs (e.g., Partee, 1991, 1993; Fintel, 1994). Below is a schematization of the tripartite structure along with the elements that are mapped into the argument position of these operators (Partee, 1993:187).

(189)   S
                    ┌──────────────────┼──────────────────┐
           Operator   **Restrictor**   **Nuclear Scope**
              ∀   "cases"   main clause
           must   if-clause   assertion
           not   subordinate clauses   focus
           almost every   common noun phrases   consequent
           always   presuppositions   main predication
           mostly   focus-frame   comment
           generic   domain restrictions
                                      antecedent
                                      context

Under this perspective, negation does not negate the entire proposition when there is a focus but

rather asserts that the focused constituent is not part of the set that turns the presuppositional frame

into a true proposition. This is the effect observed in (188)b and it is conclusive evidence against

an appositive approach to such strong pronouns since appositives are typically read outside the

scope of negation. Koev (2013:2) points out that the direct rejection in the short dialogue below

can only pick up on the main clause, not the appositive.

(190) A. Edna, <u>a fearless leader</u>, started the descent.
      B. No, that's not true.

Koev indicates that B's rejection in (190) is understood to mean "Edna has not started the descent"

but not "Edna is not a fearless leader". The sentence in (186)b has the same interpretation. It looks

as though the overt realization of an otherwise *null pro* immediately sets the subject in focus re-

gardless of whether it remains in situ as in (186)a or move to the designated focus position in

SpecTP as in (186)b.

The question that sequels from the above discussion is what discourse function the pre-

verbal DP in (188) has since the pronoun is a focus. The answer is that it can still be conceived of

as a topic that can be interpreted as an aboutness or contrastive topic based on contexts. This means

that the sentences in (186) have two expressions picking out the same reference but one functions as a topic and the other as a focus. Though apparently strange, these constructions are not unfamiliar. They have been identified as Split-XPs in the relevant literature and they are frequent in a considerable number of languages, including Croatian and German (Fanselow & Cavar, 2004; Frèy, 2007), Polish (Siewierska, 1984) and Russian (Sekerina, 1997). The prominent argument is that Split-XPs go hand in hand with particular informational structure import. In particular, Fanselow and Cavar (2002) point out that, in a split construction, the right part of XP must be focal, while the left-hand part may be a link topic or a second focus. Below are examples from German (Fèry, 2007:80).

(191) a. Maria hat rote Rosen gekauft.
Mary has red roses bought
'Mary bought the red roses.'

b. Rosen hat Maria rote gekauft.
roses has Mary red bought
'Mary bought the red roses.'

While the noun and the adjective '*red roses*' are adjacent in (191)a, they split up in (191)b. Fèry (2007:81) points out the motivation for this discontinuity lies in their information structural properties. In most contexts, '*roses*' assumes a topic interpretation, while the element left in situ, *'red'* in this case*,* is a focus. Thus, (191)b, as Fèry argues, would be felicitous in a situation in which roses have been previously introduced into the discourse and the sentence in question mentions them again and contrasts them with other flowers. The focused adjective adds the prominent information that the roses Mary bought are red, not another color.

The designation of these structures as split-XPs might give the impression that they are derived via movement, i.e., the two constituents that form that discontinuous structure start out as one unit, out of which the topical part is moved, stranding the material left behind. This is indeed the standard analysis which was put forward by van Riemsdijk (1989). However, Fanselow and

164

Cavar (2002) indicate that this movement analysis is challenged by data from languages where the lower constituent appears within a syntactic island which renders a simple movement analysis of the split construction impossible. Below are examples from Croatian where PPs function as islands (Fanselow & Cavar, 2002:72).

(192) a.
Ivan	se	popeo	[$_{pp}$ na	veliko	drvo
Ivan	self	climbed	on	big	tree

'Ivan climbed on a big tree.'

b.
*Što$_i$	se	Ivan	popeo	[$_{pp}$ na	veliko	t$_i$
what	self	I.	climbed	on	big	

c.
*Drvo$_i$	se	Ivan	popeo	[$_{pp}$ na	veliko	t$_i$
tree	self	I.	climbed	on	big	

d.
*Ivan	se	Drvo$_i$	popeo	[$_{pp}$ na	veliko	t$_i$
I.	self	tree	climbed	on	big	

e.
_Na_	_veliko_	se	Ivan	_drvo_	popeo
on	big	self	I.	tree	climbed

The examples in (192) illustrate that wh-extraction (b), topicalization (c), and scrambling (d) are not possible from a PP. However, a split of the complex PP is possible, as (192)e shows, a fact that does not easily lend itself to a movement analysis to split-XPs since it violates a strong island.

Insofar as the SA data in (186) is concerned, it has already been established that topical preverbal subjects are externally merged in SpecCP (see chapter 2). Moreover, as the sentence in (187) shows, the strong pronoun can appear within an island, a coordinate structure island in this case, and therefore a movement analysis cannot be sustained. Therefore, split-XP constructions in SA are formed through base-generation of each constituent in its service position, i.e., the topic is merged in SpecCP and the pronoun in Spec*v*P. The latter can then move on its own to SpecTP as shown in (186)b.

To summarize, SVO clauses with an overt pronoun in the thematic domain or SpecTP are Split-XP constructions, of which the higher link is a topic and the pronoun is focus. In what follows, I switch the discussion to SVO structures with quantifiers.

4.3.3 Quantifiers in SVO

4.3.3.1 The Patterns

The distribution of the quantificational determiners '*kull*' 'every/all' and *'baʕdˤ'* 'some' in SA displays two patterns: Q__NP and NP$_i$__[Q+clitic$_i$] (Shlonsky, 1991; Benmamoun, 1999). The NP in the first pattern has to be singular indefinite, plural definite or a singular definite (with some restrictions). However, the second pattern is confined to definite nouns, plural or singular (again with some restrictions). Below are illustrative examples of both patterns respectively.

Q__NP Pattern

(193) a.　*kull-u　　　tˤ-tˤaalib-i　　　　　　Def.SG
　　　　　all-NOM　　the-student-GEN
　　　　　'All the student'

　　　b.　kull-u　　　tˤ-tˤullaab-i　　　　　　Def.PL
　　　　　all-NOM　　the-students-GEN
　　　　　'All the students'

　　　c.　kull-u　　　l-dʒabal-i　　　　　　　Def.SG
　　　　　all-NOM　　the-mountain-GEN
　　　　　''all of the mountain'

　　　d.　kull-u　　　tˤaalib-in　　　　　　　Indef.SG
　　　　　all-NOM　　student-GEN
　　　　　'Every student'

　　　e.　*kull-u　　　tˤullaab-in　　　　　　Indef.PL
　　　　　all-NOM　　students-GEN
　　　　　'Every students'

NP$_i$__[Q+clitic$_i$] Pattern

(194) a.　ʔal-dʒabal-u　　　　kull-u-hu　　　Def.SG
　　　　　the-mountain-NOM　all-NOM-it
　　　　　'All of the mountain'

　　　b.　*ʔatˤ-tˤaalib-u　　　kull-u-hu　　　Def.SG
　　　　　the-student-NOM　　all-NOM-him
　　　　　'All the student'

　　　c.　ʔatˤ-tˤullaab-u　　　kull-u-hum　　Def.SG
　　　　　the-students-NOM　all-NOM-them
　　　　　''all the students'

　　　d.　*tˤaalib-u/un　　　　kull-u-hu　　　Indef.SG
　　　　　student-NOM　　　　all-NOM-him

'All student'

e. *tˤullaab-u/un kull-u-hum Indef.PL
  students-NOM all-NOM-them
  'All students'

Both patterns can appear as preverbal subjects, but only the second can appear in floating quantifier (FQ) constructions. In particular, the thematic subject position can be an FQ, which agrees with a clause-initial DP in all φ-features. Consider the sentences below.

(195) a. kull-u ʔatˤ-tˤullaab-i qaraʔ-uu   kitaab-an
    all-NOM the-students-GEN read.PERF-3PL.MASC book-ACC
    'All the students read a book.'

  b. kull-u tˤaalib-in qaraʔ-a   kitaab-an
    all-NOM student-GEN read.PERF-3SG.MASC book-ACC
    'Every student read a book.'

(196) a. ʔatˤ-tˤullaab-u qaraʔ-uu   kull-u-hum kitaab-an
    the-students-NOM read.PERF-3PL.MASC all-NOM-them book-ACC
    'The students, all of them read a book.'

  b. ʔatˤ-tˤullaab-u kull-u-hum qaraʔ-uu   kitaab-an
    the-students-NOM all-NOM-them read.PERF-3PL.MASC book-ACC
    'The students, all of them read a book.'

Apparently, these sentences seems to be straightforwardly accounted for by the structure in (176). However, a careful look at relevant literature reveals that sentences such as (196) have been subject to an extensive debate, the focus of attention being whether the underlined phrases are externally merged as separate constituents or they start out as one constituent, out of which the preverbal DP is extracted to a higher position. In what follows, both patterns are discussed with specific attention allocated to their quantificational properties to gain insight into how their distribution interacts with IS[65].

---

[65] In the interest of space, the discussion is restricted to *'kull'* here but the arguments I develop are believed to carry over to *'baʕadˤ'* and their type of quantificational determiners that display the same patterns.

4.3.3.2 Q__NP

As indicated in §2.3.3, preverbal subjects with topical interpretations are characterized by defi-

niteness, i.e., they have to be proper nouns, NPs preceded by the definite article 'ʕal-' or the first

member of a construct state structure with a definite genitive phrase such as *kitaab-u ʔatˤ-tˤaalib-*

i 'the student's book'. They cannot be quantificational but rather individual or set-denoting ex-

pressions whose referents are part of the CG. However, a definite plural can appear preceded by

the determiner *kull* 'every/all' which assumes a quantificational sense in some constructions. The

semantics of *kull* has been examined within the realm of investigating related phenomena such as

FQs and DP structure (e.g., Mohammad, 2000; Elsaadany & Shams, 2012; Hallman, 2016). How-

ever, I agree with Hallman (2016:3) in his descriptive statement that *kull* functions as a strong

quantifier only when followed by a singular indefinite restriction. When followed by a definite

DP, singular or plural, *kull* is more likely a form of superlative (ibid:2). Below are illustrative

examples adapted from Hallman (2016:2ff) as well as Elsaadany and Shams (2012:25).

(197) a. kull-u   tˤ-tˤullaab-i   qaraʔ-uu   kitaab-an
         all-NOM   the-students-GEN   read.PERF-3PL.MASC   book-ACC
         'All the students read a book.'

      b. kull-u   l-dʒabal-i   ʔixtaf-a   xalfa   dˤ-dˤabaab-i
         all-NOM   the-mountain-GEN   read.PERF-3SG.MASC   behind   the-fog-GEN
         'All of the mountain disappeared behind the fog.'

In sentence (197)b, *kull* is clearly not quantificational but rather conveys the sense that the entirety

of the mountain has disappeared behind the fog. In sentences like (197)a, Elsaadany and Shams

argue that the indefinite object is liable to a collective or a distributive reading, i.e., in a scenario

where we have ten students, the number of books read can either be ten or one. This variation in

interpretation may at first glance look as though *kull* is quantificational even when it is followed

by a definite DP and that the two readings result from scopal interactions between *kull* and the

indefinite object. However, I maintain that *kull* in (197)a is not a strong quantifier for two reasons.

168

First, even though the object can show a distributive interpretation, it is restricted to the number

of books but not the title. So, both readings obtain in a context where the ten students read *"The*

Minimalist Program" for instance with variation confined to whether they all had one copy or

each one has his own copy. For the diversity in book titles to obtain, the sentence has to have the

form in (195)b above, which can have both scopal readings ($\forall > \exists$; $\exists > \forall$) as I have shown earlier

and is argued in Fassi Fehri (2012:186)[66]. The second reason for the objection against *kull* being

the source of distributivity in (197)a is that this variation in interpretation holds even when *kull*

does not figure in the structure. The sentence in (198) is amenable to a collective or a distributive

reading. More interestingly, both readings are also possible in (199) where the object is a definite

DP.

(198) Ɂatˤ-tˤullaab-u   qaraɁ-uu   kitaab-an
      the-students-NOM   read.PERF-3PL.MASC   book-ACC
      'The students read a book.'

(199) Ɂatˤ-tˤullaab-u   qaraɁ-uu   Ɂil-kitaab-a
      the-students-NOM   read.PERF-3PL.MASC   the-book-ACC
      'The students read the book.'

The broad conclusion that this data leads to is that variation in interpretation has to do with the

plurality of the topical subject, and hence any source of explanation for distributivity has to take

into account the semantics of plural nouns. It is neither peculiar to NPs preceded by *kull* nor to the

structure of SVO clause in SA. Abe (2017:54ff) points out that the sentence in (200) is prone to a

collective or a distributive reading.

 (200) The women examined John.

This obvious association between plurality and distributivity has indeed been subject to extensive

investigation (e.g. Link, 1983; Chierchia 1998, 2010; Sauerland 2003; Sauerland et al., 2005;

---

[66] I will return to (195)b in §4.4 and I argue that it is derived via focus-preposing from a VSO clause, i.e., the QP starts out in the thematic subject position, Spec*v*P.

Farkas & de Swart 2010)[67]. Many accounts have been put forth which, despite variation, are basically derived from Link's (1983) notion of *Algebraic closure.* Informally speaking, this notion boils down to the conjecture that the closure of a set *P* is the set that contains any sum of elements taken from *P*. Abe (2017:55) provides an explanation for (200) which runs down the lines of Link's proposal. The account goes as follows. Suppose that the set of women consists of the three elements: {Nancy, Mary, Susan}. As (201) shows, there are five ways the set can be divided, each of which instantiates a possible interpretation (⊕ stands for a non-atomic element, i.e., it represents the sum of the two atomic elements it combines).

(201) a. {n, m, s}
b. {n, m⊕s}
c. {m, n⊕s}
d. {s, n⊕m}
e. {n⊕m⊕s}

Among these five choices, (201)a is the case where each woman examined John separately (i.e., extreme distributivity), whereas (201)e is the case where all the women examined John together in one go (i.e., extreme collectivity), and the other divisions fall in-between. In other words, this perspective models collectivity and distributivity as the extremes of a spectrum, with points in between which are partially distributive and partially collective.

With the considerations delineated above at hand, I argue that that distributivity in (197)a, (198) and (199) operates on the event, not the object, i.e., a noun denoting a plurality allows for one collective event or for as many events as there are conceivable individuals or sums of individuals (i.e., sub-pluralities) within the set. Therefore, variation in the number of entities denoted by

---

[67] While these works all agree on the sense of distributivity in sentences with plural subjects, they diverge on whether atomic elements are still part of the set denoted by a plural. Three views have been advanced; the *exclusive view* which holds that a plural essentially means the sums of elements within the set to the exclusion of atoms; the *inclusive view* which holds that atomic elements are included as well in the meaning of a plural; and the *mixed view* which holds that a plural is ambiguous between the exclusive and inclusive sense (see Champollion, 2017 and the references therein).

the object is derived from variation in the number of events. Moreover, I would like to stress that, with this system in place, we get further readings that went unnoticed in Elsaadany and Shams (2012). These readings follow from the logical deduction that the plurality of events does not entail that the entity denoted by the object has to vary. For example, consider (198) again in a context where the number of students is ten. The distributive interpretation under which we have ten discrete events of reading does not necessarily mean that students have ten copies of a certain book, i.e., they might all have read the same copy but on different occasions after one another. By the same token, the collective interpretation does not rule out the possibility that the event of reading was one but every student had his own copy of the book. These various possibilities, which I argue are attested interpretations of the sentence, are summarized below under the assumed scenario.

(202) a. <u>Collective Interpretation</u>   i) ten students-<u>one</u> reading event-one book copy
                                        ii) ten students- <u>one</u> reading events- ten book copies

     b. <u>Distributive Interpretation</u>   i) ten students-<u>ten</u> reading events-one book copy
                                         ii) ten students- <u>ten</u> reading events- ten book copies

Although this kind of variation seems to be hard to encode in the semantic component and should probably be outsourced to pragmatics, Sauerland (2003) and Sauerland et al. (2005) argue that it is the result of the number feature on the predicate which reflects its agreement with the subject plurality, i.e., this departs from the received conviction that φ-features on predicates are uninterpretable (e.g., Chomsky, 2000, 2001 and all dependent analyses). For Sauerland and his colleagues, number valuation on predicates is interpretable at LF. Their view seems to be upheld by some data from SA. AlQahtani (2016:54) brings up examples of SVO clauses in which agreement is defective. To be precise, number agreement does not obtain. AlQahtani argues that the interpretation is collective in the absence of full agreement. Below are his examples.

(203) a.   Ɂar-ridʒaal-u   ta-dʒmaʕ-u   Ɂal-ħatˤab-a
         the-men-NOM   FEM-collect-SG   the-firewood-ACC
         'The men collect/are collecting the firewood.'

b. ʔar-ridʒaal-u   ja-dʒmaʕ-uun   ʔal-ħatˤab-a
   the-men-NOM   3-collect-PL.MASC   the-firewood-ACC
   'The men collect/are collecting the firewood.'

Although the preverbal DP in both sentences is plural, the former is only liable to a collective interpretation[68]. The second piece of evidence for the argument that *kull* in (197)a is not quantificational is that when the same constituent appears in the object position in the context of an indefinite subject, the distributive reading of the event is still available, but the subject does not vary. Unlike (204)b which allows for both scopal readings, (204)a does not have a reading under which the indefinite can vary in number, i.e., the only reading available here is one student who either read all the books in one go or at different times.

(204) a. qaraʔ-a   tˤaalib-un   kull-a   l-kutub-i
      read.PERF-3SG.MASC   student-NOM   all-ACC   the-books-GEN
      'A student read all the books.'

    b. qaraʔ-a   tˤaalib-un   kull-a   kitaab-in
      read.PERF-3SG.MASC   student-NOM   all-ACC   book-GEN
      'A student read every book.'   ∃>∀:∀>∃

Since the Q__NP constituent in (197) is argued to be non-quantificational, I argue that, as far as IS is related, it serves as an aboutness or a contrastive topic the same simple definite nouns do as elucidated in §4.3.1. Under the aboutness reading, the appropriate scenario would be a context in which there is a set of students which has formerly been introduced in the discourse and therefore is part of the SG. The role of rest of the sentence then is to assert that a certain property hold of the entire set. On the other hand, in the CT reading the verb or the object might be in focus so as to set a domain of contrast with some other topic that is part of CG. However, it is worth noting that under the latter reading the residual topic with which the overt topic *'all the students'* is contrasted cannot be part of the set itself, i.e., the CT is the whole DP and not just the determiner. To

---

[68] Many aspects come into play when collectivity and distributivity are at stake, among which is the structure of the event itself as denoted by the lexical meaning of the verb but I remain aloof to this labyrinth of issues for they are beyond the scope of the current work (for a thorough discussion, see Champollion 2017 and the references therein).

illustrate, Büring (2003:534) cites the following example from German and indicates that it is infelicitous with *'all politicians'* as a CT.

(205) #ALLE$_{CT}$ Politiker   SIND$_F$ korrupt.
      all   politicians   are   corrupt
      'All politicians are corrupt.'

The reasoning Büring lays out for the infelicity of (205) is that it is due to the CT-marking on the determiner *'all'* along with focus on the verb. Focus on the verb signals polarity focus, i.e., the set of focus alternatives induced for (205) is {all politicians are corrupt, all politicians are not corrupt}. The CT-alternatives in turn are questions of the form 'Are Q politicians corrupt?', where Q is some determiner drawn from the set {some, most, ….}. Now the source of infelicity is fleshed out. With *'all'* as the CT in the assertion, the set of questions in the CT-alternatives are all short-circuited, i.e., obliviously if all politicians are corrupt then by entailment most, some and any fraction of them is. There is no point in asking any other question from the CT-alternatives; they are all re-solved. *'All'* has no other Q to contrast with as it entails the rest. An intuitive conclusion then is, for (205) to be felicitous, the Q marked as a CT has to be one that has other Qs above it on the scale of quantificational strength, *'some'* for instance, in which case at least one question of the form 'Are Q politicians corrupt?' is still unsettled.

Unlike the German example, (197) does not induce questions of the form 'What Q students read or did?' because the entire DP is a CT, not just the determiner. Hence, the CT-alternatives include questions in the form of 'What [(Q) DP] read or did'? The CT can be a DP preceded by the same or a different determiner or can be a DP with no Q at all. Below is an example that shows this difference (cf. Elsaadany & Shams, 2012:25).

(206) kull-u   tˤ-tˤullaab-i   qaraʔ-uu   kitaab-an
      all-NOM   the-students-GEN   read.PERF-3PL.MASC   book-ACC
      wa   ʕalijj-un   qaraʔ-a   kitaab-an
      and   Ali-NOM   read.PERF-3SG.MASC   book-ACC

'All students read a book and Ali read a book.'

(206) is felicitous in a context where all the students read a book and Ali read a different book, i.e., the domain of contrast is the difference in titles of the books they read.

To sum up, this section has shown that, for the Q__NP pattern to appear in SVO with topical subjects, the NP has to be definite, in which case the determiner is not quantificational. Distributivity is put down to the plurality of the NP complement of the quantifier.

4.3.3.3 NP$_i$__[Q+clitic$_i$]

Now that the source of distributivity with the topical Q__NP identified, let us return to the sentences in (196), repeated below for easy reference, and explore their syntax and potential interpretation.

(207) a. ʔatˤ-tˤullaab-u   qaraʔ-uu   kull-u-hum   kitaab-an
           the-students-NOM   read.PERF-3PL.MASC   all-NOM-them   book-ACC
           'The students, all of them read a book.'

       b. ʔatˤ-tˤullaab-u   kull-u-hum   qaraʔ-uu   kitaab-an
           the-students-NOM   all-NOM-them   read.PERF-3PL.MASC   book-ACC
           'The students, all of them read a book.'

Unlike the strong pronouns discussed in §4.3.2 where the preverbal DP and the pronoun are argued to be externally merged as separate constituents in line with the structure in (176), a similar argument for the FQ in (207) has already been subject to oscillating disputes ever since Postal (1974) who first brought the phenomenon of Q-float to light. Different accounts have been developed to explain the derivation of sentences with FQs but they can be subsumed under two mainstreams. The first argues for an *adverbial or adjunct analysis* in which an FQ and its associate do not form a constituent at any stage of the derivation but rather the FQ is merged by adjunction as a VP modifier which can move to adjoin any higher projection in the clausal spine (e.g., Bordie, 1983; Dowty & Brodie, 1984; Baltin, 1995; Bobaljik, 1995; Torrego, 1996; Brisson, 1998). Below are examples adapted from Kim and Kim (2009).

174

(208) *Quantifier float as adverbial adjunction: VP modifier*

      a. The linguists may have [VP all left].

      b. The linguists may [VP all have left].

      c. The linguists [VP all may have left].

(209)

```
              VP
            /    \
          FQ      VP
                 /  \
                /____\
                . . . . .
```
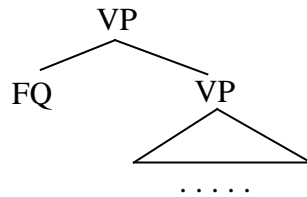
Evidence for this approach to FQs comes primarily from the various parallelisms they demonstrate with adverbs. The sites where adverbs placement is admissible are sites where FQs are admissible too. Moreover, they both cannot precede an elided VP as the examples below show (Sag, 1978; Kim & Kim, 2009).

(210) a. The workers (certainly/all) would (certainly/all) have (certainly/all) been (certainly/all) drinking some coffee.

      b. They (always/usually/all) have (always/usually/all) missed the teacher.

(211) a. Jay has studied physics, and his brothers (all/both/each/probably) have_____ , too.

      b. Jay has studied physics, and his brothers have *all/*both/*each/*probably _____, too.

This approach has undergone some criticism for its inability to account for the non-admissibility of FQs in object position and with passive and unaccusative predicates. Below are examples from Bošković (2004:682).

(212) a. *The students were arrested all.

      b. *The students arrived all.

      c. *Mary hates the students all.

The second approach to FQs argues for a *movement and stranding* analysis in which the assumption is that FQs and their associate nominals start out as a complex constituent which is then broken up into a discontinuous chain due to a leftward movement of the associate nominal

(e.g., Sportiche, 1988; Shlonsky, 1991; Benmamoun, 1999; Koopman & Sportiche, 1991; Merchant, 1996; Cinque 1999; McCloskey, 2000; Bošković, 2004). Below are French examples from Sportiche (1988:426).

(213) a. Tous les enfants ont vu ce film.
       all the children have seen this movie
       'All the children have seen this movie.'

     b. Les enfants ont tous vu ce film.
       the children have all seen this movie
       'The children have all seen this movie.'

The argument Sportiche makes is that *'the children'* in (213)b merges as complement to '*all'* in a fashion identical to (213)a, and then moves to the clause initial position stranding the quantifier in the sentence-medial position. This approach builds on the VP-internal subject hypothesis as it assumes the position of the stranded quantifier is the thematic subject position. However, it has been met with the same criticism as the adverbial analysis (see Bošković 2004 for a discussion and a modification of the stranding analysis by constraining it to non-theta positions).

There are a number of issues that make the extension of either account to (207) problematic although the second still fare better with the amendments Benmamoun (1999) introduces to it. For the adjunction analysis, unlike the case in (208)a where the example is from a typical SVO language in which the subject has to move to SpecTP, what would prevent an FQ from co-existing with a post-verbal subject in SA, therefore deriving the sentence in (214)a.

(214) a. *qaraʔ-uu kull-u-hum ʔatˤ-tˤullaab-u kitaab-an
       read.PERF-3PL.MASC all-NOM-them the-students-NOM book-ACC
       'The students all read a book.'

     b qaraʔ-a kull-u ʔatˤ-tˤullaab-i kitaab-an
       read.PERF-3SG.MASC all-NOM the-students-GEN book-ACC
       'The students all read a book.'

For the sentence to turn grammatical, the quantifier has to be bare, i.e., without the pronominal attached to it, and *'the students'* has to be genitive, not nominative as in (214)b. This raises serious

questions about the adjunction status of the FQ and what is the source of the illicitness of (214)a. Is the pronominal an agreement morphology that has to appear only when the associate nominal is high in the structure as in (207)? Moreover, even if we assume for the sake of argument that, in the absence of the pronominal in (214)b, the quantifier is an adjunct, several other issues arise. First, why should the subject be inflected for genitive if the quantifier is a *v*P adjunct? Second, what is the source of the nominative case on the quantifier? Third, *'the students'* is predicted to move leaving the quantifier without the latter having to bear an agreement clitic, a prediction that is not borne out as the ungrammaticality of the sentence below shows.

(215) *ʔatˤ-tˤullaab-i   qaraʔ-a   kull-u   kitaab-an
       the-students-GEN   read.PERF-3SG.MASC   all-NOM   book-ACC
       'Intended: The students all read a book.'

Given that these issues are so recalcitrant that I cannot conceive of any potential account for them, I conclude that an adjunction analysis of FQs in SA is untenable.

As for the movement and stranding account, it has already been argued to be the case in SA (Shlonsky, 1991; Benmamoun, 1999). For Shlonsky, the second pattern of quantifier construc- tions is derived from the first, and then FQs are derived from the second. The representations below illustrate his view.

(216) a. Q__NP= [$_{QP}$..Q.. [NP]]
       b. NP$_i$__[Q+clitic$_i$]= [$_{QP}$[NP] [$_{QP}$..Q$_{clitic}$.. [NP]]

Shlonsky argues that both patterns are headed by the quantifier with the NP merged as its comple- ment, the difference being that in the second the complement NP moves to SpecQP as in (216)b therefore inducing agreement on Q in conformity with the early minimalist view that agreement is established in spec-head configurations. The NP can then proceed to move out of QP to adjoin any projection in the main spine of the structure (e.g., SpecTP), stranding the quantifier in the merge- in position of the complex constituent.

Shlonsky's analysis has major shortcomings which Benmamoun (1999) discusses in detail. First, the NP in the first pattern has to be invariantly genitive; how does this case change when it moves to the edge of QP or out of the QP as shown in (207)? Second, this analysis misses the obvious generalization that in the second pattern, the quantifier always carries the same inflection as the NP. Consequently, Benmamoun argues, quite convincingly, that the two patterns are not related derivationally. He considers the first pattern as a typical case of a construct state structure, (217), out of which an NP cannot move. The quantifier patterns like the head noun in a construct state in that it inflects for case based in its position in the clause while the associate noun is invariably genitive as (218) shows.

(217) kitaab-u   ʔatˤ-tˤaalib-i
      book-NOM   the-student-GEN
      'The student's book'

(218) a.   kull-u   ʔatˤ-tˤullaab-i   dʒaaʔ-uu
            all-NOM   the-students-GEN   come.PERF-3PL.MASC
            'All the students came'

      b.   raʔaj-tu   kull-a   ʔatˤ-tˤullaab-i
            see.PERF-1SG   all-ACC   the-students-GEN
            'I saw all the students.'

      c.   maʕa   kull-i   ʔatˤ-tˤullaab-i
            with   all-GEN   the-students-GEN
            'With all the students'

As for the second pattern, Bemamoun argues that it is a case of an NP projection that has a QP adjunct as schematized in (219). Evidence for the adjunction of QP derives from the observation that it agrees with the NP in case and φ-features. (220) is an illustration.

(219) NP_i__[Q+$clitic_i$]= [$_{NP}$[NP]…[QP_{clitic}]]

178
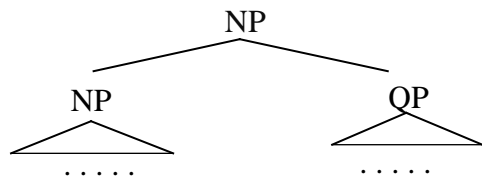
(220) a. ʔatˤ-tˤullaab-u   kull-u-hum   dʒaaʔ-uu
      the-students-NOM   all-NOM-them   come.PERF-3PL.MASC
      'All the students came'

    b. raʔaj-tu   ʔatˤ-tˤullaab-a   kull-a-hum
      see.PERF-1SG   the-students-ACC   all-ACC-them
      'I saw all the students.'

    c. maʕa   ʔatˤ-tˤullaab-i   kull-i-hum
      with   the-students-GEN   all-GEN-them
      'With all the students'

Although Benmamoun's version of the movement and stranding analysis circumvents a large portion of the drawbacks Shlonsky's has, the movement of NP out of the configuration in (219) is still problematic as there are cases where the presumably stranded quantifier appears inside an island, which makes a movement analysis groundless; the associate nominal could not have originated in the position of the FQ. (221) is an example Benmamoun (1999:628) himself provides from Moroccan Arabic, supplemented with (222) and (223) from SA.

(221) hadu   lə-wlad$_i$ lli   mš-at   [$_{island}$ qbəl   ma-y-ži-w
      these the-children that leave.PAST-3FS   before
      kull-u-hum$_j$]
      all-NOM-them
      'These are the children that she left before meeting them all.'

(222) ʔaz-zuwwaar-u   makaθ-uu   saaʕat-ajn   [$_{island}$ qabla   ʔan
      the-visitors-NOM   stay.PERF-3PL.MASC hour-DUAL.ACC   before   that/to
      ju-ɣaadir-uu   kull-u-hum]
      3-leave.IMPERF-PL.MASC   all-NOM-them
      'The visitors stayed for two hours before all of them left..'

(223) *Coordinate Structure Island*
      ʔatˤ-tˤullaab-u$_i$ ħadˤar-uu   [$_{island}$ kull-u-hum$_i$ wa
      the-students-NOM   attend.PERF-3PL.MASC   all-NOM-them   and
      ʔaabaaʔ-u-hum]   l-dʒtimaaʕ-a
      parents-NOM-their   the-meeting-ACC
      'As for the students, all of them and their parents attended the meeting.'

To assimilate this data within a movement analysis, it would be inevitable to assume that an FQ is derived by movement only when there is no island boundary between the two positions, and by

base-generation of the NP in the higher position when there is a phase boundary. This is indeed the route Benmamoun takes by his postulation of a last resort null pro in the NP projection which is bound by an NP higher up in the structure. This undermines the explanatory power of the account. Besides, an overt NP is not required even in cases where there is no phase boundaries. (224) is perfectly grammatical in a context that is rich enough for the reference of the pronoun '*hum*' 'them' to be unambiguously resolved.

(224) qaraʔ-uu   kull-u-hum   kitaab-an
      read.PERF-3PL.MASC   all-NOM-them   book-ACC
      'All of them read a book.'

Moreover, any movement analysis for SA FQs falls short of accounting for why FQs are not possible when the NP is an indefinite plural.

(225) *tˤullaab-un   qaraʔ-u   kull-u-hum   kitaab-an
      students-NOM   read.PERF-3SG.PL   all-NOM-them   book-ACC
      'Intended: it was students who all read a book.'

To address these issues I propose an alternative for the movement analysis in which I maintain from Benmamoun (1999) the argument that the two patterns of quantifier structures are not related derivationally. More importantly, I depart from his account by arguing that no movement can take place from the structure he assumes for the second pattern given in (219). I assume that the associate nominal in the second pattern could be a null pro or an overt DP, and neither can move out of the constituent. However, when it is a null pro, it can be bound by a definite topical subject externally merged in SpecCP. This set of assumptions is delineated in the schematizations below.

(226) a. NP_i__[Q+clitic$_i$]= [DP[$_{DP}$ *pro*]…[QP$_{clitic}$]]
     b. NP_i__[Q+clitic$_i$]= [DP [DP]…[QP$_{clitic}$]]

With this proposal at our disposal, let us now reconsider (207), repeated below.

(227) a.   ʔatˤ-tˤullaab-u   qaraʔ-uu   kull-u-hum   kitaab-an

the-students-NOM   read.PERF-3PL.MASC   all-NOM-them   book-ACC
'The students, all of them read a book.'

b. ʔatˤ-tˤullaab-u   kull-u-hum   qaraʔ-uu   kitaab-an
the-students-NOM   all-NOM-them   read.PERF-3PL.MASC   book-ACC
'The students, all of them read a book.'
'It was all the students who read a book.'

I argue that (227)a is derived from the structure in (226)a, i.e., *'kull-u-hum'* merges as a separate constituent in Spec*v*P and it has a *null pro* that is bound by *'the students'* which externally merges in SpecCP as a topic. This is illustrated in (228). As for (227)b, two possible derivational paths are envisaged. First, *'ʔatˤ-tˤullab-u kull-u-hum'* might merge as one constituent in Spec*v*P based on (226)b, and then move to SpecTP for focus as one unit as shown in (229)a. Second, it might follow the same derivational path as (227)a, the difference being that *'kull-u-hum'* proceeds to SpecTP for focus as shown in(229)b. This account follows from the structure in (176) and it avoids the island violations posed by the sentences in (221) and (222) as well as the questions raised by the sentences in (214). In addition, (229)b accounts for why only definite DPs co-occur with FQs; they are topics base-generated in the left periphery and therefore have to be definite.

(228)   [CP [the students]i [TP read [vP [[*pro*i]+all of them]…[VP]]]]

(229)   a.   [CP [TP[[the students]+all of them]] [TP read [vP [[the students]+all of them]…[VP]]]]

        b.   [CP [the students]i [TP[[*pro*i]+all of them] [TP read [vP [[*pro*i]+all of them]…[VP]]]]

In brief, what these syntactic derivations reveal is that the phenomenon of quantifier float is a misnomer since none of the derivational paths schematized in (229) assumes that *'the students'* moves from a projection that combines it with *'kull-u-hum'*. The question that remains is, given these derivational paths, what interpretations these sentences could have. I propose that (228) and (229)b are cases of Split Topics in the sense spelled out in §4.3.2. This analysis captures intricate property of FQs, namely that they only appear in the context of definite DPs with which they are

co-indexed. These definite DPs are topics that are placed in focus by virtue of the FQ. On the other

hand, (229)a is a typical case of subject focus derived from a VSO clause.

Summarizing, I have shown in this section how quantifiers interact with IS in SVO. The

discussion concentrates on quantifiers appearing in the topical position in SpecCP or originating

in the thematic position in Spec*v*P and moving to SpecTP as focus. The next section turns attention

to the rest of constituents that can show up in the left periphery of an SVO clause.

4.3.4 Focus, Wh-question and Left Dislocation

As noted earlier, focus-fronting and wh-questions target SpecTP, in which case they appear below

the pre-verbal subject in SpecCP. Examples are given below[69].

(230)	a.	zajd-un	qaraʔ-a		l-kitaab-a	
		Zayd-NOM	read.PERF-3SG.MASC		the-book-ACC	
		'Zayd read a book.'				
	b.	zajd-un	l-kitaab-a		qaraʔ-a	SOV
		Zayd-NOM	the-book-ACC		read.PERF-3SG.MASC	
		'As for Zayed, [a book]_F he read.'				
	c.	zajd-un	maaðaa		qaraʔ-a	SOV
		Zayd-NOM	what		read.PERF-3SG.MASC	
		'As for Zayed, what did he read?'				

Cross-linguistically, the left peripheral focus position is usually associated with contrastive focus

(e.g., Rizzi, 1997; Belletti, 2004; Neeleman et al., 2009), and the same is argued to obtain in SA

(e.g., Moutaouakil, 1989; Ouhalla, 1997; Shlonsky, 2000). Contrastive focus indicates the rele-

vance of at least one other alternative in the set {Zayd read x | x∈E}, and that this alternative is

not true. Nevertheless, this is not the only way contrast can be expressed; it can also be marked

with the object DP in *situ* through prosody or an overt negative continuation as in (231).

---

[69] I should point out here that in (230)b, and the similar cases where a predicate-internal argument moves to the left periphery, I assume that movement proceeds successive-cyclically through the edge of *v*P and then to SpecTP, in conformity with *Phase Impenetrability Condition* (Chomsky, 2000:108). This condition states that if α is a phase with the head H, the domain of H is inaccessible to operations outside α; only H and its edge are accessible to such operations.

(231) zajd-un   qaraʔ-a   l-kitaab-a   laa   l-qisˤsˤat-a
       Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC   not   the-story-ACC
       'Zayd read [the book]$_F$, not [the story]$_F$.'

Alongside preverbal DPs, an SVO can have a LD-phrase. As argued before, left dislocation

yields topics which occupy the same position as preverbal topical subjects, i.e., SpecCP. (232)

showcases this structure.

(232) a. ʔal-walad-u   katab-a   r-risaalat-a
          the-boy-NOM   write.PERF-3SG.MASC   the-letter-ACC
          'The boy wrote the letter.'

     b. ʔar-risaalat-u   l-walad-u   katab-a-***haa***   OSV
         the-letter-NOM   the-boy-NOM   write.PERF-3SG.MASC-**it**
         Lit: 'The letter, the boy, he wrote it.'
         'As for the letter and the boy, he wrote it.'

     c. ʔal-walad-u   r-risaalat-u   katab-a-***haa***   SOV
         the-boy-NOM   the-letter-NOM   write.PERF-3SG.MASC-**it**
         Lit:'The boy, the letter, he wrote it.'
         'As for the boy and the letter, he wrote it.'

In (232)b-c, '*the boy*' and '*the letter*' are part of the common ground. Therefore, I argue that the

contribution of such double-topic constructions is to put the verb in focus. So, the set of alternatives

induced by both can be formalized as in (233).

(233)   {R (the letter, the boy) | R∈ D$_{<e,et>}$}

The alternatives to '*write*' is a set of relations of type <e,<e,t>> that are salient in the context of

the utterance. Evidence comes from negative continuations which can pick out only the predicate.

The fact that, in SA, LD-phrases must co-occur with resumptive pronouns that they bind

anaphorically leads to the conclusion that referential DPs are the only category that is susceptible

to left dislocation. DPs are usually part of the argument structure of the predicate, and therefore

the dislocation of all, or some, of the arguments of the predicate is supposed to set the predicate

and non-dislocated arguments in focus. Focus, in contrast, can target any constituent since it is not

associated with resumption (Aoun et al., 2010). Besides DPs, CPs, PPs and adverbs can be focus-fronted (see Ouhalla, 1997).

To sum up, I have shown in this section that the left edge of SVO structures can host focus-fronted as well as left dislocated constituents. Focus-fronted elements divide the comment into presupposed and non-presupposed information. The occurrence of dislocated phrases, along with a pre-verbal subject, leads to a reading in which the predicate is in focus. In the next section, I turn to VSO.
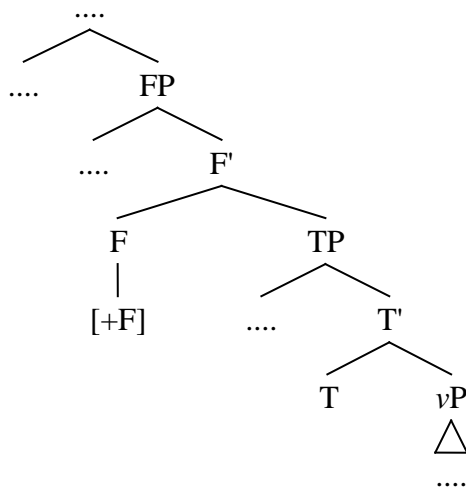
4.4 The Left Periphery in VSO

VSO is assumed to be the "discourse neutral" word order, as indicated in §2.2. Its neutral status can be altered either through focal stress or focus fronting. Let us first consider the contro-versies of subject fronting (it has already been touched upon in the discussion of example (227)b under the derivation in(229)a).

(234) a. ʔallafa-t   zajnab-u   riwaajat-an
       write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC
       'Zaynab wrote a novel.'

     b. zajnab-u   ʔallafa-t   riwaajat-an
       Zaynab-NOM   write.PERF-3SG.FEM   novel-ACC
       'It is Zaynab who wrote a novel.'

Although Ouhalla (1997) argues that (234) involves focus-fronting of the subject, he remains in-explicit as to how the derivation proceeds. He does not assume the distinction in derivation pro-posed here between SVO and VSO orders. For him, the subject of an SVO is in SpecTP, and the subject of a VSO is presumably in Spec*v*P. The structure he postulates for focus-fronting is sche-matized in (235).

(235)

```
              ....
           /      \
        ....       FP
                 /    \
              ....     F'
                     /    \
                   F       TP
                   |      /    \
                 [+F]  ....     T'
                              /    \
                            T       vP
                                    △
                                    ....
```

So, for Ouhalla (1997), the tacit assumption is that (234)b can be derived from (234)a or its SVO counterpart. Nevertheless, this view overlooks the observation that '*Zaynab*' is compatible with a focused element in a lower position, but not in a higher position, as indicated earlier and shown in (236).

(236) a. zajnab-u   riwaajat-an   ʔallafa-t
          Zaynab-NOM   novel-ACC   write.PERF-3SG.FEM
          'As for Zaynab, she wrote [a novel]F.'

   b.* riwaajat-an   zajnab-u   ʔallafa-t
          novel-ACC   Zaynab-NOM   write.PERF-3SG.FEM
          'Zaynab wrote [a novel]F.'

To maintain the view that (234)b can be derived from SVO as well, one might argue that the preverbal subject DP, which is in SpecTP for Ouhalla, topicalizes first, i.e., moves to SpecCP, and then the object DP is forwarded to FP in (235) for focus. This seems as a sound amendment, but it would still need to consider the fact that preverbal subject DPs share all the features left dislocated elements have, and the latter are base-generated in their surface position. Economically speaking, this account also involves more steps, as it entails topicalization and focus-fronting both by movement. What is more, the former looks as though it takes place for the sole purpose of making way for the latter. So, I argue that (234)b can only be derived via movement from (234)a, whereas

(236)a is derived from its SVO counterpart with the preverbal subject DP externally merged in SpecCP. When derived from SVO, it can only be through stress in SpecCP or by the overt realization of the null *pro* as discussed in §4.3.2.

This argument that the subject focus via movement can only be derived from a VSO is corroborated by (195)b, repeated below. An analysis along the lines of Ouhalla (1997) would fail to explain why this sentence is incompatible with preposing the object for focus. As it turns out, the subject in (237) is incompatible with object preposing, regardless of whether it lands below the subject or above it as show in (Mohammad, 2000:76).

(237) kull-u   tˤaalib-in   qaraʔ-a   kitaab-an
       all-NOM   student-GEN   read.PERF-3SG.MASC   book-ACC
       'Every student read a book.'

(238) a.   *kitaab-an   kull-u   tˤaalib-in   qaraʔ-a
            book-ACC   all-NOM   student-GEN   read.PERF-3SG.MASC
            'Intended: It is a book that every student read a book.'

       b.   *kull-u   tˤaalib-in   kitaab-an   qaraʔ-a
            all-NOM   student-GEN   book-ACC   read.PERF-3SG.MASC
            'Intended: It is a book that every student read a book.'

Under my proposal that subject focus is possible only from VSO and given that the subject in (237) is quantificational, it can only have arrived to its clause-initial position through focus movement from Spec*v*P to SpecTP. On this view, the ungrammaticality of the sentences in (238) is quite predicted; SpecTP, the focus position, is already filled by the subject, and, given the restriction that only one constituent can be focus-fronted, the object cannot be focus-fronted.

With the focus-fronting of the subject addressed, let us turn to cases where the other constituents in VSO are preposed as in (239).

(239) a.   ʔallafa-t   zajnab-u   [riwaajat-an]F
            write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC
            'Zaynab wrote [a novel]F.'

       b.   riwaajat-an   ʔallafa-t   zajnab-u   OVS
            novel-ACC   write.PERF-3SG.FEM   Zaynab-NOM

186

'It is a novel that Zaynab wrote.'

    c.   Ɂallafa-t_F   zajnab-u   riwaajat-an

        write.PERF-3SG.FEM   Zaynab-NOM   novel-ACC

        'Zaynab [wrote]_F a novel.'

The object, when focused in *situ* as in (239)a, is ambiguous between a new information and contrastive focus. This ambiguity can be resolved through the presence of a contextually salient alternative to '*a novel*' with which the proposition comes out untrue, or via an overt negative continuation. However, in (239)b, as indicated the standard view is that the only available reading is contrastive focus. In (239)c, Ouhalla (1997) points out that the entire TP moves to SpecFP in (235). His account is built on the observation that in negative continuations as in (240), the subject and object are also part of the continuation and therefore might as well be in focus.

(240) Ɂallafa-t   zajnab-u   l-qasˤiidat-a   laa   Ɂalqa-t-haa

       write.PERF-3SG.FEM   Zaynab-NOM   the-poem-ACC   not   read.PERF-3SG.FEM-it

       'Zaynab [wrote]_F the poem, not [read it]_F'

Ouhalla (1997:28) formulates his account as follows: "as shown in the continuation, focus picks out not just the verb, but also the direct object, in the form of a clitic-pronoun, and possibly also the subject, in the form of the subject agreement marker. This means that the constituent being focused in such sentences is the whole IP (the proposition)". I argue against this analysis for the reason that what is in focus is just the verb, and this is evident through the continuation itself. The alternative provided is for the predicate, whereas the subject and the object remain presupposed by virtue of the agreement marker and the clitic; the subject is still '*Zaynab*' and the object is still '*the poem*'. Therefore, it is a case of predicate focus. Furthermore, on the current proposal, the verb does not need to move; it is focused in T. The PGU is established via head movement.

      The CP edge of VSO can also host LD-phrases. This can be accompanied by a focused phrase somewhere in the clause. (241) are illustrative examples.

(241) a.   Ɂar-riwaajat-u   Ɂallafa-t-haa   zajnab-u   OVS

the-novel-NOM	write.PERF-3SG.FEM-it	Zaynab-NOM

'As for the novel, Zaynab wrote it.'

b. ʔar-riwaajat$_j$-u   zajnab-u   ʔallafa-t-haa$_j$ OSV

the-novel-NOM   Zaynab-NOM   write.PERF-3SG.FEM-it

'As for the novel, it was Zaynab who wrote it.'

'As for the novel and Zaynab, she wrote it.'

(241)a is equivalent to normal SVO structures, which convey the standard meaning of a topic and comment. The comment represents new information which can be dealt with as an answer to an informational question of the form '*What about the novel?'*. In other words, with the assumption that focus on a particular constituent can be viewed as an answer to an informational question that inquires about the relevant constituent, the comment may as well be viewed as a focused constituent. (241)b, on the other hand, is ambiguous between an SVO with the object left-dislocated, and a VSO in which the object is left-dislocated and the subject is focus-fronted. Therefore, I guess this ambiguity can only be resolved by prosodic prominence on the fronted subject. The reading that it has then is that the comment is partitioned into presupposed information, which is the predicate '*wrote it'* and a focused element, the subject *'Zaynab'*.

In summary, I have shown in this section that subjects can only be focus-fronted in VSOs. In SVOs, they are already higher than the position for focus. In addition, like SVO, the left edge of VSO can host LD-phrases. In the next section, I move on to the discussion of wh-questions and fragment answers and unravel its relation to discourse organization.

4.5 Constituent Questions and Fragment Answers

4.5.1 Introduction

SA is primarily a wh-movement language. Aoun et al. (2010) point out that SA employs the gap as well as the resumptive strategy in question formation; a wh-word could relate to a gap or a resumptive pronoun in some clause-internal position. With resumption, there is a possibility that clause-initial wh-words do not arrive there via movement but instead are externally merged there

(Soltan, 2007:53). Arabic dialects, on the other hand, differ in that they allow wh-in-situ questions as well as wh-movement questions. In addition, the resumptive strategy is more productive in dialects (e.g., Aoun et al., 2010; Soltan, 2007).

The focus of this section is not on wh-questions at large but is rather confined to the modes of answers in question-answer exchanges, in which answers show interesting variations in word order, an observation that pertains to the scheme of this work. In a question-answer exchange, an answer can take the form of: i) a full sentence with the constituent providing the required information occurring in the clause-internal argument position left as a gap as in (242)b; ii) a full sentence that have the same syntax as the question, i.e., the constituent providing the required information appears in the position the wh-word assume in the question as in (242)c; or iii) fragment answers confined to the required constituent as in (242)d.

(242) a. maaðaa   qaraʔ-a   zajd-un
           what   read.PERF-3SG.MASC   Zayd-NOM
           'What did Zayd read?'

       b. qaraʔ-a   zajd-un   l-kitaab-a
           read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
           'Zayd read [the book].'

       c. ʔal-kitaab-a   qaraʔ-a   zajd-un
           the-book-ACC   read.PERF-3SG.MASC   Zayd-NOM
           '[The book] Zayd read.'

       d. ʔal-kitaab-a
           the-book-ACC
           'The book.'

Of particular interest are (242)c and (242)d which give rise to intriguing questions. First, the derivation of fragment answers such as (242)d has been subject to a long drawn-out controversy which branches off to two major approaches: under the first, a short answer is covertly clausal but the clause, to the exclusion of the answer, is elided (Merchant, 2005) and under the second it is a bare constituent (Groenendijk & Stokhof, 1982, 1984; Stainton 1998, 2005, 2006; Ginzburg & Sag,

2000; Jacobson 2016). The clausal approach in turn diverges on whether clausal ellipsis involves movement of the answer to the left periphery followed by TP ellipsis or whether it is a case of in-situ ellipsis, i.e., the answer remains in its clause-internal position and the materials around it, which sometimes do not form a constituent, undergo a PF deletion or suppression of vocabulary insertion (in late vocabulary insertion approaches such as *distributed morphology*) (Weir, 2014, 2018; Griffiths, 2019; Shen, 2019). Given this debate, how is (242)d derived? Second, given that the left periphery focus position is contrastive in SA and across languages (e.g., Rizzi, 1997; Neeleman et al., 2009; Ouhalla, 1997; Shlonsky, 2000; see also §s 4.3 and 4.4), does the answer in (242)c evoke contrast? These are the questions I am after in this section. In the course of developing answers, I provide a concise review of the approaches to fragments, with specific concentration on arguments for their covert clausality since fragments in SA show, like many other languages, what Merchant (2005:676) calls "connectivity effects".

4.5.2 Approaches to Fragment Answers

4.5.2.1 Bare Nominals (constituents)

This approach to fragments is upheld in a number of works (e.g., Groenendijk & Stokhof, 1982, 1984; Ginzburg & Sag 2000; Jacobson 2016). The argument is that the answer in (242)d is syntactically non-clausal. For interpretation, the bare nominal interpretation composes with the question, which is conceived of as a lambda abstract in which the answer can be plugged to derive the proposition; the question above derives the function '$\lambda x.$ *Zayd read x'*. Jacobson (2016:331) argues that this comes about through regarding the question and the answer as one unit, which she calls a Qu-Ans unit. However, an analysis along the lines of this approach would miss out some connectivity effects in fragment answers. The first is case matching. The fragment answer in (242)d bears the accusative case inflection, which is the case usually received when the answer originates in the
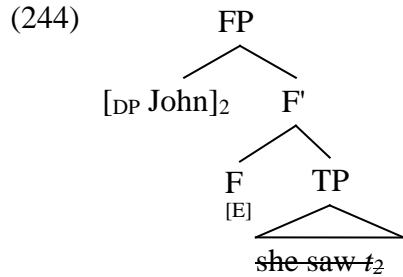
190

canonical object position in a clausal structure. The second connectivity effect pertains to binding. An object fragment answer can contain a pronoun that is bound by the subject. Below is an example.

(243) a. maaðaa   qaraʔ-a   [kull-u   tˤaalib-in]ᵢ
           what   read.PERF-3SG.MASC   all-NOM   student-GEN
           'What did every student read?'

       b. kitaab-a-***hu***ₖ/ⱼ
           book-ACC-his
           'His book.'

The pronoun in (243)b is liable to a reading where it is bound by the quantifier. The same effect holds for condition A. In a question like *'who did Zayd kill?'*, *'himself'* as a fragment answer is perfectly acceptable in SA. Although Jacobson (2016) proposes ways to get around these connectivity effects, they require compositionality across what are usually considered as distinct discourse units, namely questions and answers. So, since these effects show plausible parallelisms between fragment and sentential answers, I conclude that this approach to fragment answers is less preferable.

4.5.2.2 Clausal Approaches

These approaches differ in the mechanism they argue is responsible for ellipsis but agree that fragments are covertly sentential. One approach is proposed by Merchant (2005). His argument consists in the assumption that fragment answers are derived by Ā-movement of the fragment to a left-peripheral position, followed by TP deletion at PF. Below is an illustrative schematization of a fragment answer to the question *'who did she see?'* (Merchant, 2005:675).

(244)

```
              FP
            /    \
  [DP John]₂      F'
                /    \
               F      TP
              [E]    /  \
                  she saw t₂
```

Merchant utilizes two tests to support that fragments involve movement: case-matching and prep-

osition stranding. Case matching builds on the cross-linguistic observation from languages with

case morphology that a fragment takes the same case as its counterpart in a clausal answer as

shown in (245) and (246) from Greek and German (Merchant, 2005:676f).

(245) Q: Pjos   idhe   tin   Maria?   Greek
            Who.**NOM**   saw   the   Maria
            Who saw Maria?
     a.   A: O   Giannis.
                the   Giannis.**NOM**
     b.   A: *Ton   Gianni.
                the   Giannis.ACC

(246) Q: Wem   folgt   Hans?   German
            Who.**DAT**   follows Hans
            Who is Hands following?
     a.   A: Dem   Lehrer.
               The.**DAT**   teacher
     b.   A: *Den   Lehrer.
               The.ACC   teacher

Preposition stranding, on the other hand, stems from the observation that languages that strand

prepositions in movement allow fragments to appear with no prepositions, whereas languages that

do not strand prepositions require fragments to be preceded by a preposition as shown in (247) and

(248), receptively (Merchant, 2005:685ff).

(247) a.   Who was Peter talking with?
     b.   Mary.
(248) a.   Mit wem hat   Anna   gesprochen?   German
          with whom has   Anna   spoken?
     b.   Mit dem Hans.
     a.   * Dem   Hans.

with the Hans

The second approach that endorses an ellipsis analysis of fragment answers is the in-situ approach (e.g., Bruening, 2015; Abe, 2016; Ott & Struckmeier, 2016; Griffiths, 2019). The argument here is so simple. A fragment answer is derived from its sentential counterpart without movement but rather through PF deletion of materials around the fragment. Below is an illustration of how this approach is argued to work.

(249) a. What did John eat?
b. He ate apples.
~~He ate~~ apples.   at PF

Evidence for this approach to ellipsis comes primarily from two sources: i) from the observation that fragment answers do not show some Ā-properties and ii) from cases where fragments are not constituents that usually undergo Ā-movement alone. Below are examples (Griffiths, 2019:26).

(250) a   John refuse to teach every student.   (*refuse* >∀, ∀> *refuse*)
b.   ….and [teach every student]₁ ~~John refused to t₁.~~   (*refuse* >∀, *∀> *refuse*)

(251) A: What did John refuse to do?
B: [teach every student]₁ ~~John refused to t₁.~~   (*refuse* >∀, ∀> *refuse*)

(252) A: Should he REVOLVE or TILT the gyroscope?
B: REVOLVE, of course.

Predicate preposing usually bleeds inverse scope as in (250)b. If fragment answers are derived by movement and deletion, the prediction is that it would bleed inverse scope too, but this prediction is not borne out since both readings are still available in (251)b. On the other hand, in (252)b the fragment is a transitive verb that could not have moved alone.

To sum up, the subsection has reviewed two approaches to fragment answers, namely the bare constituents approach and the ellipsis approach, with the latter involving two mechanisms for implementation. I have already rejected the bare constituent approach on the grounds that

fragments in SA show connectivity effects with regard to case and binding properties. Therefore, I confine the discussion in what follows to an evaluation of the mechanisms of the ellipsis approach.

4.5.3 Fragment Answers in SA: Analysis

To gain a thorough insight into fragment answers in SA, let us enrich our database with questions that inquire about the subject and the predicate. Below are variations of (242), along with their possible answers.

(253) *Subject-oriented questions*

    a.   man   qaraʔ-a   l-kitaab-a
            who   read.PERF-3SG.MASC   the-book-ACC
            'Who read the book?'

    b.   ?qaraʔ-a   zajd-un   l-kitaab-a
            read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
            'Zayd read the book.'

    c.   qaraʔ-a   l-kitaab-a   zajd-un
            read.PERF-3SG.MASC   the-book-ACC   Zayd-NOM
            'Zayd read the book.'

    d.   zajd-un   qaraʔ-a   l-kitaab-a
            Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC
            'It is Zayd who read the book.'

    e.   zajd-un
            Zayd-NOM
            'Zayd.'

(254) *Predicate-oriented questions*

    a.   maaðaa   faʕal-a   zajd-un
            what   do.PERF-3SG.MASC   Zayd-NOM
            'What did Zayd do?'

    b. #/?qaraʔ-a   zajd-un   l-kitaab-a
            read.PERF-3SG.MASC   Zayd-NOM   the-book-ACC
            'Zayd read the book.'

    c.   qaraʔ-a   l-kitaab-a   zajd-un
             read.PERF-3SG.MASC   the-book-ACC   Zayd-NOM
            'Zayd read the book.'

    d.   zajd-un   qaraʔ-a   l-kitaab-a
            Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC

'It is Zayd who read the book.'

e.   qaraʔ-a   ʔal-kitaab-a
     read.PERF-3SG.MASC   the-book-ACC
     'He read the book.'

(253) and (254) reveal an interesting observation about the first option for answers; with the assumption that the canonical subject position is SpecvP, the questionable felicity of (253)b casts serious doubts on the formulation of the first option in §4.5.1. In particular, it calls into question the felicity of an answer if the constituent appears in the canonical argument position. (253)c and (253)d is a probable indication is that the constituent in question may appear in the clause-final position or the clause-initial position. It just so happened that the clause-final position in (242) corresponds to the canonical position of the answer since the question targets the object. By the same token, (254) tells the same story. The V+Object answer complex cannot be separated with each appearing in its usual position in a neutral VSO clause. They either have to precede the subject as in (254)c in what seems to be a VP displacement, or they have to appear as sentence-final as in (254)d.

What transpires from the data above is that right formulation of answer modes in SA is that an answer can appear clause-initially, clause-finally or as a fragment. This supports the view that the clause-final position in SA is a focus position. It is the position that most likely bears the focus of the sentence[70].

Insofar as what ellipsis approach is compatible with fragment answers, the data in (242), (253) and (254) allow for both options. The movement and deletion approach can derive fragment answers from clausal counterparts in which they appear clause initially, while the in-situ approach can derive them from clausal answer in which they appear clause-finally although the latter require

---

[70] Some form of this argument has already been established in §3.3.3 where I argued that OS usually sets the subject, which becomes clause-final, in focus.

some movements of the elided items before ellipsis takes place. This is manifested in (253)c where the object vacates its canonical position, setting the subject in clause-final position. To break this symmetry, I bring into the mix data on wh-questions derived from SVO clauses. Recall that wh-movement in SVO are shown to illicit when they land above the preverbal subject (a point that is well-elaborated in chapter (2)). Let us consider possible answers in the context of the SVO counterpart of (242)a given below.

(255) a. zajd-un   maaðaa   qaraʔ-a
           Zayd-NOM   what   read.PERF-3SG.MASC
           'As for Zayd, what did he read?'

       b. zajd-un   qaraʔ-a   l-kitaab-a
           Zayd-NOM   read.PERF-3SG.MASC   the-book-ACC
           'As for Zayd, he read the book.'

       c. ?zajd-un   l-kitaab-a   qaraʔ-a
           Zayd-NOM   the-book-ACC   read.PERF-3SG.MASC
           'As for Zayd, it is the book that he read.'

       d. #/??al-kitaab-a   qaraʔ-a   zajd-un
           the-book-ACC   read.PERF-3SG.MASC   Zayd-NOM
           'It is the book that Zayd read.'

       e. ʔal-kitaab-a
           the-book-ACC
           'The book.'

(255) shows that a clausal answer is only possible when the constituent appears clause-finally. (255)c and (255)d are infelicitous. The source of infelicity in the former seems to be that, although this position is the focus position in SVO clauses, it does not function as an appropriate answer in a question-answer exchange. The infelicity of the latter, on the other hand, seems to stem from the fact the it obscures the topicality of *'Zayd'* in the question, i.e., although *'Zayd'* is marked as given in (255)d by virtue of being part of the presuppositional frame of the answer, which is *'Zayd read x'*, its topical status is not maintained. Combining the sentences in (255) with the set of data in (242), (253) and (254) points towards an in-situ approach which derives fragment answers from their clausal counterparts that show focus appearing in final position. However, this data adds to

196

the debate of clausal origins of fragments in that it shows that the in-situ approach also involves movement. As alluded to above, (253)c is an illustrative example as basis for the fragment answer in (253)d. The question picks out the subject, but the object has to move out of vP, placing the subject which remains in Spec$v$P, the thematic subject position, in focus. The forwarded object and the verb, which do not form a syntactic constituent, then undergo deletion or PF suppression, thus deriving the fragment in (253)d. The obvious difference is that what moves is part of the materials that get deleted.

Given that the connectivity effects given above on case and binding relations with regard to condition A and B are compatible with both implementations of the ellipsis analysis (movement vs. in-situ deletion), we need evidence for the flavor of the in-situ approach suggested here which goes beyond the data in (255). Recall that, as we have illustrated in §2.5, focus preposing bleeds condition C. Below is an example repeated from that section.

(256) a. qaabal-a   kull-u   tˤullaab-i-[hi]$_{k/*j}$ [zajd-an]$_j$
            meet.PREF-3SG.MASC   all-NOM   students-GEN-his   Zayd-ACC
            'All his$_{k/*j}$ students met Zayd$_j$.'

       b. [zajd-an]$_j$ qaabal-a   kull-u   tˤullaab-i-[hi]$_{k/j}$
            Zayd-ACC   meet.PREF-3SG.MASC   all-NOM   students-GEN-his
            'It is Zayd$_j$ whom all his$_{k/*j}$ students met.'

Accordingly, a question targeting the object in (256)a is predicted to allow for a reading where *'Zayd'* binds the pronoun in the subject if the fragment is derived by movement to left periphery, but this prediction is not borne out. The fragment answer in (257)b below can only be felicitous if the pronoun in the question remains with a reference other than *'Zayd'*.

(257) a. man   qaabal-a   kull-u   tˤullaab-i-[hi]$_{k/*j}$
            who   meet.PREF-3SG.MASC   all-NOM   students-GEN-his
            'Who did his students met?'
       b. [zajd-an]$_j$
            Zayd-ACC

197

I take this observation as an adequate evidence that fragment answers are not derived via the approach proposed above, and not by a left-peripheral movement the fragment followed by deletion by TP deletion.

As for fragment answers to predicate-oriented questions such as (254), the argument is that (254)e is derived from (254)d. Evidence for this extension comes from agreement facts. Let us consider (258).

(258) a.   maaðaa   faʕal-a   ʔatˤ-tˤullaab-u
           what   do.PERF-3SG.MASC   the-students-NOM
           'What did the students do?'

       b.   *qaraʔ-a   l-kitaab-a
           read.PERF-3SG.MASC   the-book-ACC
           'Intended: they read the book.'

       c.   qaraʔ-uu   ʔal-kitaab-a
           read.PERF-3PL.MASC   the-book-ACC
           'They read the book.'

As can be seen, the fragment answer can only be felicitous if agreement is full as (258)c shows, which only holds in the case of SVO structures. That is, it could not have been derived from (259).

(259) qaraʔ-a   l-kitaab-a   ʔatˤ-tˤullaab-u
      read.PERF-3SG.MASC   the-book-ACC   the-students-NOM
      'The students read the book.'

However, in (254) and (258), the topical subject which engenders full agreement does not necessarily arrive to its clause-initial position by movement and then undergoes deletion, it is most likely base-generated in the left periphery due to its being given in the question in (258)a.

4.5.4 Fronted Answers

As is shown in (242), a clausal answer with a preposed constituent can felicitously serve as answer. The question such answers raise however is whether or not they give rise to a contrastive focus reading since preposed constituents are usually associated with this kind of reading. As it turns out, this type of answer is only felicitous just in case the discourse participant has a reason

to suspect that the one who asks the question might have a wrong idea as to what the answer is, i.e., the contextual conditions for such answers are restrictive.

This alternation in answers to constituent questions is not an idiosyncrasy of SA but rather has been reported in several languages, including Italian (Belletti 2001), Spanish (Zubizarreta 1998), Gungbe (Aboh 2007a, 2007b), among others. Below are examples from Italian (Kratzer & Selkirk, 2019:23).

(260) a. chi   ha   scritto   questo   articolo?
         who   has   written   this   article
         'Who wrote this article?'

      b. l'ha   scritto   Gennaro.
         it has   written   Gennaro
         'Gennaro wrote it.'

      c. Gennaro   l'ha   scritto.
         Gennaro   it has   written
         'Gennaro wrote it.'

Similar to the SA data reviewed above, while both (260)b and(260)c are appropriate answers, the latter does not only express new information but also implies a contrast. It evokes the sense that '*Gennaro*' is not the only possible author who might have written this article but rather the one picked out from several alternatives which other discourse participants might have thought were the authors of the article.

4.6 Concluding Remarks

This chapter has been devoted to an investigation of the left periphery. I have presented a detailed analysis of this structural zone in SVO and VSO clauses, respectively. I have shown that a pre-verbal subject can be a topic base-generated in the SpecCP, or a focus derived by movement from Spec*v*P to SpecTP. In the course of teasing apart the IS effects associated with the various order permutations that result from movement to this area, I have proposed a non-movement analysis of floating quantifiers in SA in which they are base-generated in their clause-internal position and are

co-indexed with a definite (mostly topical) constituent higher up in the structure. I have then switched the discussion to word order variation and fragments in answers to constituent-questions. I have argued that fragments are derived by an in-situ approach that might involve movement of some constituents. This movement leaves the fragment in the clause-final position prior to deletion or PF suppression of all other materials. As for clausal answers that contains a movement of the constituent targeted by the question, I have argued that the contextual conditions under which such answers are felicitous are constrained. They are only confined to contexts where there is good reason to assume that other discourse participants have other alternative answers that they might think are true.

Chapter 5

5 EXCEPTIVE CONSTRUCTIONS

This chapter explores in brief exceptive constructions in SA with specific focus on sentences where the domain XP and excepted XP are DPs. A complete investigation of the syntax and semantics of the entire realm of exceptive constructions with all potential domains and excepted phrases (i.e., CPs, PPs, AdvPs, AdjPs, etc.) is beyond our purposes here. In §5.3, I review the inventory of exceptive markers SA has and then provide arguments for their syntactic categories. In §5.4, I examine the syntax and semantics of exceptives and end up proposing that full exceptives are either connected or free exceptives. The former is further subdivided into two types based on the position of the excepted phrase, a DP-level exception or a right-peripheral exception. This classification is then shown to derive the attested syntactic properties and also account for their concomitant semantic and pragmatic effects. As for incomplete exceptives, I propose that they are CP-level exceptions in which the excepted XP is focused and the exceptive marker serves as an exhaustive focus marker on a par with *'only'* since the latter can take its place and preserve the same interpretation.

5.1 Introduction

The syntax and semantics of exception have been investigated in a number of languages, including English (e.g., Hoeksema, 1987; Fintel, 1991, 1994; Crinč, 2016), Spanish (e.g., Garcia-Alvarez, 2009; Pérez-Jimenéz & Moreno-Quibén, 2012), German and French (Moltmann, 1992), among others. As far as SA is concerned, to the best of my knowledge, Moutaouakil (2009) is the only work that addresses some aspects of exception based on Functional Discourse Grammar and it leaves many open questions which I intend to take on here. For dialectal Arabic, Soltan (2016) examines *ʔilla* exceptive in Egyptian Arabic.

Exceptive constructions have always posed a variety of questions with regard to their syntactic distribution and properties as well as their interpretive contributions. The scope of this chapter is confined to exceptive constructions where excepted XPs are DPs as we are interested in their role in amending the neutral status of VSO clauses in SA. In particular, I pursue answers for two questions: the first concerns the morphosyntactic properties of exceptives and the second their relatedness to IS. Table (1), repeated below, summarizes their morphosyntax which is usually reflected in the case inflections excepted XPs bear.

Table (2): Case Inflections in Exceptives				
	ʔilla	ɣajr/ siwaa	xalaa/ ʕadaa	ħaaʃaa
1. Full Positive Exceptives	ACC	GEN	-ACC -GEN	-ACC -GEN
2. Full Negative Exceptives	- ACC - via agreement with the domain XP	GEN	----	----
3. Non-full Exceptives	- via agreement with T or *v*	GEN	----	----
4. Exceptives with Subjunctive 'maa'	----	----	-ACC	----

This labyrinth of morphosyntactic properties requires careful consideration as it would reveal a great deal about the informational content of exceptives. As a jumping-off point for our discussion, I begin by presenting an abridged review of some of the standard characteristics that have been recognized as typical of exceptive constructions.

5.2 Properties of Exceptives

Exceptives demonstrate a variety of properties but they can be summarized in two major properties. First, their use is constrained as it is generally conditioned by a universal, positive or negative, quantifier in the domain XP (Hoeksema, 1987). This indicates that the quantifier may be *every*, *all* or *no*, but not, for instance, *most* or *few*. Moltmann (1992:315) calls this restriction *the Quantifier Constraint.* Some can co-occur with generic domains or domains headed by the definite article which identify a set of entities that is salient in the context of the discourse. This is exemplified below (adapted from Fintel, 1994:101; Hoeksema, 1987:10; Crnič, 2016:1).

(261) a.   Every student but John attended the meeting.

      b   No student but John attended the meeting.

      c.   The students, except for Stan, have left.

      d.   No book but `*War and Peace*' is worth reading.

      e.   #Some book but `*War and Peace*' is worth reading.

Fintel (1994:102) schematizes exceptive sentences like (261)a and (261)b as follows.

(262) a. $[\![$every student but John$]\!]$ (P) $\Leftrightarrow \neg P \cap [\![$student$]\!] = \{[\![$John$]\!]\}$

      b. $[\![$no student but John$]\!]$ (P) $\Leftrightarrow P \cap [\![$student$]\!] = \{[\![$John$]\!]\}$

(262)a means that an excepted XP subtracted from a universally quantified domain XP is the only

element of which the property in the nuclear scope of the quantifier does not hold, which by en-

tailment means that it is the only element of which the negation of the nuclear scope holds (the

Negative Condition in Motlmann's 1992 terms). To be concrete, the property of attending the

meeting in (261)a is true of every student except for John of whom its negation (i.e., the property

of not attending the meeting) is true. (262)b represents the opposite scenario in which an exceptive

construction has a domain XP that is quantified over with a negative universal. In this case, the

intersection of the domain XP and the nuclear scope yields a singleton set containing the excepted

XP only. To illustrate more, the two representations in (262) correspond to the following diagrams

(Fintel, 1994:101).

(263) a. (262)a   b. (262)b

        Students   Attendees   Students   Attendees
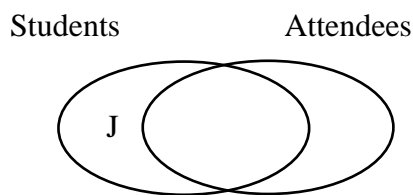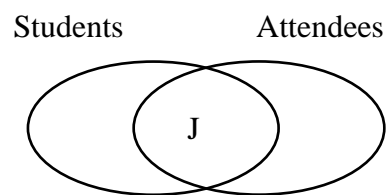
        Another characteristic of exceptive constructions is that for their use to be felicitous the

excepted XP should formulate the smallest set such that when it is subtracted from the domain the

residual domain of quantification yields a true meaning (Fintel, 1993:108; Moltmann, 1992: 327). This condition is referred to as the *Uniqueness* or *Minimality Condition.*

Both conditions are intuitively plausible. The condition of universal quantification in the domain reflects the natural sense that exceptions are conceived of as a strategy to make qualifications to generalizations. As for the *uniqueness condition*, it ensures that the exception is the most economical way to save the universality of quantification in the domain (Fintel, 1993:109).

Both conditions obtain in SA as has already been illustrated by examples in §1.4.3 and will be reemphasized below. Quite interestingly though, Soltan (2016:41) points out that exceptives in Egyptian Arabic are licensed by non-universal quantifiers provided that the excepted XP is not adjacent to the domain. Below are his examples.

(264) a. Ɂanaa   ʃuft   kull/muʕzˤam/kitiir min   Ɂil-tˤalaba   fii   Ɂil-muħaadˤra
           I   saw-1SG   all/most/many of   the-students   at   the-lecture
           Ɂil-nahaar-dah   Ɂillaa   aħmad
           the-day-this   except   Ahmad
           'I saw all/most/many of the students at the lecture today, except Ahmad.'

       b. Ɂanaa   ʃuft   kull/??muʕzˤam/??kitiir min   Ɂil-tˤalaba   Ɂillaa
           I   saw-1SG   all/most/many of   the-students   except
            aħmad   fii   Ɂil-muħaadˤra   Ɂil-nahaar-dah
           Ahmad   at   Ɂil-muħaadˤra   the-day-this
           'I saw all/most/many of the students, except Ahmad, at the lecture today.'

The counterparts of (264)a with non-universal quantifiers are illicit in SA. With these conditions as a background for our investigation, we turn in the next section to a discussion of the categorial status of exceptive markers in SA.

5.3 Categorial Status of Exceptive Markers

As has been shown in §1.4.3, SA possesses a relatively large inventory of exceptive markers, including *Ɂilla*, *ɣajr*, *siwaa*, *xalaa*, *ħaaʃaa* and *ʕadaa*, which all convey meanings of the type conveyed by *'except for'* and *'but'*. Pérez-Jimenéz and Moreno-Quibén (2012:593) point out that exceptive markers are subdivided based on their categorial status into *prepositions* (P)*, conjunctions*

(Conj) and *adverbs* (Adv). Starting with *ʔilla*, one notices that it has been dealt with rather vaguely in the literature. Ouhalla (1997:38) discusses this particle under the umbrella of focus and refers to it as 'the particle of exception'. Moutaouakil (2009), who investigates *ʔilla* exceptive in particular in SA, does not take a stand on its categorial identity and refers to it as a 'particle'.

However, there are several reasons which suggest that it cannot be treated as a preposition or a conjunctive. First, it cannot be considered as a preposition for the reason that prepositions always value the case feature of their complement DPs as genitive, which is evidently not the case with *ʔilla.* Consider the examples below, repeated from (13).

(265) a. maa   dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an/un
         neg   come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/NOM
         'The students didn't come, except for Zayd.'

   b. maa   qaabal-tu   tˤ-tˤullaab-a   ʔilla   zajd-an
         neg   meet.PERF-1SG   the-students-ACC   except   Zayd-ACC
         'I didn't meet the students, except for Zayd.'

   c. maa   marar-tu   ʔilla   bi-xaalid-in
         neg   meet.PERF-1SG   except   by-Khalid-GEN
         'I passed by nobody but by Khalid.'

As observed, the DP following *ʔilla* in (265)a and (265)b inflects for accusative or nominative, an uncharacteristic case of a prepositional complement. In addition, (265)c offers yet another piece of evidence against a prepositional classification of *ʔilla* since it embeds a PP headed by '*by'.* By the same token, a conjunctive analysis of *ʔilla* does not stand as it encounters serious challenges. For one thing, *ʔilla* can appear clause-initially along with the excepted XP, while the domain XP occupies its clause-internal position. This is exemplified below (Moutaouakil, 2009:90).

(266) ʔilla   zajd-an   maa   altaqaj-tu   bi-l-kuttaab-i
       except   Zayd-ACC   neg   Meet.PERF-1SG   with-the-writers-GEN
       'Except for Zayd, I did not meet the writers.'

This distributional fact is hard to accommodate should *ʔilla* be analyzed as a conjunctive. If the exception phrase in (266) originates in a conjunction projection with *'the writers'*, it is arrival at

the clause-initial position via movement, for instance, is a violation of the Coordinate Structure

Constraint (Ross, 1967), a constraint that is otherwise observed in SA. Moreover, *ʔilla* can appear

in sentences where there is no domain XP at all. Below are examples, repeated from (14).

(267) a. *(maa)   dʒaaʔ-a   ʔilla   zajd-un/*an
      neg   come.PERF-3SG.MASC   except   Zayd-NOM/*ACC
      'Nobody came but Zayd.'
      'Only Zayd came.'

    b. *(maa)   qaabal-tu   ʔilla   zajd-an
      neg   meet.PERF-1SG   except   Zayd-ACC
      'I met nobody but Zayd.'
      'I met only Zayd.'

Based on the above facts, I argue that *ʔilla* is an adverb and therefore enjoys to some extent a

relative freedom in terms of its positional distribution.

     As for *ɣajr*, I follow traditional grammarians in the assumption that it is a noun since it can

function as a verbal argument and inflect for case accordingly. This is illustrated in (15), repeated

below.

(268) a.   fahim-tu   kull-a   d-daruus-i   ɣajr-a
      understand.PERF-1SG   all-ACC   the-lessons-GEN   except-ACC
      dars-in   waaħid-in
      lesson-GEN   one-GEN
      'I understood all lessons, except for one (lesson).'

    b.   maa   zaar-a-n-ii   ʔaħad-un   ɣajr-a/u
      neg   visit.PERF-3SG.MASC-EC-me   one-NOM   Zayd-ACC/NOM
      zajd-in
      Zayd-GEN
      'Nobody visited me, except for Zayd.'

As is seen in (268)b, *ɣajr* can surface with the nominative inflection. More support for this line of

analysis comes from the fact that the excepted XP following *ɣajr* is always in the genitive case,

which is typical of the second member of a construct state in SA as is illustrated by (269).

(269) kitaab-u   ʔatˤ-tˤaalib-i
     book-NOM   the-student-GEN
     'The student's book'

Traditionally, *siwaa* is argued to inflect for case the same way *ɣajr* does but due to phonological constraints this case in not reflected by overt morphology. Also, excepted XPs with *siwaa* are invariably genitive. I am therefore inclined to the assumption that *siwaa* is also a noun.

For *xalaa,* and *ʕadaa*, they are dealt with traditionally as verbs for two reasons: first, they can be preceded by the subjunctive marker *maa* as (270)b shows, which usually exists before verbs. Second, both have imperfective forms, which are used in no exceptive constructions. This explains why excepted XPs after them can take accusative case inflection as illustrated below.

(270) a. dʒaaʔ-a   tˤ-tˤullaab-u   xalaa   zajd-an/in
          come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/GEN
          'The students came, except for Zayd.'

      b. dʒaaʔ-a   tˤ-tˤullaab-u   maa   xalaa
          come.PERF-3SG.MASC   the-students-NOM   SUBJ   except
          zajd-an/(*in)
          Zayd-ACC/GEN
          'The students came, except for Zayd.'

However, (270)a displays that the excepted XP with these markers can also be genitive in the absence of *maa*, an observation traditional grammarians took as basis for their argument that they are prepositions in such environments. *ħaaʃaa* seems to also support an analysis along the same lines, i.e., it can function as a verb or as a preposition since an excepted XP in its context can also be accusative or genitive. I argue based on these case inflection patterns that these three exceptive markers are *fossilized participles* which share with other participles the liberty to value the case of their complement as accusative or genitive. This is illustrated by the active participle in the examples below.

(271) a. ʔinna   l-muʕallim-a   muqaddim-un   l-ʕilm-a   li-tˤullaab-i-hi
          verily the-teacher-ACC presenter-NOM the-knowledge-ACC   to-students-GEN-his
          'Verily, the teacher is the imparter of knowledge to his students.'
      b. ʔinna   l-muʕallim-a   muqaddim-u   l-ʕilm-i   li-tˤullaab-i-hi
          verily the-teacher-ACC presenter-NOM the-knowledge-GEN   to-students-GEN-his
          'Verily, the teacher is the imparter of knowledge to his students.'

207

The active participle *'muqaddim'* in (271) values the case of its complement as accusative and genitive, respectively.

Summarizing, I have argued in this section that exceptive markers in SA belong to different categories. *ʔilla* is a focal adverb. *ɣajr* and *siwaa* are nouns whereas *xalaa*, *ħaaʃaa* and *ʕadaa* are fossilized participles. In what follows, I shift the discussion to the syntactic structure and the interpretive properties of exceptives and due to the fact that their syntax and semantics are intertwined, they are discussed together and not as separate sections. I confine my analysis to *ʔilla, ɣajr* and *siwaa*.

5.4 The Syntax and Semantics of Exceptives

5.4.1 Full Exceptives

Cross-linguistically, exceptives are subdivided into two types on the basis of their distribution in syntactic structures: connected exceptives (CEs) and free exceptives (FEs) (e.g., Hoeksema, 1987; Fintel, 1994; Pérez-Jimenéz and Moreno-Quibén, 2012). The first class are DP-level exceptives, while the second are CP-level, i.e., they combine two CPs.

Let us commence the discussion with full exceptives, i.e., exceptives that have a domain XP. As indicated, the excepted XP in such constructions can either be accusative invariantly or it can show a case identical to that of the domain XP in the context of negation. Consider (272) below.

(272) a. dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an/(*un)
       come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/(*NOM)
       'The students come except for Zayd.'

   b. maa   dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an/un
       neg   come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC/NOM
       'The students did not come, except for Zayd.'

To gain insight into the syntax of (272)a, let us consider it along with its negative counterpart in (272)b. When the XP is accusative, this sentence is ambiguous in interpretation, depending on

whether or not the exception phrase is read within the scope of negation. In particular, the sentence may negate the whole proposition '*the students came except for Zayd*', which amounts to saying '*it is not the case that the students came except for Zayd*,' therefore licensing the interferences that *nobody came* or *everybody came including 'Zayd'*. Alternatively, it could mean '*the students did not come but Zayd came*'. The first reading is evidenced by its felicitousness as an answer to the polar question below.

(273) ʔa   dʒaaʔ-a   tˤ-tˤullaab-u   ʔilla   zajd-an
       Q   come.PERF-3SG.MASC   the-students-NOM   except   Zayd-ACC
       'Is it the case that the students came except for Zayd?'

The first reading upholds a view in which the excepted XP appears within the domain XP in a *v*P-internal position, whereas the second supports the view that it appears in a right peripheral-position located outside the scope of negation. The fact that the excepted XP can follow a *v*P adjunct backs up the right-peripheral position for the second reading, and that it is not the result of an LF movement whereby the exception phrase otoscopes negation. This is evidenced in (274) below. In the negative counterpart of (274), the excepted XP is interpreted outside the scope of negation, too.

(274) dʒaaʔ-a   tˤ-tˤullaab-u   bi-l-ʔams-i   ʔilla
       come.PERF-3SG.MASC   the-students-NOM   in-the-yesterday-GEN   except
       zajd-an
       Zayd-ACC
       'The students came yesterday except for Zayd.'

I therefore propose that full exceptives such as (272)a, when the excepted XP does not have the same case as the domain XP, are ambiguous between the following possible structures at LF. In both schematizations the excepted phrase is an adjunct, either to the domain XP or at the right periphery of the CP.

(275)   a. *v*P-internal EP

CP
 ├─ C
 └─ NegP
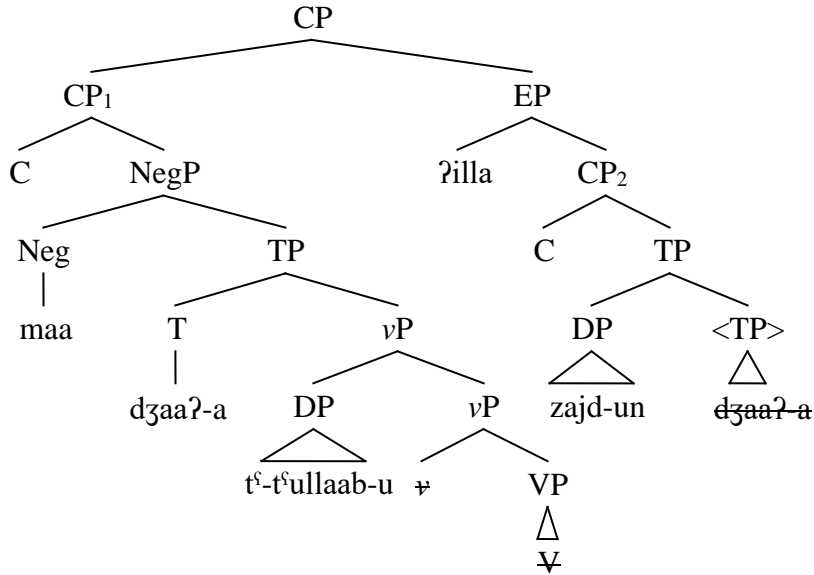   ├─ Neg
     │   └─ maa
     └─ TP
         ├─ T
         │   └─ dʒaaʔ-a
         └─ *v*P
             ├─ DP
             │   ├─ DP
             │   │   └─ tˤ-tˤullaab-u
             │   └─ EP
             │   ├─ ʔilla
             │   └─ DP
             │   └─ zajd-an
             └─ *v*P
                 ├─ *v̶*
                 └─ VP
                     └─ V̶

b. Right-peripheral EP

CP
 ├─ CP
 │   ├─ C
 │   └─ NegP
 │   ├─ Neg
 │   │   └─ maa
 │   └─ TP
 │   ├─ T
 │   │   └─ dʒaaʔ-a
 │   └─ *v*P
 │   ├─ DP
 │   │   └─ tˤ-tˤullaab-u
 │   └─ *v*P
 │   ├─ *v̶*
 │   └─ VP
 │   └─ V̶
 └─ EP
     ├─ ʔilla
     └─ DP
         └─ zajd-an
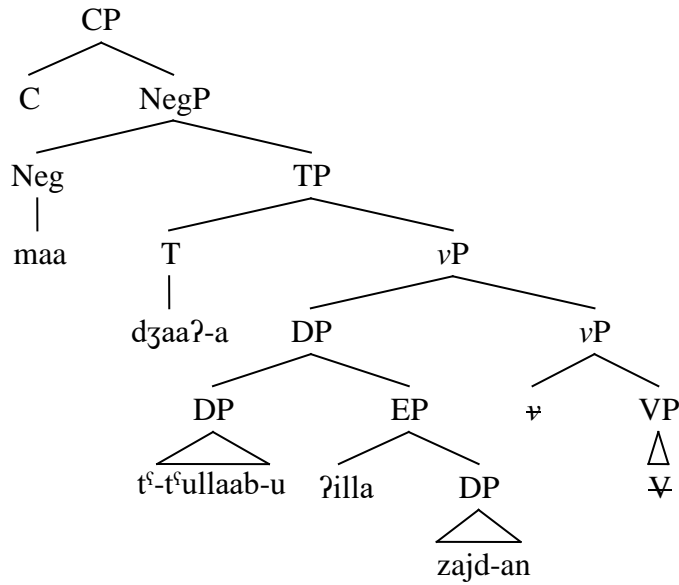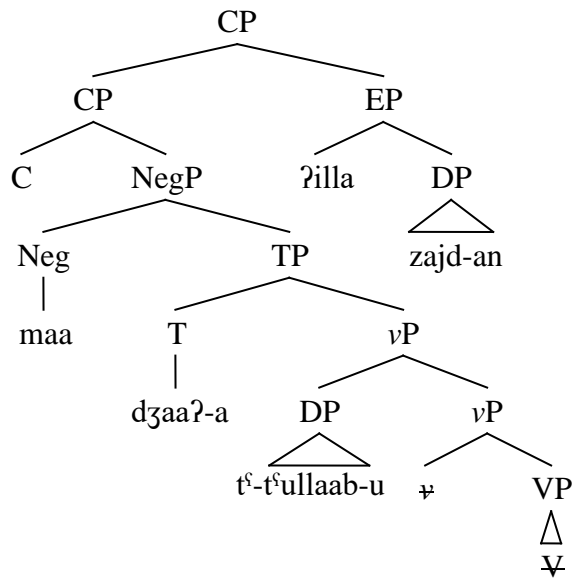
The excepted phase is base-generated in a right-peripheral position in (275)b, which places it outside the scope of '*maa*'. The structure in (275)a is a typical CE structure, whereas (275)b seems to fall in between CEs and FEs. It appears in a mono-clausal sentence but nevertheless is non-adjacent to the domain XP.

As for their IS effects, CEs like (275)a are mere exception constructions in that they convey the sense of an entity subtracted from a given domain. The resulting domain is the maximal set of which the predicate holds. (274) and (275)b, on the other hand, seem to underscore the generalization made by the predicate, while the excepted XP functions as a backgrounded exception. In other words, the predicate and domain XP are in focus while the exception phrase is more of an afterthought in the sense of Ott and Vries (2016:642). Evidence for this informational dissection comes from their reviewed interaction with negation. Recall that *'maa',* as shown in §2.2, is sensitive to focus. Consequently, in (275)a, it associates with the predicate and domain XP, i.e., the negation of the domain XP being part of the set denoted by the predicate outweighs the assertion that the excepted XP is part of the predicate set.

Turning to the variant of (272)b where the excepted XP is nominative, it assumes the same interpretation as (275)b insofar as negation is concerned, i.e., the excepted XP does not fall within the scope of negation. However, at the IS level, the sentence sets *'Zayd'* in a contrastive focus to the domain XP, i.e., the contribution of the whole construction is to emphasize that *'Zayd'* came. Based on these observation, I propose that the variant of (272)b in which *'Zayd'* is nominative is an FE that has the following representation at LF.

(276) Bi-clausal Exceptives

```
                              CP
                  ┌───────────┴───────────┐
                 CP₁                       EP
              ┌───┴───┐              ┌──────┴──────┐
              C      NegP          ʔilla          CP₂
                   ┌──┴───┐                    ┌───┴───┐
                  Neg     TP                   C       TP
                   │    ┌──┴───┐                    ┌───┴────┐
                  maa   T       vP                 DP       <TP>
                        │    ┌───┴───┐             △          △
                     dʒaaʔ-a DP      vP         zajd-un    dʒaaʔ-a
                             △     ┌──┴──┐
                        tˤ-tˤullaab-u v̶   VP
                                         △
                                         V̶
```

This structure does not only account for interactions with negation but also provides a configuration from which the nominative case on the DP *'Zayd'* is derived without further ado. *'Zayd'* starts out as the subject in CP₂ in which it moves to SpecTP for focus and the rest of the clause is suppressed or deleted at PF (Merchant, 2005).

5.4.2 Incomplete Exceptives

In addition to full exceptives, SA, as elucidated in §1.4.3, permits exceptives with no domain XP. Below are examples repeated from (267).

(277) a. *(maa)   dʒaaʔ-a   ʔilla   zajd-un/*an
           neg   come.PERF-3SG.MASC   except   Zayd-NOM/*ACC
           'Nobody came but Zayd.'
           'Only Zayd came.'

     b. *(maa)   qaabal-tu   ʔilla   zajd-an
           neg   meet.PERF-1SG   except   Zayd-ACC
           'I met nobody but Zayd.'
           'I met only Zayd.'

These sentences have two interesting properties which reveal a great deal about their structure. First, the excepted XP inflects for case based on its grammatical function. Second, they convey a sense of exhaustive focus in that they restrict the predicate to being true of the excepted phrase only, i.e., in both cases in (277) *'Zayd'* is outside the scope of negation. This makes them parallel

in interpretation to negative full exceptives of the form schematized in (276). However, how could they assume the same structure when the sentences in (277) lack a domain XP? In fact, although there is no domain XP in both, these sentences are typically uttered in contexts where there is a salient implicit domain or set of domains of which the excepted XP is a member. I therefore propose that these sentences are bi-clausal too. The domain XP is a null *pro* which refers to a context-salient domain. The excepted XP starts out in the thematic domain in CP$_2$ from which it moves to the left-peripheral focus position, SpecTP. Under this analysis, incomplete exceptives are in fact complete but their domains are not overt. So, the sentences in (277) assume the representations shown below.

(278)

```
                              CP
                 ┌─────────────┴──────────────┐
               CP₁                            EP
          ┌─────┴─────┐                  ┌─────┴─────┐
          C         NegP              ʔilla        CP₂
              ┌──────┴──────┐                  ┌─────┴─────┐
            Neg            TP                  C          TP
             │        ┌─────┴─────┐                  ┌─────┴─────┐
            maa       T          vP                 DP         <TP>
                      │      ┌─────┴─────┐          /\           /\
                  dʒaaʔ-a   pro         vP       zajd-un      d̶ʒ̶a̶a̶ʔ̶ ̶a̶
                                   ┌─────┴─────┐
                                   v̶           VP
```

213
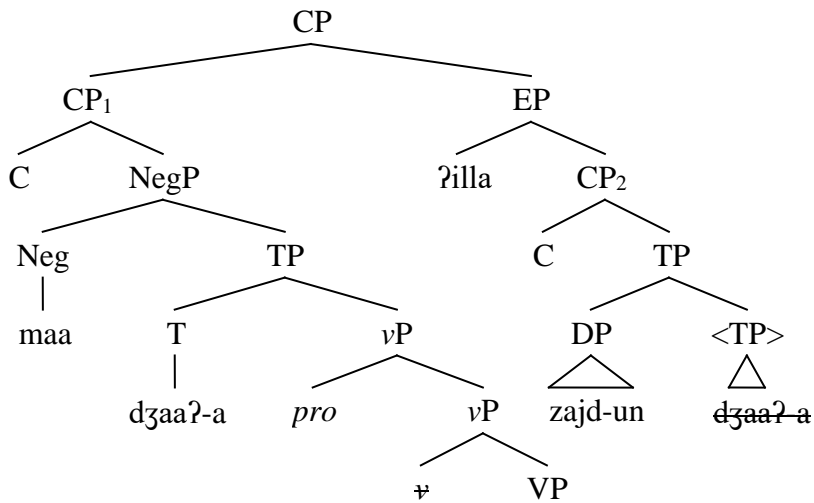
(279)
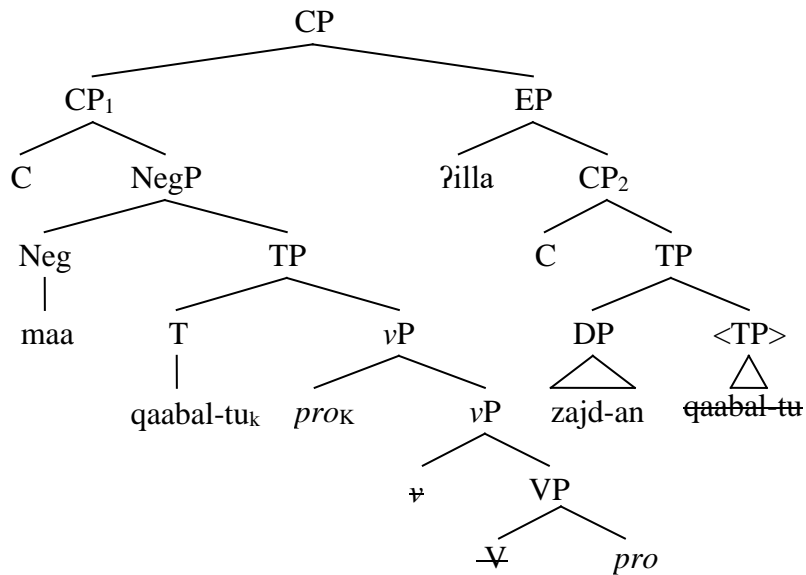
These representations readily explain the case inflection pattern, i.e., *'Zayd'* receives case based on its grammatical function in CP₂, therefore showing nominative and accusative inflections, respectively. Moutaouakil (2009:86) points out that the sentences in (277) are equivalent to their variants with the focus marker *'ʔinnamaa'* which translates into *'it is just…'* or *'only'* or with *'faqatˤ'* 'only'. This is evidence for the focused interpretation of the excepted XP in such constructions.

(280) a. *ʔinnamaa* dʒaaʔ-a zajd-un/*an
      only   come.PERF-3SG.MASC Zayd-NOM/*ACC
      'Nobody came but Zayd.'
      'Only Zayd came.'
      'It is only Zayd who came.'

     b. dʒaaʔ-a   zajd-un   faqat
      come.PERF-3SG.MASC   Zayd-NOM   only
      'Only Zayd came.'

     c. *ʔinnamaa*   qaabal-tu   zajd-an
      only   meet.PERF-1SG   Zayd-ACC
      'I met nobody but Zayd.'
      'I met only Zayd.'
      It is only Zayd whom I met.'

5.4.3 *ɣajr* and *siwaa* **Exceptives**

As mentioned earlier, excepted XPs after *ɣajr* and *siwaa* are invariably genitive while *ɣajr* and

siwaa themselves inflect for case the same way excepted XPs in '*ʔilla*' exceptives do. Below are

full exceptives with *ɣajr*, adapted from Omar et al. (1994:468f).

(281) *Full Exceptives*

    a.   fahim-tu   kull-a   d-daruus-i   ɣajr-a

        understand.PERF-1SG   all-ACC   the-lessons-GEN   except-ACC

        dars-in   waaħid-in

        lesson-GEN   one-GEN

        'I understood all lessons, except for one (lesson).'

    b.   maa   zaar-a-n-ii   ʔaħad-un   ɣajr-a/u

        neg   visit.PERF-3SG.MASC-EC-me   one-NOM   Zayd-ACC/NOM

        zajd-in

        Zayd-GEN

        'Nobody visited me, except for Zayd.'

(282) *Incomplete Exceptives*

    a.   maa   dʒaaʔ-a   ɣajr-u   zajd-in

        neg   come.PERF-3SG.MASC   except-NOM   Zayd-GEN

        'Nobody came but Zayd.'

        'Only Zayd came.'

    b.   maa   qaabal-tu   ɣajr-a   zajd-in

        neg   meet.PERF-1SG   except-ACC   Zayd-GEN

        'I met nobody but Zayd.'

        'I met only Zayd.'

In a nutshell, there is a complete parallelism in syntactic representation and semantic interpretation

between (281) and (272) as well as between (282) and (277).

5.5 Concluding Remarks

This chapter has looked briefly into the syntactic and semantic properties of exceptives in SA. The

scope was limited to exceptives in VSO clauses and how their syntax interacts with their IS effects.

I have argued that the various markers used for exception are *focal adverbs, nouns* or *fossilized*

participles. I have established that full exceptives can be analyzed as CEs with two configurations;

one that has the excepted XP as a DP-level adjunct in a *v*P-internal position and another that has

the excepted XP in a right-peripheral non-focused position. In negative full exceptives where the excepted XP agrees with the domain XP in case, I have argued that they are bi-clausal. Identically, for incomplete exceptives, I have argued that, although they lack overt domain XPs, they instantiate a bi-clausal structure in which the domain XP is a null *pro* in CP_1. This structure is motivated by the parallelisms they display with negative full exceptives in terms of case inflections and interpretive effects.

Chapter 6

6 CONCLUSIONS

6.1 Summary of Conclusions

This goal of this thesis has been to examine the interplay between word order variation and information structure in SA. It took as a point of departure the premise that "VSO is the basic and 'discourse neutral' word order in SA, and any disruption to this order is accompanied with interpretative consequences pertinent to IS". The aim has been to demonstrate that order permutations are not dispersed on a continuum of oddity where some are designated as odd or awkward. Rather, it has been shown that each has its own felicity or use conditions that set it distinct from the rest, and that some of these conditions are so elaborate that they might not arise as much frequently as others and by entailment the structure that is most appropriate under these conditions is equally infrequent. This dissertation has been divided based on which part of the structure is effected by order permutations, i.e., the midfield zone or the peripheries.

In Chapter (2), VSO has been re-established as the basic and discourse-neutral order in SA. Evidence is garnered from syntactic, semantic and pragmatic considerations, including VSO and SVO behaviors with regard to intra-clausal and inter-clausal extraction, negation and focus-association adverbs such as '*only*'. Then, I have put forward a proposal in which preverbal subjects in SVO are argued to be either topics externally merged in SpecCP or foci, in which case they arrive to their surface position through focus movement. Based on the patterns of extractions in VSO and SVO structures, I have proposed that wh-questions and focus are derived by movement to SpecTP, whereas topics are base-generated in SpecCP, a proposal presented within a feature inheritance approach to the left periphery. This proposal gave rise to a question with regard to the complementizer position. To answer the question, I have appealed to Chomsky's (2013, 2015) LA and ended

up proposing that, like phrasal movement, HM can also be regarded as a mechanism to resolve labeling failures, i.e., the complementizer occurs clause-initially due to HM induced by LA. At the end of the chapter, I have reexamined long-distance extraction of subjects and shown that its illicitness is most likely due to a *that-trace* effect that results from an adjacency between a lower copy of the complementizer and a copy of the subject in the embedded SpecTP. This chapter also includes an account of why the preverbal focus position demonstrates a mixture of A-Ā properties; I have proposed that it is attributed to the featural composition of T and the argument that it hosts [uFoc] and [$u\varphi$].

Chapter (3) has switched the discussion to the midfield discourse zone, namely the edge of vP. I began by a detailed description of the structural conditions that regulate object shift and, following an investigation of its properties, I put forward a proposal which assumes that OS is driven by a composite probe on v, therefore explaining the mixture of A and Ā characteristics it displays. I then proceeded to an examination of the interpretive effects OS engenders and argued that it can give rise to a CT+F reading of the object and subject in the context of definite objects and a focus reading of the object in the context of indefinite objects. This variation in interpretation is the result of an interplay between focus and definiteness. The attention is then turned to an investigation of a range of other constituents that appear at vP edge, namely PPs, CPs, adverbs and secondary predicates with the aim of establishing vP edge as a discourse layer on a par with the left periphery, i.e., it is not just a position to which the object can move but rather a zone which can host any constituents that starts lower in the phase. For IS effect, the overall picture that emerged from the discussion is that whatever moves to the edge of vP becomes more liable for a background interpretation, whereas the elements that are spelled out in the domain of vP are focused.

Chapter (4) has been devoted to an investigation of the left periphery. I have presented a detailed analysis of this structural zone in SVO and VSO clauses, respectively. I have expanded on the argument made in chapter (2) that a preverbal subject can be a topic base-generated in SpecCP, or a focus derived by movement from Spec*v*P to SpecTP. In the course of teasing apart the IS effects associated with the various order permutations that result from movement to this area, I have proposed a non-movement analysis of floating quantifiers in SA in which they are argued to be base-generated in their clause-internal position and are co-indexed with a definite (mostly topical) constituent higher up in the structure. I have then switched the discussion to word order variation and fragments in answers to constituent-questions. I have argued that fragments are derived by an in-situ approach that might involve movement of some constituents. This movement leaves the fragment in the clause-final position prior to deletion or PF suppression of all other materials. As for clausal answers that contains a movement of the constituent targeted by the question, I have argued that the contextual conditions under which such answers are felicitous are constrained. They are only confined to contexts where there is good reason to assume that discourse participants have other alternative answers that they might think are true.

The final chapter, (5), has looked briefly into the syntactic and semantic properties of exceptives in SA. The aim has been to show that exceptives do not only contribute the truth-conditional sense of subtracting an entity from a certain domain in the context of a generalization. Rather, I have shown that they vary in structure based on the kind of syntactic properties and IS effects they have. At the beginning, I have argued that the various markers used for exception are divided into *focal adverbs, nouns* or *fossilized participles.* Then, I have established that full exceptives can be analyzed as CEs with two configurations; one that has the excepted phrase as a DP-level adjunct in a *v*P-internal position and another that has the excepted phrase in a right-

peripheral non-focused position. As for negative full exceptives and incomplete exceptives, I have argued that they instantiate a bi-clausal structure in which the domain XP, which is a null *pro* in the latter type, is located in CP_1. This unified structure is motivated by parallelisms in case inflections and interpretive effects.

6.2 Limitations and Directions for Future Work

This thesis has been confined to investigating the role of word order variation in structuring discourse. However, as is indicated from the outset, procedures for discourse structuring vary cross-linguistically as well as within the same language. Many order permutations that came up in the course of discussion in this work are shown to be liable to different interpretations and therefore one might presume that the language might utilize other means such as prosody to signify which interpretation is intended in a given context. Accordingly, a potential follow-up work might be to investigate, perhaps experimentally, the role phonology plays in disambiguating structures with more than one interpretation.

Another limitation of this work which could also be taken as a point of departure for further research is that it concentrates on SA. The same topic can be investigated in dialects even though dialects are not as so liberal in word order as SA. Many dialects show at least three word orders (see Aoun et al., 2010) and are therefore still form a viable testing ground for the same questions pursued here. Dialects might also formulate good venues to bring up more data which might bear on the assumption of more discourse features and the mechanisms by which they are manifested.

In this work, an attempt was made to pay equal attention to the syntactic, semantic and pragmatic properties of word order variation and this might leave room for more work on the same topic with exclusive concentration on one aspect or another. For instance, at the level of syntax it has been shown that different instantiations of movement in SA display hybrid A and A-bar

properties. One step forward is to pursue this issue further by widening the database to gain more insight into how such kind of movement is regulated and what it could further reveal about the previously assumed dichotomy between the two types of movement. Moreover, I have shown that order variation is not only accompanied with IS effects but also with semantic effects such as scope disambiguation in the context of quantifiers. This association between order and scope is worth an exploration on its own especially that scope-taking remains among the least researched aspects of structure in SA.

REFERENCES

Abe, J. (2016). Make Short Answers Shorter: Support for the In-Situ Approach. *Syntax, 19*(3), 223-255.

Abe, J. (2017). *Minimalist syntax for quantifier raising, topicalization and focus movement: A search and float approach for internal merge*. Berlin: Springer.

Abels, K. (2003). *Successive cyclicity, anti-locality, and adposition stranding*. (Doctoral dissertation). University of Connecticut, Storrs.

Aboh, E. (2007). Focused versus Non-Focused Wh-Phrases. In E. Aboh, K. Hartmann & M. Zimmermann (Eds.), *Focus Strategies in African languages* (pp. 287-314). Berlin: De Gruyter Mouton.

Aboh, E. (2007). Leftward Focus versus Rightward Focus: The Kwa-Bantu Conspiracy. *SOAS Working Papers in Linguistics, 15*, 81-104.

Aboh, E. (2010). Information Structure Begins with the Numeration. *Iberia: An International Journal of Theoretical Linguistics, 2*, 12-42.

Aboh, E. O. (2004). *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa*. New York: Oxford University Press.

Abuhayri, S., & Ouali, H. (to appear). The Complementizer Layer in Standard Arabic Revisited. In E. van Gelderen (Ed.), *Perspectives on Arabic Linguistics XXXII XXXII*. Amsterdam: John Benjamins.

Al-Balushi, R. (2011). *Case in standard Arabic: The untraveled paths*. (Doctoral dissertation). University of Toronto, Toronto.

Albirini, A., Saadah, E., & Alhawary, M. T. (2019). L1 and L2 transfer to L3 in L3 and L2 learners of Standard Arabic. *Linguistic Approaches to Bilingualism*. https://doi.org/10.1075/lab.18013.alb

Alexiadou, A., & Anagnostopoulou, E. (1998). Parametrizing AGR: Word order, V-movement and EPP-checking. *Natural Language & Linguistic Theory, 16*(3), 491-539.

Alexopoulou, T., Doron, E., & Heycock, C. (2004). Broad subjects and clitic left dislocation. In Adger, D., Cat, C. & Tsoulas, G. (Eds.), *Peripheries: Syntactic Edges and their effects*. (pp. 329–358). Dordrecht: Kluwer.

AlQahtani, S. J. (2016). *The structure and distribution of Determiner Phrases in Arabic: Standard Arabic and Saudi dialects*. (Doctoral dissertation). University of Ottawa, Ottawa.

Álvarez, I. G. (2009). *Generality and exception: A study in the semantics of exceptives*. (Doctoral dissertation). Stanford University, Stanford.

AnderBois, S. (2014). On the exceptional status of reportative evidentials. In T. Snider, S. D'antonio, & M. Wiegand (Eds.), *Semantics and linguistic theory* (*SALT*), *volume 24* (pp. 234–254). LSA and CLC.

Anshen, F., & Schreiber, P. A. (1968). A focus transformation of Modern Standard Arabic. *Language*, 792-797.

Aoun, J., Benmamoun, E., & Choueiri, L. (2010). *The syntax of Arabic*. New York: Cambridge University Press.

Aoun, J., Benmamoun, E., & Sportiche, D. (1994). Agreement, word order, and conjunction in some varieties of Arabic. *Linguistic Inquiry*, 195-220.

Arregi, K., & Pietraszko, A. (2018). Generalized head movement. *Proceedings of the Linguistic Society of America, 3*(1), 5-1.

Arregi, K., & Pietraszko, A. (2019). The ups and downs of head displacement. Ms.: University of Chicago & University of Connecticut.

Badan, L., & Del Gobbo, F. (2011). On the syntax of topic and focus in Chinese. In P. Benincà & N. Munaro (Eds.), *Mapping the left periphery* (pp. 63-91). New York: Oxford University Press.

Baker, M. (1985). The mirror principle and morphosyntactic explanation. *Linguistic Inquiry, 16*(3), 373-415.

Baker, M. (2003). Agreement, dislocation, and partial configurationality. In A. Carnie., H. Harley, & M. Willie (Eds.), *Formal approaches to function in grammar*, (pp. 107–132). Amsterdam: John Benjamins.

Baker, M. C. (2008). *The syntax of agreement and concord*. New York: Cambridge University Press.

Baker, M. C. (2011). When agreement is for number and gender but not person. *Natural Language & Linguistic Theory, 29*(4), 875-915.

Baker, M. C. (2012). On the relationship of object agreement and accusative case: Evidence from Amharic. *Linguistic Inquiry, 43*(1), 255-274.

Bakir, M. (1979). *Aspects of clause structure in Arabic*. (Doctoral dissertation). Indiana University, Bloomington.

Bale, A., & Coon, J. (2014). Classifiers are for numerals, not for nouns: Consequences for the mass/count distinction. *Linguistic Inquiry, 45*(4), 695-707.

Baltin, M. R. (1978). *Toward a theory of movement rules*. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Baltin, M. R. (1982). A landing site theory of movement rules. *Linguistic Inquiry, 13*(1), 1-38.

Beghelli, F., & Stowell, T. (1997). Distributivity and negation: The syntax of each and every. In A. Szabolcsi (Ed.), *Ways of Scope Taking* (pp. 71-107). Dordrecht: Kluwer.

Béjar, S. (2003). *Phi-syntax: a theory of agreement*. (Doctoral dissertation). University of Toronto, Toronto.

Béjar, S. & Rezac, M. (2003). Person licensing and the derivation of PCC effects. In A. Pérez-Leroux & Y. Roberge (Eds.), *Romance linguistics: Theory and acquisition* (pp. 49–62). Amsterdam: John Benjamins.

Belletti, A. (2003). Aspects of the low IP area. In L. Rizzi (ed.), *The structure of IP and CP: The cartography of syntactic structures* (pp. 16-51). Oxford: Oxford University Press.

Belletti, A. (2004). Introduction. In Belletti, A. (Ed.,), *Structures and beyond: The cartography of syntactic structures* (pp. 3-14). New York: Oxford University Press.

Benincà, P. (2001). The position of Topic and Focus in the left periphery. In G. Cinque & G. Salvi (Eds.), *Current studies in Italian syntax: Essays offered to Lorenzo Renzi* (pp. 39-64). Amsterdam: Elsevier.

Benincà, P., & Poletto, C. (2004). Topic, focus, and V2. In L. Rizzi (Ed.), *The structure of CP and IP* (pp. 52-75). New York: Oxford University Press.

Benmamoun, E. (1992). Structural conditions on agreement. *In Proceedings of NELS*, 17-32.

Benmamoun, E. (1999). The syntax of quantifiers and quantifier float. *Linguistic Inquiry, 30*(4), 621-642.

Benmamoun, E. (2000). *The feature structure of functional categories: A comparative study of Arabic dialects*. New York: Oxford University Press.

Bianchi, V., & Frascarelli, M. (2010). Is topic a root phenomenon? *Iberia, 2*(1), 43–88.

Biskup, P. (2009). *The phase model and adverbials* (Doctoral dissertation). Universität Leipzig, Leipzig.

Bjorkman, B., & Zeijlstra, H. (2014). Upward Agree is superior. Ms., University of Toronto and Universität Göttingen.

Bobaljik, J. (1995). In terms of Merge: copy and head movement. *In MIT Working Papers in Linguistics, 27*, 41-64.

Bobaljik, J. D. (1995). *Morphosyntax: The syntax of verbal inflection* (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Bobaljik, J. D., & Wurmbrand, S. (2012). Word order and scope: Transparent interfaces and the ¾ signature. *Linguistic Inquiry, 43*(3), 371-421.

Boeckx, C. (2006). *Linguistic minimalism: Origins, concepts, methods, and aims*. New York: Oxford University Press.

Boeckx, C., & Grohmann, K. (2004). Barriers and phases: Forward to the past. *Tools in Linguistic Theory,* 16-18.

Boeckx, C., & Stjepanović, S. (2001). Head-ing toward PF. *Linguistic Inquiry, 32*(2), 345-355.

Bošković, Ž. (1997). *The syntax of nonfinite complementation: An economy approach*. Massachusetts: MIT Press.

Bošković, Ž. (2004). Be careful where you float your quantifiers. *Natural Language & Linguistic Theory, 22*(4), 681-742.

Bošković, Ž. (2007). On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry, 38*(4), 589-644.

Bošković, Ž. (2013). On NPs and Clauses. Ms., University of Connecticut.

Bošković, Ž. (2013). Phases beyond Clauses. In L. Schürcks, A. Giannakidou & U. Etxeberria. (Eds.), *The nominal structure in Slavic and beyond* (pp. 75-116). Berlin: Walter de Gruyter.

Brisson, C. (1998). *Distributivity, maximality and floating quantifiers*. (Doctoral dissertation). Rutgers University, New Brunswick.

Bruening, B. (2014). Precede-and-command revisited. *Language, 90*(2), 342-388.

Bruening, B. (2015). Depictive secondary predicates, light verb give, and theories of double object constructions. Ms., University of Delaware.

Bruening, B. (2015). Non-constituent coordination: Prosody, not movement. In *University of Pennsylvania Working Papers in Linguistics, Vol. 21*.

Bruening, B. (2018). Depictive secondary predicates and small clause approaches to argument structure. *Linguistic Inquiry, 49*(3), 537-559.

Bures, T. (1992). (Re)cycling expletives and other sentences. Ms., MIT.

Büring, D. (1997). *On the meaning of topic and focus*. London: Routledge.

Büring, D. (2003). On D-trees, beans, and B-accents. *Linguistics and Philosophy, 26*(5), 511-545.

Büring, D. (2016). Contrastive topics. In F. Caroline & S. Ishihara (Eds.), *Handbook of Information Structure* (pp.64-85). New York: Oxford University Press.

Butler, J. (2004). On having arguments and agreeing: Semantic EPP. *York Papers in Linguistics Series, 2*(1), 1-27.

Cable, S. (2012). The optionality of movement and EPP in Dholuo. *Natural Language & Linguistic Theory, 30*(3), 651-697.

Calude, A. S. (2008). Clefting and extraposition in English. *ICAME journal, 32*, 7-33.

Carnie, A., & Bobaljik, J. (1996). Shifting objects and procrastinating subjects. *Calgary Working Papers in Linguistics, 18*, 23-30.

Carstens, V. (2003). Rethinking complementizer agreement: Agree with a Case-checked goal. *Linguistic Inquiry, 34*(3), 393-412.

Carstens, V. (2016). Delayed valuation: A reanalysis of goal features, "upward" complementizer agreement, and the mechanics of case. *Syntax, 19*(1), 1-42.

Carstens, V., Hornstein, N., & Seely, T. D. (2015). Head-head relations in Problems of projection. *The Linguistic Review, 33*(1), 67-86.

Cecchetto, C., & Donati, C. (2010). On labeling: Principle C and head movement. *Syntax, 13*(3), 241-278.

Cecchetto, C., & Donati, C. (2015). *(Re)labeling*. Cambridge: MIT Press.

Chafe, W. L. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In N. Charles (Ed.), *Subject and Topic* (pp.27–55). New York: Academic Press.

Champollion, L. (2017). Linguistic applications of mereology. Script to the ESSLLI.

Chierchia, G. (1998). Reference to kinds across language. *Natural Language Semantics, 6*(4), 339-405.

Chierchia, G. (2010). Mass nouns, vagueness and semantic variation. *Synthese, 174*(1), 99-149.

Chomsky, N. (1971). Deep structure, surface structure, and semantic interpretation. In D. Steinberg & L. Jakobovits (Eds.), *Semantics: An interdisciplinary reader in philosophy, linguistics and psychology* (pp.183–216). Cambridge: Cambridge University Press.

Chomsky, N. (1977). On wh-movement. *Formal Syntax,* 71-132.

Chomsky, N. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, N. (1992). Explaining language use. *Philosophical Topics, 20*(1), 205-231.

Chomsky, N. (1993). A minimalist program for linguistic theory. *MIT Occasional Papers in Linguistics*.

Chomsky, N. (1993). *Lectures on government and binding: The Pisa lecture.* Berlin: Walter de Gruyter.

Chomsky, N. (1995). *The minimalist program*. Massachusetts: MIT press.

Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels & J. Uriagereka (Eds.), *Step by step: Essays on minimalism in honor of Howard Lasnik* (pp. 89–155). Cambridge, Mass.: MIT Press.

Chomsky, N. (2001). Derivation by Phase. In M. Kenstowicz (Ed.) *Ken Hale: A Life in Language* (pp. 1-52). Cambridge, Mass.: MIT Press.

Chomsky, N. (2004). Beyond Explanatory Adequacy. In A. Belletti (Ed.), *Structures and beyond: The cartography of syntactic structures* (pp. 104-131). New York: Oxford University Press.

Chomsky, N. (2005). Three factors in language design. *Linguistic Inquiry, 36*(1), 1-22.

Chomsky, N. (2007). Approaching UG from below. *Language*, *89*, 1-30.

Chomsky, N. (2008). On phases. *Current Studies in Linguistics Series*, *45*, 133.

Chomsky, N. (2012). Foreword. In Á. Gallego (Ed.), *Phases: Developing the framework* (pp. 1-7). Berlin: Walter de Gruyter.

Chomsky, N. (2013). Problems of projection. *Lingua, 130*, 33-49.

Chomsky, N. (2015). Problems of projection: extensions. In E. Domenico, C. Hamann & S. Matteini (Ed.), *Structures, strategies and beyond* (pp. 3-16). Amsterdam: John Benjamins.

Chomsky, N., & Lasnik, H. (1993). The theory of principles and parameters. In A. von Stechow, J. Jacobs, W, Sternefeld, & T, Vennemann, (Eds.). *Syntax: An international handbook of contemporary research.* (pp. 506-570). Berlin: De Gruyter.

Chomsky, N., Gallego, Á., & Ott, D. (2017). Generative grammar and the faculty of language: insights, questions, and challenges. *Manuscript, MIT, Universitat Autònoma de Barcelona, and University of Ottawa. To appear in Catalan Journal of Linguistics. Downloadable at< http://ling. auf. net/lingbuzz/003507*.

Chou, C. T. (2013). *Phi-Agree, A-movement, and Complementizer-Tense Relations in Chinese*. (Doctoral dissertation). The University of Michigan, Ann Arbor.

Cinque, G. (1982). On the theory of relative clauses and markedness. *The Linguistic Review, 1*(3), 247-296.

Cinque, G. (1990). *Types of Ā-dependencies*. Cambridge, Mass.: MIT press.

Cinque, G. (1999). *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.

Cinque, G. (2004). Restructuring and functional structure. Structures and beyond. In A. Belletti (Ed.), *The cartography of syntactic structures* (pp.132-191). New York: Oxford University Press.

Cinque, G. (2014). *Typological studies: Word order and relative clauses*. London: Routledge.

Cinque, G., & Rizzi, L. (2008). The cartography of syntactic structures. *Studies in Linguistics, 2*, 42-58.

Collins, C. (2002). Eliminating labels. In S.D. Epstein, & T.D. Seely (Eds), *Derivation and explanation in the Minimalist Program* (pp., 42–64). Oxford: Blackwell.

Collins, C., & Stabler, E. (2016). A formalization of minimalist syntax. *Syntax, 19*(1), 43-78.

Constant, N. (2012). Topic abstraction as the source for nested alternatives: a conservative semantics for contrastive topic. *In Proceedings of West Coast Conference on Formal Linguistics (WCCFL) 30*, 120-130.

Constant, N. (2014). *Contrastive topic: Meanings and realizations*. (Doctoral dissertation). University of Massachusetts, Amherst.

Costa, J. (2000). Adverbs as adjuncts to non-universal functional categories: evidence from Portuguese. Adverbs and adjunction. *Linguistics in Potsdam, 6,* 19-32.

Costa, J. (2008). Adverbs and the syntax-semantics interplay. *Estudos Linguísticos, 2*, 13-25.

Crain, S., & Nakayama, M. (1987). Structure dependence in grammar formation. *Language*, 522-543.

Crinč, L. (2016). A note on connected exceptive phrases. Ms., Hebrew University.

Culicover, P. W. (1996). On distinguishing Ā-movements. *Linguistic Inquiry,* 445-463.

de Swart, H., & Farkas, D. (2010). The semantics and pragmatics of plurals. *Semantics and Pragmatics, 3*, 1-56.

Den Dikken, M. (2006). *Relators and linkers*. Cambridge, MA: MIT Press.

Den Dikken, M. (2007). Phase extension contours of a theory of the role of head movement in phrasal extraction. *Theoretical Linguistics, 33*(1), 1-41.

Den Dikken, M. (2011). Phi-feature inflection and agreement: An introduction. *Natural Language & Linguistic Theory, 29*(4), 857-874.

Déprez, V. (1989). *On the typology of syntactic projections and the nature of chains: Move-a to the specifier of a functional projection*. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Diesing, M. (1996). Semantic variables and object shift. *Studies in Comparative Germanic Syntax, 2*, 66-84.

Donati, C., & Cecchetto, C. (2011). Relabeling heads: A unified account for relativization structures. *Linguistic Inquiry, 42*(4), 519-560.

Doron, E. & Heycock, C. (1999). Filling and Licensing Multiple Specifiers. In D. Adger, S. Pintzuk, B. Plunkett & G. Tsoulas, (Eds), *Specifiers: Minimalist Approaches* (pp. 69-89). Oxford: Oxford University Press.

Doron, E., & Heycock, C. (2009). In support of broad subjects in Hebrew. *Lingua, 120*(7), 1764-1776.

Dowty, D. & Brodie. B. (1984). A semantic analysis of "floated" quantifiers in a transformationless grammar. In M. Cobler, S. MacKaye, & M. T. Wescoat (Eds.), *Proceedings of WCCFL 3* (pp. 75–90). Stanford: Stanford Linguistics Association.

É. Kiss, K. (1995). Introduction. In K. É. Kiss, (Ed.), *Discourse configurational languages* (pp.3–27). Oxford: Oxford University Press.

Elsaadany, K. A., & Shams, S. M. (2012). On the syntax and semantics of Arabic Universal quantification. In R. Bassiouney & E. G. Katz (Eds.), *Arabic language and linguistics* (pp. 17-34). Washington DC: Georgetown University Press.

Embick, D., & Noyer, R. (2001). Movement operations after syntax. *Linguistic Inquiry, 32*(4), 555-595.

Emonds, J. (2004). Unspecified categories as the key to root constructions. In A. Adger, C. de Cat & G. Tsoulas (Eds.), *Peripheries*: *syntactic edges and their effects* (pp. 75-120). Dordrecht: Kluwer.

Epstein, S. D. (1999). Un-principled syntax: The derivation of syntactic relations. In S. D. Epstein and N. Hornstein (Eds.), *Working minimalism* (317-345). Cambridge, MA: MIT Press.

Epstein, S. D., Kitahara, H. & Seely, T. D. (2017). Merge, labeling and their interactions. In L. Baule & A. Blümel (Eds.), *Labels and Roots* (pp. 17-45). Boston: Walter de Gruyter.

Epstein, S. D., Kitahara, H., & Seely, T. D. (2014). Labeling by minimal search: Implications for successive-cyclic A-movement and the conception of the postulate ''phase''. *Linguistic Inquiry, 45*(3), 463-481.

Erlewine, M. (2014). *Movement out of focus.* (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Erlewine, M. (2016). Anti-locality and optimality in Kaqchikel Agent Focus. *Natural Language & Linguistic Theory 34,* 429–479.

Erteschik-Shir, N. (2005). Sound patterns of syntax: Object shift. *Theoretical Linguistics, 31*(1-2), 47-93.

Fălăuş, A. (2013). Introduction: Alternatives in semantics and pragmatics. In A. Fălăuş (Ed.), *Alternatives in semantics* (pp. 1-35). London: Palgrave Macmillan.

Faller, M. (2019). The discourse commitments of illocutionary reportatives. *Semantics and Pragmatics, 12*(8), 1-46.

Fanselow, G. (2006). On pure syntax (uncontaminated by information structure). In P. Brandt & E. Fuss (Eds.), *Form, structure and grammar* (pp. 137–157). Berlin: Akademie Verlag.

Fanselow, G., & Cavar, D. (2002). Distributed deletion. In Alexiadou, A. (Ed.), *Theoretical approaches to universals* (pp. 65–107). Amsterdam: John Benjamins.

Fassi Fehri, A. (1989). Generalized IP structure, case and VS word order. *MIT Working Papers in Linguistics, 10*, 75-113.

Fassi Fehri, A. (1997). Arabic adverbs and their Case. *Linguistic Research, 3*, 1-25.

Fassi-Fehri, A. (1993). *Issues in the structure of Arabic clauses and word order*. Dordrecht: Kluwer.

Fassi-Fehri, A. (2012). *Key features and parameters in Arabic grammar*. Amsterdam: John Benjamins.

Fehri-Feri, A. (2004). Temporal/aspectual interaction and variation across Arabic heights. In Guéron, J., Lecarme, J., & Lecarme, A. (Eds.). *The syntax of time* (pp. 235-258). Cambridge: MIT Press.

Féry, C. (2007). The prosody of topicalization. In K. Schwabe & S. Winkler (Eds.), *On information structure, meaning and form*: *Generalizations across languages* (pp. 69-86). Amsterdam: John Benjamins.

Fodor, J. D., & Sag, I. A. (1982). Referential and quantificational indefinites. *Linguistics and philosophy, 5*(3), 355-398.

Folli, R., Harley, H., & Karimi, S. (2005). Determinants of event type in Persian complex predicates. *Lingua, 115*(10), 1365-1401.

Fox, D. (1998). *Economy and semantic interpretation: A study of scope and variable binding*. (Doctoral dissertation). Massachusetts Institute of Technology.

Fox, D. (1999). Reconstruction, binding theory, and the interpretation of chains. *Linguistic Inquiry, 30*(2), 157-196.

Fox, D. (2000). *Economy and semantic interpretation*. Cambridge, Mass.: MIT press.

Fox, D., & Nissenbaum, J. (1999). Extraposition and scope: A case for overt QR. In S. Bird, A. Carnie, J. D. Haugen & P. Norquest (Eds.), *Proceedings of the 18th West Coast Conference on formal linguistics* (pp. 132-144). Somerville, Mass.: Cascadilla Press.

Fox, D., & Pesetsky, D. (2005). Cyclic linearization of syntactic structure. *Theoretical Linguistics, 31*(1-2), 1-45.

Frampton, J. (1991). Relativized Minimality: A review. *The Linguistic Review, 8*(1), 1-46.

Frascarelli, M. (2007). Subjects, topics and the interpretation of referential pro. *Natural Language & Linguistic Theory, 25*(4), 691-734.

Frascarelli, M., & Hinterhölzl, R. (2007). Types of topics in German and Italian. In K. Schwabe & S. Winkler (Eds.), *On information structure, meaning and form*: *Generalizations across languages* (pp. 87-116). Amsterdam: John Benjamins.

Freeze, R. (1992). Existentials and other locatives. *Language,* 553-595.

Frey, W. (2004). Notes on the syntax and the pragmatics of German Left Dislocation. In H. Lohnstein & S. Trissler (Eds.), *The syntax and semantics of the left periphery* (PP. 203-234). Berlin: Mouton de Gruyter.

Gallego, Á. (2007). *Phase theory and parametric variation*. (Doctoral dissertation) Universitat Autonoma de Barcelona, Barcelona.

Gallego, Á. (2010). *Phase Theory*. Amsterdam: John Benjamins.

Gallego, Á. (2012). Introduction: A framework of phases for linguistic theory. In Á, Gallego (Eds.), *Phases: Developing the framework* (pp. 9-45). Berlin/Boston: Walter de Gruyter.

Gallego, Á. (2013). Object shift in Romance. *Natural Language & Linguistic Theory, 31*(2), 409-451.

Gallego, Á. (2014). Deriving feature inheritance from the copy theory of movement. *The Linguistic Review, 31*(1), 41-71.

Gallego, Á., & Uriagereka, J. (2006). Conditions on sub-extraction. In L. Equren & O. Fernández Soriano (Eds.), *Coreference, modality, and focus* (pp. 45-70). Amsterdam: John Benjamins.

Garcia, E. (1975). *The role of theory in linguistic analysis: the Spanish pronoun system*. Amsterdam: North-Holland.

Georgi, D. (2014). *Opaque interactions of Merge and Agree: On the nature and order of elementary operations* (Doctoral dissertation). Universität Leipzig, Leipzig.

Gerlach, B. (2002). *Clitics between syntax and lexicon*. Amsterdam: John Benjamins.

Ginsburg, J. (2009). *Interrogative features*. (Doctoral dissertation). University of Arizona, Tucson.

Ginzburg, J., & Sag, I. (2000). *Interrogative investigations*. Stanford: CSLI publications.

Greshler, A., Tali, L. H. S., Melnik, N., & Wintner, S. (2016). Reference patterns in subjunctive complement clauses of Modern Standard Arabic. In D. Arnold, M. Butt, B. Crysmann, T. King, & S. Müller (Eds.), *Proceedings of the joint 2016 conference on Head-driven Phrase Structure Grammar and Lexical Functional Grammar* (pp. 4-22). Stanford: CSLI Publications.

Greshler, T. A., Melnik, N., & Wintner, S. (2017)a. Seeking control in Modern Standard Arabic. *Glossa, 2*(1).

Grewendorf, G. (2005). The discourse configurationality of scrambling. In H. Riemsdijk, J. Koster & H. Hulst (Eds.), *The free word order phenomenon: Its syntactic sources and diversity* (pp. 75-135). Berlin: Mouton de Gruyter.

Griffiths, J. (2019). A Q-based approach to clausal ellipsis: Deriving the preposition stranding and island sensitivity generalisations without movement. *Glossa, 4*(1), 1-41.

Groenendijk, J., & Stokhof, M. (1982). Semantic analysis of "wh"-complements. *Linguistics and Philosophy*, 175-233.

Grohmann, K. K. (2003). *Prolific domains: On the anti-locality of movement dependencies*. Amsterdam: John Benjamins Publishing.

Gundel, J. (1974). *The role of topic and comment in linguistic theory*. (Doctoral dissertation). University of Texas, Austin,

Gutzmann, D. (2015). *Use-conditional meaning: Studies in multidimensional semantics*. Oxford: Oxford University Press.

Gutzmann, D., Hartmann, K., & Matthewson, L. (2017). Verum focus is verum, not focus: Cross-linguistics evidence. Manuscript.

Habib, R. (2009). The syntax of the Standard Arabic ʔan and ʔanna. In K. K. Grohmann & P. Panagiotidis (Eds.), *Selected papers from the 2006 Cyprus syntax fest* (pp. 159–194). Newcastle upon Tyne: Cambridge Scholars Publishing.

Haegeman, L. (1995). *The syntax of negation*. Cambridge: Cambridge University Press.

Haegeman, L. (2006). Argument fronting in English, Romance CLLD, and the left periphery. In R. Zanuttini, H. Campos, E. Herburger, & P. Portner (Eds.), *Crosslinguistic research in syntax and semantics: Negation, tense and clausal architecture* (pp. 27–52). Washington: Georgetown University Press.

Hagstrom, P. A. (1998). Decomposing Questions. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Halle, M., & Marantz, A. (1993). Some key features of Distributed Morphology. In. A. Carnie, H. Harley, and T. Bures (Eds.), *Papers on Phonology and Morphology* (pp. 275-288). Cambridge, Mass: MIT Press.

Hallman, P. (2016). Universal quantification as degree modification in Arabic. *Glossa, 1*(1), 1-31.

Harley, H. (1995). *Subjects, events, and licensing* (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Harley, H. (2005). How do verbs get their names? Denominal verbs, manner incorporation, and the ontology of verb roots in English. In N. Erteschik-shir, & T. Rapoport (Eds.), *The syntax of aspect* (pp. 42–65). New York: Oxford University Press.

Harley, H. (2007). The bipartite structure of verbs cross-linguistically or why Mary can't "exhibit John her paintings". Ms., University of Arizona.

Heim, I. (1982). *The Semantics of Definite and Indefinite Noun Phrases*. (Doctoral Dissertation). University of Massachusetts, Amherst.

Heim, I., & Kratzer, A. (1998). *Semantics in Generative Grammar*. Oxford: Blackwell.

Heusinger, K. (2011). Specificity, referentiality and discourse prominence: German indefinite demonstratives. In R. Ingo, E. Horch, & D. Pauly (Eds.), *Proceedings of Sinn & Bedeutung 15* (pp. 9–30). Saarbrücken: Universaar – Saarland University Press.

Heycock, C. (1993). Syntactic predication in Japanese. *Journal of East Asian Linguistics, 2*(2), 167-211.

Heycock, C. (2008). Japanese -wa, -ga, and Information Structure. In M. Saito & S. Miyagawa (Eds.), *The Oxford Handbook of Japanese Linguistics* (pp. 54-83). Oxford: Oxford University Press.

Heycock, C., & Doron, E., (2003). Categorial subjects. *Gengo Kenkyu 123*, 95–135.

Hoeksema, J. (1987). The logic of exception. in A. Miller and J. Powers (Eds.), *Proceedings of ESCOL 4* (pp. 100–113). Columbus: The Ohio State University Press.

Holmberg, A. (1985). Icelandic word order and binary branching. *Nordic Journal of Linguistics, 8*(2), 161-195.

Holmberg, A. (1986). *Word order and syntactic features in the Scandinavian languages and English*. (Doctoral dissertation). University of Stockholm, Stockholm.

Holmberg, A. (1999). Remarks on Holmberg's Generalization. *Studia Linguistica 53*, 1-39.

Holmberg, A., & Platzack, C.(1995). *The role of inflection in Scandinavian syntax.* New York: Oxford University Press.

Hornstein, N. (2009). *A theory of syntax: Minimal operations and universal grammar*. Cambridge: Cambridge University Press.

Hornstein, N., Nunes, J., & Grohmann, K. K. (2005). *Understanding minimalism*. Cambridge: Cambridge University Press.

Horvath, J. (2010). Discourse features, syntactic displacement and the status of contrast. *Lingua, 120*(6), 1346-1369.

Iatridou, S., & Zeijlstra, H. (2013). Negation, polarity, and deontic modals. *Linguistic Inquiry, 44*(4), 529-568.

Ionin, T. (2006). This is definitely specific: specificity and definiteness in article systems. *Natural Language Semantics, 14*(2), 175.

Jackendoff, R. (1972). *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.

Jacobson, P. (2016). The short answer: implications for direct compositionality (and vice versa). *Language, 92*(2), 331-375.

Jayaseelan, K. A. (2001). IP-internal topic and focus phrases. *Studia Linguistica, 55*(1), 39-75.

Jiménez-Fernández, Á. L., & Spyropoulos, V. (2013). Feature inheritance, vP phases and the information structure of small clauses. *Studia Linguistica, 67*(2), 185-224.

Jonas, D., & Bobaljik, J. D. (1993). Specs for subjects: The role of TP in Icelandic. *MIT Working Papers in Linguistics, 18*, 59-98.

Kaplan, D. (1999). The meaning of ouch and oops: Explorations in the theory of meaning as use 2004 version. Ms., University of California, Los Angeles.

Karimi, S. (2008). *A minimalist approach to scrambling: Evidence from Persian*. Berlin: Walter de Gruyter.

Kayne, R. (1984). Principles of particle constructions. In J. Guéron, H. Obenauer, and J. Pollock (Eds.), *Grammatical representation* (pp. 101–140). Dordrecht: Foris.

Kayne, R. (1994). *The antisymmetry of syntax*. Cambridge, MA: MIT Press.

Kayne, R. (2011). Why are there no directionality parameters. In M. Washburn, K. McKinney-Bock, E. Varis, A. Sawyer, and B. Tomaszewicz (Eds.), *Proceedings of WCCFL 28* (pp. 1–23). Somerville, MA: Cascadilla Press.

Keine, S. (2016). *Probes and their horizons*. (Doctoral dissertation). University of Massachusetts, Amherst.

Keine, S., & Dash, B. (2017). Agreement reversals and the cyclicity of agree. *In Proceedings of the 48th Annual Meeting of the North East Linguistic Society (NELS 48)*, University of Iceland.

Kim, J., & Kim. J. (2009). English Floating Quantifier Constructions: A Non- movement Approach. *Language and Information, 13*, 57–75.

Kimball, J., & Aissen, J. (1971). I think, you think, he think. *Linguistic Inquiry, 2*(2), 241-246.

Kitagawa, Y. (1986). *Subjects in Japanese and English*. (Doctoral dissertation). University of Massachusetts, Amherst.

Koev, T. K. (2013). *Apposition and the structure of discourse*. (Doctoral dissertation). Rutgers University, New Brunswick.

Koopman, H. (2006). Agreement configurations: In defense of "Spec Head". In C. Boeckx (Ed.), *Agreement systems* (pp. 159-200). Amsterdam: John Benjamins.

Koopman, H., & Sportiche, D. (1991). The position of subjects. *Lingua, 85*(2-3), 211-258.

Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck, & L. Zaring (Eds.), *Phrase structure and the lexicon* (pp. 109-137). Dordrecht: Springer

Kratzer, A. & Selkirk, E. (2019). Deconstructing Information Structure. Ms., University of Massachusetts.

Krifka, M. (1992). A compositional semantics for multiple focus constructions. *Semantics and Linguistic Theory (SALT) I,* (10), 127–158

Krifka, M. (2001). Quantifying into question acts. *Natural Language Semantics, 9*(1), 1-40.

Krifka, M. (2011). Questions. In C. Maienborn, K. von Heusinger, & P. Portner (Eds.). *Semantics: An international handbook of natural language meaning* (pp. 1742-1785). Berlin: Walter de Gruyter.

Krifka, M. (2008). Basic notions of information structure. *Acta Linguistica Hungarica*, *55*(3-4), 243-276.

Krifka, M. (2016). Quantification and information structure. In C. Féry, & S. Ishihara (Eds.), *The Oxford Handbook of Information Structure* (pp. 251–269). New York: Oxford University Press.

Kuno, S. (1972). Functional sentence perspective: A case study from Japanese and English. *Linguistic Inquiry, 3*(3), 269-320.

Kuroda, S. Y. (1972). The categorical and the thetic judgment: Evidence from Japanese syntax. *Foundations of Language, 9*, 153-185.

Kuroda, S. Y. (1988). Whether we agree or not: A comparative syntax of English and Japanese. *Lingvisticae Investigationes, 12*(1), 1-47.

Ladd, D. R. (1990). Metrical representation of pitch register. *Papers in Laboratory Phonology, 1*, 35-57.

Lambova, M. (2003). On the interaction of multiple (non) wh-fronting and multiple topicalization in Bulgarian. *University of Pennsylvania Working Papers in Linguistics, 8*(1), 127-142.

Lambrecht, K. (1994). *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.

Landau, I. (2009). Against broad subjects in Hebrew. *Lingua, 119(1)*, 89-101.

Larson, R. K. (1988). On the Double Object Construction. *Linguistic Inquiry, 19*(3), 335-391.

Lasnik, H. (1999). Chain of arguments. In S. Epstein and N. Hornstein (Eds.), *Working Minimalism* (pp. 189-215). Cambridge, MA: MIT Press.

Lasnik, H. (1999). On feature strength: Three minimalist approaches to overt movement. *Linguistic Inquiry, 30*(2), 197-217.

Lasnik, H., & Saito, M. (1992). *Move α: Conditions on its application and output*. Cambridge, Mass.: MIT Press.

Lebeaux, D. (1988). *Language Acquisition and the Form of the Grammar*. (Doctoral dissertation, dissertation). University of Massachusetts, Amherst.

Lechner, W. (2006). An interpretive effect of head movement. In M. Frascarelli (Ed.), *Phases of interpretation* (pp. 45-71). Berlin: Mouton de Gruyter.

Lewis, D. (1975). Adverbs of Quantification. In E. Keenan (Ed.), *Formal Semantics of Natural Language* (pp. 178-188). Cambridge: Cambridge University Press.

Lewis, R. (2013). *Complementizer Agreement in Najdi Arabic*. (MA thesis). University of Kansas, Lawrence.

Link, G. (1983). The logical analysis of plurals and mass terms: A lattice-theoretical approach. In R. Baüerle, C. Schwarze, & A. von Stechow (Eds.), *Meaning, use and interpretation* (pp. 303-323). Berlin: Mouton de Gruyter.

Lohnstein, H., & Stommel, H. (2005). Verum focus and phases. *Linguistic Analysis, 35*(1), 109.

Mahajan, A. K. (1990). *The A/A-bar distinction and movement theory* (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Matushansky, O. (2006). Head movement in linguistic theory. *Linguistic Inquiry, 37*(1), 69-109.

McCloskey, J. (1986). Inflection and conjunction in Modern Irish. *Natural Language & Linguistic Theory, 4*(2), 245-281.

McCloskey, J. (2000). Quantifier float and wh-movement in an Irish English. *Linguistic Inquiry, 31*(1), 57-84.

Merchant, J. (1996). Object scrambling and quantifier float in German. In K. Kusumoto (Ed.), *Proceedings of NELS 26* (pp. 179-193). Amherst, MA: University of Massachusetts.

Merchant, J. (2005). Fragments and ellipsis. *Linguistics and Philosophy, 27*(6), 661-738.

Mikkelsen, L. (2011). On prosody and focus in Object Shift. *Syntax, 14*(3), 230-264.

Miyagawa, S. (2010). *Why agree? Why move*. Cambridge: MIT Press.

Miyagawa, S. (2017). *Agreement beyond phi*. Cambridge: MIT Press.

Mohammad, M. (1989). *The sentential structure of Arabic*. (Doctoral dissertation). University of Southern California, Los Angeles.

Mohammad, M. (2000). *Word order, agreement, and pronominalization in Standard and Palestinian Arabic*. Philadelphia: John Benjamins.

Mohammad, M. (1990). The problem of subject–verb agreement in Arabic: Towards a solution. In M. Eid (Ed.), *Perspectives on Arabic linguistics I: Papers from the First Annual Symposium on Arabic Linguistics* (pp.95–126). Amsterdam: John Benjamins.

Moltmann, F. (1992). *Coordination and comparatives*. (Doctoral Dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Moore, J. (1988). Word order and case assignment in Modern Standard Arabic. *Proceedings of the Chicago Linguistics Society*, (pp. 283–294). Chicago: The University of Chicago.

Moutaouakil, A. (1989). *Pragmatic functions in a functional grammar of Arabic*. Berlin: Walter de Gruyter.

Moutaouakil, A. (2009). Exceptive Constructions: From the Arabic Grammatical Tradition to Functional Discourse Grammar. *WPFG Special issue,* 83-96

Müller, G. & Stemefeld, W. (1994). Scrambling as A-bar movement. In N. Corver & H. Riemsdijk (Eds.) *Studies on scrambling: movement and non-movement approaches to free word-order phenomena* (pp. 387-429)*.* Berlin: Mouton de Gruyter.

Müller, G., & Sternefeld, W. (1993). Improper movement and unambiguous binding. *Linguistic Inquiry, 24*(3), 461-507.

Müller, G., & Sternefeld, W. (1996). Ā-chain formation and economy of derivation. *Linguistic Inquiry*, 480-511.

Murray, S. (2014). Varieties of update. *Semantics and Pragmatics*, *7*, 1–53.

Musabhien, M. (2009). *Case, agreement, and movement in Arabic: a minimalist approach*. (Doctoral dissertation). University of Newcastle, Newcastle upon Tyne .

Neeleman, A., Titov, E., Van de Koot, H., & Vermeulen, R. (2009). A syntactic typology of topic, focus and contrast. In J. Graenenbroeck (Ed.), *Alternatives to cartography* (pp. 15-51). Berlin: Mouton de Gruyter.

Nissenbaum, J. W. (2000). *Investigations of covert phrase movement.* (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge.

Nunes, J. (1995). *The copy theory of movement and linearization of chains in the Minimalist Program*. (Doctoral dissertation). University of Maryland, College Park.

Nunes, J. (2004). *Linearization of Chains and Sideward Movement*. Cambridge, Mass.: MIT Press.

Omar, A., Zahran, M & Abullatif, M. (1994). *ʔal-naħwu lʔasaasjj-u 'Basic Syntax'*. Kuwait: That Al-Salasil.

Ordóñez, F. (1998). *Word order and clause structure in Spanish and other romance languages*. New York: City University of New York.

Ott, D. (2011). *Local instability: The syntax of split topics*. (Doctoral dissertation). Harvard University, Cambridge.

Ott, D., & De Vries, M. (2016). Right-dislocation as deletion. *Natural Language & Linguistic Theory, 34*(2), 641-690.

Ott, D., & Struckmeier, V. (2016). Deletion in Clausal Ellipsis: Remnants in the Middle Field. In *University of Pennsylvania Working Papers in Linguistics, Vol. 22*.

Ouali, H, & Fortin. C. (2007). The syntax of complex tense in Moroccan Arabic. In E. Benmamoun, (Ed.) *Perspectives in Arabic Linguistics Volume XIX* (pp. 175-190). Amsterdam: John Benjamins.

Ouali, H. (2018). The syntax of Tense in Arabic. In E. Benmamoun, & R. Bassiouney (Eds.) *The Routledge Handbook of Arabic Linguistics* (pp. 89-104). London: Routledge.

Ouhalla, J. (1993). Negation, focus and tense: The Arabic maa and laa. *Rivista di linguistica, 5*(2), 275-300.

Ouhalla, J. (1994). Verb movement and word order in Arabic. In D. Lightfoot, & N. Hornstein (Eds.), *Verb movement* (pp. 41-72). Cambridge: Cambridge University Press.

Ouhalla, J. (1997). Remarks on focus in Standard Arabic. In M. Eid, & R. Ratcliffe (Eds.), *Perspectives on Arabic Linguistics Current Issues in Linguistic Theory* (pp. 9-46). Amsterdam: John Benjamins.

Ouhalla, J., & Shlonsky, U. (Eds.). (2002). *Themes in Arabic and Hebrew syntax*. Dordrecht: Springer.

Owens, J., & Elgibali, A. (Eds.). (2013). *Information structure in spoken Arabic*. London: Routledge.

Partee, B. (1986). Noun phrase interpretation and type-shifting principles. In J. Groenendijk, D. de Jongh, J. Martin,. & M. Stokhof. (Eds.), *Studies in Discourse Representation Theory and the Theory of Generalized Quantifier*s (pp. 115-143). Dordrecht: Foris.

Partee, B. (1991). Topic, focus and quantification. *Semantics and Linguistic Theory (SALT) I, 10*, 159–188.

Partee, B. (1993). On the "scope of negation" and polarity sensitivity. In E. Hajicová (Ed.), *Functional approaches to language description* (pp. 179-196). Prague: Charles University.

Pérez-Jiménez, I., & Moreno-Quibén, N. (2012). On the syntax of exceptions: Evidence from Spanish. *Lingua, 122*(6), 582-607.

Pérez-Jiménez, I., & Moreno-Quibén, N. (2012). On the syntax of exceptions. Evidence from Spanish. *Lingua, 122*(6), 582-607.

Pesetsky, D. (1987). Wh-in-situ: Movement and Unselective Binding. E. Reuland and A. Ter Meulen (Eds.), *The Representation of (In)definiteness* (pp. 98-129). Cambridge, MA: MIT Press

Pesetsky, D. (2000). *Phrasal movement and its kin*. Cambridge, MA: MIT press.

Pesetsky, D. (2019). Exfoliation: towards a derivational theory of clause size. Retrieved from https://ling.auf.net/lingbuzz/004440

Pesetsky, D., & Torrego E. (2007). The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiian, & W. Wilkins (Eds), *Phrasal and clausal architecture: Syntactic derivation and interpretation* (pp. 262–294). Amsterdam: John Benjamins.

Pesetsky, D., & Torrego, E. (2001). T-to-C movement: Causes and consequences. *Current Studies in Linguistics Series, 36*, 355-426.

Pollock, J. Y. (1989). Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry, 20*(3), 365-424.

Postal, P. M. (1974). *On raising: One rule of English grammar and its theoretical implications*. Cambridge, MA: MIT Press.

Preminger, O. (2011). *Agreement as a fallible operation*. (Doctoral dissertation). Massachusetts Institute University, Cambridge.

Preminger, O. (2013). That's not how you agree: a reply to Zeijlstra. *The Linguistic Review, 30*, 491-500.

Preminger, O. (2014). *Agreement and its failures*. Cambridge, MA: MIT Press.

Preminger, O., & Polinsky, M. (2015). Agreement and semantic concord: a spurious unification. Ms.

Progovac, L. (1993). Negative polarity: Entailment and binding. *Linguistics and Philosophy, 16,* 149–180.

Rackowski, A., & Richards, N. (2005). Phase edge and extraction: A Tagalog case study. *Linguistic inquiry, 36*(4), 565-599.

Ramchand, G. C. (2008). Verb meaning and the lexicon: A first phase syntax. New York: Cambridge University Press.

Reinhart, T. (1981). Pragmatics and Linguistics: an analysis of Sentence Topics. *Philosophica, 27,* (1), 53-94.

Reinhart, T. (1997). Quantifier scope: How labor is divided between QR and choice functions. *Linguistics and Philosophy, 20*(4), 335-397.

Rezac, M. (2011). Building and interpreting nonthematic A-positions. In A. Rouveret (Ed.), *Resumptive pronouns at the interfaces* (pp. 241-288). Amsterdam: John Benjamins.

Richards, N. W. (1997). *What moves where when in which languages*?. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Richardson, K. (2007). *Case and aspect in Slavic*. New York: Oxford University Press.

Rizzi, L. (1982). *Issues in Italian syntax*. Dordrecht: Foris.

Rizzi, L. (1986). Null objects in Italian and the theory of pro. *Linguistic inquiry, 17*(3), 501-557.

Rizzi, L. (1990). *Relativized minimality*. The MIT Press.

Rizzi, L. (1997). The fine structure of the left periphery. In L. Haegeman (Ed). *Elements of Grammar. Handbook of Generative Syntax* (pp. 281-337). Dordrecht: Kluwer.

Rizzi, L. (2001). Relativized minimality effects. In M. Baltin, & C. Collins (Eds.), *The handbook of contemporary syntactic theory* (89-110). Oxford: Blackwell.

Rizzi, L. (2004). Locality and left periphery. In A. Belletti (Ed.), *structures and beyond: the cartography of syntactic structures* (pp. 223-251). New York: Oxford University Press.

Rizzi, L. (2006). On the form of chains: Criterial positions and ECP effects. In L. L. Cheng, & N. Corver (Eds.), *WH-movement: Moving on* (pp. 97-135). Cambridge, MA: MIT Press.

Rizzi, L. (2013). Introduction: Core computational principles in natural language syntax. *Lingua, (130)*, 1-13.

Rizzi, L. (2016). Labeling, maximality and the head–phrase distinction. *The Linguistic Review, 33*(1), 103-127.

Rizzi, L., & Cinque, G. (2016). Functional categories and syntactic theory. *Annual Review of Linguistics, 2*, 139-163.

Rizzi, L., & Shlonsky, U. (2007). Strategies of subject extraction. In H. Gärtner, & U. Sauerland (Eds.), *Interfaces+ recursion= language? Chomsky's minimalism and the view from syntax-semantics* (pp. 115–160). Berlin: Mouton de Gruyter.

Roberts, C. (1996). Information structure in discourse: Towards an integrated formal theory of pragmatics. In J. H. Yoon & A. Kathol (Eds.), *OSU working papers in linguistics 49: papers in semantics* (pp. 91–136). Columbus: The Ohio State University.

Roberts, I. G. (2010). *Agreement and head movement: Clitics, incorporation, and defective goals*. Cambridge, Mass.: MIT Press.

Rochemont, M. (1989). Topic islands and the subjacency parameter. *Canadian Journal of Linguistics/Revue canadienne de linguistique, 34*(2), 145-170.

Rooth, M. (1985). *Association with focus*. (Doctoral dissertation). University of Massachusetts, Amherst.

Rooth, M. (1992). A theory of focus interpretation. *Natural language semantics, 1*(1), 75-116.

Rooth, M. (2016). Alternative semantics. In F. Caroline & S. Ishihara (Eds.), *Handbook of Information Structure* (pp.19-41). New York: Oxford University Press.

Rothstein, S. (2004). *Structuring events: A study in the semantics of aspect*. Oxford: Blackwell.

Ruben, R. J. (1999). A time frame of critical/sensitive periods of language development. *Indian Journal of Otolaryngology and Head & Neck Surgery, 51*(3), 85-89.

Sag, I. (1978). Floating quantifiers, adverbs and extraction sites. *Linguistic Inquiry, 9*, 146-150.

Sag, I. (1982). Coordination, extraction, and generalized phrase structure grammar. *Linguistic Inquiry, 13*(2), 329-336.

Saito, M., & Murasugi, K. (1999). Subject predication within IP and DP. In K. Johnson & I. Robert (Eds.), *Beyond principles and parameters* (pp. 167-188). Springer, Dordrecht.

Sauerland, U., Anderssen, J., & Yatsushiro, K. (2005). The plural is semantically unmarked. In S. Kepser, & M. Reis (Eds.), *Linguistic evidence*: *Empirical, theoretical, and computational perspectives* (pp. 413–434). Berlin: Mouton de Gruyter.

Sauerland, U. (2003). *A new semantics for number*. In B. R. Young, & Y. Zhou (Eds), *Proceedings of Semantics and Linguistic Theory* (SALT) (pp. 258–275). New York: Cornell University, CLC Publications.

Schachter, P. (1973). Focus and relativation. *Language 49* : 19-46.

Schneider-Zioga, P. (2007). Anti-agreement, anti-locality and minimality: The syntax of dislocated subjects. *Natural Language & Linguistic Theory, 25*, 403– 446.

Sekerina, I. A. (1997). *The syntax and processing of scrambling constructions in Russian* (Doctoral dissertation). City University of New York, New York.

Shen, Z. (to appear). Fragment answers and movement: a superlative argument". *Natural Language and Linguistic Theory*.

Shlonsky, U. (1991). Quantifiers as functional heads: A study of quantifier float in Hebrew. *Lingua, 84*(2-3), 159-180.

Shlonsky, U. (1997). *Clause structure and word order in Hebrew and Arabic: An essay in comparative Semitic syntax*. New York: Oxford University Press.

Shlonsky, U. (2000). Remarks on the complementizer layer of Standard Arabic. In J. Lecarme, J. Lowenstamm & U. Shlonsky (Eds.), *Research in Afroasiatic grammar: Papers from the third conference on Afroasiatic languages* (pp. 325-343). Amsterdam: John Benjamins.

Siewierska, A. (1984). Phrasal discontinuity in Polish. *Australian Journal of Linguistics, 4*(1), 57-71.

Sigurðsson, H. Á. (2003). The silence principle. The silence principle. In L. Delsing, C. Falk, G. Josefsson, & H. Á. Sigurðsson (Eds.), *Grammar in focus, Festschrift for Christer Platzack 18 November 2003, Vol. 2*, (pp. 325–334). Lund: Wallin & Dalholm.

Sigurðsson, H. Á. (2010). On EPP effects. *Studia Linguistica, 64(*2), 159-189.

Sigurðsson, H. Á., & Holmberg, A. (2008). Icelandic dative intervention: person and number are separate probes. In R. D'Alessandro, S. Fischer, & G. H. Hrafnbjargarson (Eds.), *Agreement restrictions* (pp. 251–280). Berlin: Watler de Gruyter.

Soltan, U. (2007). *On formal feature licensing in minimalism: Aspects of Standard Arabic morphosyntax* (Doctoral dissertation). University of Maryland, College Park.

Soltan, U. (2016). *On the syntax of exceptive constructions in Egyptian Arabic*. In S. Davis, & U. Soltan (Eds), *Perspectives on Arabic linguistics XXVII* (pp. 35-57). Amsterdam: John Benjamins.

Speas, M. J. (1986). Adjunctions and projections in syntax (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Sportiche, D. (1988). A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry, 19*(3), 425-449.

Stainton, R. (1998). Quantifier phrases, meaningfulness 'In Isolation' and 'Ellipsis'. *Linguistics and Philosophy, 21*, 311-340.

Stainton, R. (2006). *Words and thoughts: Subsentences, ellipsis, and the philosophy of language*. New York: Oxford University Press.

Stainton, R. J. (2005). In defense of non-sentential assertion. In Z. Szabo (Ed.), *Semantics vs. Pragmatics* (pp. 383–457). Oxford: Oxford University Press.

Stalnaker, R. (1978). Assertion. In P. Cole (Ed.), *Pragmatics* (pp. 78-95). New York: New York Academic Press.

Stalnaker, R. (2002). Common ground. *Linguistics and Philosophy, 25*(5), 701-721.

Swart, H. (1999). Indefinites between predication and reference. In T. Matthews & D. Strolovitch (Eds.), *Proceedings of semantics and linguistic theory* 9 (pp. 273–297). New York: Cornell University.

Takahashi, S. (2006). *Decompositionality and identity*. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

Takahashi, S., & Hulsey, S. (2009). Wholesale late merger: Beyond the A/Ā distinction. *Linguistic Inquiry, 40*(3), 387-426.

Taraldsen, K. T. (1978). *On the NIC, vacuous application and the that-trace filter*. Cambridge: MIT Press.

Taraldsen, K. T. (1978). The scope of wh movement in Norwegian. *Linguistic Inquiry,* 623-640.

Thráinsson, H. (2001). Object Shift and Scrambling. In M. R. Baltin, & C. Collins (Eds.) *The handbook of contemporary syntactic theory* (pp. 148-202). Oxford: Blackwell.

Tomioka, S. (2008). The Japanese existential possession: A case study of pragmatic disambiguation. *Lingua, 117,* 881-902.

Torrego, E. (1996). Experiencers and raising verbs. In R. Freidin (Ed.), *Current issues in comparative grammar* (pp. 101–120). Dordrecht: Kluwer.

Totsuka, M. (2015). On phasehood of functional categories in the left periphery (Doctoral dissertation). Tohoku University, Sendai.

Uriagereka, J. (1999). Multiple Spell-Out. In Epstein, S. D. and N. Hornstein (Eds.) *Working Minimalism* (pp. 251-282). Cambridge, Mass.: MIT Press.

van Gelderen, E. (2004). *Grammaticalization as economy*. Amsterdam: John Benjamins.

van Gelderen, E. (2015). Problems of projection: The role of language change in labeling paradoxes. *Studia Linguistica,72*(1), 113-127.

van Gelderen, E. (2018). Problems of projection: The role of language change in labeling paradoxes. *Studia Linguistica, 72*(1), 113-127.

van Riemsdijk, H. (1989). Movement and regeneration. In P. Benincá (Eds.), *Dialect variation and the theory of grammar* (pp. 105-136). Dordrecht: Foris.

van Urk, C. (2015). A uniform syntax for phrasal movement: A case study of Dinka Bor. (Doctoral dissertation). Massachusetts Institute of Technology, Cambridge, MA.

van Urk, C., & Richards, N. (2015). Two components of long-distance extraction: Successive cyclicity in Dinka. *Linguistic Inquiry, 46*(1), 113-155.

Vercauteren, A. (2017). Features and labeling: label-driven movement. In L. Bauke, & A. Blümel (Eds.), *Labels and roots* (pp. 128- 69). Berlin: Walter de Gruyter.

Vickner, S. (2005). Object Shift. In H. van Riemsdijk, & M. Everaert (Eds.), *The Blackwell companion to syntax* (pp. 392–436). Oxford: Blackwell.

Vogel, R. (2006). Weak function word shift. *Linguistics, 44*(5), 1059-1093.

von Fintel, K. (1991). Exceptive conditionals: The meaning of Unless. *NELS, 22*, 135-148.

von Fintel, K. (1994). Restrictions on quantifier domains(Doctoral dissertation). University of Massachusetts, Amherst.

von Stechow, A. (1989). Focusing and Backgrounding Operators. In W. Abraham (Ed.), *Discourse particles* (pp. 37-84). Amsterdam: John Benjamins.

Ward, G. (1985). The semantics and pragmatics of preposing. (Doctoral dissertation). University of Pennsylvania, Philadelphia.

Weir, A. (2014). *Fragments and clausal ellipsis*. (Doctoral dissertation). University of Massachusetts, Amherst.

Williams, E. (1997). Blocking and Anaphora. *Linguistic Inquiry 28,* 577–628.

Wurmbrand, S. (2008). Word order and scope in German. In C. J. Zwart (Ed.), *Groninger arbeiten zur germanistischen linguistik* (pp. 89-110). Groningen: University of Groningen.

Wurmbrand, S. (2012). The syntax of valuation in auxiliary-participle constructions. In J. Choi, E. A. Hogue, J. Punske, D. Tat, J. Schertz, & A. Trueman (Eds). *Proceedings of the 29th West Coast Conference on Formal Linguistics (WCCFL 29)* (pp. 154–162). Tucson: University of Arizona.

Wurmbrand, S. (2014). The merge condition. In P. Kosta, S. L. Franks, T. Radeva-Bork, & L. Schürcks (Eds.), *Minimalism and beyond: Radicalizing the interfaces* (pp. 133-166). Amsterdam: John Benjamins.

Wurmbrand, S., & Haddad, Y. A. (2016). Cyclic spell-out derived agreement in Arabic raising constructions. In Y. Haddad, & E. Potsdam (Eds.), *Perspectives on Arabic Linguistics XXVIII: Papers from the Annual Symposium on Arabic Linguistics* (pp. 193-226). Amsterdam: John Benjamins.

Xiang, Y. (2016). *Interpreting questions with non-exhaustive answers.* (Doctoral dissertation). Harvard University, Cambridge.

Zeijlstra, H. (2008). On the syntactic flexibility of formal features. In T. Biberauer (Ed.), *The Limits of Syntactic Variation* (pp. 143-174). Amsterdam: John Benjamins.

Zeijlstra, H. (2012). There is only one way to agree. *The Linguistic Review 29*:491–539.

Zubizarreta, M. (1998). *Prosody, focus, and word order*. Cambridge: MIT Press

Zubizarreta, M., Vergnaud, J. (2006). Phrasal Stress and Syntax. In M. Everaert, & H. van Riemsdijk (Eds.), *The Blackwell Companion to Syntax* (pp. 522-568). Oxford: Blackwell.

Zwart, C. (1996). *Morphosyntax of verb movement: a minimalist approach to the syntax of Dutch.* Dordrecht: Kluwer.

CURRICULUM VITAE

Salem Albuhayri

Place of birth: Albaha, Saudi Arabia

Education

B.A., King Saud University, Riyadh, April, 2009
Major: English Language and Translation

MA, Arizona State University, May, 2013
Major: Linguistics

Teaching Experience
2009 – present Lecturer at Department of English Language and Translation, King Saud University, Riyadh, Saudi Arabia

Publications
Albuhayri, S., & Ouali, H., . (to appear). The Complementizer Layer in Standard Arabic Revisited. Manuscript submitted for publication.

Presentations
The Complementizer Layer in Standard Arabic Revisited. Paper presented at the 32st Symposium on Arabic Linguistics at Arizona State University, Tempe, February 2018

Dissertation Title: Information Structure in Standard Arabic Verbal Sentences