

CARTOGRAPHY AND ANTISYMMETRY

Essays on the nature and structure of the C and I domains

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In memory of my colleague, Pius Tamanji Ngwa (1965-2014), who passed away while I was writing this book. Pius, thank you for the memories.

Glosses

ADPOS: Adposition

AGR: Agreement

ALT: Alternative question

AltP: Alternative Phrase

APPL : Applicative

CleftP: Cleft Phrase

COMPL : Completive

CP : Complementizer Phrase

DEF : Definiteness

DO : Direct Object Complement

DP : Determiner Phrase

EMPH : Emphatic

EVID : Evidentiality

EvidP : Evidentiality Phrase

Fem : Feminine

FM : Focus Marker

FOC : Focus

FocP: Focus Phrase

ForceP: Force Phrase

FUT1: Future tense one

FV : Final Vowel

IMPERF : Imperfective

INF : Infinitive

INC : Incompletive aspect

IND : Indefinite

IP: Inflectional Phrase

IntP : Interrogative Phrase

Masc : Masculine

MP: Mood Phrase

M: Mood

ModalP: Modal Phrase

NEG : Negation

NP : Noun Phrase

P0 : Present tense

PERF : Perfective

Pos-DEM : Possessive Demonstrative

PossP : Possibility phrase

PP : Past Participle

PP : Prepositional Phrase

PROG : Progressive aspect
PRS : Present Tense
PST1 : Past tense 1
PST2 : Past tense 2
QM: Question Morpheme
REC.: Reciprocal marker
Rel.: Relativizer
Rel. pro: Relative Pronoun
Res. pro.: Resumptive pronoun
SM: Subject Marker
TP: Tense Phrase
VP: Verb Phrase

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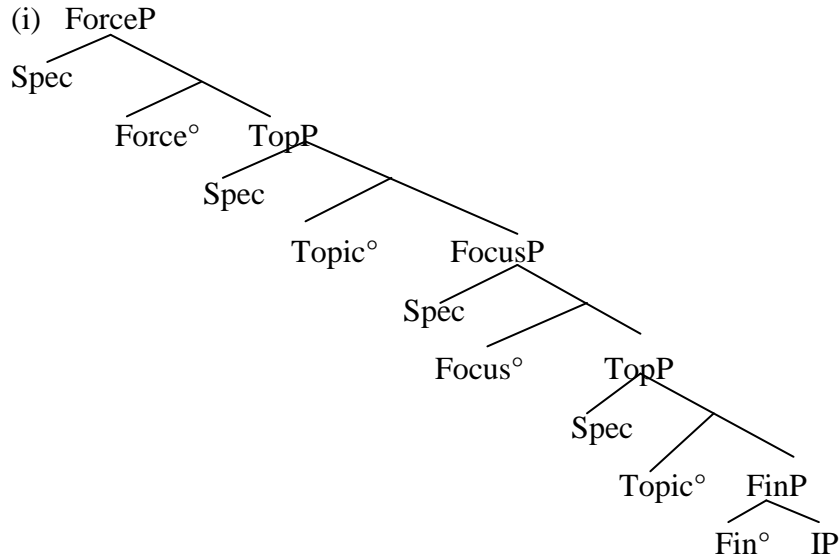
General introduction

1. 0. Theoretical framework

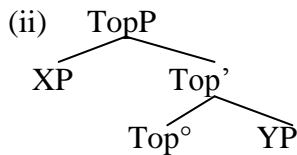
Two theoretical approaches are assumed in this book: cartography and antisymmetry.

1.1. Cartography

I will presuppose, in this essay, the general theoretical framework of the Cartographic approach, as outlined, for example, in Cinque and Rizzi (2008: 42) and references cited therein; and more precisely, the proposals put forth in Rizzi (1997, 2001a-b, 2004a-b, 2013a-b) and related work cited in these references (see, in particular, Cinque 2002, Aboh 2004, Cinque and Rizzi 2010, Benincá and Munaro 2010, Brugé et al. 2012, etc) and others (Haegeman 2012, Biloa 2013). Building on Chomsky's (1986) idea that the left periphery (taken to be an area structurally higher than the subject) consists of a functional projection, CP (Complementizer Phrase), Rizzi's (1997) *The fine Structure of the left periphery* provides “ a detailed and insightful analysis of the left periphery of the clause. Rizzi argues for an articulated CP-layer with a number of strictly ordered functional projections[...], each defined in terms of a certain feature. Elements from within the clause move to these positions to satisfy so-called *criterial* requirements (cf. Rizzi 1996, Haegeman 1995), that is, the need for a head bearing a certain feature to have in its specifier a maximal projection that bears that same feature and, conversely, the need for an operator with a certain feature to be in the specifier of a head bearing that same feature” (Kayne, Leu and Zanuttini 2014: 380). For Rizzi, the highest projection of the CP-layer specifies force and is accessible to selection from above: “Consider [...] the information looking at the higher structure. Complementizers express the fact that a sentence is a question, a declarative, an exclamative, a relative, a comparative, an adverbial of a certain kind, etc., and can be selected as such by a higher selector. This information is sometimes called the Clausal Type (Cheng 1991), or the specification of Force (Chomsky 1995).” (Rizzi 1997). Finiteness is specified by the lowest projection: it indicates whether the embedded clause bears finite or nonfinite tense. Finiteness connects the CP-layer to the IP-layer. Finiteness also dominates IP. Between the two extremes, force and finiteness, there are topic and focus projections:

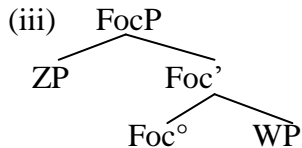


Rizzi (1997) proposes that topic – comment be assigned the following structure:



“A Top° head, a functional head belonging to the complementizer system, projects its own X-bar scheme with the following functional interpretation: its specifier is the topic, its complement is the comment. Top° defines a kind of “higher predication”, a predication within the Comp system; its function is thus analogous to the function of AgrS within the IP system, which also configurationally connects a subject and a predicate. The most basic difference between higher and lower predication is that the former involves a specifier which is an A’ position” (Rizzi 1997).

Rizzi observes that “analogously, a Foc° head takes the focus as its specifier and the presupposition as its complement”:



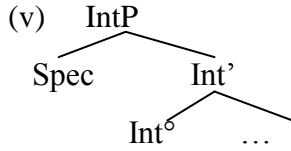
ZP=Focus

WP=Presupposition

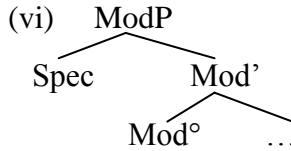
As said above, the topic-focus field is “sandwiched” between force and finiteness, the latter two specifications terminating the C system upward and downward:

(iv) ... Force... (Topic) ...(Focus) ... Fin IP

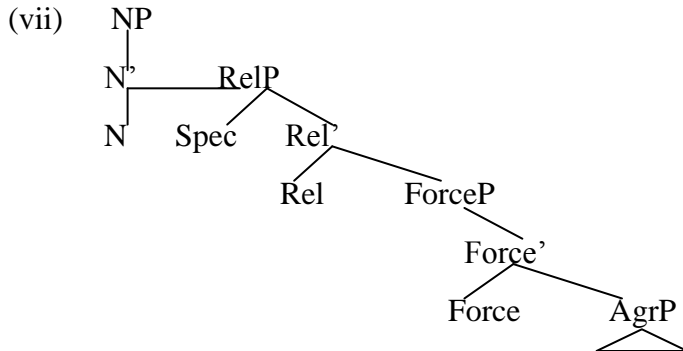
Aboh (1998) and Rizzi (2001b) argue that there is a position called Int(errogative) P(hrase) that is dominated by ForceP:



Rizzi (2004b) indicates that the adverb, be it preposed or IP-internal, occupies the specifier position of ModP (Modifier Phrase). This conclusion stems from his following “the usual restrictive theory of syntactic position” according to which “a phrasal slot can only arise as the Spec of head licensing the position”. This head is called “Mod(ifier)”.



Representative of applications of the cartographic perspective to African languages are Aboh (2004), Biloa (2013), Bassong (2010, 2014), Bebey (2014). As a case in point, Biloa (2013) indicates that the landing site of relativization in Tuki (a bantu language of Cameroon) is RelP (Relative Phrase) (see also Shlonsky and Soare 2011: 651-669):



It is against this synoptic theoretical background that the data from the Bantu and Chadic languages of Cameroon will be analyzed in the following lines. More precisely, the C-domain and the I-domain of these languages are investigated thoroughly. Question formation, focalization, topicalization, the syntax of question particles, relativization, among others, are the topics of inquiry.

Since the late nineties, a new line of research has emerged, the focus of which is the study of the syntactic structures of natural languages. As its name indicates, cartography ‘is the attempt to draw syntactic maps as precise and detailed as possible, thus doing justice to the inherent richness of syntactic configurations’ (Cinque and Rizzi 2010, Rizzi 2013a-b). Cartography tackles descriptive as well as theoretical issues. It reflects on the generating mechanisms, pays

attention to the interaction between structure building principles and locality. It is interested in the study of the interfaces with sound and meaning. It dwells on the topics of the invariance and variation of syntactic representations.

One of the issues cartography has much grappled with is A'-movement constructions as exemplified by question formation, topicalization and focalization. These constructions typically raise constituents to clause initial position (in some languages) and endow them with some properties that Rizzi (2001, 2004) calls properties of 'scope-discourse' semantics: 'the scope of operators and the discourse-related properties expressing the informational articulation of the structure' (Rizzi 2013b: 320).

Since Rizzi (1997), it is standardly assumed that question formation, topicalization and focalization have representations such that their heads such as Q, Top, Foc attract the wh-operator, the topic and the focal items to their respective specifier. As indicated by Rizzi (2013a), left peripheral heads are overtly realized by particles (see also Bassong (2014), Bebey (2014)):

(viii) (Rizzi 2013: 231)

- a. Ik weet niet [wie of Jan _____ gezien heft (Dutch varieties, Haegeman 1996).
'I know not who Q Jan seen has.'
- b. Un sè [do [dan lo yà Kofi hu ì]]] (Gungbe, Aboh 2004)
I heard that snake the Top Kofi killed it'

(ix) (Bilola 2013:408)

Mbara a- bee [ee [yendze aye[Abongo a- ma-kos-en-a agee waa]]]
Mbara SM-says that house FOC Abongo SM-P2-buy-Appl-FV wife his
'Mbara says that it is a house that Abongo bought for his wife.'

In Gungbe (Aboh 2004), Muyang (Bebey 2014), the topic and focus heads are expressed by different particles. In Tuki (Bilola 2013), FOC is expressed by a particle; Q as well:

(x) (Bilola 2013: 413)

- a. Áné ódzú Mbára a- dingám _____?
who FOC Mbara SM-loves
'Who does Mbara love?'
- b. Até aye Puta a- nambam _____?
what FOC Puta SM-cooks

‘What does Puta cook?’
 c. yee Puta a-nyám cwĩ
 Puta SM-eats fish

“Does Puta eat fish?”

In this system, the head attracts the element that carries a matching feature (Q, Top, Foc, etc.) to its Spec, in conformity with the following criterial (Spec, Head) configuration:

(xi) (Rizzi 2013:322)

X_F and XP_F must be in a Spec-Head configuration, for $F = Q, R, Top, Foc, Excl$ (Rizzi 1991/96, Aboh 2008).

Criterial heads are multifunctional. They encode the agreement relationship between the specifiers and themselves. Furthermore, ‘they are visible to the interface systems of sounds and meaning, and signal in a transparent manner the interpretative properties of scope-discourse configurations’ (Rizzi 2013a:322). In simple terms, each head tells the hearer what interpretations of the Spec and the complement are:

(xii) [XP [Top[YP]]
 Topic Comment

(xiii) [XP [Foc[YP]]
 Focus Presupposition

In (xii), ‘my Spec is to be interpreted as the topic, and my complement as the comment made about it.’, while in (xiii) ‘my Spec is focus and my complement is the presupposition’ (Rizzi 1997, 2013b).

Criterial heads also help in interpreting the sentence at the interface with the sound system through special intonational contours. Furthermore, criterial heads play a crucial role in syntactic computation by facilitating the interpretative processes via transparent interface representation of discourse semantics because each head ‘syntacticize (s)’ the functioning of the interface systems of semantics-pragmatics and of contours assignment ‘(Rizzi 2013b who quotes Cinque and Rizzi 2010).

Cartography assumes that heads and phrases are simple entities. A head selected from the lexicon is very simple since it is devoid of featural specification(s). Conglomerates of features (e.g. a verb inflected for tense, mood and agreement) are generated as a result of movement, but are not syntactic atoms. As in the antisymmetry perspective (Kayne 1994), projections are

simple, binary branching Specifier-head-complement configurations. Adjunction, multiple specifiers and multiple complements are disallowed. Complex syntactic molecules are derived through recursive Merge by combining, associating or concatenating very simple syntactic atoms. The cartographic endeavour aims at capturing this articulation, and maps the complex molecular shapes that atomic constituents can be arranged into (Rizzi 2013b).

Precisely, one of the goals of cartography is to describe and analyze, i.e. study such molecular structures. For example, the study of the left periphery in the Italian language by Rizzi (1997, 2001, 2013a,b) has revealed a map like (xiv) below in which provisions are made for ‘specialized positions for interrogative particles, topics, foci, highlighted adverbials [...] sandwiched in between the two delimiting heads of Force and Finiteness’ (Rizzi 2013b):

(xiv) (Rizzi 2013b: 324, (15)-(16))

a. [...Force[...Top[...[...Top[...Foc[...[Top[...[...Mod...[...Int[...]]]]]]]]]]]

b. Credo [_{ForceP} che [_{TopP} a Gianni [_{Top} [_{FocP} IL MIO LIBRO _{Foc} [_{ModP} domani _{Mod} [IP gli dovreste dare]]]]]]]

‘I believe that to Gianni MY BOOK tomorrow you should give.’

1.2. Antisymmetry

In *The Antisymmetry of Syntax* (henceforth AS), Kayne (1994) proposes a restrictive theory of word and phrase structure to the effect that phrase structure always completely determines linear order, so that when two phrases differ in linear order, they also have to differ in hierarchical structure. The theory is tightened in such a way that hierarchical structure and linear order are interlocked. In other words, the fundamental antisymmetry of linear order (not (A>B and B>A)) is rigidly matched by a corresponding antisymmetry in the underlying hierarchical structure: namely *asymmetric c-command* (not (A c-commands B and B c-commands A)) (see Cinque 1995: 2). This means that asymmetric c-command is mapped to precedence:

(xv) Let X, Y be nonterminals and x,y terminals such that X dominates x and Y dominates y. then if X asymmetrically c-commands Y, x precedes y (Kayne 1994, p. 33, (2)).

Assuming that A is the maximal set that contains all ordered pairs (X_j, Y_j) such that for each j, X_j asymmetrically c-commands Y_j. More precisely, A contains all pairs of nonterminals such that the first asymmetrically c-commands the second. For a given phrase marker P, with T the set of terminals and A as just given, Kayne proposes the following (pp. 6; 33):

(xvi) *Linear Correspondence Axiom*

(A) is a linear ordering of T.

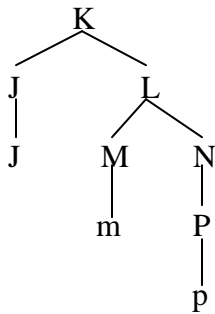
The Linear Correspondence Axiom (LCA) says in practice that all terminals must be ordered in a (consistent) precedence relation and that asymmetric c-command between nonterminals maps to linear precedence between the respective terminals (see also Cinque 1995: 2).

In chapter two of this book, the title of which is “Deriving X-bar theory”, Kayne shows how the LCA “derives most stipulated properties of X-bar theory” (Cinque 1995: 3). These properties are listed by Cinque as follows:

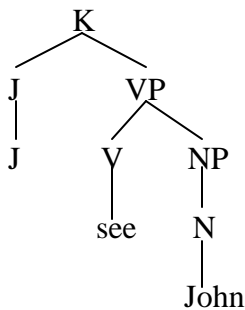
- (xvii) a. there can be no phrase dominating two (or more) phrases (AS, p.11)
- b. There cannot be more than one head per phrase (AS, p.8)
- c. A head cannot take another head as complement (AS, p.8)
- d. A head cannot have more than one complement (AS, p.136, fn. 28).

The properties (xvii-a-d) are accounted for by the antisymmetric approach in the following terms: “if two nonterminals are sisters and if one of them is a head and the other a non head, the phrase marker is admissible” (p. 11):

(xviii) (AS, p. 7, (1))

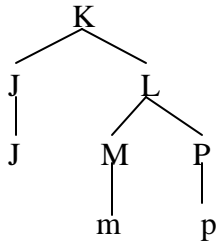


(xviii) (AS, p. 10, (5))

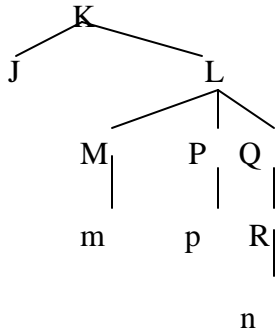


“If both are heads, the phrase marker is not admissible” (p. 11):

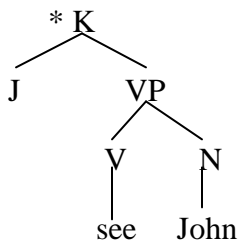
(xix) (AS, p. 8, (2))



(xx) (AS, p. 9, (3))

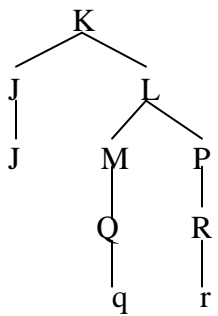


(xxi) (AS, p. 10, (4))

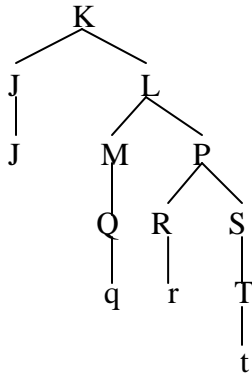


“If both [non terminals] are nonheads [...], the phrase marker is again not admissible”
(p.11):

(xxii) (AS, p. 10, (6))



(xxiii) (AS, p. 11, (7))



Kayne argues that nonhead sisters are disallowed by the LCA because they violate antisymmetry. X-bar theory too prohibits them but fails to say why it is so: “A basic tenet, perhaps the basic tenet, of X-bar theory is that all phrases must be headed. Thus, X-bar theory disallows a phrasal node immediately dominating two maximal projections and nothing else. X-bar theory disallows a phrasal node immediately dominating two maximal projections and nothing else. X-bar theory does not, however, explain why every phrase must have a head. The LCA does. The reason that a phrasal node cannot dominate two maximal projections (and nothing else) is that if it did, there would be a failure of antisymmetry...” (p.11).

Kayne adopts a particular definition of c-command that refers to categories rather than segments:

(xxiv) (AS, p. 16, (3))

X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y.

This definition is reminiscent of Chomsky (1986, 9) where “X excludes Y if no segment of X dominates Y”.

Kayne’s definition of c-command achieves the following “interesting related properties” summarized by Cinque (1995: 4) as follows:

(xxv) (Cinque 1995: 4, (2))

a. A specifier is an adjunct (AS, p. 17): “[...] the conclusion must be that a specifier is necessarily to be taken as an adjoined phrase.”

b. There can at most be one adjunct/ specifier per phrase (AS, p. 22): “we derive the fact (stated by X-bar theory) that a given phrase can have only one specifier.”

c. At most one head can adjoin to another head (AS, p. 20f): “It is not possible to adjoin two (or more) clitics to the same head”.

d. No non-head can adjoin to a head (AS, p.19) : “We have just derived without stipulation the fact that a non-head cannot be adjoined to a head.”

e. Adjuncts/ specifiers c-command out of the category they are assigned to (AS, p.18): “[...] an instance of a more general property of adjoined phrases, [...], that they always c-command “out of” the phrase they are adjoined to.”

g. An X' (the sister node of a specifier) cannot be moved (AS, p.17): “We consequently derive the prediction that the sister node of a specifier cannot be moved.”

As indicated by Cinque (1995: 4), “it is [...] clear that the one – specifier – head theory is more restrictive (in that it gives a principled limit to the number of adjuncts/ specifiers available), and hence should be preferred, it seems, if empirically adequate”.

In Kayne’s theory, asymmetric c-command maps to linear precedence. Consequently, adjuncts/ specifiers, which asymmetrically c-command their head, necessarily precede it. Similarly, heads, which asymmetrically c-command their complement, necessarily precede it. It follows from this reasoning a rigid specifier > head > complement order.

So if a complement is to the left of its head, it cannot be in “complement position”; it must have raised to that position (i.e. an adjunct/specifier) which asymmetrically c-commands (its trace and) the head. Similarly, if a head is to the left of its specifier, it must have raised to a head position asymmetrically c-commanding (its trace and) the specifier (cf. Cinque 1995: 6).

Kayne argues that rightward movement / adjunction is not justified. Therefore empirical and theoretical evidence is against a rightward movement analysis of “Right node Raising” (AS, p. 67f), “Heavy NP shift” (AS, p. 71f), “Subject Inversion (or postposing)” in Romance (AS, p. 77f), “Right Dislocation” (AS, p. 78ff), Relative Clause (and PP) Extraposition (AS, p.117ff), Result and Comparative Clause Extraposition (AS, p. 126ff) (see also Cinque 1995: 6).

In sum, Kayne shows that “Languages all have S – H – C order. Languages (or subparts of languages) in which some complement precedes the associated head must necessarily have moved that complement leftward past the head into some specifier position.” (AS, p. 47). For example, “In an OV language (or construction) the O must necessarily have moved leftward past the V into a higher specifier position. In a language where IP precedes C°, IP must have moved leftward into Spec, C°. And so on” (AS, p.48).

1.3. Motivation for the present study

That syntactic structures are complex objects with a conglomerate of ordered and hierarchical mapping is not new in generative grammar. Starting from Chomsky’s (1957, 1965, 1981 &

1986) *Syntactic Structures, Aspects of the Theory of Syntax, Lectures on Government and Binding and Barriers* up to Rizzi's (1997) *the fine structure of the left periphery* and subsequent works, via Emonds (1968)'s, Pollock (1989)'s and Belletti (1990)'s seminal papers on the internal structure of the inflectional domain, it has been widely accepted and customary to know that clause structure is not a merely reduced 'configuration involving one major ramification formalizing the subject-predicate relation' (Belletti 2001: 484), but rather, a composite object made up of distinct and articulate layers associated with diverse semantic interpretations.

Pollock's (1989) seminal work, which undoubtedly heralded a new era for a fine-grained characterization of the inflectional domain (see also Belletti 1990, 2001 among others), has been very instrumental in the understanding of the Tense-Aspect-Mood (TAM) spine cross-linguistically. The outcomes of such inquiries have raised so much interest beyond the borders of Roman linguistics and constitute a milestone for a better characterization of African languages at large and particularly Bantu languages whose verbal morphology is very well known for its richness and complexity. A case in point in this collection is Mbeligi, a Grassfield Bantu language spoken in Cameroon. In this language, the inflectional array can license up to six affixes revolving around the verb stem as depicted in the following example.

(xxv)

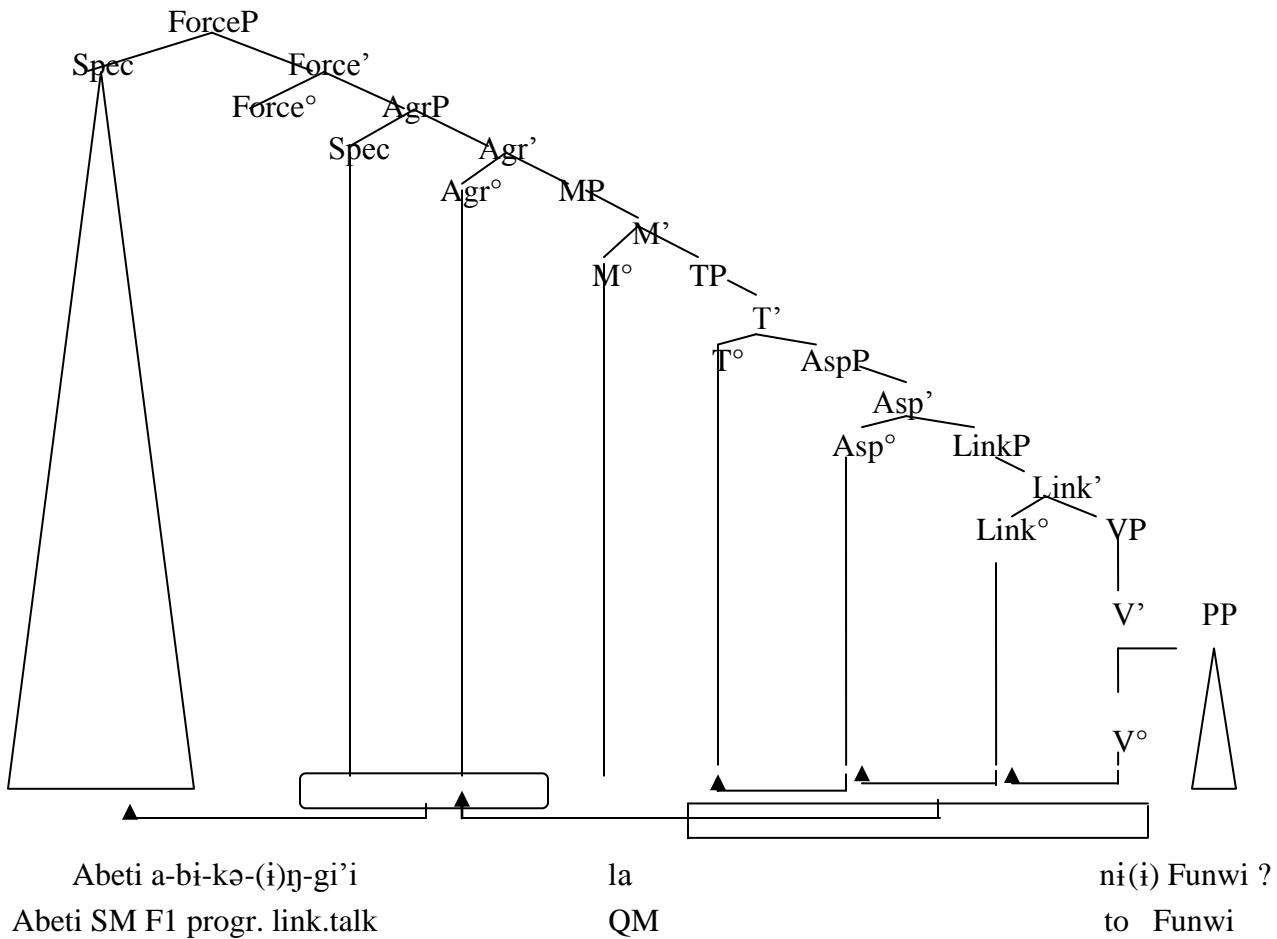
Abeti	a-	bi-	kə-	(i)ŋ-	gi'i	la	ni	Funwi ?
Abeti	SM	F1	progr.	link.	talk	QM	to	Funwi

“Abeti will be talking to Funwi?”

The Mbeligi empirical data above show that the verb stem *gi'i* 'talk' is preceded by the subject marker *a-* which encodes subject-verb agreement, the future tense particle *bi-*, the aspectual morpheme *kə-* which encodes progressive aspect and the linker *(i)ŋ* which links the verb stem to the aspect marker. On the right-hand side, the verb stem is followed surprisingly by a question particle/marker which encodes the interrogative force of the sentence. Contrary to expectations, this question particle occurs sentence internally, something which appears to be challenging as, in most natural languages, this particle is usually attested either sentence initially or finally. Although the Mbeligi material seems to be unexpected, it can be conjectured that the position of the question particle is subject to parametric variation in the sense that its position varies

according to language internal make-up. In other words, there exists a salient cross-linguistic variation as to whether a given language exhibits overt question particles or not. However, since the seventies, it has been posited that (English) interrogatives contain a null question morpheme (cf. C.L. Baker 1970; Chomsky 1977 and related literature). Aboh (2010: 22) observes that the question particle is silent in English, but not in Mandarin Chinese (cf. Li & Thompson 1981: 305–306) and in the sign language of the Netherlands (Nederlandse Gebarentaal, NGT). More specifically, the presence of non-overt particles in the structures of languages like English and French is betrayed by other clues (e.g. prosody; see Cheng & Rooryck 2000; Aboh & Pfau 2010; Benincá & Munaro 2010) (see Aboh 2010: 22). This question particle is phonetically realized in languages like Tuki (Bilola 2013), Giziga, Masa, Mbeligi and Muyang discussed in the present collection and Cartography has made it possible to pinpointedly locate its positioning in the architecture of the sentence (cf. Rizzi 2001b) so much so that they can be syntacticized i.e. included in the syntactic derivation. In the spirit of Rizzi's (2013a-b) metaphor, since question particles convey a specific scope-discourse interpretation (they participate in clause typing in the sense of Cheng 1991, 1997), they should be syntacticized, that is should be part of the numeration. If this reasoning holds along the lines, then the Mbeligi empirical material prettily supports the split-IP hypothesis (Pollock 1989, Belletti 1990 etc.) whose main tenet is that the I-layer should be decomposed into a set of various functional projections related to verb morphology. In this vein, sentence (xxv) above is depicted in the tree diagram below whereby the question marker *la* is hosted under M^0 , the head of Mood Phrase (MP).

(xxvi)



One of the major advances in the history and development of generative grammar is Rizzi's seminal paper in the late nineties. Sidestepping Chomsky's (1986) proposal that clause structure should be closed off upwards by CP in the Principles and Parameters and Minimalist frameworks, Rizzi, on the basis of Italian and other languages data, has provided strong evidence that CP, as adopted until then, was inadequate to accommodate a good number of functional projections that populate the complementizer domain. As a result, one should appeal to a more articulate architecture of the clausal left edge which can unambiguously and convincingly accommodate the diverse scope-discourse properties such as topic, focus, interrogative etc. A striking question that can be raised at this juncture is *why associate the syntactic study of Bantu and Chadic languages with cartography*. As it is argued throughout the book, CP, as proposed by Chomsky (1986) and defended by non-cartographers, cannot elegantly and conceptually account for the Bantu and Chadic empirical material discussed in this book.

Clearly put, there still exists a long-standing debate on whether discourse-related functional items should project in syntax or whether they are just parasitic on syntax (they interact only indirectly with syntax but are not part of core syntax). Defenders of the first view (cartographers) hold that just as tense, aspect, negation, mood and the like take part in the syntactic derivation (i.e. directly selected from the numeration) so must scope-discourse properties such as topic, focus, interrogative, yes-no questions as they equally constitute full-fledged lexical items (Rizzi 1997, 2001, 2004a-b, 2013a-b; Aboh 2004, 2010; Aboh and Pfau 2011; Durleman 2008; Biloa 2013; Bassong , 2010, 2014, among others). A strong evidence in support of this stand is that in many natural languages, discourse-related categories are overtly realized in the same manner as tense, aspect, negation, mood and other lexical items. Similarly, it has been widely demonstrated cross-linguistically that all these items occur in very specific structural positions in clause structure although with very minor positioning variation. Conversely, the opposing view holds that movements of various discourse phrasal categories “seem to involve some additional level or levels internal to the phonology but prephonetic, accessed at the interface along with PF and LF” (Chomsky 1995: 220). In other words, movements induced by focus or topicalization are triggered by an unspecific edged feature (i.e. a feature which is neither +focus nor + topic). So there is no features such as [+focus] and [+topic] in syntax as it is the case for a [+wh]-feature. Several authors share Chomsky’s view and assume that constituent rearrangements in clause structure in the case of focalization and topicalization are prosody-driven and therefore differ from displacement rules triggered by checking operations. Based on Germanic and Romance languages, it is indicated that movement operations attested in topic and focus constructions correlate with stress assignment and not with focus and topic features per se (cf. Zubizarreta 1998; Szendroi 2001; Samek-Lodovici 2006; Fanselow 2006, 2007 etc).

As a direct reaction to these arguments, some authors such as Aboh 2010, Biloa 2013, Bassong 2014 have claimed that “that crucial notions of Information Structure such as Topic and Focus are not part of syntax but must be added to the linguistic expression once computed by CHL” (Aboh 2010: 16). It is argued that introducing these notions in syntax would violate Chomsky’s (1995: 228) Inclusiveness Condition:

(xxviii) Given the numeration N, CHL computes until it forms a derivation that converges at PF and LF [...] A “perfect language” should meet the condition of inclusiveness:

any structure formed by the computation [...] is constituted of elements already present in the lexical items selected for N; no new objects are added in the course of computation apart from rearrangements of lexical properties.

However, on the basis of the following formulation,

(xxvii) A numeration N pre-determines the Information Structure of a linguistic expression.

Aboh (2010: 19) argues “that strict application of the Inclusiveness Condition requires that core notions of information structure (interrogative force, topic, focus) project in syntax.” This viewpoint is shared by many “cartographers” and is adopted in this work.

Furthermore, this book provides data that support Rizzi’s (1997, 2001, 2004, 2013a-b) Split CP Hypothesis unequivocally and convincingly. In Lamnso, Masa, Muyang and Wandala, for instance, there are overt question and focus markers that encode discourse properties as shown in the following examples.

(xxviii) Lamnso

a. Fonkpu dzər ji dzə ka ke la ya- suiy <la> <ka>
 Fonkpu ask that FOC what Comp who F2 say who what
 “Fonkpu is asking WHAT is it that who will say”
 b. shinən shi- sa/ko- ki- si- yi kingom- a ?
 bird SM Int. P1 Prog. eat banana QM
 “was the/a bird eating a/the banana?”

(xxix) Masa

a. tú’ hā y sīnē-n kāy-ń ġi-ġé (ġè̃)
 walk.IMPERF ADPOS farm-DEF FOC WHO-Q
 “Who walks in the farm?”
 b. Putta mǐn-ǐm ġi-ġé (ġè̃) ?
 Putta love.IMPERF who-QM
 “Putta loves who?”

(xxx) Muyang

a. zlam yati leli má gráy—ni á ġədavá
 thing Rel we 1pl do def. 3sg spoil

“The thing that we did is spoiled”

(xxx1) Wandala

Ba waré una á-haya na Boukar na?

FOC who relativizer SM-loves COMP Boukar COMP

“Who does Boukar love?= Who is it that Boukar loves?”

The above data clearly show that in these languages various morphemes associated with distinct discourse functions can freely co-occur without any resulting illicitness. This raises the question as to how advocates of a strict CP approach to clause structure can accommodate the simultaneous presence of interrogative, focus and relativization markers in these languages.

More challenging to a purely minimalist syntax is the following data on sluicing in Basa’a and Tuki whereby the declarative lexical complementizer simultaneously co-occurs with its interrogative counterpart, the evidential morpheme, the focus and alternative markers.

(xxxii) Basa’a

Maangé a- m- míl ngim jǒm, me n- yí bé mé jɔ,

1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it

me m- mbat-6á lé tɔɔ kíí î

I PRS-ask-REC that if/whether 9.what 9.EVID

‘The child has swallowed something, I don’t know it. Look, what!’

Lit: ‘The child has swallowed something, I don’t know it. Look, what is it?’

(xxxiii) Tuki

Mutu mo a- mú- íbá itutu rǎme eéna. Nu nga-tá- mu-ídzíma omwéné.

Man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him

Vedá nu nka-mbim éé ngí (i-mu) áné (odzú) dzú kéé...

but I SM-astonish that if (it is) who FOC EVID ALT

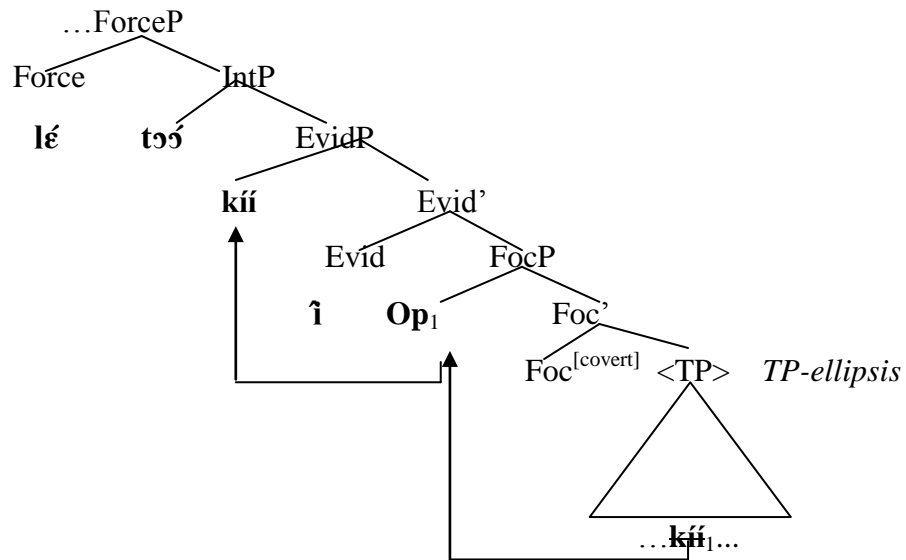
‘Someone stole my motorcycle here. I do not know him/her. But I wonder who?’

Lit: ‘Someone stole my motorcycle here. I don’t know him. But I wonder who or...?’

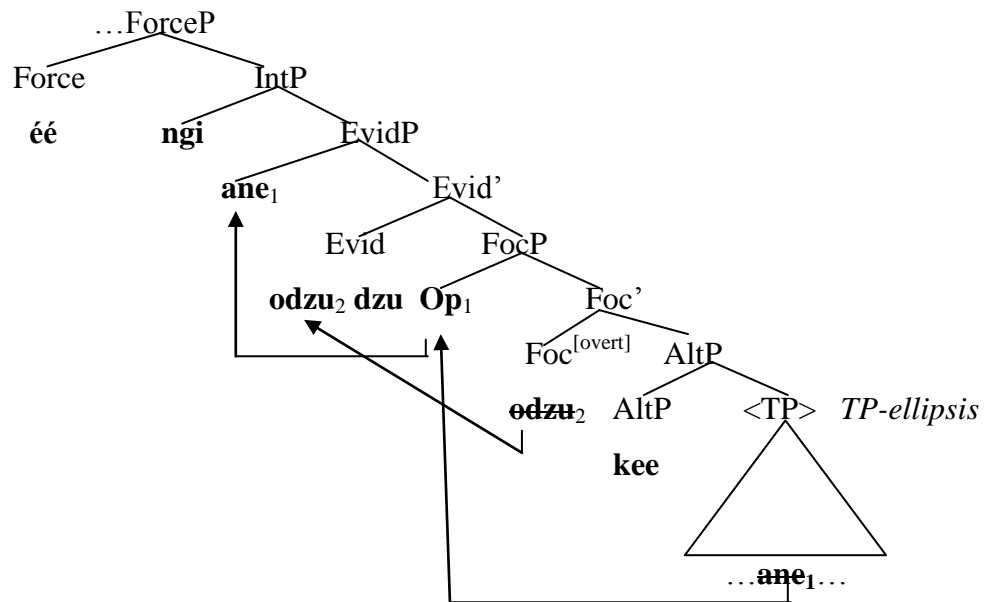
In the spirit of Minimalism where CP is the only highest functional projection in clause structure, the Basa’a and Tuki empirical material in (xxxiv-xxxv) cannot be accommodated as there shall be no available space for a conglomerate of the various functional morphemes that

simultaneously co-occur in the above sentences. The split-CP hypothesis advocated by Rizzi (1997, 2001, 2004a-b, 2013a-b and subsequent works) comes handy for the task as it makes provisions for positions in syntax (i.e. the computation that produces phrase marker) that can host force, interrogative, focus, evidential as well as alternative question particles simultaneously as portrayed in the following phrase markers.

(xxxiv) a. *Basaá sluicing and clause structure*



b. *Tuki sluicing and clause structure*



One final issue to be addressed in this book and which has raised so much interest in syntactic theory is the seemingly rightward movement operations that are attested in natural languages in general and in Chadic languages in particular. In analysing various movement mechanisms in these languages, Kayne’s (1994) antisymmetric approach appears to be much more appealing and handy as it helps to uncover various phenomena that were not understood in earlier frameworks countenancing rightward movement. In analysing such phenomena in Muyang and Masa, for instance, it is shown that these languages’ empirical material can only be accounted for in the light of antisymmetric and cartographic approaches. Clearly stated, the following sentences are instances of focalization in Muyang and Masa respectively.

(xxxv) Muyang focalization

- a. Lawan á vi mota ana Bebey aweni
 Lawan 3sg give car to Bebey yesterday
 “Lawan gave Bebey a car yesterday”
- b. yati — á vi mota ana Bebey aweni ni Lawan
 It is 3sg give car to Bebey yesterday def. Lawan
 “It is Lawan who gave Bebey a car yesterday”
- c. yati Lawan á vi—ana Bebey aweni ni mota
 It is Lawan 3sg give to Bebey yesterday def. car
 “It is a car that Lawan gave to Bebey”

(xxxvi) Masa focalization

- a. Gassissou vúl kēēkēē mī Ousmanou kāmāt-ǎ
 Gassissou give.PERF car to Ousmanou yesterday-FV
 “Gassissou gave Ousmanou a car yesterday.”
- b. ----- vúl kēēkēē mī Ousmanou kāmāt kāy-ń Gassissou
 give.PERF car to Ousmanou yesterday FOC Gassissou
 “It is Gassissou who gave Ousmanou a car yesterday.”
- c. Gassissou vúl-û m mī Ousmanou kāmāt kāy-ń kēēkēē-‘ē
 Gassissou give.PERF-O to Ousmanou yesterday FOC car- FV
 “It is a car that Gassissou gave Ousmanou yesterday.”

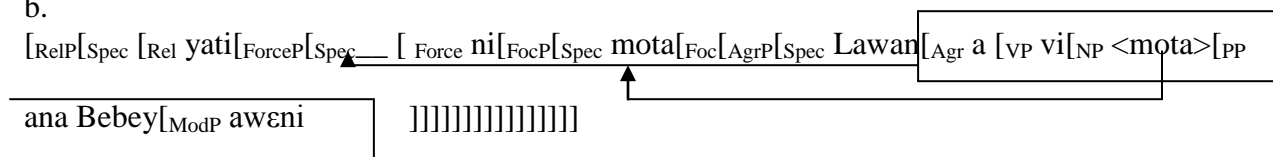
Considering (xxxva) and (xxxvia) as the input sentences, one can observe that both Muyang and Masa display SVO basic word order but the latter can be altered in the context of focalization. A unifying factor between both languages is that focalization seems to involve rightward

movement of the focused item to sentence final position. Furthermore, the focused constituent is preceded by a particle which does not surface in the input sentence. This item is realized as ‘*ni*’ in MUYANG and as *kay-n* in Masa. The phenomena attested in these Chadic languages do justice to a pre-LCA-based approach, that is the movement operations displayed were to be handled under a rightward movement or right adjunction approach. In this book, and in the spirit of Kayne’s (1994) LCA-based approach, there is neither right adjunction nor rightward movement. All movements are leftward. One major tenet of the LCA is that there is no rightward movement in the base, all languages are underlyingly SVO, any other word order is derived by movement. MUYANG and Masa focalization are better accommodated under the LCA so much so that if on the surface the focalized material seems to have been moved on the right-hand side, in fact that constituent would have been raised leftwards (in the focus field precisely) followed by remnant movement of the clausal chunk containing the trace of the previously extracted material into the specifier position of some other functional projection c-commanding the focalized material as depicted in (xxxvii-xxxviii) below.

(xxxvii) MUYANG

a. yati Lawan á ví— ana Bebey aweni ni mota
 Rel Lawan 3sg give to Bebey yesterday def. car
 “It is a car that Lawan gave to Bebey yesterday”

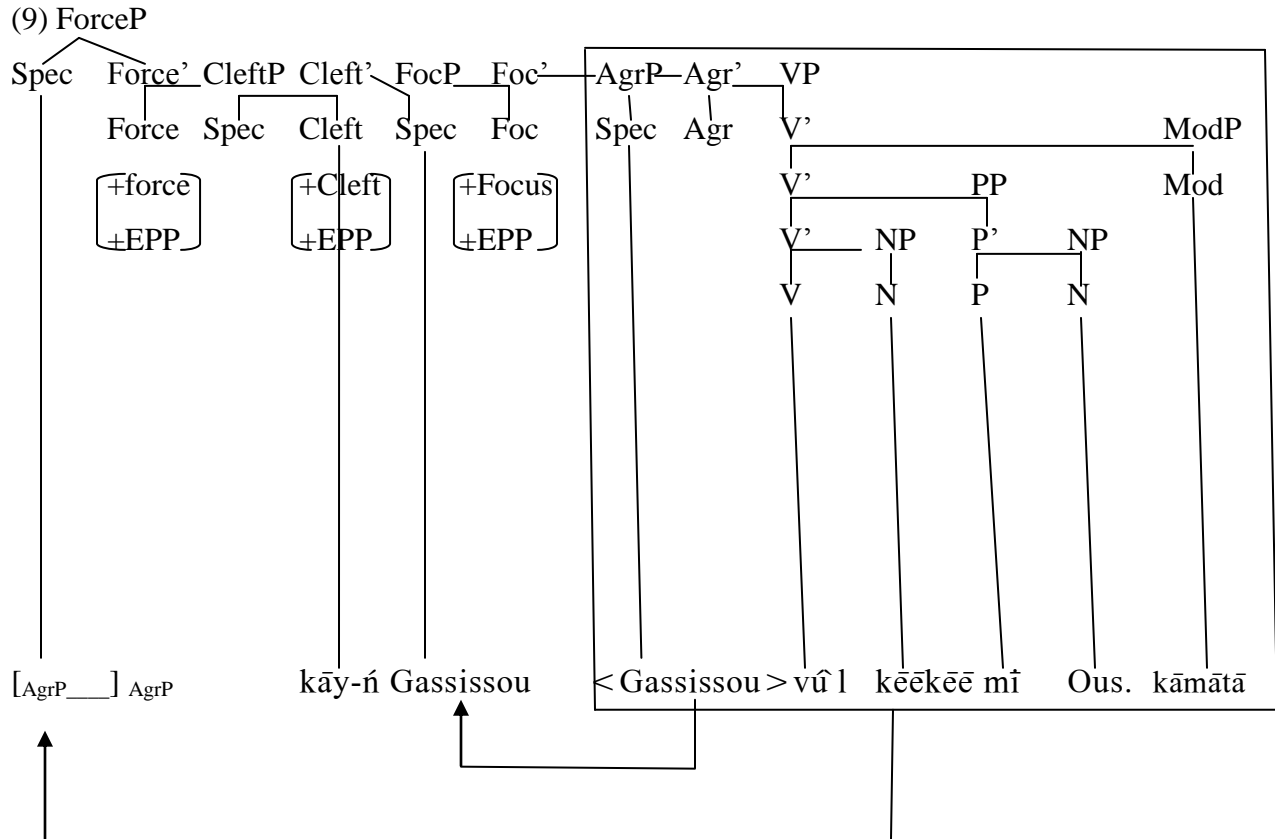
b.



(xxxviii) Masa

a. vû l kēēkēē mî Ousmanou kāmāt kāy-n Gassissou
 Give.PERF car to Ousmanou yesterday FOC Gassissou
 “It is Gassissou who gave Ousmanou a car yesterday.”

b.



Overall, this book elaborates under close scrutiny on the internal make-up of the clause with special focus on the inflectional and complementizer domains. In the light of the empirical material from Bantu and Chadic languages of Cameroon, it is revealed that clause structure is more articulate, complex and composite than initially thought in a pre-cartographic and antisymmetric approaches. Syntactic structures are complex objects, the internal make-up of which requires adequate and conceptual tools that better accommodate them for easier understanding of natural languages. With data from various languages, it is proven true that there is no alternative to cartography and that syntax is intrinsically comparative and antisymmetric.

1.4. Organization of the book

This book is organized as follows.

Chapter 1: Wh-phrases, sentence mood and the structure of the left periphery

This chapter is a contribution to the current debate on the architecture of the clause as it discusses the interaction between mood and wh-movement. It argues that, in Mbə̀l̩gi, a Mood Phrase (MP) should be projected. Its head is phonetically realized and helps indicate whether the

clause containing it is declarative, interrogative or whether it expresses certainty or possibility, which is in fact expected of sentence mood. The latter interacts with syntactic operations such as question formation and clefting and exhibits a behavior that is very similar to auxiliary inversion in English and V-to-C raising in French. Moreover, the data seem to show that mood and modality constitute two different phenomena (contra Schütze's (2004) viewpoint), each of them projecting the head of a maximal projection, mood phrase (MP) and modality phrase (ModalP). The analysis proposed has implications for clause structure as mood and modality markers are argued to merge to IntP, ForceP, CleftP, while other constituents are believed to be hosted as well by FocP. Finally, interrogative formation is shown to trigger the pied-piping of the complement TP into MP.

Chapter 2: Pied-piping, remnant movement and clause structure in Muyang

This chapter analyses aspects of clause structure and word order in Muyang in terms of Kayne's (1994, 2011) antisymmetry approach and Rizzi's split CP approach (1997, 2001, 2004). The focalization of any of the sentence constituents (except the VP) disrupts the language word order which is normally SVO, giving the impression that focused constituents move downward. The word order of such constructions is derived by pied-piping of the targeted phrase into Spec, FocP and by remnant movement of IP into Spec, ForceP. These two syntactic operations are, additionally, attested in yes/no questions and matrix wh-questions. Evidence is provided that FocP is not a phase but ForceP is. The analysis accounts for the distribution of two morphemes that occur in relativization and cleft formation: *yati* is hosted by [Rel, RelP], while *ni*, which closes off the relative clause, behaves like a clause-final complementizer. NP-movement and remnant movement are responsible for the derived word order, providing thereby, once more, evidence that all word orders, are derived by movement.

Chapter 3: The cartography of the complementizer domain and verb movement in Lamnso

In Lamnso, an SVO and agglutinating Grassfield Bantu language spoken in Cameroon, wh-movement in general and focalization in particular interact simultaneously with verb movement to the complementizer space, well known in recent terminology as the clausal left periphery (Rizzi 1997 and subsequent works). It is demonstrated that although Lamnso can be considered as a mixed language, in the sense that it licenses both in-situ and ex-situ strategies in wh-questions and focalization, only focalization involves morpho-syntactic properties. Either way, focalization in Lamnso involves not only morphological marking of the focused constituent, but it also involves focus fronting to the complementizer layer. Focus fronting to the complementizer domain triggers movement of the verbal complex into Force⁰, the head of ForceP, followed by subsequent heavy pied-piping of the remnant clause to a higher domain above the previously moved verbal complex. Interaction between focalization and yes/no questions involves two successive movement operations, namely focus fronting of the focused constituent to the focus domain, and heavy pied-piping of the remnant clause to the force

domain. Overall, the study of focus fronting and wh-questions in Lamnso provides us with the following fine-grained cartography of the clause: IntP> ForceP> CleftP> FocP> GroundP> AgrP.

Chapter 4: Musgum focalization and relativization

Chapter 4 investigates two strategies of focalization in Musgum, a Chadic language of Cameroon. In the first strategy, the focalized constituent that appears to move rightward, in fact, merges to the specifier position of the Focus Phrase. In the second strategy, the focus constituent raises straight-forwardly to Spec, FocP. The Musgum data are accounted for by assuming that its scope-discourse particles are “syntacticised” and the analysis integrates the exploration of cartographic maps.

Chapter 5: Cartography and double wh-fronting in Akoose

Chapter 5 explores the cartography of the left periphery in Akoose, a Bantu language of Cameroon, with respect to double wh-fronting. The chapter addresses the following questions that are of interest to the cartographic enterprise: what is the structure of the left periphery in this language? When two wh-phrases are fronted, are they (all) focused or topicalized? Do they respect any ordering constraints? Do Superiority, Subjacency or Relativized Minimality regulate double Wh-fronting in this language?

Chapter 6: Antisymmetry and Masa

In Masa, a Chadic language spoken in Cameroon, focalization, question formation, relativization and topicalization move constituents within the sentence. These movements seem to violate principles of Grammar such as Antisymmetry and the Linear Correspondence Axiom (Kayne 1994). The paper describes and analyzes these various transformations and provides elegant solutions, on the basis of the Cartographic Approach (Rizzi 1997, 2001, 2004, 2013), and antisymmetry, to the theoretical problems raised.

Chapter 7: The fine-grained structural cartography of the left periphery in Wandala

In this chapter, it is demonstrated that scope-discourse properties in Wandala, an Afro-Asiatic Chadic language spoken in Cameroon are in most cases marked by specific morphemes which signal their presence in the clause. Making use of a diversity of movement processes (X and XP movements), the language empirical data do justice to both the cartographic approach (Rizzi 1997, 2001, 2004, 2013a-b etc.) and Kayne’s (1994) Kayne & al. (2014) antisymmetry framework. The paper focuses on focus and wh-fronting, topic and indirect questions as well as adverbials/PPs fronting.

Chapter 8: Wh-movement, Q-particles and pied-piping in Giziga

Wh-movement is investigated in Giziga. Attention is particularly paid to focalization, question formation, relativization and topicalization. This language is specific in that wh-constructions exhibit a final complementizer and a question particle. This chapter tackles, among other things, the variability in word order attested in this language by unavoidably appealing to cartography, antisymmetry and to Cable's (2010) work on Q-particles.

Chapter 9: Sluicing and functional heads in Bantu

This chapter, which is the result of a collaborative effort with Paul Roger Bassong, focuses on sluicing, a relatively new or unknown domain of linguistic research from a Bantu and African linguistics dimension. The study is conducted in the light of Merchant's (2001, 2004, 2008) [E]-feature-based approach according to which ellipsis is triggered by an abstract [E]-feature that c-commands and dictates non-pronunciation of a TP/IP complement. It is shown that in Basaá and Tuki, two Bantu related languages, sluicing is provoked by an overt [E]-feature which dictates non-pronunciation of a c-commanded TP/AgrSP complement. The [E]-feature which encodes either evidentiality or alternative question and which is hosted under Evid, the head of Evidentiality Phrase (EvidP) or Alt, the head of Alternative Phrase (AltP), is preceded by the force and interrogative markers which are in turn hosted by force, the head of force phrase (ForceP) and Int, the head of interrogative phrase (IntP) respectively.

The book is closed off by a general conclusion.

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Chapter 1

Wh-phrases, sentence mood and the structure of the left periphery

Introduction

It has been argued by Schütze (2004) that English finite clauses contain an inflectional head which marks the property of mood (M) (indicative, subjunctive or imperative) (see also Radford 2009). Similarly, Jan Eden (2004), basing his arguments on the sentence mood theory of Lohnstein (2000), defines sentence mood as the result of the interplay of different grammatical factors including wh-phrases (see also Lohnstein and Bredel (2004: 235-264)). A central element of this theory is the mood phrase (MP), understood to be the projection of the verbal mood (Eden 2004: 185).

The empirical material from Mbə̀ligi discussed in this endeavour provides evidence in support of projecting a Mood Phrase (MP), the head of which is phonetically realized and precisely indicates whether the clause in which it occurs is a declarative, an interrogative or whether it expresses certainty or possibility, which is in fact the function of mood.

Furthermore, sentence mood in Mbə̀ligi is shown to interact with syntactic processes such as wh-movement (question formation, clefting). In so doing, it exhibits characteristics that have been known to be the cornerstone of head-to-head movement in the historiography of generative grammar. More specifically, Mood (M°) raises to a higher position in the left periphery, along with an extracted wh-item, a focalized constituent or clefted one. Similarly, in order to express both certainty and possibility, both the mood marker and the modal marker merge into pre-subject positions, uncovering thereby what would appear to be unusual facts. Moreover, one of the mood markers, notably *la*, is shown to trigger the heavy pied-piping of the complement of M° , that is TP, to the Spec, MP position, thereby deriving the word order attested in wh-in-situ constructions and avoiding therefore to resort to ad hoc solutions such as right adjunctions in head-to-head movement.

This essay is thematically organized as shown in the following table:

1	Mbə̀ligi
2	Mbə̀ligi wh-phrases
3	Tense
4	Aspect
5	Mood
6	The internal structure of INFL
7	Yes-no questions

8	Echo questions
9	Heavy pied piping to Spec, MP
10	Wh-in-situ
11	PF movement in root interrogatives
12	Clefts
13	More on ligə and the CleftP

1. 1. Mbəligi

Mbəligi is a Niger-Kordofanian Grassfields Bantu language spoken by 35, 000 people in Bambili, in the Tubah sub-division of Mezam division in the North West region of Cameroon.

1. 2. Mbəligi wh-phrases

Mbəligi wh-items are classified below into arguments, referential and non-referential adjuncts:

- (1) a. **arguments:** (*i*) *wə* “who”
 (*a*) *kə* “what”
- b. **referential adjuncts:** *afi*’ (*i*) *kə* “when”
 time what
 fə/fifə “where”
- c. **non-referential adjunct:** *laa* “how”
 mbə’ (*ə*) *kə* “why”
 why what

1. 3. Tense

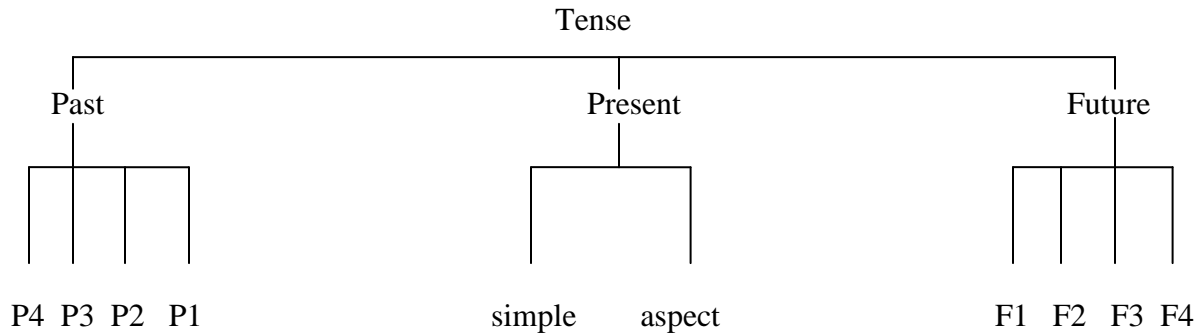
To define tense, Comrie (1985) establishes a three-way distinction (opposition) between the present, the past and the future. He defines tense as “a grammaticalized location in time”. For example, “... present tense means coincidence of the time of the situation and the present moment; future tense means location of the situation after the present moment” (Comrie 1985: 36). Matthews’s Oxford Concise Dictionary of Linguistics (2007: 404) defines *tense* as “Inflectional category whose basic role is to indicate the time of an event etc. in relation to the moment of speaking. Divided notionally into *present* (at the moment of speaking), *past* (earlier than the moment of speaking), and *future* (later than the moment of speaking). Thence extended to any forms distinguishing these, whether or not they are inflectional: e.g. English has an inflectional distinction between past (*loved*) and present (*love*), but in addition the auxiliary *will* is often said to mark a future tense (*will love*).

The division between tense and aspect is partly fluid. E.g. in *I have done it*, *have* and the past participle (*done*) form a present perfect: the difference between this and the corresponding

non-perfect (*do*) is accordingly one of aspect, or more specifically phase. But by the same token it identifies the event as prior to the moment of speaking : hence a common change by which a present perfect replaces, e.g. in modern spoken French, a simple past. The boundary with mood is also fluid. E.g. the past tense in English, though an indication of past time in many basic uses, is also used in e. g. a remote conditional (*if I saw her as opposed to If I see her*) with a role like that of a subjunctive. It is therefore not surprising that inflections making aspect, tense, and mood are not always separate, or that the term *tense* has traditionally been used for distinction involving all three : thus the “tenses” of say, Spanish, are the present indicative, present subjunctive, imperfect indicative, etc. Abbreviations such as TMA (*for tense-mood-aspect*) or TM are now used similarly.”

Ngũ Alfred Mahbou (2008) indicates that Mbə̀lìgì makes use of a total of ten tenses markers subdivided into three major tenses (past, present and future) as illustrated below:

(2) Mbə̀lìgì tense markers (Ngũ Alfred Mahbou 2008: 41)



In the following lines, tense correlations and their respective markers are illustrated:

(3)

Past tenses	Markers	Time frames
P1 immediate	mbiə	Hours
P2 proximate	ki	Days
P3 intermediate	lugu	Months or weeks
P4 remote	mi	Years

(4)

Future tenses	Markers	Time frames
F1 immediate	bi	Minutes, hours, days
F2 proximate	jagwo,ja	Days or weeks
F3 intermediate	cəgə	Weeks or Months

In Mbeligi, as in many Bantu languages, the present tense is unmarked. As Ngu Mahbou (2008: 41) rightly puts it, “it is either completive for the present perfect and incomplete in the present progressive marked by the vowels |ə, a, u| and must agree with the last vowel of the verb”. When this last vowel is deleted, its position is occupied by the incomplete marker which is, then, assigned a high tone. The incomplete marker is preceded inside the verb by a mood marker that indicates certainty. In the following two examples, there are no present tense markers, but the verb either carries a progressive aspect marker (a) or a declarative/ certainty mood marker (b):

(5)

a.Ngu a- bani- ɔ́
 Ngu SM dances prog.

“Ngu is dancing”

b. Neba a- ligə- nú milú
 Neba SM decl. drink wine

“Neba drinks wine/ has drunk wine”

1. 4. Aspect

Comrie (1976:5) defines *aspect* as “situation-internal” and *tense* as “situation-external”. The Oxford Concise Dictionary of Linguistics (2007: 29) defines *aspect* in the following lengthy terms: “general term, originally of specialists in Slavic languages, for verbal categories that distinguish the status of events, etc. in relation to specific periods of time, as opposed to their simple location in the present, past, or future. E.g. *I am reading your paper* means that the reading is in progress over a period that includes the moment of speaking: *am reading* is therefore present in tense but progressive (or continuous) in aspect. *I have read your paper* means that, at the moment of speaking, the reading has been completed: it is therefore present in tense but perfect in aspect. Aspectual categories are very varied, and since both tense and aspect are defined by reference to time, a clear distinction, where it exists, will usually be drawn by formal criteria. It is also hard to separate aspects marked by inflections or auxiliaries from the *Aktionsart* or inherent lexical properties of verbs. Hence the term is commonly extended to include these and, effectively, any distinction that does not clearly fall under tense or mood”.

In Mbeligi, three aspect markers are identified.

1. 4.1. Perfective aspect

The perfective aspect marker in this language is abstract. Usually, an item inside the verb or the clause would be an indication that the action is complete. For example, any of the four past tense markers or the declarative marker |ligə|, (see *mood* below) would suggest completeness or wholeness of a situation:

(6)

Ngu a- mi- ligə- (i) m-bvɛ ndigə
 Ngu SM p4 decl. link. build come

“Ngu (a long time ago) built a house”

The declarative marker [ligə] alongside the past tense four marker indicates completeness of action.

1. 4.2. Progressive aspect

The progressive aspect is used with all four future tenses and the present tense (P0). The progressive aspect for P0 is [yə] whereas the one that is used with F1 and F2 is [kə]. For illustration, consider the following sentences:

(7)

(a) Ngu	a-	ligə-	yə-	(i) n-	tsa
Ngu	SM	decl.	prog.	link.	come

“Ngu is coming”

(b) Ngu	a-	ligə-	bi-	kə-	(i) n-	tsa
Ngu	SM	decl.	F1	prog.	link.	come

“Ngu will be coming”

(c) Ngu	a-	ligə-	jagwa-	kə-	(i) n-	tsa
Ngu	SM	decl.	F2	prog.	link.	come

“Ngu will be coming”

Recall that the Present tense marker is not phonetically realized in this language, hence its absence in (7a).

1. 4.3. Inherent aspects

Ngu Mahbou (2008) indicates that in Mbəligi four types of inherent aspects are attested: “punctual that marks involuntary acts; durative that lasts over a period of time; telic “that builds on a transitional point” (Comrie 1989) and telic that marks a definite end-point” (p. 43). In the following examples, duration is indicated by the verbs *zaa* “spend the day”, *ligi* “spent the night” and by a reduplication of the subsequent verb:

(8)

a. Ngeghah	a	ligi	ni	kki	kki
Ngeghah	SM	Dur.	to	cry	cry

“Ngeghah cried all night long”

b. Bugu	bi	zaa	ni	ʃa’ni	ʃa’ni
They	SM	dur.	to	quarrel	quarrel

“They quarreled all day long”

1. 5. Mood

Matthews’s *Oxford Concise Dictionary of Linguistics* (2007: 251) defines *mood* as a “grammatical category distinguishing modality. Originally of an inflectional category of verbs in Greek and Latin, opposing in particular indicative and subjunctive: thence of other systems of modality marked by verbs, of distinctions in modality between constructions, and so on.

Modality and *mood* are therefore used in the same sense, by different scholars, in some contexts.”

The *Oxford Advanced Learner's Dictionary* (2005: 951) defines, among other things, *mood* as “4. (grammar) Any of the sets of verb forms that show whether what is said or written is certain, possible, necessary, etc. 5. (grammar) one of the categories of verb use that expresses facts, orders, questions, wishes or conditions: the indicative/subjunctive mood.”

According to Ngu Alfred Mahbou (2008: 44-46), seven modal forms are attested in Mbəlīgi: the indicative, the imperative, the conditional, the subjunctive, the certainty, the uncertainty, and the potential moods.

1. 5.1. The indicative (declarative) mood

The indicative mood is used to express objective facts. There are two markers that are indicative of the indicative mood: the marker |lə| is used with the present tense, future tense, and in the immediate past tense; the marker |ligə| is used with all past tenses.

For illustration, consider the following examples:

(9)

a. Abi: lə- bi- ŋwa'
day decl. F1 break
“The day will break”

b. Abi: lə- iŋ- ŋwa'
day decl. link. break
“The day has broken”

In Mbəlīgi, the linker (in 9(b)) is used to express the immediate past tense, among other things, and it can co-occur with the indicative mood marker |lə|.

(10)

Ngu a- ki- ligə- dze fə ndigə bεε
Ngu SM p2 decl. come to house our
“Ngu came to our house”

In (10), the indicative mood marker |ligə| occurs after the past tense two marker |ki|, whereas in (9a) above, the mood marker |lə| shows up before the f1 marker |bi|. One wonders why this difference in word order? An answer to this question will be attempted later.

1. 5.2. The imperative mood

There is no specific marker for the imperative mood. The verb takes the form of the present tense and the clause ends with a rising intonation. The subject of the clause is deleted:

(11)

kwεʃi gwi
help him
“help him”

1. 5.3. The conditional mood

Its marker is |bugu|. The latter separates the main clause from the embedded one:

(12)

a.u lə- (i)ŋ- kwa'də (a)ba' bugu mi ŋɛ'si
you decl. link. knock door then I open

“If you knock on the door, then I will open(it)”

b. u ligə- mbim bugu si gɛ
you decl. accept then we go

“If you accept then we will go”

1. 5.4. The subjunctive mood

The subjunctive mood is used to express an action or state, not as a fact, but rather as a contingent. Its marker is |də|, as illustrated in the following examples:

(13)

a.də nwi a- kwɛʃi wɛɛni
let God SM help us

“Let God help us”

b. də a- bumni
let SM get-up

“Let him get up”

1. 5.5. The certainty mood

The certainty mood is expressed by |zə| “know”, a verb that denotes certainty:

(14)

mi zə (i)ŋ ŋɛ mbəŋ i- bi- swi'
I know link that rain SM F1 fall

“I know that it will rain”

1. 5.6. The uncertainty mood

The marker of the uncertainty mood is |kəfi'icə| which means “perhaps” or “may be”:

(15)

kəfi'icə mbəŋ i- ligə- bi- swi'
perhaps rain SM decl. F1 fall

“Perhaps it will rain”= “It might rain”

1. 5.7. The potential mood

The potential mood is said to express ability, power or possibility. Its marker is |ma| which translates as “can, could” or “might”. For illustration, consider the following examples:

(16)

a. Mancho a- ma- kwε'ε muo
Mancho SM can carry child

“Mancho can carry a child”

b.u ma- lɔ: micə
you can cook food

“You can cook food”

1. 6. The internal structure of INFL

Having briefly surveyed tense, aspect and mood in Mbə̀lɪgi, it might be theoretically relevant to take a look at the order of these clausal heads in the language. To do so, consider the following sentence:

(17)

Ngu a- ligə- kə- (i)n- tsa fə ndigə bεε
Ngu SM decl. F1 prog. come to house our

“Ngu will be coming to our house”

On the basis of the above example, it can be argued that INFL in Mbə̀lɪgi is made up of the following heads:

(18)

[_{INFL} Agr-Mood-Tense-Aspect-Linker]_{INFL}

In the spirit of Chomsky (1989), Pollock (1989), assume that each inflectional head is hosted by a corresponding maximal projection. “Chomsky (1995) argued against the postulation of Agr[reement] heads on the twin grounds that (i) agreement is a relation rather than a category, and (ii) agreement features are uninterpretable, and hence a head which carried only agreement features could not be assigned any interpretation at the semantics interface, and would cause the derivation to crash: accordingly, Chomsky (1995, p.355) proposed ‘eliminating Agr [head] from UG entirely’ on conceptual grounds” (Radford 2009: 287). Chomsky’s viewpoint notwithstanding, nothing in the analysis that follows hinges on whether Agr should be projected or not as a different functional head.

Coming to the structure in (18), Agr encodes the relationship between the subject and the verb and in Bantu linguistics this AgrS is usually translated as SM (Subject Marker), while the relationship between the verb and the direct object complement, materialized by AgrO, is usually called OM (Object Marker).

In (18), another element deserves some explanation: *linker*. In Bantu linguistics, a linker is understood to serve as a bridge between grammatical forms and content ones. In this specific language, the linker connects the complex unit Agr-Mood-Tense-Aspect to the verb-root. It has three phonetic variants, depending on the phonetic context in which it occurs: [im, in, iŋ] (Ayuninjam Funwi 1997; Ngu Mahbou 2008).

Taking the above into account, the INFL based structure (18) can now give birth to the following more articulate structure:

(21)

a. Mancho a- ligə tse
Mancho SM decl. come
“Mancho has come”

b. Mancho a- la tse
Mancho SM QM come
“Has Mancho come?”

(22)

a. Ngum a- ligə jwi ni muo
Ngum SM decl. has with baby
“Ngum has a baby”

b. Ngum a- la jwi ni muo
Ngum SM QP has with baby
“Does Ngum has a baby?”

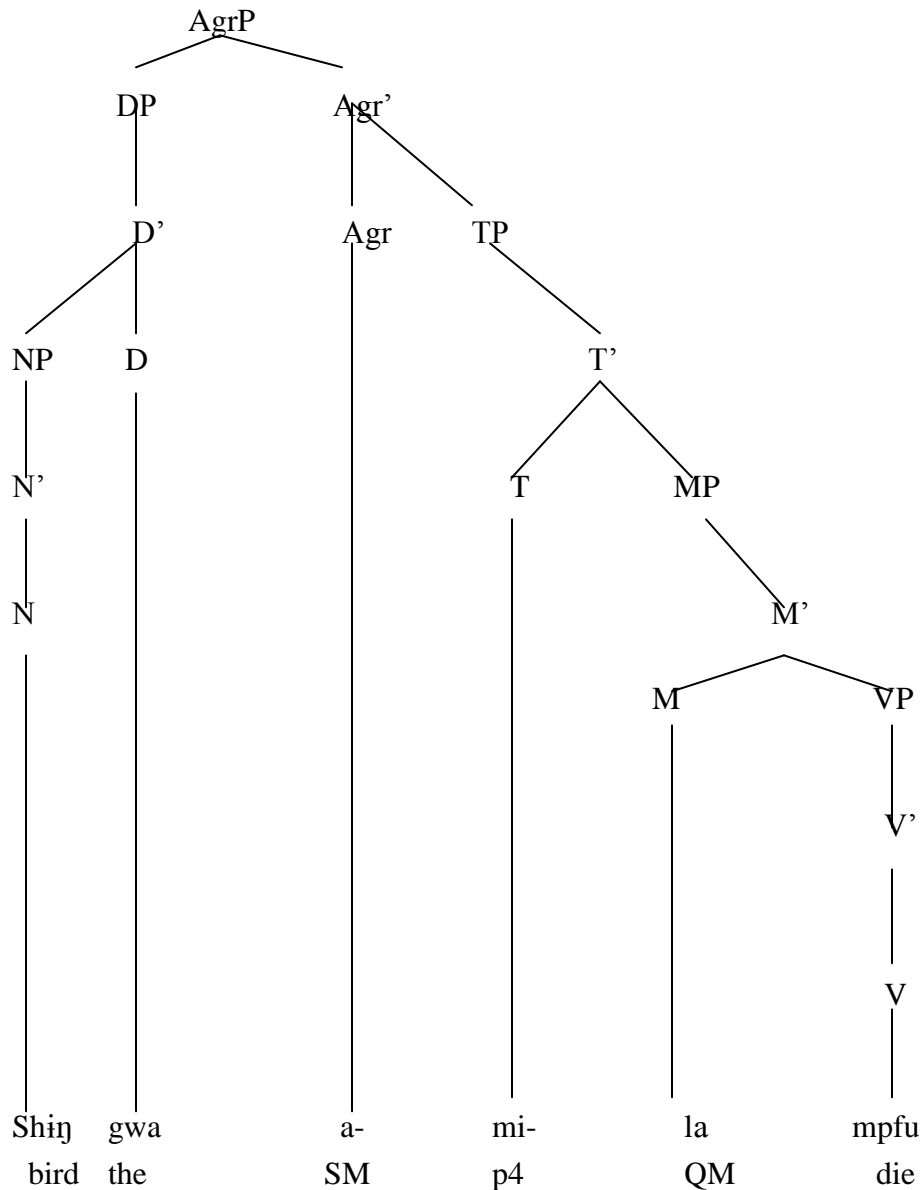
(23)

a. Shiŋ gwa a- mi- ligə mpfu
bird the SM p4 decl. die
“The bird died”

b. Shiŋ gwa a- mi- la mpfu
bird the SM p4 QM die
“Did the bird die”

When |ligə| is substituted for by |la| the containing declarative clause automatically turns into a yes-no question. So far, given the distributional similarities, it seems to be the case that both elements should be treated as mood markers. If that is the case, (23b) should be assigned the following tree representation in which |la| is the head of Mood Phrase (MP):

(24)



Notice that it is not enough for |ligə| to trade places with |la| for the clause in which the latter occurs to be an interrogative (a yes-no question); a rising intonation must accompany the syntactic process. In syntactic explanatory terms, this can be translated into the postulation of the presence of an Int(errogative) P(hrase) dominating the aforementioned clause, the specifier position of which will contain a null operator that will license the interpretation of the clause as an interrogative. This is by no means implausible since Radford (2009: 163-165) argues that in English yes-no questions, a null yes-no question particle is directly generated in Spec, CP.

1. 7.1. Yes – no questions with modals

In Mbəligi, the modal |ma| which means “can, may, be able to” is attested. Ngu Mahbou (2008:87) calls it a modal of possibility, ability or permission:

(24)

a.Mancho	a-	ligə	ma-	kwɛ'ɛ	muo
Mancho	SM	decl.	can	carry	child
“Mancho can carry a child”					
b.Mancho	a-	ligə	ma-	lɔ:	micə
Mancho	SM	decl.	can	cook	food
“Mancho can cook food”					
c. Mancho	a-	ligə	ma-	tse	
Mancho	SM	decl.	can	come	
“Mancho can come”					

Given the data exhibited in (24), there are two ways of forming yes-no questions:

i. *la* replaces *ligə*;

ii. *ma* is fronted, subsequently followed by the raising of *la*.

The two transformations are illustrated below in (25-26):

(25)

a.Mancho	a-	la	ma-	kwɛ'ɛ	muo ?
Mancho	SM	QM	can	carry	child
“Mancho can carry a child?”					
b.Mancho	a-	la	ma-	lɔ:	micə ?
Mancho	SM	QM	can	cook	food
“Mancho can cook food?”					
c. Mancho	a-	la	ma-	tse ?	
Mancho	SM	QM	can	come	
“Mancho can come?”					

(26)

a. la	ma	Mancho	a-	kwɛ'ɛ	muo ?
QM	can	Mancho	SM	carry	child
“Can Mancho carry a child?”					
b. la	ma	Mancho	a-	lɔ:	micə ?
QM	can	Mancho	SM	cook	food
“Can Mancho cook food?”					
c. la	ma	Mancho	a-	tse ?	
QM	can	Mancho	SM	come	
“Can Mancho come?”					

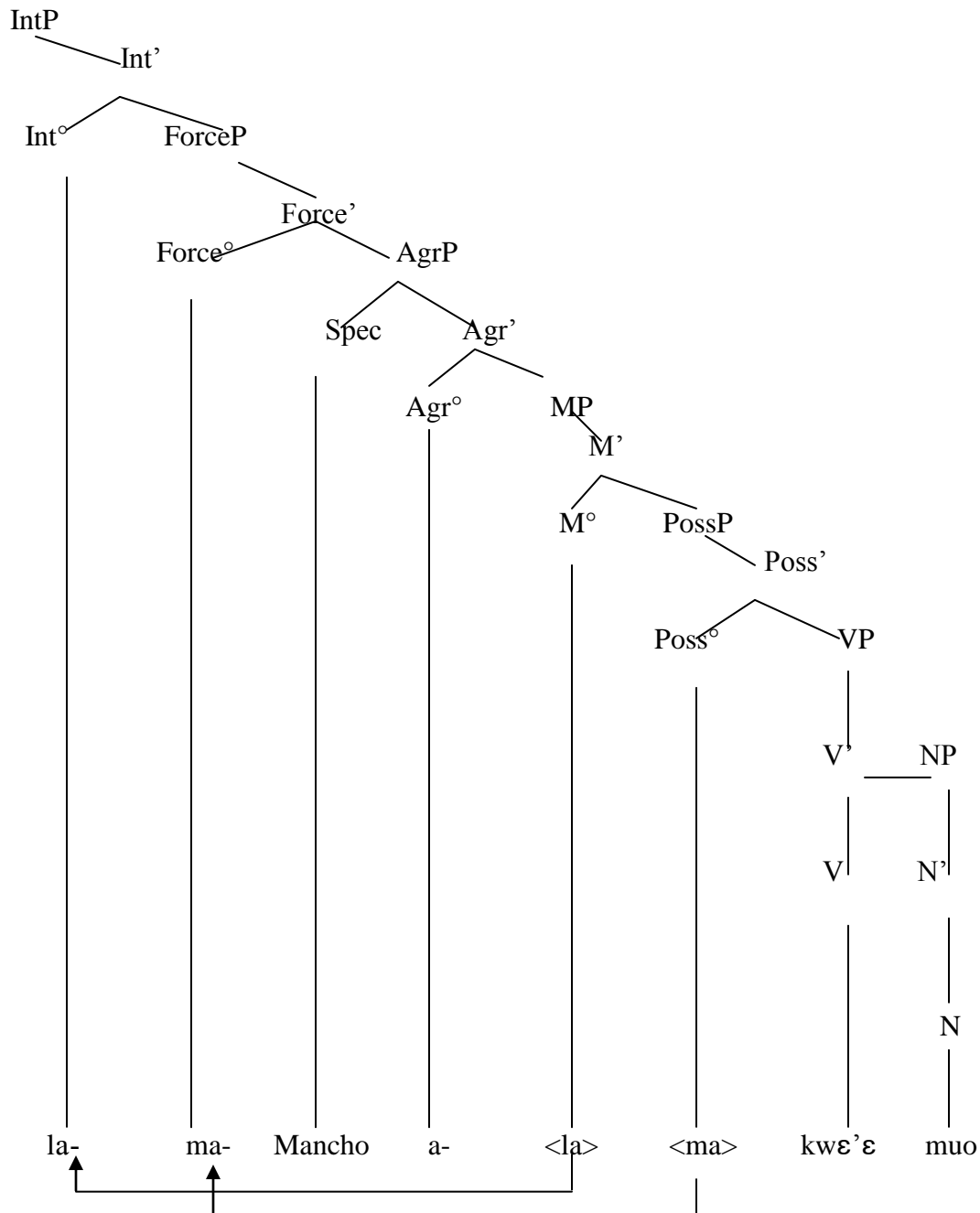
The sentences in (25), because *la* has replaced *ligə* (the declarative marker), are now questions that can be interpreted either as echo interrogatives or yes-no interrogatives. On the other hand, those in (26), wherein *la* and *ma* have been supposedly subject to raising, are simply yes-no questions that are bound to generate questions about their internal structure; more specifically, what are the landing sites of *la* and *ma* in clause initial position? Assuming Rizzi's (1997, 2001)

work on splitting the peripheral C head into a number of separate types of head (such as Int, Force, Focus, Topic, and Finiteness), several potential hosts can accommodate *la* and *ma*.

The occurrence of *la* in a clause turns it into an interrogative. This suggests that when *la* moves from head of Mood phrase (MP), that is M° , it lands in Int° , the head of Interrogative phrase (IntP).

As for *ma*, since it behaves like a modal, when it raises to clause initial position, its host candidate is likely to be Force° . Given the above reasoning, the derivation of say (26a), can proceed as indicated in the following phrase marker:

(27)



la, for reasons provided above, originates from M° and ends up in Int°. *Ma*, following Radford (1997a, 1997b) and Ngu Mahbou (2008), is originally hosted by Poss° (the head of the Possibility Phrase) before landing in Force°. So the architectural apparatus designed by Rizzi (1997, 2001, 2004) enables one to account for the Mbəligi empirical material presented so far. Before the analysis proceeds, it is important to remember that there is an homophonous *ma* “that” in Mbəligi that functions like a lexical complementizer that occurs in cleft constructions:

(28)

a. Abeti	a-	ki-	ligə	gɛ	fə	ndiɡə
Abeti	SM	p2	decl.	go	to	house

“Abeti went to the house”

b. ligə	fə	ndiɡə	ma	Abeti	a-	ki-	gɛ
decl.	to	house	that	Abeti	SM	p2	go

“It is to the house that Abeti went”

In (28b), *ma* appears after the clefted PP and introduces the following clause. Here *ma* cannot be argued to be a modal that was fronted. Notice also that in (28b), *ligə* functions like a focalizer. Attention will be paid back to the exact status of *ligə* when cleft constructions *are* discussed.

For the time being, returning to the mood marker *ligə* and the modal *ma*, both elements in (24) occur side by side, which is a clear indication that they occupy distinct structural positions on the PM (Phrase Marker). As earlier stated, *ligə* is hosted by M° whilst *ma* occupies Poss°, which is contrary to what Schütze (2004) predicts. “He maintains that M is the locus of modals and mood morphemes: more specifically, he posits that M can contain either a modal auxiliary stem (e.g. *can/will/must*), or an abstract (indicative or subjunctive) mood morpheme...” (Radford 2009: 289). The Mbəligi facts seem to suggest that modal(s) and mood might have distinct base generation origins.

1.8. Echo questions

In order to describe and analyze echo questions in Mbəligi, consider the following sentence:

(29)

Abeti	a-	ligə	bi-	kə-	(i)ŋ-	gi'i	ni	Funwi
Abeti	SM	decl.	F1	progr.	link.	talk	to	Funwi

“Abeti will be talking to Funwi”

If *ligə* in (29) is replaced by *la*, the sentence becomes an interrogative:

(30)

Abeti	a-	la-	bi-	kə-	(i)ŋ-	gi'i	ni	Funwi ?
Abeti	SM	QM	F1	progr.	link.	talk	to	Funwi

“Abeti will be talking to Funwi?” or “will Abeti be talking to Funwi?”

As a matter of fact, (30) is ambiguous between a yes-no question interpretation and an echo question reading. But (30) can be disambiguated if *la* immediately precedes and dominates the PP *ni Funwi* “to Funwi”:

(31)

Abeti a- bi- kə- (i)ŋ- gi'i la ni Funwi ?
Abeti SM F1 progr. link. talk QM to Funwi

“Abeti will be talking to Funwi?”

(31) is definitely an echo question, just like the following question:

(32)

Abeti a- bi- kə- (i)ŋ- gi'i la -ni (i) wə ?
Abeti SM F1 progr. link. talk QM to who

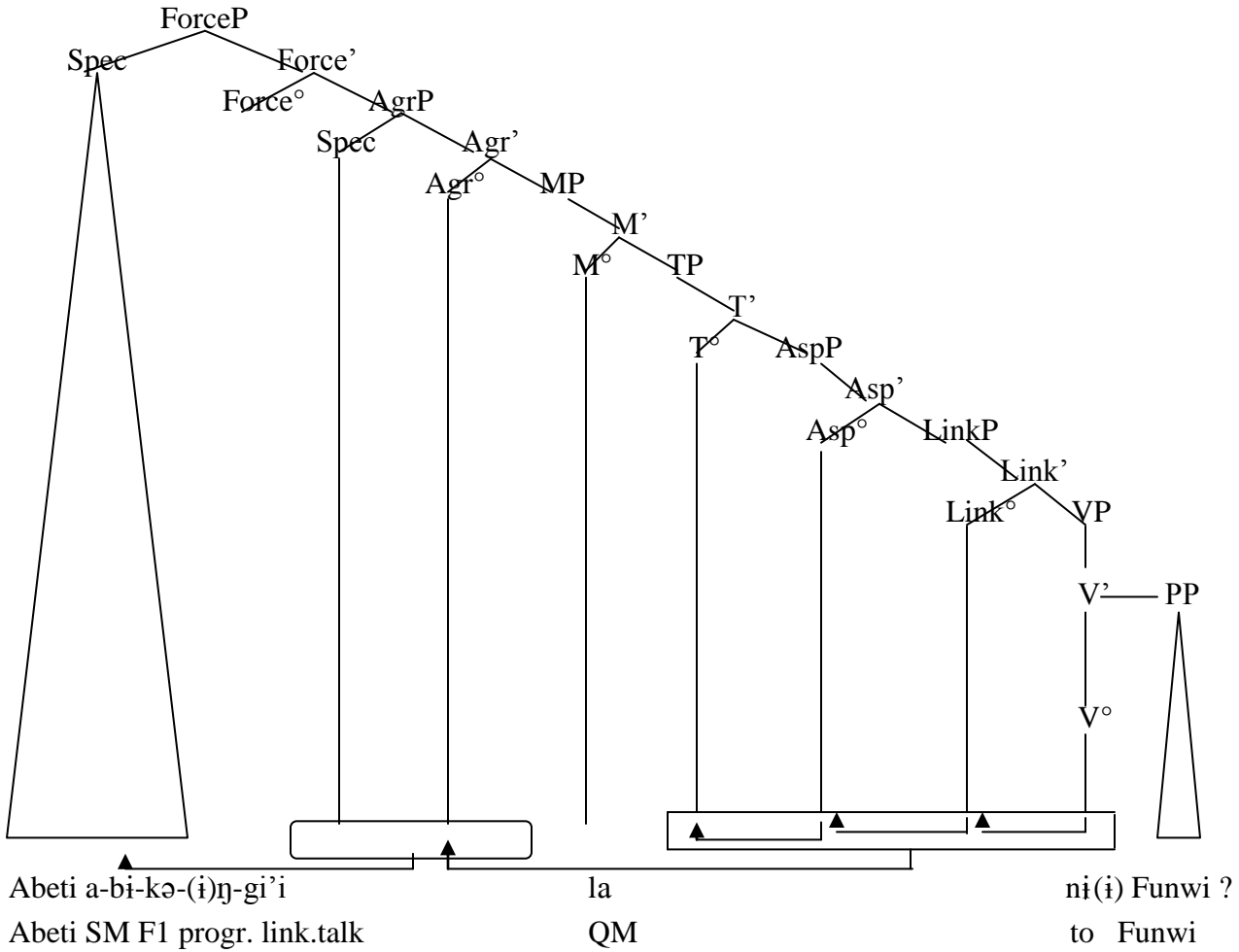
“Abeti will be talking to who(m)?”

(31) and (32) are echo questions. They cannot be interpreted otherwise. But a close look at these two constructions reveals that *la* occurs immediately before the clause final PP. If indeed *la* originates from M° , as was previously argued, does it mean that it moved rightward (downward)? Or is it base-generated at that position? Or is it the case that this language has several homophonous *la*, but with different functions?

In this framework, no rightward (downward) movements are tolerated on principled grounds: “no rightward adjunction movement rules are permitted in the base” (Kayne 1994: 132).

If base-generation were a possible solution, then the clause could contain two homophonous *la* but occupying different positions. The case is not attested. Similarly, historically, languages tend to avoid redundancies whereby a given morpheme will perform different unrelated tasks. So from a conservative point of view, it might be advisable to treat *la* as the same element that originates as a mood marker that either can be fronted or that can have elements move above or around it. If this reasoning makes sense, then *la* is base-generated in M° , not as an affix or a bound morpheme (as is graphically indicated above), but as a(n) free/independent morpheme. Subsequently, the whole IP without the PP to be questioned (Agr here) is raised to a higher position (presumably Spec, ForceP in Rizzi’s system), leaving thereby *la* in situ. Such a derivation would proceed as follows in the following tree:

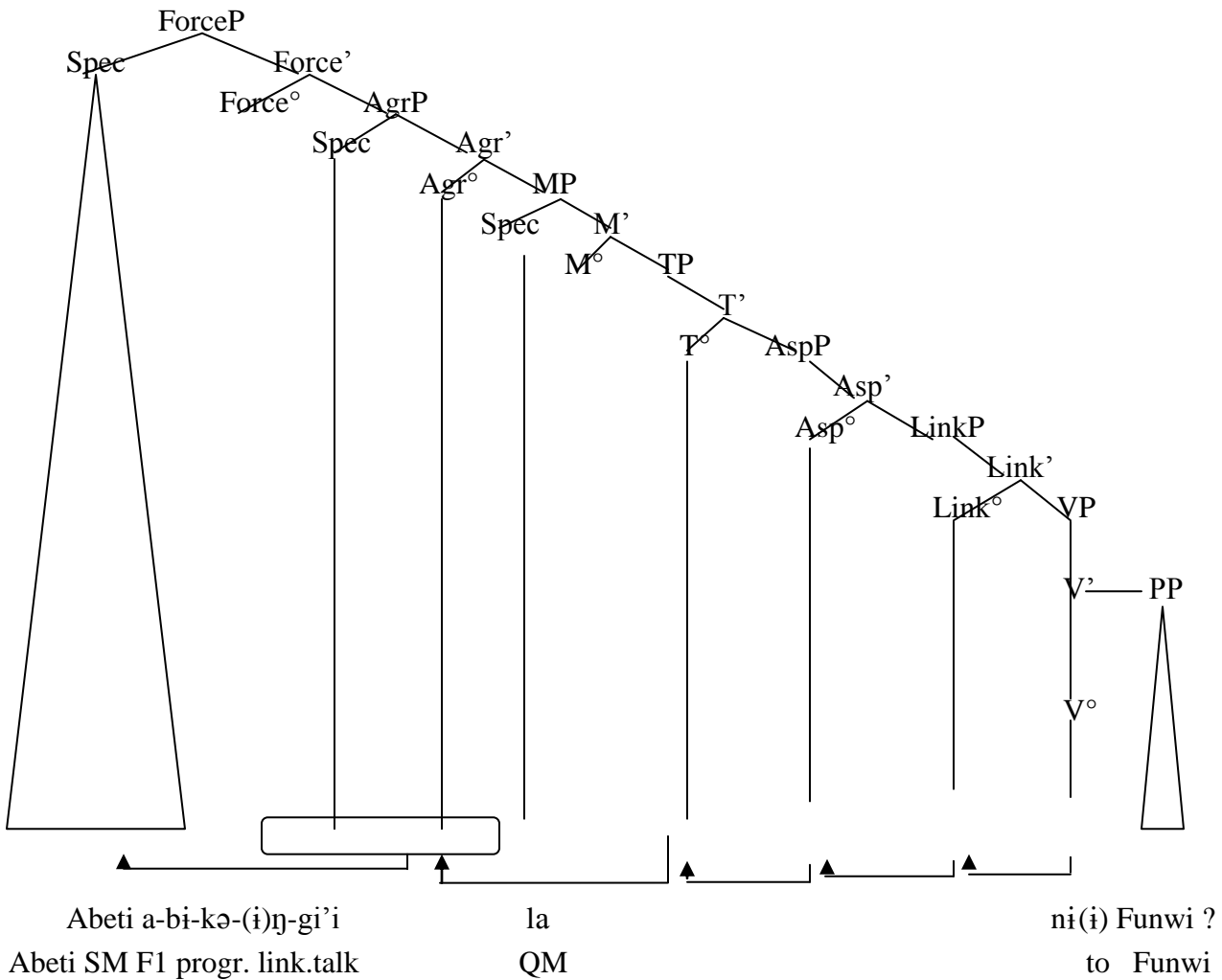
(33)



(33) illustrates snowballing morphemic head movement over *la*. V° raises to $Link^\circ$; $Link^\circ + V^\circ$ raise to Asp° ; $Asp^\circ + Link^\circ + V^\circ$ raise to Agr° to derive the complex unit $Agr^\circ + T^\circ + Asp^\circ + Link^\circ + V^\circ$ in Agr° . The latter category along with its specifier now climb up to Spec, ForceP by snowballing FP movement, that is the raising of the whole functional projection AgrP (Spec, AgrP+Agr $^\circ$) to the specifier position of ForceP. This last movement is preceded by snowballing morphemic head movement(s): each morphemic head raising to the next available closest affix. This derivation gives way to a word order wherein *la*, the QP is M° , now precedes the PP that is questioned: a desirable result. In fact, the derivation in (33) illustrates a typical case of heavy pied-piping (cf. Nkemnji 1995). However, close scrutiny at this derivation is likely to raise eyebrows. Notice that if *la* is the head of MP, that is M° , then head movement in (33) crosses over one head, thereby violating the Head Movement Constraint (Travis 1984) or Relativized Minimality (Rizzi 1990, 2004). Since the derivation generates a construction that respects the Principle of Full Interpretation (Chomsky 1995) and therefore converges, it is a testimony to the fact that it transgresses neither the HMC (Head Movement Constraint) nor RM (Relativized Minimality). For the derivation to proceed fluidly to the extent of transgressing neither one of these conditions, this reasoning reveals that *la* might not be a head, but is rather a specifier. In this latest capacity, it will allow head movement to take place

without trespassing since specifiers do not block head – to- head movement. So, for instance, *pas*, assumed to be in Spec, NegP in standard contemporary French, does not hamper the raising of the head *ne* (Pollock 1989; Haegeman 1994, 1995; Radford 2009). Similarly, assuming that *not* in Modern English is hosted by Spec, NegP, auxiliaries and modals can freely raise over it. Thus, for the derivation in (33) to make sense, assume, contra what was previously said, that *la* occupies the specifier position of Mood Phrase (MP). This derivation, therefore, will now proceed as follows:

(34)



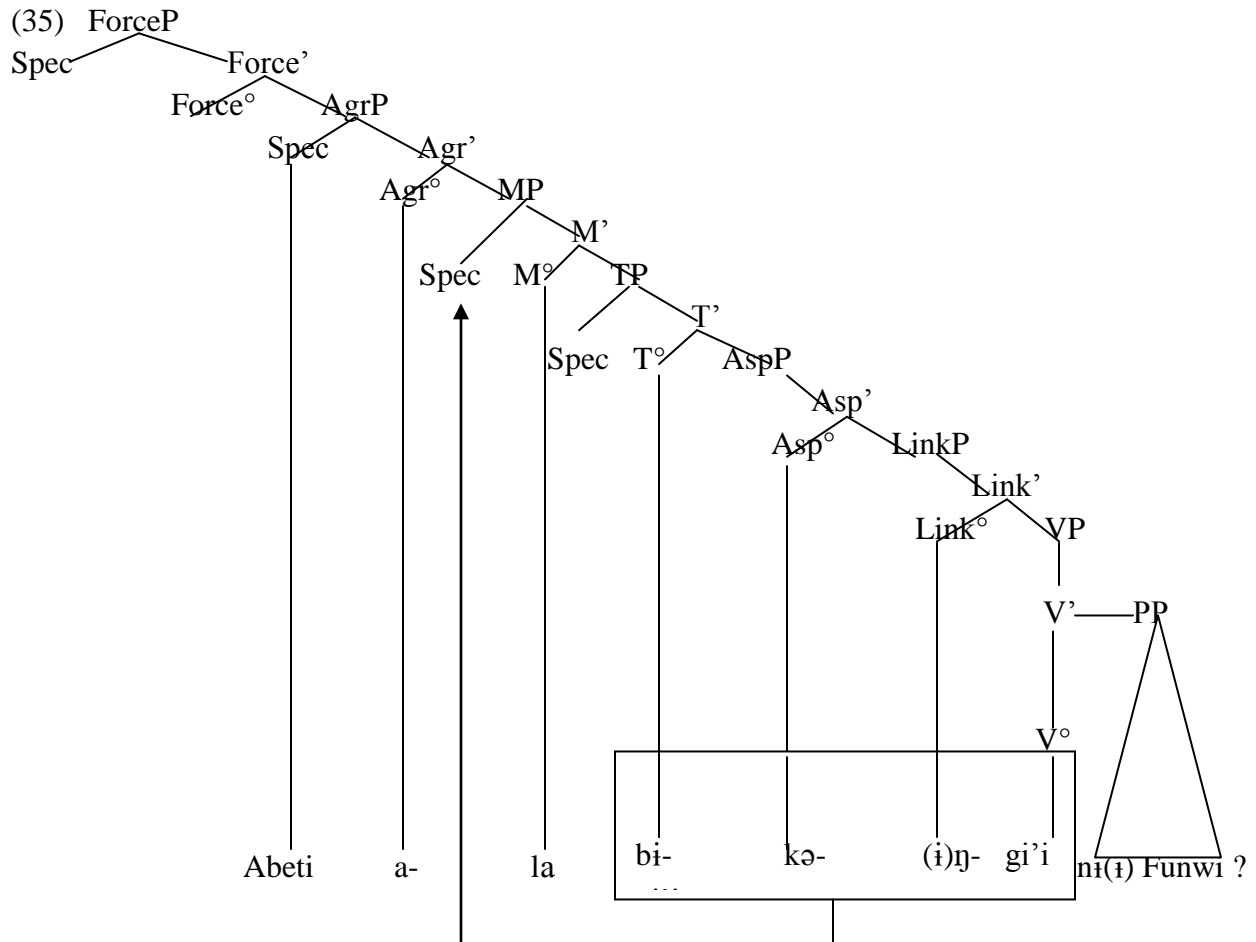
Since in (34), *la* being a specifier cannot prevent head –to – head raising, the derivation’s convergence can be accounted for. The kind of movement postulated here is attested in languages across the world. Crosslinguistically, languages show proof of phenomena similar to the case discussed at hand: in such languages, complementizers occur in clause final position. Kayne (1994: 53) indicates “that final complementizers reflect the leftward movement of IP into spec, CP. [...] as compared with an approach that would take IP to be base-generated as a left sister of C°.” In simple terms, the occurrence of *la* before the *wh*-word in situ or before the questioned PP (in (31) and (32)) can be accounted for by the fact that IP has raised to Spec, ForceP in Mbə̀lìgi.

The above analysis violates the prohibition against right adjunction: “no right-adjunctions are permitted in the base’ (Kayne 1994:132). When the verb moves to a preceding head position above, for the derivation to be adequate, such a move can only be right-adjunction, which is strictly forbidden. On this ground alone, the above derivation cannot be maintained. On the other hand, contrary to what was argued about the declarative mood marker *ligə*, it was said above that *la*, the interrogative mood marker, is hosted by Spec, MP (MoodP). Such a stand is counterintuitive as it seems more elegant to claim that mood markers occupy the head of MP.

So the above analysis according to which head movement is right adjunction and *la* occupies Spec, MP can be dispensed with for an analysis that appeals to heavy pied piping`à la Nkemnji (1995), Koopman and Szabolcsi (2000).

1. 9. Heavy pied piping to Spec, MP

From now on, assume that the two mood markers (declarative and interrogative), *ligə* and *la* occupy the head of MP. Moreover assume that it is the latter head of MP that triggers the raising of the complement of M° to Spec, MP. It follows that the mood marker *la* occurs in clause final position before the Wh-phrase because of the raising of the complement XP of M° that is in this case TP, as illustrated in the following phrase marker:



The above tree representation shows that a chunk of clausal material linearly containing the tense, aspect, linker and V heads is pied piped into the specifier position of Mood Phrase (MP), accounting thereby for the fact that the head of MP, *la*, occurs at the end of the clause before the final PP.

Now, a question could be asked as to why, when the TP chunk is pied piped to Spec, MP, the PP in post verbal position does not get raised along with the pied piped material. To provide an answer to this question, one could appeal to the convergence principle (Chomsky 1995:262; Radford 2004:165):

Convergence principle:

When an item moves, it carries along with it “just enough material for convergence”.

Given that a convergence derivation is the one which yields a licit structure to which an appropriate semantic and phonetic representation can be assigned, then it is realized that the pied piped structure is enough for the derivation to converge as it enables one to obtain the attested word order in (32) above.

1.10. Wh-in-situ questions

In Mbə̀līgi, wh-words can stay in situ in interrogatives, as illustrated by the following examples:

(36)

Ngu a- kəŋ la (i)wə ?
 Ngu SM loves QM who
 “Ngu loves who?”

(37)

Ngu a- ki- cə la (a)kə ?
 Ngu SM P2 eat QM what
 “Ngu ate what?”

(38)

Ngu a- mi- ntuehni Manchu la (a) fi’ikə ?
 Ngu SM p4 hurt Manchu QM when
 “Ngu hurt Manchu when?”

(39)

Manchu a- mi- ligi boo la fifə
 Manchu SM p4 keep fufu QM where
 “Manchu kept fufu where?”

(40)

Manchu a- ki- fa’a la lá
 Manchu SM p2 work QM how
 “Manchu worked how?”

(41)

Ngu	a-	mi-	bu'	Manchu	la	mbə'(ə)kə
Ngu	SM	p4	beat	Manchu	QM	why

“Ngu beat Manchu why”

The above questions are genuine interrogatives in this language. They have the same interpretation as constructions in which wh-words are fronted (see the next section). The position(s) occupied by wh-item in situ depends on their grammatical category. Wh-arguments (who, what) are in argument positions while wh-adjuncts (when, where, how, why) are in adjunct positions. As for the occurrence of *la* immediately before wh-items, its structural position can be accounted for along the lines suggested for the derivation of sentence (30) above. That is *la* occupies the head position of MP. Then via pied piping of TP to Spec, MP the word order in which *la* immediately precedes the in situ wh-word is derived.

1. 11. PF movement in root interrogatives

In Mbəligi interrogatives, wh-words can be fronted or remain in situ [as shown above]. In the following examples, wh-items occur in clause initial position:

(42)

La	(i)wə	ma	Ngu	a-	koŋ ?
QM	who	that	Ngu	SM	loves

“Who does Ngu love?”

(43)

La	(a)kə	ma	Ngu	a-	ki-	cə ?
QM	what	that	Ngu	SM	p2	eat

“What did Ngu eat?”

(44)

La	(a)fi'ikə	ma	Ngu	a-	mi-	ntuehni	Manchu ?
QM	when	that	Ngu	SM	p4	hurt	Manchu

“When did Ngu hurt Manchu?”

(45)

la	fifə	ma	Manchu	a-	mi-	ligi	boo ?
QM	where	that	Manchu	SM	p4	keep	fufu

“Where did Manchu keep fufu?”

(46)

la	lá	ma	Manchu	a-	ki-	fa'a ?
QM	how	that	Manchu	SM	p2	work

“How did Manchu work?”

(47)

la	mbə'(ə)kə	ma	Ngu	a-	mi-	bu'	Manchu
QM	why	that	Ngu	SM	p4	beat	Manchu

“Why did Ngu beat Manchu?”

In the above constructions, wh-words occur at the beginning of clauses along with the QM. Wh-words are followed by *ma* (here translated as *that*). The morpheme *ma* is multifunctional in this language. It can function as a modal: in this case, it means *can*:

(48)

Manchu a- ma- kwε'ε muo
 Manchu SM can carry child
 “Manchu can carry a child”

It can also function as a time adverbial; it is the semantic equivalent of English *while* or *as* (for details, see Funwi F. Ayuninjam 1998: 388):

(49)

Ngu a- mi- ləgə- yə- (i)n- kε ma ndəgə ya (i)- šwε
 Ngu SM p4 decl. Prog. Link watch while house my SM burn
 “Ngu was washing while my house burnt”

However, *ma* cannot translate the English lexical complementizer *that*. *Gə* fulfills this function:

(50)

Ngu a- kwa' di (i)ŋ- gə mbəŋ (i)- bi- šwi'
 Ngu SM thinks link that rain SM f1 fall
 “Ngu thinks that it will rain”

Finally, *ma* occurs in wh-movement and cleft constructions. When a wh-phrase is fronted, it shows up after the fronted element (see (42) – (47) above). Similarly, when an item is focalized, it is followed by *ma*:

(51)

a. Input: Ngu a- ki- cə aku'u
 Ngu SM p2 eat achu
 “Ngu ate achu (pounded tarot)”
 b. ligə Ngu ma a- ki- cə aku'u
 decl. Ngu Foc SM p2 eat achu
 “*It is Ngu who ate achu*”

(52)

a. Input: Chawbo a- ki- kweri ŋka
 Chawbo SM p2 tie fence
 “Chawbo tied a/the fence”
 b. ligə ŋka ma Chawbo a- ki- kweri
 decl. fence Foc Chawbo SM p2 tie
 “*It is a/the fence that Chawbo tied*”

From the above data, one can infer that wh-movement in interrogatives and cleft constructions involves the presence of *ma* which seems to be a focalizer (a focus marker). This is hardly surprising as it is well known that interrogatives crosslinguistically pattern with clefts.

Returning to Mbə̀lìgì interrogatives in which wh-phrases are raised to clause initial position, one wonders how they are derived and what is their cartographic structure. To answer these questions, consider the following data:

(53)

a. Input: Abeti a- la bi- kə- (i)ŋ- gi'i ni (i)wə
 Abeti SM QM f1 prog. link talk to who

“Abeti is talking to who?”

b. Abeti a- bi- kə- (i)ŋ- gi'i la ni (i)wə
 Abeti SM f1 prog link talk QM to who

“Abeti is talking to who?”

On the basis of the derivation illustrated in (35), *la* is hosted by M^0 and triggers the heavy pied piping of TP into the Spec, MP. When movement has applied to (53a), *la* occurs next to the wh-word(*i*)wə “who”, giving rise to the attested construction in (53b). Remains the question “how does the sequence *la ni (i)wə ma* (QM to who foc) get to appear in clause initial position?”

Remember that *la* can remain at its base position or be fronted:

(54) a. Manchu a- ki- la cə ŋku
 Manchu SM P2 QM eat hen

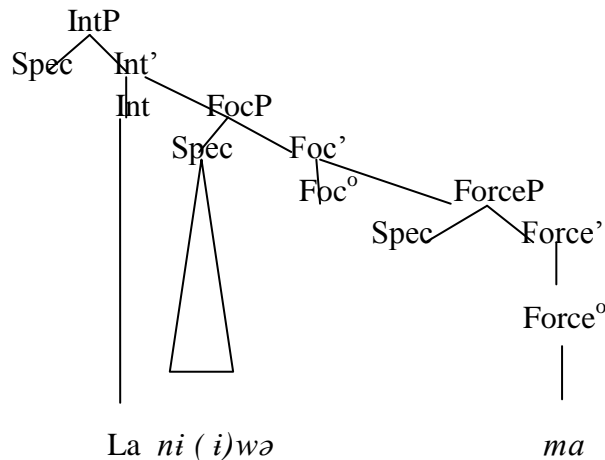
“Manchu ate chicken?”

b. La Manchu a- ki- cə ŋku
 QM Manchu SM P2 eat hen

“Did Manchu eat chicken?”

In yes/no questions, *la* can stay in situ or raise. It has already been argued that, in situ, it occupies M^0 . When it occurs in clause initial position, it is logical that it be hosted by the head of a maximal projection, but which one? Since it takes part in forming interrogatives, it seems plausible to posit that it occupies the Int^0 position (Nkemnji 1995; Aboh 1998; Rizzi 2001). Assuming that the same reasoning can be extended to genuine interrogatives in this language, one now has to find out what position the fronted wh-phrase lands in. Having indicated above that wh-movement patterns crosslinguistically with clefting (Chomsky 2001; Rizzi 1995, 2003; Koopman 1996, 2000), it is not far-fetched to suggest that the raised wh-phrase in Mbə̀lìgì merges into Spec, FocP. But given that a cleft constituent, be it an ordinary constituent or a wh-phrase, is accompanied/followed by *ma*, is it the case that the latter is based-generated in Foc^o? Recall that Mbə̀lìgì is a noun class language in which Spec-Head agreement/concord is overtly manifested (Bilola 1995, Carstens 2000). If *ma* were in Foc^o, one would expect it to agree with the material in Spec, FocP which is not the case. This seems to suggest that *ma* occupies a position outside FocP. The next plausible available candidate in Rizzi’s clausal architecture is Force^o:

(55)



Recall that it was said above that *ma* focalizer was homophonous with *ma* modal marker. Given this state of affairs, can one have in the same clausal interrogative the two *ma*'s? *Niet*:

- (56)a. Manchu a- ma- tuó shweng
 Manchu SM can roast mouse
 “Manchu can roast a mouse”
- b. La akə ma Manchu a- tuó
 QM what can Manchu SM roast
 “What can Manchu roast?”
- c. *La akə ma ma Manchu a- tuó
 QM what Foc can Manchu SM roast

(56) shows that two instances of *ma* cannot occur within the same clause. This would seem to indicate that the two elements compete for the same structural position; i.e. the head of ForceP.

1. 12. Clefts

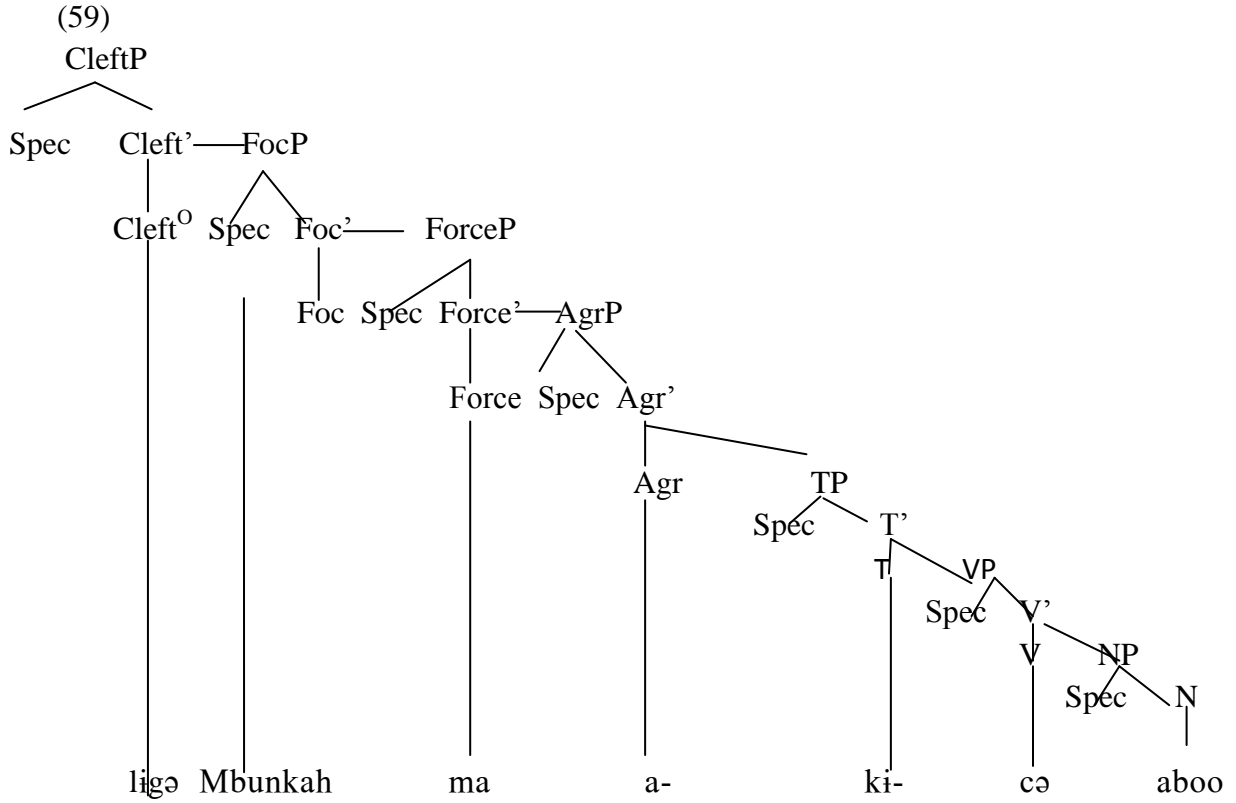
In Mbəligi cleft constructions, the constituent that is focalized is preceded by |liḡə| (see examples (51b and 52b above) and followed by |ma|. Above, the status of *ma* was discussed at length. When mood in this language was described and analyzed in section 6, *liḡə* was said to be a declarative mood marker, occupying the head of mood phrase, M° of MP. In the following example clefts (from Ngu Mahbou 2008:326), *liḡə* occurs in clause initial position:

- (57)a. Input: Mbunkah a- ki- liḡə cə aboo
 Mbunkah SM P2 decl. eat fufu
 “Mbunkah ate fufu”
- b. liḡə- Mbunkah ma a- ki- cə aboo
 Dcleft Mbunkah Foc SM P2 eat fufu
 “It is Mbunkah who ate fufu”
- (58) a. Input: Achukwi a- ki- liḡə- ban aban
 Achukwi SM P2 decl. dance dance
 “Achukwi danced a dance”

b. <i>ligə</i>	<i>aban</i>	<i>ma</i>	<i>Achukwi</i>	<i>a-</i>	<i>ki-</i>	<i>ban</i>
Dcleft	dance	Foc.	Achukwi	SM	P2	dance

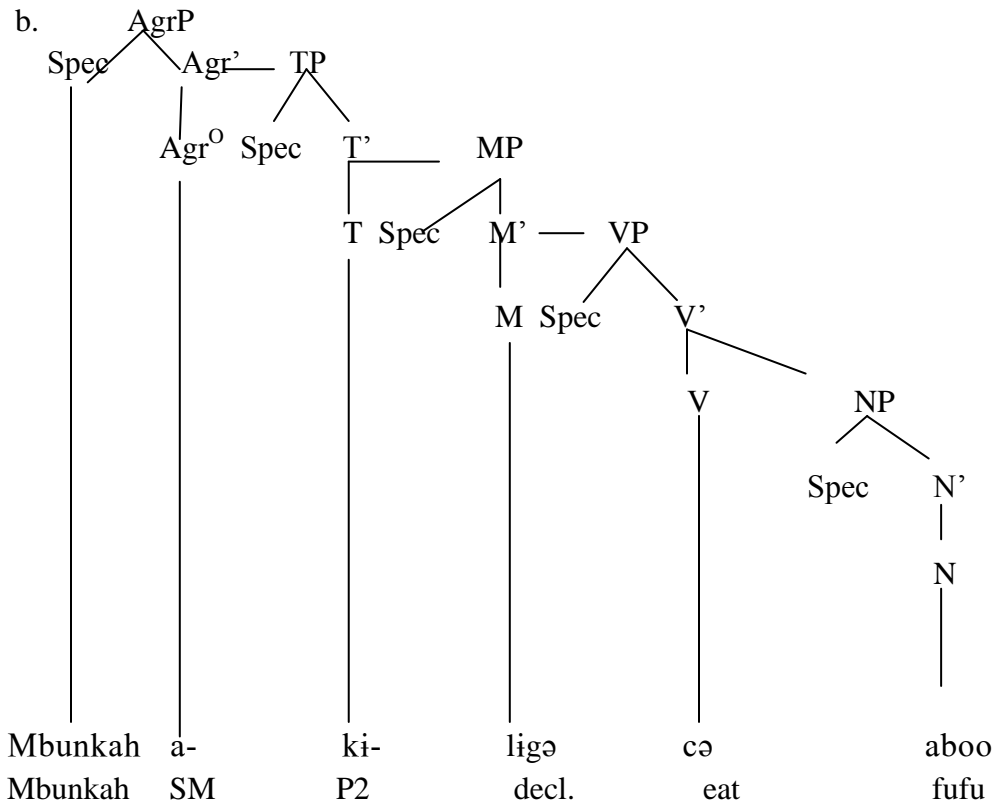
“It is a dance that Achukwi danced”

Descriptively, *ligə* seems to occupy the same position as *la*. In the previous section, a conclusion was arrived at to the effect that *la* occupies the specifier position of IntP since it was argued to be an interrogative marker. *ligə*, being a declarative mood marker, cannot be hosted by IntP on semantic grounds. What position, then, does *ligə* occupy on the phrase marker? Assuming that *ligə* originates as a mood marker from a position within the verb complex morphology, it raises to front initial position to occupy the head of a maximal projection, say YP à la Koopman (2000) followed by Ngu Mahbou (2008). More precisely, Koopman suggests that when FocP cannot accommodate the entire focused material or when the focus word precedes the focalized item, the focus word must be hosted by the head of some higher position which she terms YP. As far as the Mbəligi data is concerned, it was indicated above that *ma*, the so called focalizer, occupies the head of ForceP; that the focused item raises to Spec, FocP. Now, based on Koopman’s suggestion, *ligə* in clefts can be argued to occupy the head of YP, modulo the fact that when it shows up in clause initial position, it is an indication that the clause is a cleft construction. Crucially, a given construction in Mbəligi is a cleft if *ligə* precedes the focused material and it occurs at the left periphery of the clause. So, in these circumstances, *ligə* is a cleft marker. This being the case, the maximal projection hosting it can reasonably be termed a cleft phrase (CleftP); this appearing to be a fairly transparent label. (56b), accordingly, would be assigned the following tree representation:



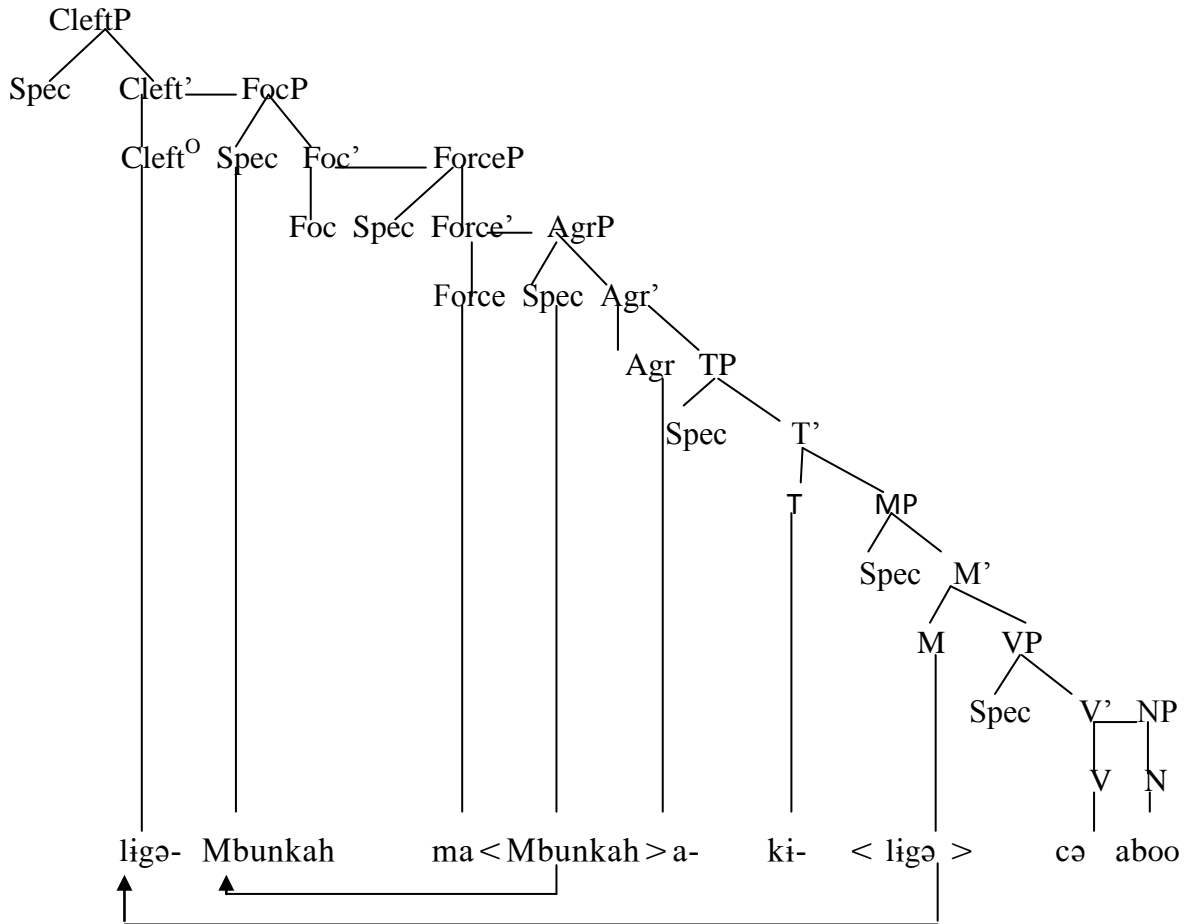
As already stated above, *ligə* originates as the declarative mood marker which indicates that the clause in which it occurs is an assertion, i.e., a declarative clause. More specifically, *ligə* is the head of the mood phrase, MP, in the following sentence:

- (60)a. Mbunkah a- ki- ligə cə aboo
 Mbunkah SM P2 decl. eat fufu
 “Mbunkah ate fufu”



A keen look at the phrase markers (59) and (60b) suggests, as indicated above, that *ligə-* raises from M^0 to Cleft^0 : this move transforms the input construction (60) into a cleft (57=59). The more detail-oriented representation of (59) is the following wherein the raising operations of *ligə* and *Mbunkah* are traced up:

(61)



Tree (61) indicates that M° raises to $Cleft^{\circ}$ while Spec, AgrP moves to Spec, FocP. The latter merge cannot be problematic as it is fairly standard. As for the first move (M° -to- $Cleft^{\circ}$), it does not seem to be very common. So one might plausibly assume that *ligə* is based-generated in $Cleft^{\circ}$ in cleft constructions. Assuming that *ligə* is based-generated in $Cleft^{\circ}$ would entail that there are two homophonous instances of *ligə*, both occupying different positions on the PM and serving different purposes.

There is no empirical evidence to sustain that line of argumentation. For, if *ligə* were based-generated in $Cleft^{\circ}$, it should/would be possible to have, at the same time, another *ligə* in M° . It is impossible:

(62) * *ligə Mbunkah ma a- ki- ligə- cə aboo*

Dcleft Mbunkah Force SM P2 decl. eat fufu

“It is Mbunkah who ate fufu”

What seems to cause the illicitness of (62) is the second occurrence of *ligə* in M^0 (between T^0 and V^0). Moreover, for economy considerations, it seems better to posit that the declarative mood marker, *ligə* in M^0 , moves to $Cleft^0$ to generate a cleft construction, just as the interrogative mood marker, *la*, has the option of being fronted in order to produce a variant of question formation in this language. If this line of reasoning proves to be true, then there is a close link between sentence mood, move alpha and the structure of the left periphery, at least in Mbəliḡi.

1. 13. More on *ligə* and the CleftP

In the previous section, it was shown that *ligə* can be fronted alongside a focalized constituent that it precedes and dominates. *Ligə* can also precede and dominate in clause initial position a modal verb (*ma* “can” in particular):

(63)

a. Input: Ngu a ligə ma cə fu’

Ngu SM decl. Can eat rat

“Ngu can eat rat”

b. *ligə* ma Ngu a cə fu’

decl. Can Ngu SM eat rat

“Certainly Ngu can eat rat”

(64)

a. Input: Che a ligə ma mii tigəni

Che SM decl. Can p4 refuse

“Che could have refused”

b. *ligə* ma Che a mii tigəni

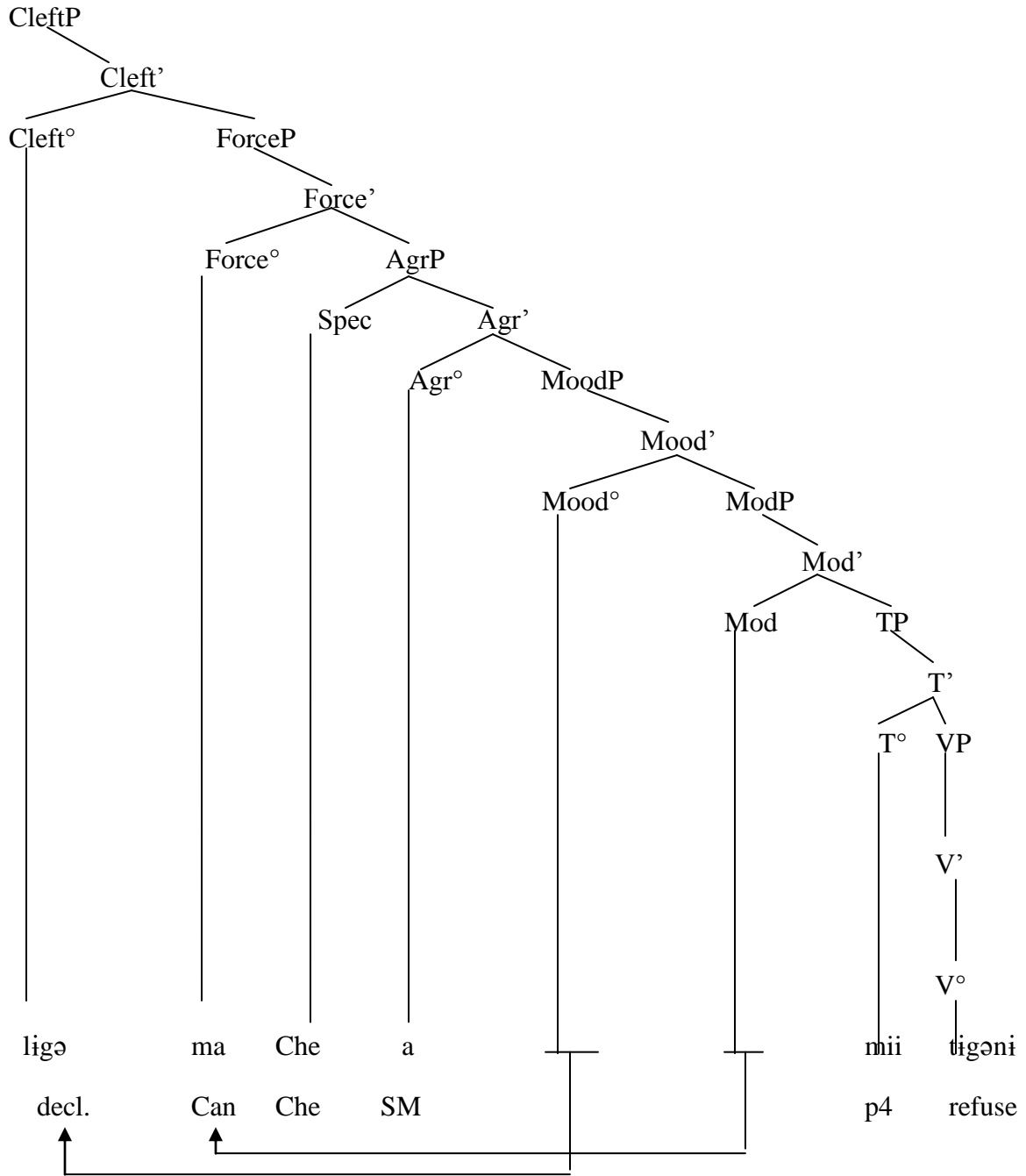
decl. Can Che SM p4 refuse

“Certainly Che could have refused”

In the (b) sentences above, *ligə* and *ma* have been raised to sentence initial position with the meaning of *ligə* changing from an assertive marker to a certainty marker. In effect, in these examples, the assertion made by the sentence becomes a certainty with *ligə* raising to the front position, followed by *ma*’s inversion. Assuming that *ma* in the input construction occupies the head position of a modal phrase (ModalP) for transparency sake, when it raises, it lands at

Force^o, as previously stated. As for *ligə*, one can maintain, as said above, that it lands in Cleft^o (the head of Cleft) because the structural position targeted appears to be the same in cleft constructions as well as in (63-64). The derivation of (64b) is diagrammed in the following phrase marker:

(65)



The interrogative counterparts of (63b) and (64b) are structurally similar to the latter constructions:

(66)

a. Input: Ngu a la ma cə fu'

 Ngu SM QM can eat rat

“Ngu can eat rat?”

b. la ma Ngu a cə fu'

QM can Ngu SM eat rat

“can Ngu eat rat?”

(67)

a. Input: Che a la ma mii tigəni

 Che SM QM Can p4 refuse

“Che could have refused?”

b. la ma Che a mii tigəni

QM Can Che SM p4 refuse

“Could Che have refused?”

The derivation of (66b) and (67b) would proceed like the one in (65) with the exception that *la* would be hosted by IntP (not by CleftP like *ligə*).

Conclusion

It has been argued that mood in Mbə̀lìgi determines the type of clause in which it occurs (declarative or interrogative). Furthermore, it was also shown that mood and modality constitute two different phenomena in this language, each of them projecting the head of a maximal projection, mood phrase (MP) and modality phrase (ModalP). Both mood and modality were shown to interact with syntactic processes such as interrogative formation and clefting, among others. More importantly, the extraction and fronting of a wh-phrase cause the mood and modality markers to move to clause initial position, a phenomenon that is very similar to auxiliary inversion in English and V-to-C raising in French. The analysis suggested has implications for clause structure as mood and modality markers are shown to merge into IntP, ForceP, CleftP, while other constituents can be hosted as well by FocP. In wh-in-situ constructions, on the other hand, the interrogative marker *la* is shown to trigger the pied piping of the complement TP into Spec, MP.

The Mbøligi empirical material, as far as sentence mood is concerned, appears to show surprisingly that sentence mood (MP) and modality (ModalP) behave as independent morphemes that can raise to clause initial position, a fact that is hardly documented in Bantu linguistics. This amounts to claiming that the INFL based-structure of Mbøligi proposed in (19) above can now take the following format:

(68) [_{AgP}[_{AgP}] [_{MP}[_M] [_{ModalP}[_{Modal}][_{TP}[_T][_{AspP}[_{Asp}][_{LinkP}[_{Link}]]]]]]]]

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Chapter 2

Pied-piping, remnant movement and clause structure in Muyang

Introduction

Since the inception of the LCA-based theory of syntax, it is customary to assume that “no rightward adjunction movement rules are permitted, no right-adjunctions are permitted in the base; there is never a choice available between multiple left-adjunctions and multiple heads, each with one specifier; no right-hand specifier positions are available; no left-hand complement positions are available; and all the advantages in the restrictiveness of binary-branching are maintained” (Kayne 1994:132). The Muyang empirical material analyzed in this research piece appears to be a matter of considerable annoyance for the restrictiveness of antisymmetric syntax in that, on the surface, the focalized element seems to have moved rightward downward and landed in clause final position. This, obviously, seems to run counter to the widely held view that traces generated by the extraction of items (heads or phrases) should be asymmetrically c-commanded by their antecedents. There appears, then, to be a bone of contention between the Muyang data and linguistic theory. However, under close scrutiny, the Muyang situation seems to be similar to the complementizer-final languages (or constructions) (Kayne 1994:48; 53). As argued by Kayne, “In a language where IP precedes C^o, IP must have moved leftward into Spec-CP (p. 48). Or “...final complementizers reflect the leftward movement of IP into Spec-CP” (p.53). Other categories can undergo such raising: “In an OV language (or construction) the O must necessarily have moved leftward past the V into a higher specifier position” (p. 48).

In terms of “the fine structure of the left periphery” proposed by Rizzi (1997, 2001b, 2004), it is advocated that in Muyang the focused element substitutes for Spec, FocP, subsequently followed by the pied-piping of the clause (IP) to Spec, ForceP, illustrating thereby a typical case of remnant movement and heavy pied-piping (Nkemnji 1995; Pollock et al. 1999; Koopman and Szabolcsi 2000; Pollock 2000; Kayne and Pollock 2001; Cecchetto 2004; Poletto and Pollock 2004). Conditions on subextraction, pied-piping and remnant movement in Muyang constitute the focus of inquiry of this research endeavor. Following Koopman and Szabolcsi (2000: 4), the above mentioned raising operations are defined as follows:

(1) *Extraction*

Only (full) specifiers and (full) complements on their own projection line are extractable.

(2) *Pied-piping*

A category XP can be pied-piped by YP iff XP is in the specifier of YP or X adjoins to Y.

(3) *Remnant movement*

A category XP containing the trace of an extracted element can move to a position that c-commands the extracted element.

Central in the account of the Muyang empirical material is the idea formulated by Kayne (2011: 2, (1)) according to which “**Movement differences exhaust the universe both of word order differences and of morpheme order differences**”.

2.1. Muyang classification and word order

Muyang is an Afro-asiatic, central Chadic language spoken in the upper north region of Cameroon.

Its word order is SVO:

- 4) Lawan á- lén ahay
Lawan 3sg build house
“Lawan builds a house”

This word order is not altered by negation:

- 5) Lawan á- lén ahay bi
Lawan 3sg build house neg
“Lawan does not build a house”

2.2. Focalization

Consider the following Muyang sentence:

- 6) Lawan á vi mota ana Bebey aweni
Lawan 3sg give car to Bebey yesterday
“Lawan gave Bebey a car yesterday”

In (6), any one of the phrases (except the VP) can be focalized, as illustrated by the following sentences:

- 7) a. yati — á vi mota ana Bebey aweni ni Lawan
It is 3sg give car to Bebey yesterday def. Lawan
“It is Lawan who gave Bebey a car”

- b. yati Lawan á vi—ana Bebey aweni ni mota
It is Lawan 3sg give to Bebey yesterday def. car

“It is a car that Lawan gave to Bebey”

c. *yati* Lawan á vi mota aweni—ni ana Bebey

It is Lawan 3sg give car yesterday def. to Bebey

“It is to Bebey that Lawan gave a car yesterday”

d. *yati* Lawan á vi mota ana Bebey— ni aweni

It is Lawan 3sg give car to Bebey def. yesterday

“It is yesterday that Lawan gave Bebey a car”

In the constructions illustrated in (7), the element that is focalized systematically shows up in clause-final position. If sentence (6) is intuitively considered to be the base from which the constructions in (7) are generated, it descriptively seems to be the case that the focalized item undergoes rightward movement to the sentence-final position. In (7), the position supposedly and initially occupied by the focused element has been substituted for by a dash. Moreover, *yati* occurs in clause-initial position when an item within the clause is focalized. For the time being, it is being translated as *it-is*. More details will follow later. On the other hand, *ni* accompanies and precedes the focalized element. Tony Smith (2003) and Theodore Bebey (2010) both argue that *ni* is a mark of definiteness. Muyang speakers (would) use *ni* in order to determine the defined characteristics/properties of the following words. When *ni* precedes a noun or a group of nouns, it functions like a determiner. Attention will be brought back to *ni* later on as it will be shown that it behaves like a clause-final complementizer in Muyang (see section 10).

In (7), the following constituents are focalized: the subject of the verb, the direct object complement, the indirect object complement and the time adverb(ial).

Now, consider the following sentence:

8) Moweley á hí ana Tehpedek kado Lawan á vi mota ana Bebey aweni
Moweley 3sg tell to Tehpedek that Lawan 3sg give car to Bebey yesterday
“Moweley told Tehpedek that Lawan gave a car to Bebey”

(8) is a complex sentence that is made up of a main clause and an embedded one. In the following constructions, the subject and the prepositional object of the main clause in (8) are focalized:

9) a. *yati* —á hí ana Tehpedek kado Lawan a vi mota ana Bebey aweni ni Moweley

It is 3sg tell to Tehpedek that Lawan 3sg give car to Bebey yesterday def. Moweley

Bebey (2010:85) acknowledges the fact that the c-command relation cannot obtain between the focalized NP and its alleged trace; therefore the Binding Condition (Radford 2009:63) cannot apply to the Muyang facts. This analysis falls short of suggesting an explanation as to why the c-command relation and the Binding Condition account for other empirical materials and not for the Muyang ones. One of the core reasons for doubting the validity of the above derivation might stem from the “antisymmetric prohibition against right-hand specifiers” (Kayne 2011: 4). Which is another way of saying that “all movement must be leftward” (Kayne 1994, 2011).

2.4. Muyang focalization involves the leftward raising of IP into Spec, CP

In the following lines, the split-CP analysis developed by Luigi RIZZI (1997, 2001b, 2004) is adopted. It is suggested that CP should be split into a number of different projections – an analysis widely referred to as the split-CP hypothesis (Radford 2004, 2009). Rizzi argues that complementizers (by virtue of their role in specifying whether a given clause is declarative, interrogative, imperative or exclamative in force) should be analyzed as force markers heading a ForceP (Force Phrase) projection, and that focused constituents should be analyzed as contained within a separate FocP (Focus Phrase) headed by a foc constituent (Focus marker). Similarly, when a relevant movement operation marks a raised constituent as the topic of the sentence, the construction is said to be topicalization. Rizzi suggests that just as focused constituents occupy the specifier position of a focus phrase, so too topicalized constituents are hosted by the specifier position of a Topic Phrase (TopP).

Rizzi (2001b) proposes another maximal projection IntP (Interrogative Phrase, for which see also Nkemnji 1995), the specifier position of which can host specific interrogative operators such as *perché* “why” in main and embedded clauses or interrogative particles such as *se* “if” or “whether” (in embedded clauses in Italian).

Having briefly sketched out the split CP analysis, let us return to the Muyang data. In fact, the position argued for from now on is that focused elements occur in Muyang clause final position because IP moves leftward into Spec-ForceP: it is a typical case of what is known in the literature as heavy pied-piping (see Nkemnji 1995).

Now, consider the following phrase marker assigned to sentence (6):

(12) [_{AgP}[_{Spec} Lawan [_{Ag} á [_{VP} vi [_{NP} mota [_{PP}[_{Spec}[_P ana [_{NP} Bebey [_{ModP}[_{Spec}[_{Mod} awɛni]]]]]]]]]]]]]]]]]]]]]

Lawan 3sg give car to Bebey yesterday

“Lawan gave Bebey a car yesterday”

Given the tree representation illustrated in (12), in order to obtain a construction such as (13) below,

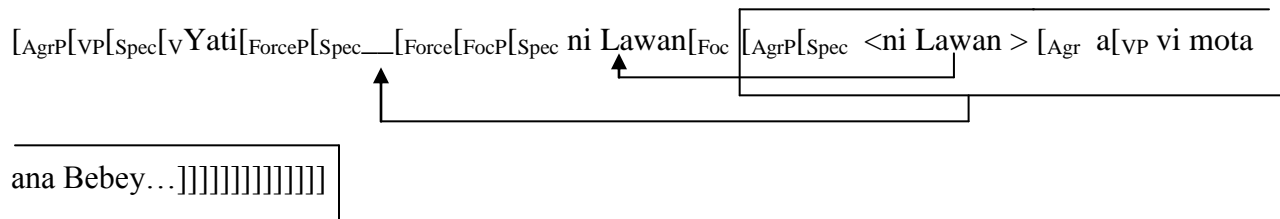
(13) a. yati— á vi mota ana Bebey aweni ni Lawan

It is 3sg give car to Bebey yesterday def. Lawan

“It is Lawan who gave a car to Bebey yesterday”

not only should IP move to the Spec, ForceP position, but it is also important to indicate what position the focalized NP *ni Lawan* gets to occupy. In (13a), if indeed the grammatical subject of sentence (13) is focalized as it should be, then logically it should occupy the Spec, FocP position. This is tantamount to saying that two movement operations have taken place in order to derive a construction such as (13a): (i). the raising of the grammatical subject from Spec, AgrP to Spec, FocP; and (ii). the movement of AgrP (IP) to Spec, ForceP. Let us see how this reasoning works in practice in the following tree structure.

(13b)



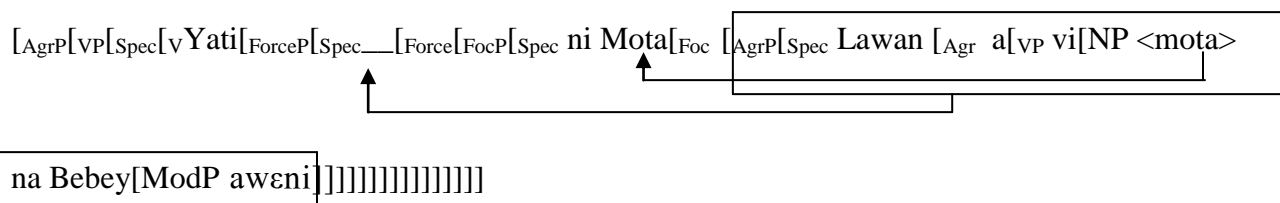
As illustrated in (13b), the NP in subject position has raised from the Spec, AgrP position to the Spec, FocP position in order to be focalized. Then the IP (AgrP in our terminology) has migrated to the specifier position of ForceP. So the raising of the subject NP precedes the migration of IP. Both movement operations are leftward raising strategies, as logically expected in this system and no questions about the licensing conditions of the traces thereby generated should arise. In the following construction and its phrase structure tree representation, it is the direct object complement that is focused and the AgrP is heavily pied-piped:

(14) a. yati Lawan á vi— ana Bebey aweni ni mota

It is Lawan 3sg give to Bebey yesterday def. car

“It is a car that Lawan gave to Bebey yesterday”

(14) b.



In (14b), two movement operations are illustrated: first, the direct object complement NP substitutes for the specifier position of FocP, signifying thereby that it is focalized; second, the AgrP (IP) is raised to the specifier position of the Force Phrase: this derivation explains the resulting word order whereby AgrP is closed off by the focused constituent, given that ForceP precedes and dominates FocP. On the basis of the translation of *yati* “it-is” provided by Bebey (2010:56), this element has been positioned as the head V of a VP, contra Bebey who, at times, treats it as a focus marker (or a focalizer). For, if *yati* were a focus marker, it would be expected to occupy Foc; the head of Focus Phrase; but in this case the word order would have been: **ni mota yati*. Furthermore, *yati* is clause initial, therefore behaving more crosslinguistically like a copula than a focalizer, while the focused constituent is clause-final. So for the time being, assume that *yati* is a presentative (or an introductory) copula that introduces a focus construction just like *it is* does for English clefts.

The clause-typing in (14b) is done via ForceP. But the question is how can one justify the valuation of the features on Foc (+Foc, +EPP) and the subsequent raising of the NP-element into Spec, FocP. Focusing in Muyang is morphologically marked which accounts for why the head of FocP lacks a Foc morpheme. The PF realization is reinforced overtly by the presence of the cleft-morpheme *yati* and the so called definitizer *ni*. In other words, the presence of the cleft morpheme (marker) *yati* and the definitizer *ni* helps to complement overtly the focus strategy in Muyang. Since the FocP head is morphologically null in Muyang, the EPP feature cannot be valued overtly to cause raising of the NP element into Spec of FocP. Raising into these positions is by default and it is phonologically constrained at the interfaces (PF, LF).

Having seen how a simplex construction can be derived in Muyang, consider a complex one that is a complex sentence comprising a main clause and a subordinate one and in which an NP is focalized, i.e. sent to sentence final position (to the end of the embedded clause). For ease of exposition, the data are repeated below:

(15) a. Moweley á hí ana Tehpedek kado Lawan á vi mota ana Bebey aweni

Moweley 3sg tell to Tehpedek that Lawan 3sg give car to Bebey yesterday

“Moweley told Tehpedek that Lawan gave a car to Bebey yesterday”

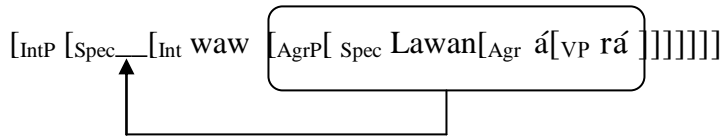
b. *yati* —á hí ana Tehpedek kado Lawan á vi mota ana Bebey aweni ni Moweley

It is 3sg tell to Tehpedek that Lawan 3sg give car to Bebey yesterday def. Moweley

“It is Moweley who told Tehpedek that Lawan gave a car to Bebey yesterday”

c. *yati* Moweley á hí— kado Lawan á vi mota ana Bebey aweni ni ana Tehpedek

(18)



The pied-piping of AgrP into Spec, IntP is accounted for by Chomsky’s (1993) Extension Condition: as soon as a head is merged, movement into its specifier is obligatory (see also Koopman and Szabolcsi 2000: 42).

2.6. Matrix wh-questions

Muyang wh-words are classified below into arguments, referential and non-referential adjuncts:

(19) a. Arguments: **way** “who”, **mam** “ what”

b. Referential adjuncts: **ananaw** “when”, **aley** “where”

c. Non-referential adjuncts: **ahmamam** “how” , **kanam** “why”, **ehmey** “how much/ how many”.

2.6.1. Argument extraction

When arguments are used in root questions, a copy of the wh-word occurs in clause-final position while another copy appears in clause-initial position. This is illustrated below in the context of subject extraction:

(20) a. Lawan á sawadáy a gəli
 Lawan 3sg walk in farm
 “Lawan walks in the farm”

b. way— á sawadáy a gəli way?
 who 3sg walk in farm who
 “Who walks in the farm?”

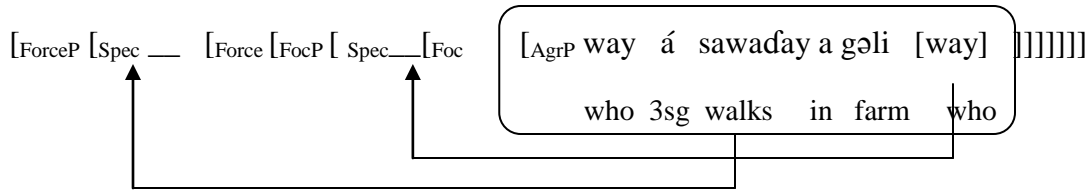
(21) a. krá té shí yam gəđak
 dogs 3pl drink water much
 “Dogs drink much water”

b. mam— té shí yam gəđak mam?
 what 3pl drink water much what
 “What drinks much water?”

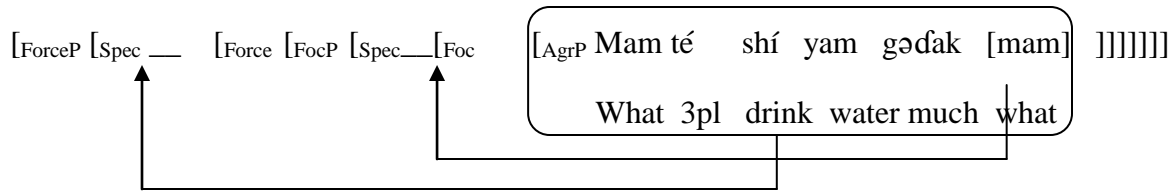
In (20b) and (21b), argument wh-items appear in duplicate. The occurrence of one copy in clause-final position suggests that the wh-phrase is focused, as is usually the case crosslinguistically. If that is the case, the copy of the wh-word in clause-end position moves to

the Spec, FocP whereas the other copy at the beginning of the clause is pied-piped along with the latter structure to Spec, ForceP, in now familiar fashion:

(22a)



(22b)



The pattern of argument wh-words doubling is attested in longer constructions, as (23 b-c) below illustrate :

(23) a. Lawan á vi mota ana Amina aweni ahay vu a kalatal ga tui magrani

Lawan 3sg give car to Amina yesterday house in in hiding to work do

“Lawan surreptitiously gave a car to Amina in the house in order for her to do the job”

b. way— á vi mota ana Amina aweni ahay vu a kalatal ga tui magrani way?

who 3sg give car to Amina yesterday house in in hiding to work do who

“Who surreptitiously gave a car to Amina in the house in order for her to do the job?”

c. Lawan á vi— mam ana Amina aweni ahay vu a kalatal ga tui magrani mam?

Lawan 3sg give what to Amina yesterday house in in hiding to work do what

“What did Lawan give surreptitiously to Amina in the house in order for her to do the job?”

The derivation of (23b-c) should proceed in familiar manner as the ones in (22a-b) above.

mam-té shí yam gəḁak

2.6.2. Adjunct extraction

Adjuncts, be they referential or not, are not duplicated. They, however, behave like focused elements in that they show up at the end of the clauses just like focalized NPs:

(24) a. Lawan á vi mota—aweni ahay vu a kalatal ga tui magrani ana way?

Lawan 3sg give car yesterday house in in hiding to work do to whom

“To whom did Lawan surreptitiously give a car in the house yesterday in order for her/him to do the job?”

b. Lawan á vi mota ana Amina— ahay vu a kalatal ga tui magrani ananaw?

Lawan 3sg give car to Amina house in in hiding to work do when

“When did Lawan surreptitiously give a car to Amina in the house in order for her/ to do the job?”

c. Lawan á vi mota ana Amina aweni ahay vu— ga tui magrani ahmamam?

Lawan 3sg give car to Amina yesterday house in to work do how

“How did Lawan give a car to Amina yesterday in the house in order for her to do the job?”

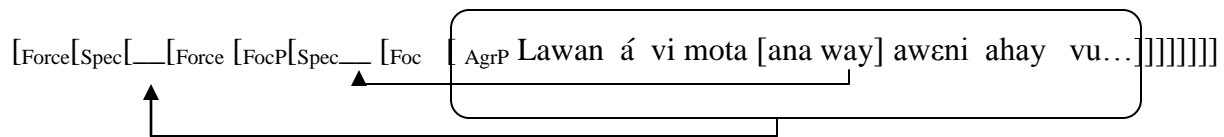
d. Lawan á vi mota ana Amina aweni ahay vu a kalatal—kamam?

Lawan 3sg give car to Amina yesterday house in in hiding why

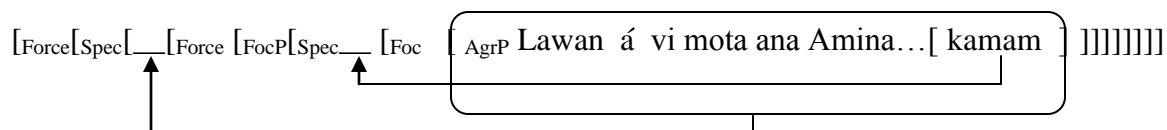
“Why did Lawan surreptitiously give a car to Amina yesterday in the house?”

Notice that in (24a), the prepositional phrase *ana way* “to whom” has been extracted: it behaves like an adjunct wh-phrase in that it is not repeated. Not surprising as PPs are considered to be adjuncts. The above constructions are derived just like the previous ones: the adjunct is raised to the Spec,FocP position followed by the clausal pied-piping of the remaining AgrP.

(25a)



(25b)



(25a-b) are the derivations of (24a) and (24d).

2.7. Remnant movement

The Muyang data discussed and illustrated above are reminiscent of remnant movement which is typical of configurations such as the one below (Cecchetto 2004: 166):

(26) [Z... t_x...]...X...t_z...

In (26), X raises from the constituent Z and lands in a position from which it c-commands its trace. After the movement of X, Z, which contains the trace of the latter, moves as well, thereby destroying the configuration in which the trace of X was linearly c-commanded by its antecedent. It is the raising of Z in (26) that is usually called “remnant movement” (Koopman and Szabolcsi 2000; Cecchetto 2004; Poletto and Pollock 2004).

The licitness of the Muyang data analyzed above seems to suggest that the c-command requirement on the movement of a constituent X can be satisfied once, even if the configuration containing the c-command relationship is later destroyed. Data from English, Italian and German described and discussed by Cecchetto (2004: 169-170), show that remnant movement effects are lacking in configurations such as (26) above:

(27) [t₁ pass the exam]₂ John₁ indeed will t₂

(28) [fired t₁ by the company]₂ John₁ indeed was t₂

(29) [andato t₁ a casa]₂ Gianni₁non`è t₂

gone to house Gianni NEG is

(30) Gelesen hat Hans das Buch nicht

read has Hans the book NEG

Cecchetto takes the examples (27)-(30) to be prima facie evidence that configuration (26) is licensed by Universal Grammar.

2.8. FocP is not a phase but ForceP is

Chomsky (2001) claims that syntactic operations involve a relation between a probe P and a local goal G which is sufficiently close to the probe. He indicates, furthermore, that “the P, G relation must be local” in order “to minimize search” (Chomsky 2001:13); that is, “in order to ensure that a minimal amount of searching will enable a probe to find an appropriate goal” (Radford 2009:323). If locality is necessary/important in order “to minimize search”, this implies that the Language Faculty, as Radford puts it, “can only process limited amounts of structure at one time, and can only hold a limited amount of structure in its “active memory” (Chomsky 1999:9). So, for Chomsky (1999:9), the “reduction of computational burden” is made easier if

the “derivation of EXP(ressions) proceeds by phase”, so much so that “syntactic structures are built up one phase at a time” (Radford 2009:323). Chomsky (2001:14) indicates that “phases should be as small as possible, to minimize memory”, and that they are “propositional” in nature, and include CP and transitive vP (Chomsky 1999:9) (i.e. a vP with an AGENT or EXPERIENCER external argument, denoted as v*P). “His rationale for taking CP and v*P as phases is that CP represents a complete clausal complex (including a specification of *force*), and v*P represents a complete thematic (argument structure) complex (including an external argument)” (Radford 2009:324).

When all the operations have been completed within a given phase, the domain of the phase (i.e. the complement of its head) becomes impenetrable to further syntactic operations. Chomsky calls this condition the *Phase Impenetrability Condition* (PIC), which is formulated by Radford (2009:324) as follows:

(31) *Phase Impenetrability Condition* (PIC)

The c-command domain of a phase head is impenetrable to an external probe (i.e. a goal which is c-commanded by the head of the phase is impenetrable to any probe c-commanding the phase).

The phase-based theory of syntax has implications in the application of A-bar movement operations. In particular, since CP is a phase, this means that its domain (i.e. its complement) will undergo transfer, and consequently neither IP nor any of the constituents of IP will subsequently be accessible to further syntactic operations. More precisely, IP and IP constituents are all frozen in place when IP undergoes transfer (Radford 2009:331; for details on the notion of Criterial Freezing, see Rizzi and Shlonsky 2005:1).

Returning to the Muyang empirical material, recall that when an item is focused, it raises from its base position to the specifier position of FocP; this raising is subsequently followed by the pied-piping of the remaining IP (AgrP) to Spec, ForceP which is a case of remnant movement. These two movement operations are indicative of the fact that IP (AgrP) is not opaque to any syntactic operation and therefore the maximal projection that dominates it i.e. FocP is not a phase. However, the one that precedes and dominates FocP, i.e. ForceP is a phase since no elements contained by/within FocP are amenable to further movement. The Claim by Cecchetto (2004: 179) lends support to the above conclusion. In effect, he indicates that the following empirical generalization can capture the selective distribution of Remnant Movement Effects.

(32) Configuration (26) is permitted when X does not go as far as targeting the edge of the phase that is next highest with respect to the phase in which X originates.

The above theorem of the theory of phases accounts for the fact that in Muyang the focalized element X raises to Spec, FocP and remains there. Remnant movement takes the rest of IP and

sends it to Spec, ForceP, but the raising of X (the focalized material) does not target it (since it is the edge of the next highest phase, ForceP).

2.9. The status of *yati* revisited

It was said at the outset of this research work that *yati* is a copula that is translated as *it-is*. That is why it was said to be the head of VP. Bebey (2010), on the other hand, argues that *yati* is the head of FocP, that is *yati* is a focalizer (Bebey 2010:63-84). Moreover, he indicates that *yati*, in certain contexts, also occupies the head of a relative phrase (following research done by Biloa on Tuki). First of all, based on our analysis of focalization above, it was argued that the focused NP raises to Spec, FocP and that the remnant IP moves to Spec, ForceP. In the resulting structure, *yati* precedes the clause in Spec, ForceP and the latter precedes and dominates FocP. Consequently, for word order considerations, *yati* can hardly be argued to be hosted by Foc⁰ (as does Bebey). But his viewpoint based on Biloa (in progress) that *yati* is Rel⁰ (the head of Relative Phrase) is likely to be on the right track. Biloa argues that in Tuki a RelP can precede and dominate a ForceP and a FocP in this order: RelP >ForceP >FocP >AgrP as illustrated by the following grammatical sentence:

(33) mutu ódzú éé áné ódzú a- dingám a-nom (**Tuki**)

man relative that who Foc SM loves SM sick

“The man that who loves is sick?”

The above sentence is structurally represented as follows (irrelevant details omitted):

(34) [_{AgrP}[_{NP}[_{N'}[_N mutu [_{RelP}[_{Rel'}[_{Rel} ódzú [_{ForceP}[_{Force'}[_{Force} éé [_{FocP} áné [_{Foc'}[_{Foc} ódzú]]]]]]]]]...]_{AgrP}]

In the following lines, it will be shown that there is a great structural similarity between the Tuki and Muyang data. For illustration, consider the following Muyang sentence and its phrase marker:

(35) a. zlam yati leli má gráy—ni á gədavá

thing Rel we 1pl do def. 3sg spoil

“The thing that we did is spoiled”

(35b)

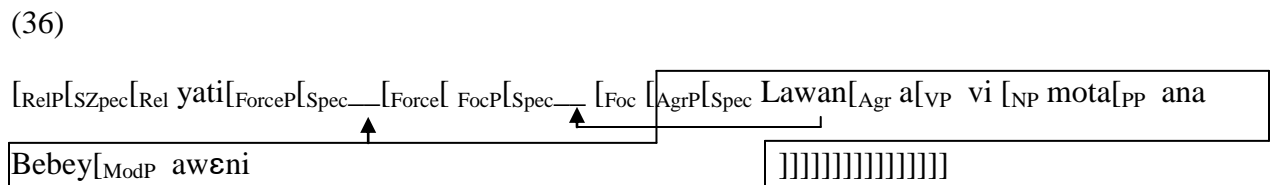
[_{AgrP}[_{NP} Zlam [_{RelP} [_{Spec} [Rel yati [_{AgrP}[_{Spec} leli [_{Agr} má [_{VP} gráy [_{NP} < Zlam > [_{Agr} á [_{VP} gədavá]]]]]]]]]]]]]]

In (35b), the subject NP of the sentence is relativized and *yati* is considered to be the relativizer: that is why it occupies the head of RelP, Rel⁰. In this case, the specifier position of RelP is said to be occupied by a null operator. If the relativized NP could occupy the Spec, RelP position, there would be overt agreement between it and *yati*, which is not the case, obviously.

Having argued that *yati* is the head of RelP (Relative Phrase), let us go back to the focalization cases analyzed in section 2. Consider (7a), repeated below for ease of exposition:

- (7a) Yati—á vi mota ana Bebey awɛni ni Lawan
 Rel. 3sg give car to Bebey yesterday def. Lawan
 “It is Lawan who gave Bebey a car yesterday”

Above, it was argued that similar constructions in Muyang are derived via two movement operations: focalization of a constituent into Spec, FocP subsequently followed by remnant movement (pied-piping) into Spec, ForceP. Given the revisited status of *yati* whereby it is hosted by RelP, it follows that the derivation of (7a) can now be diagrammatically sketched as in this phrase marker:



If the analysis illustrated in this tree representation is on the right track, it implies that focalization and pied piping are embedded in relativization. As work by Biloa (1992, 1995, in progress) on Tuki shows, such phenomena are not uncommon in African languages.

2.10. The status of *ni* revisited

When focalization was discussed from section 2 to 4, it was noticed that a phonetically realized morpheme *ni* occurs immediately before the focused constituent. Similarly, when the status of *yati* was revisited in section 9, it was observed that in cases of relativization, *ni* appears to close off the relative clause (cf. (35a-b)). This state of affairs seems to be confirmed in the following example in which the subject position is relativized:

- (37) wir dahalay yati—á sleká ni á srá zlama
 child female rel. 3sg go def. 3sg know thing
 “The girl who is leaving is intelligent”

The same facts obtain when the object position is relativized:

(38) a. zum yati Lawan á wáy— ni á nduzá

wine rel. Lawan 3sg likes def. 3sg spoil

“The wine that Lawan likes is spoiled”

b. ďaf yati nday té dí— ni é zí

couscous rel. they 3pl cook def. 3sg smell

“The couscous that they cook is smelling”

c. Zlama yati leli má gráy -----ni á gdavá

thing rel. we 1pl do def. 3sg spoil

“The thing that we do is spoiled”

In the above examples, gaps represent extraction sites, i.e. sites from which the relativized constituents were presumably extracted. It can be observed as well that *ni* usually occurs at the end of the relative clause. Recall that Bebey (2010), after Smith (2003), argues that *ni* is a mark of definiteness. This claim, descriptively, is not very far from the truth since any constituent that is either focused or relativized is usually definite. But the most interesting theoretically cartographic question appears to be: what position does *ni* occupy in the architecture of the clause? Its structural behavior is reminiscent of final complementizers (Kayne 1994:53). As a matter of fact, it marks the end of a cleft or the end of a relative clause. Given that final complementizers usually constitute an indication that clauses have raised leftward into Spec, CP, a derivation whereby *ni* is hosted by Force⁰ and AgrP (IP) pied pipes into Spec, ForceP to satisfy the EPP requirement should be considered. For illustration and a better visualization of the facts, consider the following data:

(39) a. Input

Lawan á wáy zum

Lawan 3sg likes wine

“Lawan likes wines”

b. zum yati Lawan á wáy—ni...

wine rel. Lawan 3sg likes def.

“The wine that Lawan likes...”

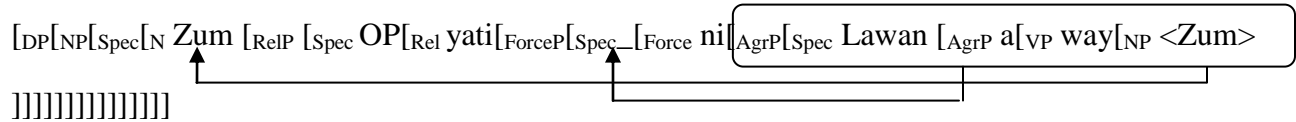
The tree representations of the (a-b) sentences are provided below:

(40) a.

[AgrP[Spec Lawan[Agr á [VP wáy [NP zum]]]]]

Lawan 3sg likes wine

(40) b.



The tree representation in (40b) above shows how the sentence is derived. The DP *Zum* “wine” is relativized; it is therefore fronted and the head of RelP is occupied by *yati* the relativizer. Subsequently, AgrP is pied piped into Spec, ForceP to satisfy the EPP requirement since Force is hosting *ni*. The latter element is base-generated in the head of ForceP because it is considered to be a (final) complementizer. The two movement operations described above account for the word order in which *ni* occurs in the final position of the relative clause.

Recall that in cleft constructions, *ni* also closes off the extraction domain, that is it occurs in the clause-final position of the cleft. Consider, for example, (7b), repeated below, in which the direct object complement *mota* “car” is focused:

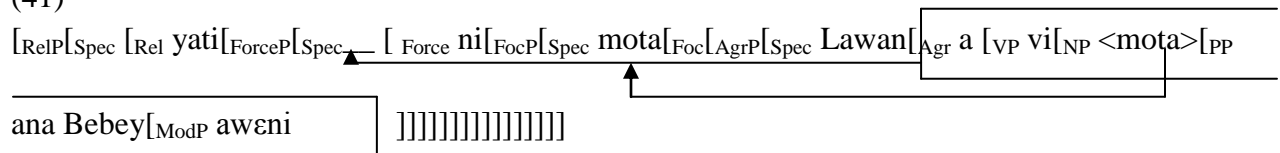
(7b) *yati* Lawan á ví— ana Bebey aweni ni mota

Rel Lawan 3sg give to Bebey yesterday def. car

“It is a car that Lawan gave to Bebey yesterday”

In (7b) above, the clefted NP *mota* “car” is immediately preceded by *ni*. How is (7b) derived? *Yati* seems to be multifunctional. It is a relativizer and a cleft marker. In relative clauses, the NP element precedes *yati* (see the examples 35a-b). In clefts (or in focalization constructions), *yati* precedes and heads the entire clause-structure (see the examples 9a-b, 13a-b and 14a-b). with this information in mind, (7b) is derived as follows:

(41)



In (41b), *yati* occupies the head of CleftP, Cleft° because a constituent has been focused/focalized. Whereas in (40b), *yati* is the head of RelP, Rel° because an NP has been relativized. Despite the homophony of *yati* in both constructions, there is a remarkable distinction between clefts and relatives in terms of (phrase) structure.

In the above tree representation, *ni* is base-generated in the Force⁰ position. The focused NP *mota* “car” merges into the Spec, FocP, subsequently followed by remnant movement of AgrP into Spec, ForceP in order to satisfy the EPP requirement. These two raising operations, preceded by the base-generation of *ni* in Force⁰, derive a word order in which *ni* immediately precedes and dominates the focalized NP *mota* “car” (cf. (7b) above).

Partially summarizing, the treatment of *ni* as a final complementizer has made it possible to account for the word order variations attested in Muyang clefts and relatives wherein either focalization or relativization is followed by heavy pied piping (remnant movement) of AgrP (IP) into Spec, ForceP for EPP considerations.

Conclusion

It has been argued in this chapter that apparently rightward movement in Muyang can only be well accounted for by adopting Kayne’s (1994, 2011) antisymmetry framework. There is no rightward movement in Muyang at all, all movement operations take place in the left edge of the clause. This chapter provides therefore prima facie evidence that the antisymmetry approach advocated by Kayne (1994, 2011) is right in positing that movement accounts, for the most part, for word order variations. Focalization in clause final position is a result of the pied-piping of IP into the higher Spec, ForceP position. Similarly, in yes/no questions, and in conformity with Rizzi’s (2001b) theory of phrase structure, it is shown that in order to satisfy the EPP requirement, AgrP is pied-piped into Spec, IntP thereby satisfying Chomsky’s (1993) Extension Condition which requires mandatory movement into the specifier position of a merged head.

Of significant importance are remnant movement and phase theory. The Muyang empirical material offers insightful results as far as remnant movement and phase theory are concerned. In some complex constructions such as focalization and Wh-questions, not only does the focalized constituent raise to Spec, FocP to satisfy the focus criterion, but also there is pied-piping of the overall remnant AgrP into Spec, ForceP. These two movements are prima facie evidence that IP (AgrP) is not opaque to any syntactic movement and therefore FocP which directly precedes AgrP is not a phase. Force Phrase, on the contrary, is a phase since FocP, which is the complement of the phase head i.e. Force⁰, does not license any extraction.

Rizzi’s (2001b) split-CP approach has also been enriched by Muyang data as it is shown that there is a maximal projection above ForceP, the head of which is occupied by a relativizer, and the specifier of which is occupied by a null operator. The postulation of a Relative Phrase (RelP), first proposed by Biloa (2013), is supported by data from Tuki. In Tuki, as it is the case in Muyang relative clauses, RelP directly dominates ForceP. In such contexts the movement of the relativized NP into the highest DP is subsequently followed by the pied-piping of the remnant AgrP into Spec-Force, thereby accounting for the attested word order.

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Chapter 3

The cartography of the complementizer domain and verb movement in Lamnso

Introduction

The basic empirical goal of this chapter is to analyze the nature and structure of the C-system in Lamnso. Wh-movement, in general, and focalization, in particular, interact with verb movement. This state of affairs has implications for the way the left periphery of the clause is structured. It seems to be the case that the structure of the left periphery in this language supports and enriches the split-CP hypothesis as postulated by Rizzi (1997, 2001), Bianchi (2004), Poletto and Pollock (2004).

Section 1 talks about the genetic classification of Lamnso. Section 2 shows that this language word order is SVO. An inventory of Lamnso wh-items is presented in section 3. Section 4 discusses the wh-in-situ strategy in question formation. Section 5 describes the wh-in-situ focus strategy whereby the focalized constituent stays in situ. The structure of the left periphery is examined in section 6. Yes/no questions are dealt with in section 7. In this language, when an in-situ constituent is focused, it is preceded by *a dzə*. The status of the latter is revisited in section 8. Multiple wh-fronting and focalization are the topics of the discussion in section 9. It is conjectured in section 10 that question formation in Lamnso involves the heavy pied piping of TP (minus the verb objects). Section 11 revisits yes/no questions in Lamnso. The structure of the verb in Bantu is discussed in section 12. It is argued in section 13 that question formation and subject focalization are derived by raising the verb to Force^o, rather than by pied piping TP (minus the objects of the verb) to Spec, ForceP.

3. 1. Classification of Lamnso

Lamnso is a Grassfield Bantu language spoken in the Bui division of the North West Region of Cameroon. It belongs to the Niger-Congo sub-family of the Congo Kordofanian family. More precisely, it is one of the eastern ring Grassfield Bantu languages of Cameroon.

3. 2. Word order

Lamnso is an SVO language, as illustrated by the following examples:

- (1)
Fonkpu koŋ Wirba
Fonkpu love Wirba
“Fonkpu loves Wirba”

Negation does not disturb this clausal organization. Bear in mind that in this article only high tones are marked.

(2)

Fonkpu yó- lo- koŋ Wirba
Fonkpu Neg past love Wirba
“Fonkpu did not love Wirba”

3. 3. Lamnso wh- phrases

Essentially, Lamnso has the following wh-phrases:

(3) *Argument*

La “who”

Ka “what”

(4) *Referential Adjuncts*

e għàn ka

when time what

“when”

e feé

when where

“where”

(5) *Non-referential Adjuncts*

e le

when how

“how”

bika or Jika

why why

“why”

3. 4. Wh-phrases in situ

One of the strategies that Lamnso uses in order to form content questions is to leave wh-phrases in situ:

(6)

a. Fonkpu koŋ la?

Fonkpu love Who

“Fonkpu loves who?”

“who does Fonkpu love?”

b. Wirba yi ka?

Wirba eat what

“Wirba eats what?”

“What does Wirba eat?”

c. Fonkpu du e ntè' e ghàn ka ?
 Fonkpu go to village when time what

“When does Fonkpu go to the village?”

d. Wirba yii shón mbàm jika/bi'ka
 Wirba p1 steal money why/why

“Wirba stole money why?”

“Why did Wirba steal money?”

Bear in mind that the above interrogatives are genuine ones, not echo questions.

3. 5. Wh-in-situ focus

In this language, focalization is encoded in two ways: through raising of the focus constituent and in this case the latter is preceded by a so called focus marker (FOC) and by means of the base strategy whereby the focalized constituent stays in situ and is preceded by a copula and the focus marker. Let us focus, for the time being, our attention on wh-in-situ focus. For illustration consider the following sentences:

(7)

a. Wirba yi- tum wan
 Wirba F2 send child

“Wirba will send the/a child”

b. Wirba yi- tum a dzə wan
 Wirba F2 send ? FOC child

“Wirba will send the/a CHILD”

“it is the/a CHILD that Wirba will send”

In (7b), the direct object NP is focalized since it is preceded by *a dzə* : *dzə* is the focus marker (FOC). As for *a*, Fonkpu Banfegha (2008) argues that when *dzə* occurs in sentence- medial position it must be preceded by *a* which he claims to be an agreement marker. The questions are: what does it agree with? And what does it mean? Those remain unanswered questions.

This morpheme *a* does not occur when the focused constituent is raised (see the examples (11c), (14d), (15b)...). But it consistently shows up before focused wh-in-situ phrases, as the following paradigm demonstrates:

(8)

a. Fonkpu koŋ là
Fonkpu love who

“Fonkpu loves who?”

“Who does Fonkpu love?”

b. Fonkpu koŋ a dzə là?
Fonkpu love ? FOC who

“Fonkpu loves WHO?”

“WHO does Fonkpu love?”

(9)

a. Wirba aa- naa ka?
Wirba p1 cook what

“Wirba cooked what?”

“What did Wirba cook?”

b. Wirba aa- naan a dzə ka?
Wirba p1 cook ? FOC what

“Wirba cooked WHAT?”

“WHAT did Wirba cook?”

(10)

a. Fonkpu dzə̀v wan vɔ́ bi'ka
Fonkpu beat child his why

“Fonkpu beats his child why?”

“Why does Fonkpu beat his child?”

b. Fonkpu dzə̀v wan vɔ́ a dzə bi'ka
Fonkpu beat child his ? FOC why

“Fonkpu beats his child WHY?”

“WHY does Fonkpu beat his child?”

The above examples clearly show that wh-in-situ items can be focalized. In such cases, they are preceded by *a dzə*.

In the next section, extraction in matrix wh-questions is discussed. The data at hand will show that when a wh-phrase is raised to clause-initial position, it is preceded by the focus marker (FOC) *dzə*:

(11) (Fonkpu 2008: 110-111, (28)-(31))

a. Fonkpu ki- dzə̀v la?
Fonkpu p1 beat who

“Fonkpu beat who?”

“Who did Fonkpu beat?”

b. Fonkpu ki- dzə̀v a dzə la?
 Fonkpu p1 beat ? FOC who
 “Fonkpu beat WHO?”
 “WHO did Fonkpu beat?”

c. dzə la wo Fonkpu ki- dzə̀v- in
 FOC who Comp Fonkpu p1 beat- perf.
 “It is WHO that Fonkpu beat?”
 “WHO did Fonkpu beat?”

When the *wh*-phrase is fronted, it must necessarily be focused, i.e. it must be preceded by the FOC marker. Otherwise, the construction is ungrammatical:

(12) (Fonkpu 2008: 110, (30b))
 *la wo Fonkpu ki- dzə̀v- in
 who Comp Fonkpu p1 beat- perf.

Even when the *wh*-word originates from the subject position, in the case of the so-called vacuous movement (Chomsky 1986), it must be focused and its extraction site is occupied by a resumptive element:

(13) (Fonkpu 2008: 110, (30c))
 dzə la wo wu ki- dzə̀v- in Fonkpu
 FOC who Comp resumptive p1 beat- perf Fonkpu
 “WHO beat Fonkpu?”

Notice that the fronted (and focused) *wh*-phrase is followed by an element I call a lexical complementizer, *wo*, and that can be translated as *that* or *which*. It seems to be the case that the said complementizer’s form is morphologically dependent upon the shape of the focalized constituent, or should I say that it agrees in noun class with the focused constituent since Lamnso, like most Bantu languages, is a noun class language:

(14)
 a. baá ló- yúyí yó
 father F1 kill snake
 “a/the father will kill a/the snake” (Fonkpu 2008: 30, (31b))
 b. baá ló- yúyí ka?
 father F1 kill what
 “a/the father will kill what?”
 “what will a/the father kill?”
 c. baá ló- yúyí a dzə ka
 father F1 kill ? FOC what
 “a/the father will kill WHAT?”

d. dzə ka ke baá ló- yúyí

FOC what Comp father F1 kill

“It is WHAT that the/a father will kill?”

(14d) above shows that the morphology of Comp will be determined by the morphology of the focused constituent. The association of the latter with the comp occupying element is not done randomly, as depicted by the following data:

(15)

a. Fonkpu yíi- koŋ a dzə la ?

Fonkpu p1 love ? FOC who

“WHO did Fonkpu love?/ Who was Fonkpu loving?”

b. dzə la wo Fonkpu ki- koŋ ?

FOC who Comp Fonkpu p1 love

“WHO did Fonkpu love?”

(16)

a. Wirba ki- dù a dzə feé?

Wirba p1 go ? FOC where

“Wirba went WHERE?”

“WHERE did Wirba go?”

b. dzə feé fo Wirba ki- dù ?

FOC where Comp Wirba p1 go

“It is WHERE that Wirba went?”

“WHERE did Wirba go?”

(17)

a. Wirba yíi- wiy a dzə ghanká?

Wirba F2 come ? FOC when

“Wirba will come WHEN?”

“WHEN will Wirba come?”

b. dzə ghanká wo Wirba yi- wiy ?

FOC when Comp Wirba F2 come ?

“It is WHEN that Wirba will come?”

“WHEN will Wirba come?”

(18)

a. Wirba yí- wiy a dzə bi'ka?

Wirba F2 come ? FOC why

“Wirba will come WHY?”

“WHY will Wirba come?”

b. dzə bi'ka wo Wirba yi- wiy ?
 FOC why Comp Wirba F2 come ?

“It is WHY that Wirba will come?”

“WHY will Wirba come?”

In view of the above data, the following associations are attested:

(19)

Wh-phrases	Comp
la “who”	wo
ka “what”	ke
feé “where”	fo
ghanká “when”	wo
bi'ka “why”	wo
ele “how”	wo

I will come back shortly to the identity and function of the elements on the right in (19) above. For now, beware of the fact that there is a lexical complementizer in Lamnso that functions like English *that*.

(20)

Wirba kō ji lúm vó yǐ- wǎy kibvəǎshǐ
 Wirba know that husband her F2 come tomorrow

“Wirba knows that her husband will come tomorrow”

In (20), the lexical complementizer is *ji* “that”. Notice that this element occurs neither in cleft constructions nor in relatives. It appears that these two constructions pattern alike since the focalized constituent and the head noun of the relative are both followed by one of the elements on the right hand side of (19):

(21)

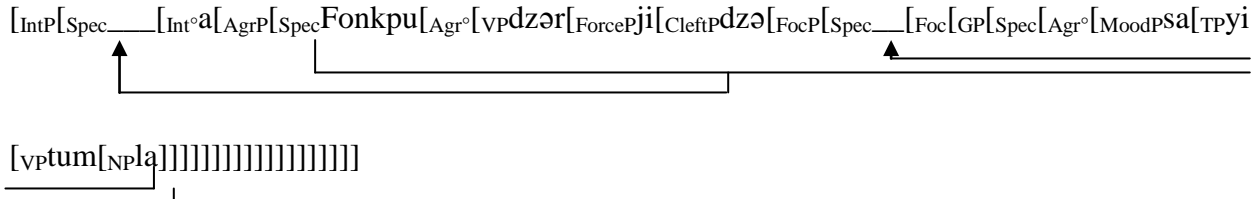
Wirba kermoo sə ngar wo Fonkpu yi- yun vey
 Wirba must take gun comp Fonkpu F2 buy det

“Wirba must take the gun that Fonkpu will buy”

This is hardly surprising given that clefts and relatives are both instances of Move Alpha.

So far the data illustrated and discussed beg the question as to what is the fine structure of the left periphery in Lamnso interrogatives.

(25)



In (25), *la* raises from the clause final NP position to Spec, FocP. The clause marker (Foc) *dzə* occupies the head of CleftP, Cleft°, while *ji*, the lexical complementizer, is hosted by Force°. It is assumed in (25) that *wo*, the subordinator descriptively labeled in (19) Comp, is the head of Ground Phrase (GP) (see Bianchi 2004; Poletto and Pollock 2004), G°. Following Bianchi (2004: 86), Ground Phrase (GP) is the peripheral projection that hosts familiar or presupposed material. But in Bianchi’s system, GP dominates the Force projection, which encodes the assertive force and the Interrogative projection, which encodes the question operator (for both see Rizzi 1997, 2001). In view of the data depicted and discussed so far, the following minimal structure of the Comp system of Lamnso looks as follows:

(26) [_{IntP} Int[_{ForceP} Force[_{CleftP} Cleft[_{FocP} Foc[_{GP} Ground[_{AgrP}]]]]]]]]]]

Up to now, relativization and topicalization have not been discussed. When that is done, it would be interesting to find out how these two constructions fit in the Lamnso Comp system. Until that is done, let us talk a little more about the derivation of a few interrogative constructions in this language.

Consider the following two constructions:

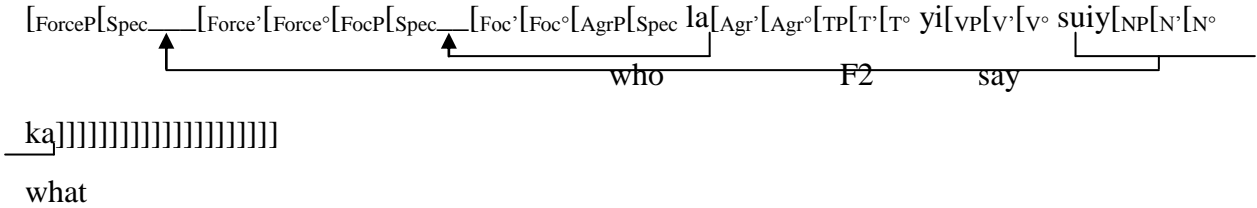
(27) (Fonkpu 2008: 134, (62)-(63))

a. *yi- tum lá lá ?*
 F2 send who who
 “who will send who?”

b. *yi- suiy lá ka?*
 F2 say who what
 “who will say what?”

How can the above two constructions be derived? (27b) is derived as depicted by the following bracketed diagram:

(28)



Remember that Lamnso is an SVO language. Consequently in the numeration, the base order of (27) should look as follows:

(29)
 *la yi- suiy ka
 who F2 say what

So to obtain at PF the word order attested in (27b), one has to postulate the existence of movement operations. In other words, the attested word order must be the result of various movement operations such as the two depicted in (28). The wh-word *la* “who” raises from Spec, AgrP to Spec, FocP (Step I); then the complex unit TP+VP is pied-piped to Spec, ForceP, thereby generating the following word order:

(30)
 Yi- suiy lá ka?
 F2 say who what
 “who will say what?”

The derivation of (27b) seems to indicate that in this language, in order to form interrogatives, it is necessary to front TP(+VP), as indicated by the following ungrammatical example:

(31) (Fonkpu 2008: 134, (62b))
 *lá yí- tum lá ?
 who F2 send who

Moreover, in cases of multiple wh-questions such as (27), even when the complex unit TP+VP is pied piped, the subject wh-word cannot be focalized in situ:

(32) (Fonkpu 2008: 134, (62c))
 *yí- tum a dzə lá lá ?
 F2 send ? FOC who who

But the object wh-word can be focused in situ:

(33) (Fonkpu 2008: 134, (62d))
 yí- tum lá a dzə lá ?
 F2 send who ? FOC who
 “who will send WHO?”
 “WHO is it that who will send?”

In (33), it is the last *lá* that is focused: that is why it is preceded by *a dzə* (the focus marker). Once more, the example (33) shows that Lamnso forms genuine interrogatives by fronting the complex unit TP+VP.

3. 7. Yes/no questions

Yes/no questions pattern like genuine interrogatives:

(34)

a. Fonkpu yî- marir Bih

Fonkpu F2 marry Bih

“Fonkpu will marry Bih”

b. [_{TP} yi- marir] Fonkpu _____ Bih a?

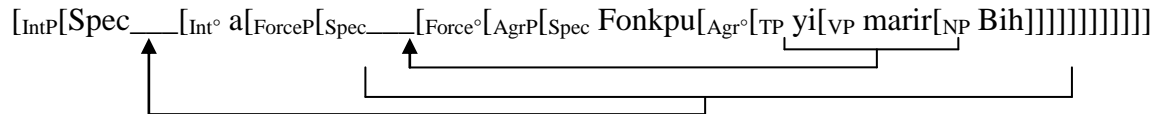
F2 marry Fonkpu Bih QM

“will Fonkpu marry Bih”

In yes/no questions as well, TP is fronted. This state of affairs is very similar to what prevails in French (where auxiliary, modal and lexical verbs can be fronted) or English (in which auxiliary and modal verbs, but not lexical ones, can raise). Lamnso specificity resides in the fact that it is the whole TP devoid of *wh*-phrases that moves. So what seems to obtain in Lamnso interrogatives is the pied piping of a heavier constituent than the element that is raised in English/French interrogatives. I will come back shortly to the exact characterization of this fronting process.

Coming back to the yes/no questions (34b), its derivation is diagrammed in the following representation:

(35)



In (35), two movement operations take place: TP raises to Spec, ForceP (Step I), followed by the raising of the resulting structure to Spec, IntP (Step II). Step II is called remnant movement. These two raising operations account for the word order attested in (34b). In (35), the QM occupies the head of the IntP, Int°. Due to EPP and the Extension Condition considerations, remnant movement (Step II) moves the whole of ForceP into Spec, IntP wherefrom it will dominate/ precede the QM in Int°.

3. 8. The status of *a dzə* revisited

So far, it has been assumed that *dzə* is the focus marker (FOC). Assuming this position to be the right one, what is the status of the preceding *a*? Part of the answer to this question appears to have been provided by Fonkpu (2008: 80). He indicates that *a dzə* is a copula clause that

accounts for both in situ and movement focus as it attributes the [+Foc] feature to a constituent following it. While *a dzə* occurs in clause-medial positions, *dzə* occurs in clause-initial position. So crucially, *dzə* appears to be the focus marker inside the clause or at its edge. If that is the case, building on Fonkpu’s observation, *a* is likely to be the copula. Let us then tentatively assume that it is the head of a Copula Phrase, Cop^o. Given this new development, the following examples examined above will be assigned the following phrase markers:

(36)

a. Wirba aa- naa a dzə ka?
 Wirba P1 cook copula FOC what

“Wirba cooked WHAT?”

“WHAT did Wirba cook?”

b. yi- tum lá a dzə lá ?
 F2 send who copula FOC who

“who will send WHO?”

“WHO is it that who will send?”

(37)

a. [_{AgrP}[_{Spec} Wirba [_{Agr^o}[_{TP} aa [_{VP} naan [_{CopP} a [_{FocP} dzə [_{NP} ka]]]]]]]]]

Wirba P1 cook copula FOC what

b. [_{ForceP}[_{Spec} [_{Force^o} [_{FocP}[_{Spec} [_{Foc^o} [_{AgrP}[_{Spec} lá [_{Agr^o}[_{TP} yi [_{VP} tum [_{CopP} a [_{CleftP} dzə [_{NP} la]]]]]]]]]]]]]]]]]]]]]

who F2 send copula FOC who

(37b) shows schematically how (36b) is derived. In both (37a) and (37b), *a* is hosted by Cop^o, the head of CopP.

3. 9. Multiple wh-fronting and focalization

In (33) above, a multiple wh-fronting construction was discussed. For ease of exposition, consider the same example below:

(38) (Fonkpu 2008: 134, (62d))

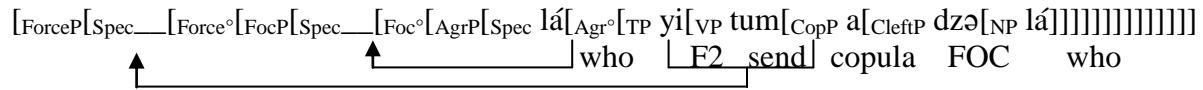
yi- tum lá a dzə lá ?
 F2 send who copula FOC who

“Who will send WHO?”

“WHO is it that who will send”

Above, the identity of the vowel *a* preceding the FOC marker FOC *dzə* was a mystery. Now it has been argued that it is a copula that is it is the head of a copula phrase (CopP), Cop°. This information granted, consider the following tree representation on which the derivation of (38) is depicted:

(39)



On this PM (phrase marker), the subject wh-phrase *lá* “who” is raised from Spec, AgrP to Spec, FocP. TP is then pied-piped into Spec, ForceP. The direct object *lá* “who” is focalized in situ because it is preceded by *dzə*, the FOC marker, which explains why its English translation WHO is written in upper case.

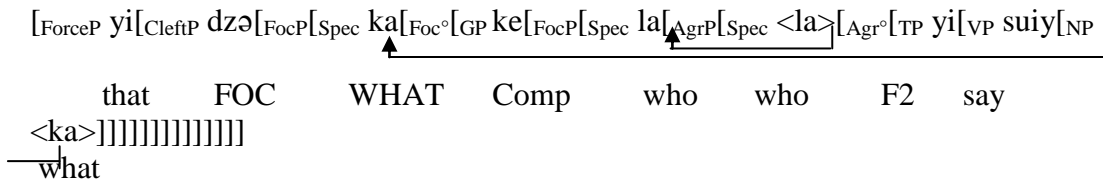
Consider, now, the following Lamnso sentence in which two wh-items have been subjected to movement:

(40)

Fonkpu dzór ji dzə ka ke la ya- suiy <la> <ka>
 Fonkpu ask that FOC what Comp who F2 say who what
 “Fonkpu is asking WHAT is it that who will say”

In the above sentence, *ji* “that” is the lexical complementizer: it is therefore believed to be hosted by Force°. *Dzə* is the FOC marker: it is base-generated in cleft°. The two wh-phrases *ka* “what” and *la* “who” are each merged into Spec, FocP. *Ke*, the descriptively dubbed comp that occurs in Lamnso clefts or interrogatives involving wh-focalization, has been argued above to be accommodated by G°, the head, Ground, of Ground Phrase (GP) (cf. Bianchi 2004; Poletto and Pollock 2004). Given this picture, the derivation of (40) should proceed as follows:

(41)



In (41), the two wh-phrases merge into the two Spec, FocP positions: this accounts for the word order attested in (40).

3. 10. Heavy Pied-piping?

Recall that above it has been argued that question formation in Lamnso sometimes involves the heavy pied piping of TP (minus the verb object (s)). Since part of TP contains the inflectional material of this language, it is important to take a look at the internal structure of the inflectional domain. To find out how the inflectional domain is structured, consider the following sentence:

(42)
kici ki- yo'- oò- lo- gbu
tree SM Neg- P3 Imperf. Fall
“The/a tree did not fall”

In (42), *ki* is the verb prefix. In fact, it is the concordial marker that encodes agreement between the subject and the verb. In simple terms, the verb agrees in noun class with the subject. And the verb(al) prefix *ki* is the manifestation of that agreement relationship. However, the agreement relationship between the noun (phrase) subject and the verb is not always overtly realized by a prefix.

In Lamnso, class 1 nouns, for instance, have a null concordial prefix marker on the following verbs. For illustration, consider the following paradigm:

(43)
a. Lukong kong Bih
Lukong loves Bih
“Lukong loves Bih”
b. Lukong ki- kong Bih
Lukong P1 loves Bih
“Lukong loved Bih”
c. Lukong ki- si- kong Bih
Lukong P1 Progr. loves Bih
“Lukong was loving Bih”

In (43), the subject NP is a class 1 noun and therefore there is no concordial prefix attached to the verb. Returning to (42), the inflectional domain is made up of the following: the SM (subject Marker), the negation marker, the tense marker and the aspect marker. A mood (affirmative or emphatic or interrogative) marker can also occur between the SM and the Neg marker:

(44)

Kici	ki-	waa-	yo'-	oo-	lo-	gbu
Tree	SM	Mood	Neg	P3	Imperf.	Fall

“the/a tree did not fall”

The bracketed representation of (43) is the following:

(45)

[_{AgrP} Kici [_{Spec} [_{Agr°} ki [_{MoodP} waa [_{NegP} yo'- [_{TP} oo [_{AspP} lo [_{VP} gbu]]]]]]]]]]

Tree	SM	Declarative	Neg	P3	Imperf.	Fall
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In view of the above, the structure of INFL in Lamnso can be linearly depicted as follows:

(46)

[_{INFL} SM-Mood-Neg-Tense-Aspect]_{INFL}

Having described the internal structure of the Lamnso inflectional domain, let us revisit yes/no questions as the content of INFL has some bearing on their functioning.

3. 11. Yes/no questions revisited

In Lamnso, two strategies are appealed to in order to form yes/no questions. One strategy turns a declarative sentence into a yes/no question by substituting the declarative mood marker *waa* by one of the interrogative mood markers (either *sa* or *ko*) and by inserting a question marker (QM) (*a*) sentence finally. For example, the following declarative sentence becomes a yes/no question after the two operations described above have applied:

(47)

vici	vi-	waa-	ki-	si-	gbu
trees	SM	Mood	P1	Prog.	fall

“Trees were falling”

(48)

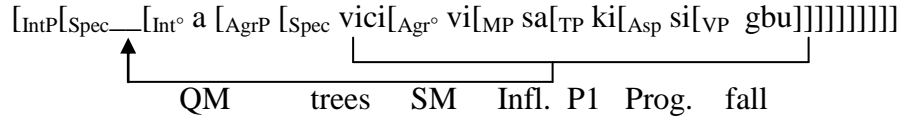
vici	vi-	sa/ko	ki-	si-	gbu-	a ?
trees	SM	Mood	P1	Prog.	fall	QM

“Were the trees falling”

Two morphosyntactic operations have applied to (47) and have generated (48). In the latter construction, the interrogative mood marker *sa* occurs between the SM and the tense marker. Additionally, the QM closes off the sentence.

Above, it was argued that constructions like (48) are derived by base-generating the QM in Int° and by Spec, IntP. (cf. (35) above). This analysis can be applied to (48) with the same degree of success:

(49)



“Were trees falling?”

Another strategy of Lamnso yes/no question formation consists in fronting TP (minus the objects(s) of the verb) and by having the QM appear in sentence final position (cf. 34 (b) above). In (34b), the fronted TP contained only a tense marker and a verb. It would be interesting to find out whether a richer TP is frontable when forming yes/no questions. The following Lamnso declarative sentence:

(50)

shinən shi- waa- ki- si- yi kingom
bird SM decl. P1 Prog. eat banana
“The/a bird was eating a/the banana”

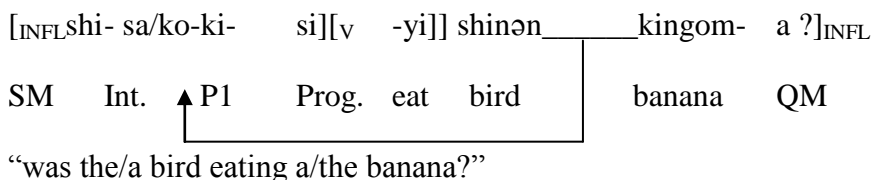
Is transformed into the following yes/no question (per the first strategy described above):

(51)

shinən shi- sa/ko- ki- si- yi kingom- a ?
bird SM Int. P1 Prog. eat banana QM
“was the/a bird eating a/the banana?”

The second strategy of question formation requires that “TP” in (51) be raised to clause initial position. In fact, “TP” in this case is made up of a heavier INFL (Agr- Int. Mood-Tense-Aspect) and V. Fronting is licit, as evidenced by the grammatical status of (52) below:

(52)



6. object infix: in Biloa (1992, 1995, 1998) it is an object marker (OM) since it encodes the agreement relationship between the verb and the direct object.

7. radical (radical and suffix constitute the verbal base).

8. suffix (or extension morpheme): some Bantuists call it voice (Carstens 2000). Extension morphemes in Bantu languages include: applicative causative, reversive, stative, transitive, contactive.

9. prefinal: in some languages, the prefinal morpheme encodes the imperfective, repetitive, habitual.

10. final: it could be a vowel or a morpheme. It encodes the past, perfective or the present perfective.

11. postfinal. In Swahili, for instance, the morpheme |ni| occurs after the final vowel.

Summing on the structure of the verb in Bantu, the verb is linearly structured as follows:

(55)

1. pre- initial	2. initial	3. post- initial	4. formative or tense marker	5. postformative or limitative or aspectual marker	6. object infix or object marker	7. radical	8. suffix or extension or voice	9. prefinal	10. final	11. postfinal
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Not all Bantu languages, however, have the verb structured as in (55). For illustration, consider the following sentence from Tuki, a Bantu language of Cameroon (Bilola 1991, 1992, 1995):

(56) (Bilola 1998: 255)

Onumutu wáá a- má- kutu- mu- bang- éy- á na tsawu
 husband her SM P2 Prog. OM cry CAUS FV with whip
 “Her husband was causing her to cry with a whip”

In (56), the verb is *amákutumubangéyá*. It forms a morphologically complex item made up of the following elements: the subject marker (SM) | a |, the tense marker (P2) | má | the

aspectual marker (prog.)| kutu |, the object marker (OM) |mu |, the verb root |bang |, the causative morpheme (CAUS) |éy|, and the final vowel (FV) |á |.

The negation marker is missing in (56). But if the truth condition of the latter sentence is negated, the resulting sentence would be:

(57)

Onumutu	wáá	a-	ta-	má-	kutu-	mu-	bang-	éy-	á	na	tsawu
husband	her	SM	Neg	P2	Prog.	OM	cry	CAUS	FV	with	whip

“Her husband was not causing her to cry with a whip”

It appears that the verb in Tuki is linearly structured as follows:

(58) SM- Negation- Tense- Aspect- OM- verb root- Extension morpheme- Final vowel.

The above discussion points to the fact that the verb in Bantu languages is an association or a concatenation of several morphemes. And Lamnso makes no exception, as illustrated by the following example which is the negated counterpart of (50):

(59)

Shinən	shi-	waa-	yo-	ki-	si-	yi	kingom
Bird	SM	Mood	Neg	P1	Prog.	eat	banana

“The /a bird was not eating a banana”

So in (59) the verb is *shiwaayokisiyi*. It is this agglutinated form that, in fact, is fronted in Lamnso question formation. If that is the case, then question formation in this language does not involve heavy pied piping, but rather verb movement.

3. 13. Heavy pied-piping and Verb movement

If the above reasoning is on the right track, the data described and analyzed in the previous sections should be reanalyzed. For illustration, consider the following constructions:

(60)

a.yi-	suiy	la	ka
F2	say	who	what

“who will say what ?”

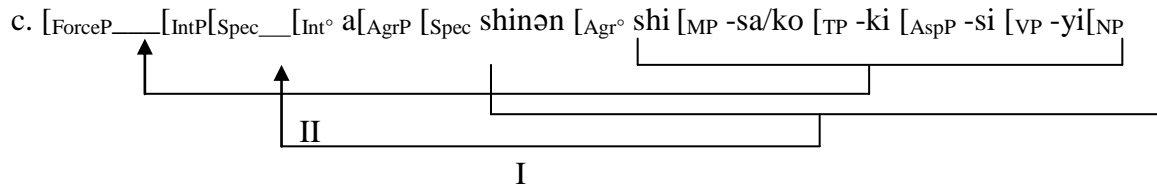
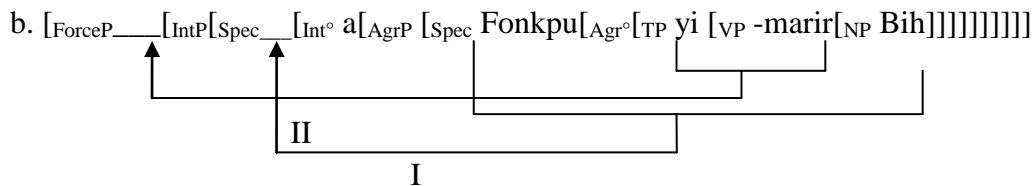
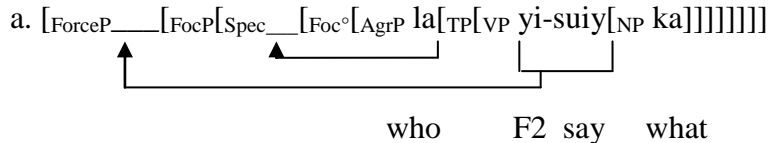
b. yi- marir Fonkpu Bih a ?
 F2 marry Fonkpu Bih QM
 “Will Fonkpu marry Bih?”

c. [Shi- sa/ko- ki- si- yi] shinən _____ kingom a ?
 ↑ _____

SM Int. P1 Prog. eat bird banana QM
 “Was the/a bird eating a/the banana?”

In each of the above sentences, the subject is preceded by the verb. Thus in (59a), the verb is *yi-suiy* “will say”, in (60b), the verb is *shi-sa/ko-ki-si-yi* “was eating?”. This is tantamount to saying that on the phrase marker the verb (V) will host *yi-suiy*, or *yi-marir* or *shi-sa/ko-ki-si-yi*, from which position it will subsequently raise to the head of ForceP, as illustrated in the following tree representations:

(61)



kingom]]]]]]]]]]]

More precisely, (60 b-c) illustrate a combination of heavy pied-piping (Step I) and head movement (Step II). In (60b), the clause *Fonkpu yi-marir Bih* “Fonkpu will marry Bih” is pied-piped to the Spec, IntP position (Step I); from the latter position the verb *yi-marir* is raised and merged to Force°, the head of ForceP (Step II). In (60c), the same two raising operations apply: first, the clause *shinən shi-sa/ko-ki-si-yi kingom* “The/a bird was eating a/the banana” is pied-piped to Spec, IntP; second, the verb *shi-sa/ko-ki-si-yi* raises to Force°.

Conclusion

The present chapter was a contribution to the current cartographic project to syntactic structures with special focus on Lamnso, an SVO Grassfield Bantu language spoken in Cameroon with an agglutinating verbal morphology. Lamnso, like many other Bantu languages, has a complex verbal morphology due to the presence of various agglutinating morphemes that make up the verbal system. The analysis has shown that Lamnso is a mixed language as far as wh-questions and focus constructions are concerned. Wh-phrases, as well as focalized constituents, can stay in-situ or can be moved to the left edge of the sentence. However, only focalization is morpho-syntactically marked in the sense that either focalized in-situ or ex-situ, focused wh-phrases are always marked morphologically. As a result, given that focalization in the language is successfully compatible with yes/no questions, one ends up with a series of successive head and phrasal movements to the complementizer space as well as with a richly articulate and hierarchical clause structure made of up the Interrogative Phrase, the Force Phrase, the Cleft Phrase, the Focus Phrase, the Ground Phrase and the Agreement Phrase.

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Chapter 4

Musgum focalization and relativization

Introduction

This chapter addresses two related aspects in the cartographic study of the clausal left periphery in Musgum, a Chadic language of Cameroon: focalization and relativization. Two strategies of focalization are illustrated. In one strategy, the focused constituent appears to move rightward and it is preceded by a focus marker (FM). It is argued that, in fact, the focalized constituent merges to the specifier position of the Focus Phrase (FocP). This operation is subsequently followed by remnant movement of the clause to Spec, CleftP. In the second strategy, the focused constituent merges to Spec, FocP. This merge is followed by the relativization of the focalized constituent. As indicated above, the focus marker precedes the focused constituent. These various operations have implications for the organization of the clausal left periphery and for the ordering, cooccurrence restrictions of the elements that are part of the functional sequence from the cartographic perspective. The Musgum empirical material can be accounted for if its scope-discourse particles are “syntacticised” and if its analysis “integrates the exploration of cartographic maps” (Rizzi 2013: 199). This chapter is structured as follows. The reader is introduced to the genetic classification of Musgum in section 1. Section 2 shows that this language word order is SVO. The two focalization strategies are described, analysed and discussed in section 3. Relativization is dealt with in section 4.

4. 1. Musgum classification

Musgum (Musgu, Mousgou, Munjuk, Mulwi) is an Afro-Asiatic, Chadic, Biu-Mandara language spoken by 61, 500 inhabitants in the Far North Region, Mayo – Danay Division, entire Maga Subdivision of the Republic of Cameroon. It is also spoken in Chad (Ethnologue 2005).

4. 2. Word order

Musgum word order is SVO:

(1) Adam a- furi- ji- ti Amina
Adam SM love p0. res.pro Amina

“Adam loves Amina”

This word order is not disrupted by negation:

(2) Adam a- furi- ji- ti Amina kai
Adam SM love p0 res.pro Amina neg

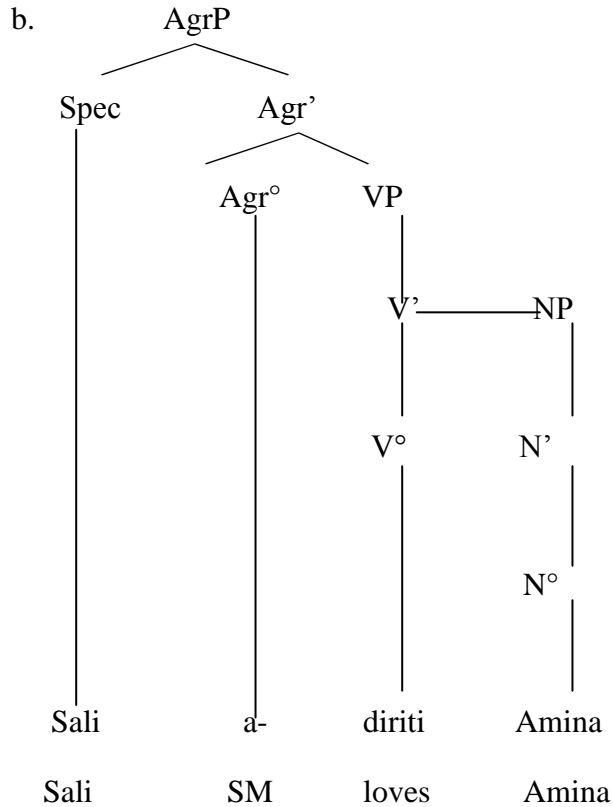
“Adam does not love Amina”

4. 3. Focalization

Consider the following Musgum sentence and its tree representation:

(3)

a. Sali a- dir- i ti Amina
 Sali SM love-p0- res.pro Amina
 “Sali loves Amina”



The above sentence contains two NPs and each one of them can be focused.

4. 3.1. Focalization à la clause final Comp

Basically, there seem to be two focalization strategies that are attested in this language. In one of them, the focus NP ends up in clause final position, be it a grammatical subject or a grammatical direct object NP. For illustration and assuming that (3a) is the input sentence, consider the following constructions:

(4) a- diriti Amina a Sali
 SM loves Amina FM Sali
 “It is Sali who loves Amina”

(5) Sali a- diriti ti Amina
 Sali SM loves FM Amina

“It is Amina that/who(m) Sali loves”

In this language, when an NP is focused, it is preceded by what I call a focus marker (FM). In (4), the focused NP *Sali* is preceded by the FM *a*, while in (5) the focalized NP *Amina* is preceded by the FM *ti*. The form of the FM crucially depends on the gender of the NP: *Sali* being masculine the FM is *a* and *Amina* being feminine the FM is *ti*. The focalization strategy illustrated in (4) - (5) seems to warrant that focused NPs be positioned in clause final position. This seems to account for the occurrence of the subject *Sali* and the direct object NP *Amina* at the end of their respective clauses. Now consider the following sentence:

(6) Sali a- na- θi6- ti Amina arni luwaŋai gi daβala
 Sali SM be beat res.pro Amina between trees with whip

“Sali beats Amina in the forest with a whip”

While it is possible to focalize either the subject NP or the direct object NP, as illustrated by the following constructions:

(7)

a. a- θi6- ti Amina arni luwaŋai gi daβala a Sali
 SM beat res.pro Amina between trees with whip FM Sali

“It is Sali who beats Amina in the forest with a whip”

b. Sali a- θi6- ti arni luwaŋai gi daβala ti Amina
 Sali SM beat res.pro between trees with whip FM Amina

“It is Amina that Sali beats in the forest with a whip”

It is impossible to focalize prepositional phrases (PPs), i.e. NPs introduced by prepositions:

(7)

a.* Sali a- na- θi6- ti Amina gi daβala a/ti arni luwaŋai
 Sali SM be beat res.pro Amina with whip FM between trees

“It is in the forest that Sali beats Amina with a whip”

b.* Sali a- na- θi6- ti Amina arni luwaŋai a/ti gi daβala
 Sali SM be beat res.pro Amina between trees FM with whip

“It is with a whip that Sali beats Amina in the forest”

The above data seem to show convincingly that focalization of PPs is not possible. While an argument NP is focalizable, be it in subject or direct object position, focalization is no longer possible when the NP in question is introduced by a preposition:

(8)

a. Adam a- diri- ti metir ni
 Adam SM loves res.pro teacher his

“Adam loves his teacher”

b. Adam a- na- a- muda gi metir ni
 Adam SM be SM talk with teacher his

“Adam is talking to his teacher”

The subject position is easily focalizable in both sentences:

(9)

a. a- diri- ti metir ni a Adam
 SM loves res.pro teacher his FM Adam

“It is Adam who loves his teacher”

b. a- na- a- muda gi metir ni a Adam
 SM be SM talk with teacher his FM Adam

“It is Adam who is talking with his teacher”

While in (8a), the direct object NP *metir ni* “his teacher” can be focused, in (8b) the PP *gi metir ni* “with his teacher” cannot, providing once more prima facie evidence that arguments are focusable, but PPs are not.

(10), below, is a complex sentence that is made up of a main clause and an embedded one. In the constructions illustrated in (11), the subject and the direct object complement of the main clause are focalized in such a way that they wind up in sentence final position (cf. (11a-b)). Similarly, when the subject and the direct object of the subordinate clause are focused, they occur in sentence final position (cf. (11c-d)).

(10) Adoum a- mudu-ni Amhair bo Avele aga- a- da hilif
 Adoum SM tell res.pro. Amhair that Avele future SM cook fish

“Adoum tells Amhair that Avele will cook fish”.

(11)

a. A- mudu- ni Amhair bo Avele aga- a- da hilif a Adoum
 SM tell res.pro. Amhair that Avele future SM cook fish FM Adoum

“It is Adoum who tells Amhair that Avele will cook fish”

b. Adoum a- mudu- ni bo Avele aga- a- da hilif ti Amhair
 Adoum SM tells res.pro that Avele future SM cook fish FM Amhair

“It is Amhair that Adoum tells that Avele will cook fish”

c. Adoum a- mudu- ni Amhair bo aga- a- da hilif ti Avele
 Adoum SM tells res.pro Amhair that future SM cook fish FM Avele

“It is Avele that Adoum tells Amhair that will cook fish”

d. Adoum a- mudu- ni Amhair bo Avele aga- a- da a hilif
 Adoum SM tells res.pro Amhair that Avele future SM cook FM fish

“It is fish that Adoum tells Amhair that Avele will cook”

The question is: “How does one explain what looks like lowering or rightward movement?”

Kayne (1994:47) states that “if syntactic theory allowed lowering a phrase to a position commanded by the original position, such movement would have to be rightward. If lowerings are not available at all, as Chomsky’s (1993) proposals would lead one to expect, then that

possibility can be set aside.” Given this state of affairs, one finds it difficult to maintain that focalization in Musgum is a case of lowering or rightward movement. On the one hand, the focused element is systematically hosted in clause – final wherefrom it does not c-command its original position (or the trace created by its supposed movement). On the other hand, the latter position (or trace) is not c-commanded by the supposedly extracted focalized element. Consequently, if lowering (or rightward movement) is appealed to in order to account for the position at the end of the clause of the focalized element, this argument “can be excluded by a familiar requirement to the effect that every trace must be systematically c-commanded by its antecedent, see Fiengo (1987)” (Kayne 1994: 47).

Elsewhere I have argued that lowering or rightward movement is excluded (see Biloa 2012) by the “antisymmetric prohibition against right-hand specifiers” (Kayne 2011: 4). Which is another way of saying that “all movement must be leftward” (Kayne 1994, 2011).

Given the above reasoning and if the Musgum focalization cases cannot be analyzed as lowering or rightward movement, they must be accounted for in a principled way.

4. 3.1.1. Musgum focalization: Raising to Spec, FocP+remnant movement of AgrP to Spec, CleftP

It has been argued above that focalized arguments occur in clause final position in Musgum, disturbing thereby the base word order of this Chadic language. The question of much theoretical relevance is how are derived the Musgum constructions in which focused arguments wind up at the end of clauses/sentences. To answer this question, reconsider the following sentences:

(12)

a. Sali a- dir- i ti Amina
 Sali SM love-p0- res.pro Amina

“Sali loves Amina”

b. a- diriti Amina a Sali
 SM loves Amina FM Sali

“It is Sali who loves Amina”

c. Sali a- diri- ti ti Amina
 Sali SM loves res.pro. FM Amina

“It is Amina that/whom Sali loves”

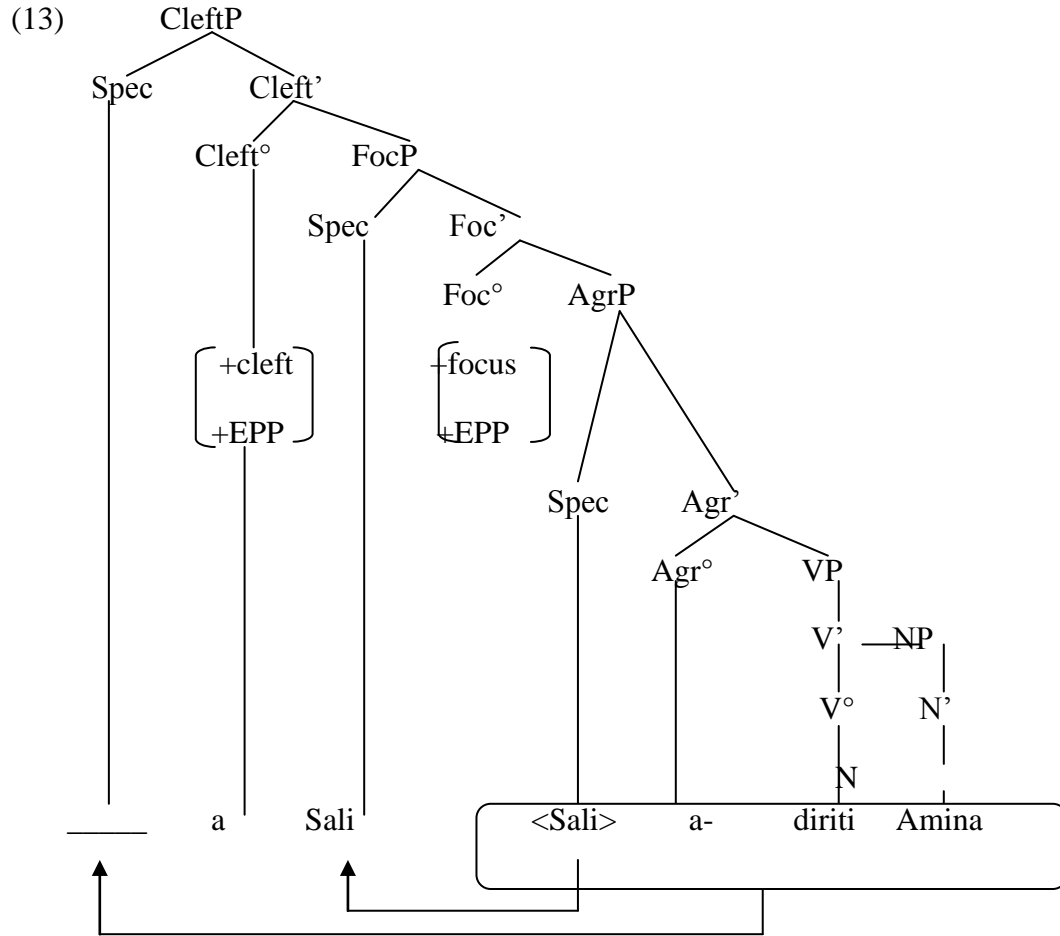
As indicated above, the difference in focus markers (FM) between (12b) and (12c) is due to the gender difference between Sali (a man) and Amina (a woman).

In order to account for the above data, the split-CP analysis developed by Luigi Rizzi (1997, 2001b, 2004) is appealed to. Rizzi suggests that CP should be split into a number of different projections – an analysis widely referred to as the split-CP hypothesis (Radford 2004, 2009). He argues that complementizers (by virtue of their role in specifying whether a given clause is declarative, interrogative, imperative or exclamative in force) should be analyzed as force markers heading a ForceP (Force Phrase) projection, and that focused constituents should be analyzed as contained within a separate FocP (Focus Phrase) headed by a foc constituent (Focus

marker). Similarly, when a relevant movement operation marks a raised constituent as the topic of the sentence, the construction is said to be topicalization. Rizzi indicates that just as focused constituents occupy the specifier position of a focus phrase, so too topicalized constituents are hosted by the specifier position of a Topic Phrase (TopP).

Rizzi (2001b) proposes another maximal projection IntP (Interrogative Phrase, for which see also Nkemnji 1995), the specifier position of which can host specific interrogative operators such as *perché* “why” in main and embedded clauses or interrogative particles such as *se* “if” or “whether” (in embedded clauses in Italian).

This rapid sketch of the split-CP analysis should help explain the derivation of the Musgum data illustrated above. In the following lines, it will be argued that focused constituents occur in Musgum clause final position because IP moves leftward into Spec-CleftP: it is a typical case of what is known in the literature as heavy pied-piping (see Michael Nkemnji 1995). Prior to this pied-piping, the focalized constituent merges into Spec-FocP. This reasoning can be visualized in the following tree structure whereby the derivation of (12b) is depicted:

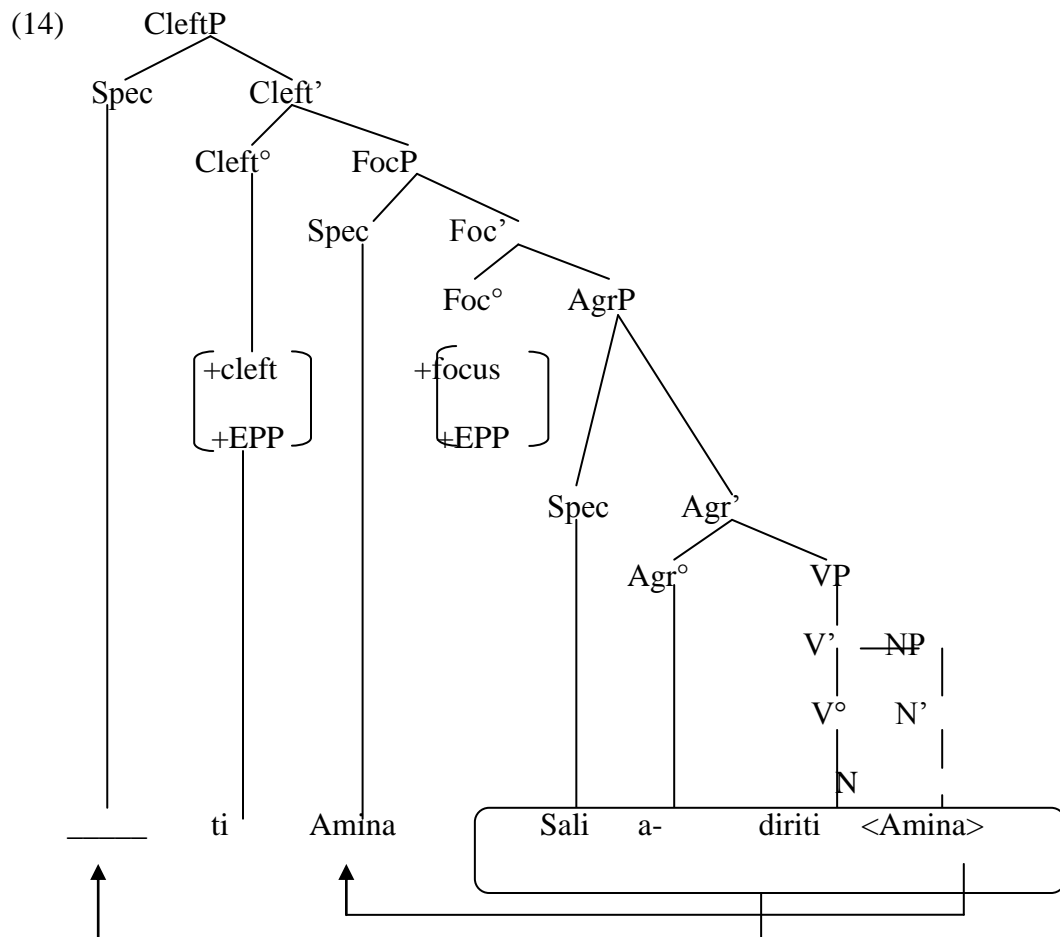


In (13), since the subject *Sali* is focalized, it appropriately raises to Spec-FocP. In this language, the focalized material is preceded by a focus marker (FM). If the latter FM were following the focused material, then it would be argued that it is hosted by Foc°, the head of

FocP. But it precedes it. In this case, it can be posited that the FM occupies the head of a maximal position out of FocP, YP as Koopman (2000) calls it. She suggests that when FocP cannot accommodate the entire focused material or when the focus word precedes the focalized item, the focus word must be hosted by the head of some higher position which she terms YP. Musgum, in this specific respect, behaves like Mbə̀līgi (see Ngu Mahbou 2009 and Biloa 2012b). In particular, Biloa (2012b) argues that when the focus marker precedes the focused empirical material, it should occupy the head of a CleftP, Cleft° since the focus marker (FM) is a cleft marker. More precisely, when the FM follows the focalized item(s), it is hosted by Foc-FocP. But when it precedes the focused item(s), it is the head of a different maximal projection, Cleft-CleftP, because this label seems to be more enlightening than YP. This explains why in (13) the FM *a* is hosted by Cleft°.

Returning to the phrase marker depicted in (13), after the raising of the Spec-AgrP position to the Spec-FocP position, the pied-piping of the remaining AgrP to Spec-CleftP takes place. In fact, the latter raising operation is called remnant movement (den Besten and Webelhuth 1987; Cecchetto 2004).

The derivation of (12c) will proceed along the same lines:



The pied-piping of the AgrP into Spec, CleftP in (13)- (14) is accounted for by Chomsky's (1993) Extension Condition: as soon as a head is merged, movement into its Specifier is obligatory (see also Koopman and Szabolcsi 2000: 42).

Above, it has been shown how a simplex focus construction can be derived in Muyaŋ. Recall that in this language, in a complex construction, that is a complex sentence endowed with a main clause and a subordinate one, when an argument is focalized, it is equally sent to sentence final position (i.e. to the end of the embedded clause) (cf. 11a-b).

For ease of exposition, reconsider the same data below:

(15)

a. Adoum a- mudī-ni Amhair bo Avele aga- a- da hilif
 Adoum SM tell res.pro. Amhair that Avele future SM cook fish

“Adoum tells Amhair that Avele will cook fish”.

b. A- mudī- ni Amhair bo Avele aga- a- da hilif a Adoum
 SM tell res.pro. Amhair that Avele future SM cook fish FM Adoum

“It is Adoum who tells Amhair that Avele will cook fish”

c. Adoum a- mudī- ni bo aga- a- da hilif ti Amhair
 Adoum SM tells res.pro that future SM cook fish FM Amhair

“It is Amhair that Adoum tells that Avele will cook fish”

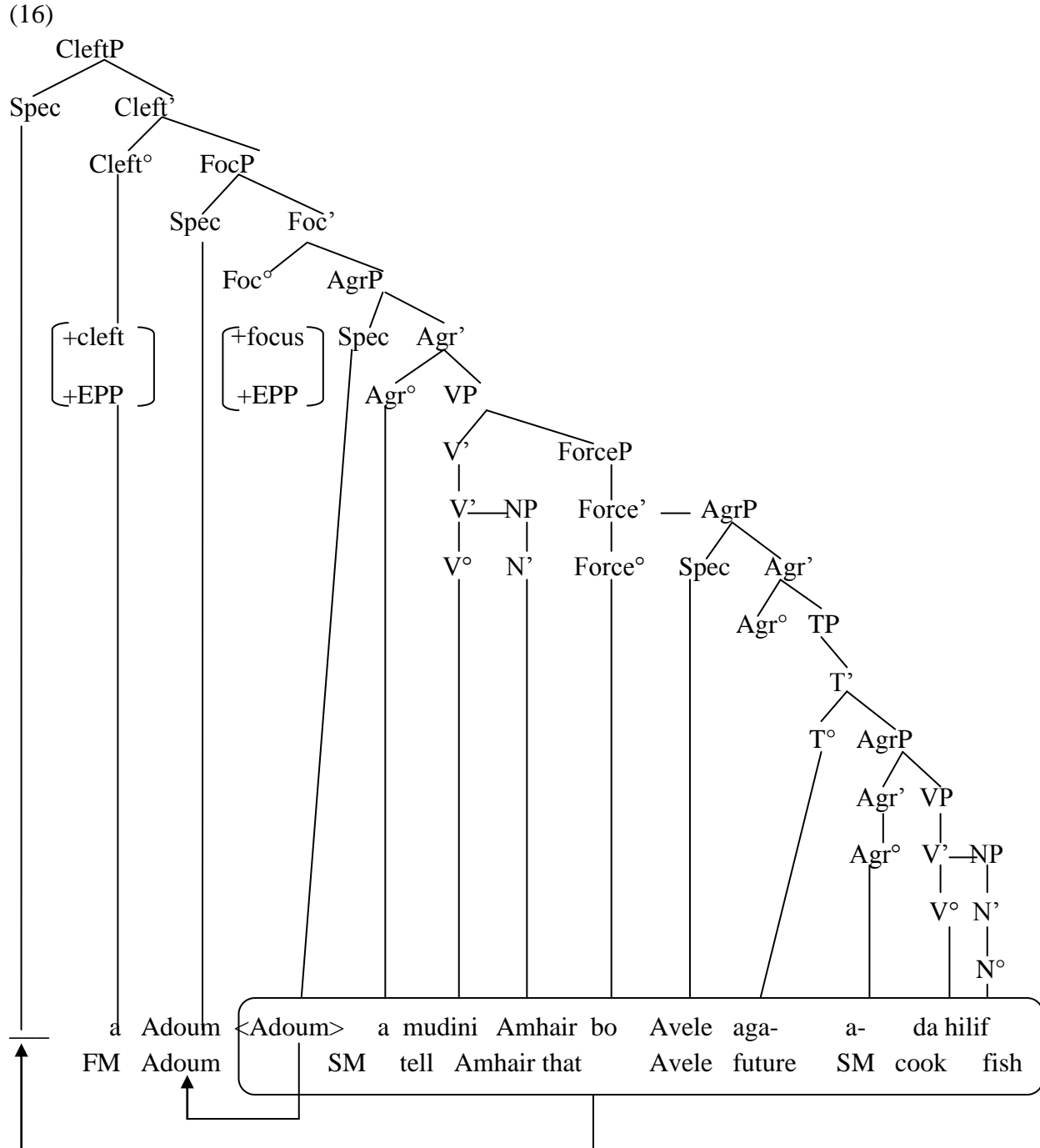
d. Adoum a- mudī- ni Amhair bo aga- a- da hilif ti Avele
 Adoum SM tells res.pro Amhair that future SM cook fish FM Avele

“It is Avele that Adoum tells Amhair that will cook fish”

e. Adoum a- mudī- ni Amhair bo Avele aga- a- da a hilif
 Adoum SM tells res.pro Amhair that Avele future SM cook FM fish

“It is fish that Adoum tells Amhair that Avele will cook”

The derivation in (15b) in which the grammatical subject of the main clause finds itself in sentence final position operates as depicted in (16) below:



In (16), two movement operations have occurred: the grammatical subject of the superordinate clause has been focused and has consequently raised to the specifier position of FocP. Additionally, the complex sentence, a concatenation of the main clause and an embedded one, has merged to the specifier position of CleftP, the head of the latter maximal projection, Cleft°, hosting the base-generated focus marker (FM).

Let us now focus our attention on the second kind of focalization attested in Musgum.

4. 3.2. Focalization and relativization of the same argument

The other focusing strategy Musgum appeals to consists in focalizing an NP and then relativizing the latter. For illustration, consider the following data:

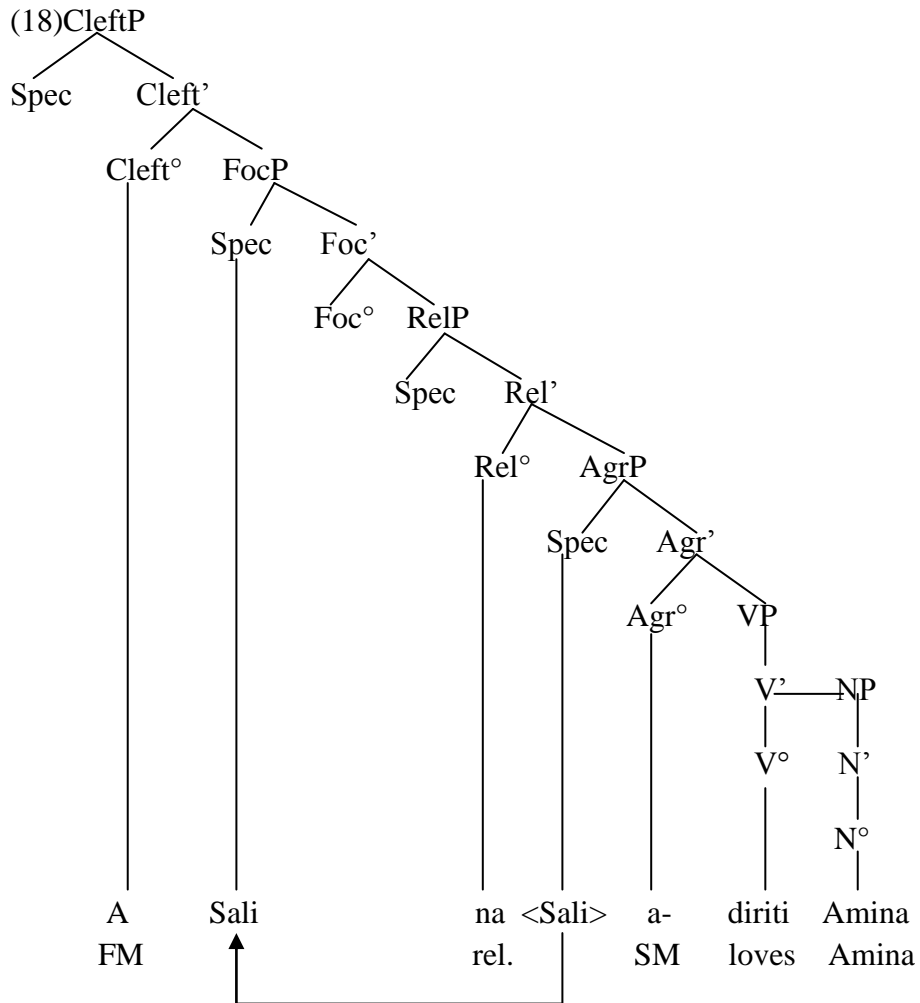
(17)

a. Sali a- diriti Amina
Sali SM loves Amina
“Sali loves Amina”

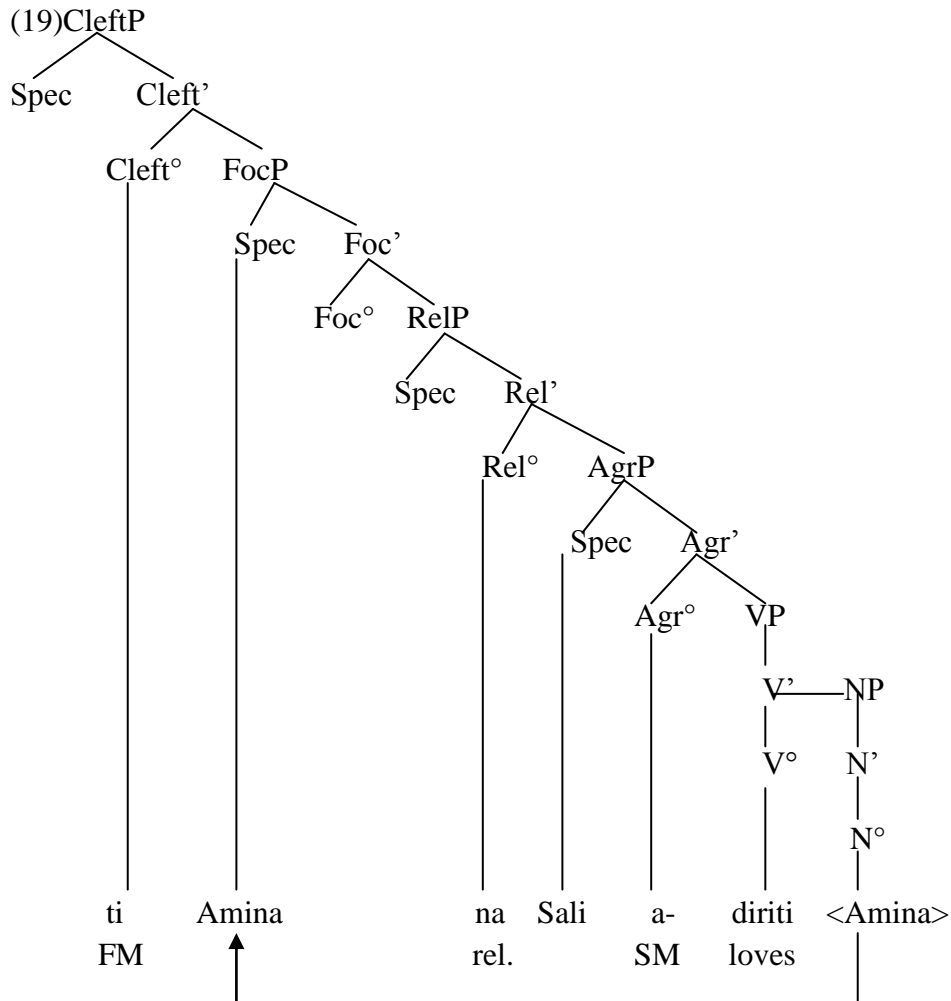
b. A Sali na a- diriti Amina
FM Sali rel. SM loves Amina
“It is Sali who loves Amina”

c. Ti Amina na Sali a- diriti
FM Amina rel. Sali SM loves
“It is Amina that/whom Sali loves”

The data in (17b-c) seem to indicate that the focalized NP is fronted and preceded by the focus marker (FM): in (17b), the FM is *a* because *Sali* is a male, while in (17c) the FM is *ti* because *Amina* is a female. Moreover, descriptively the focused NP is followed by *na* which I term a relativizer because it occurs as well in relative clauses. Having described these constructions, one wonders how they are derived. The following two phrase markers would adequately depict the respective derivations of (17b-c):



“It is Sali who loves Amina”



“It is Amina that Sali loves”

In (18), the grammatical subject being focused, it raises from the Spec, AgrP position to the Spec, FocP position wherefrom it is preceded by the focus marker that is hosted by the Cleft, CleftP position. The focalized position is relativized, which explains the presence of the relativizer in the head position, Rel(ative), Rel(ative) P(hrase).

In (19), this time, it is the direct object position that is focused, thereby prompting its fronting and positioning in Spec, FocP from which position it is preceded by the FM in Cleft, CleftP and followed by the relativizer in Rel, RelP.

The involvement of relativization in the second strategy of Musgum focalization is such that it becomes imperative to take a look at Musgum relativization in order to fully understand this aspect of the focalization process in this language. I turn my attention to this issue next.

4. 4. Relativization

In the following lines, relativization in Musgum is discussed in detail. First, one wonders whether the Accessibility Hierarchy devised by Keenan and Comrie (1977) is respected. Moreover, the landing site of relativization is probed. Additionally, the structure and licensing of Rel(ative) P(hrase) is analyzed.

4. 4.1. Accessibility Hierarchy

Keenan and Comrie (1977) proposed a crosslinguistically valid hierarchy with regard to relative clause formation:

(20) Subject; Direct Object; Indirect object of pre-or postposition; Possessor.

For illustration, consider the following Musgum data:

(21) *Subject*

a. Dif na luma wusi a- mihil
man relativizer eat rat SM- steal

“The/a man who eats rat is a thief”

b. *Direct object*

Hirge na Adam a- wuraj a- sida mirdek
Dog relativizer Adam SM buy SM see black

“The/a dog that Adam bought is black”

c. *Indirect object*

Aliyagwi na dif- zihitiri a- midi- ni a- hini pai
Child relativizer man teacher SM talk res.pro SM son chief

“The/a child to whom the teacher talks to is the chief’s son”

d. *Possessor*

Muni na e- hili sapakaidi te- tuwa
Woman relativizer SM steal clothes SM cry

“The/a woman whose clothes were stolen is crying”

On the basis of the above data, it appears that Musgum abides by the Accessibility Hierarchy designed by Keenan and Comrie (1977).

4. 4.2. The landing site of relativization

Assuming that relative clause formation in this language is an instance of Move Alpha, one wonders what is its landing site. Notice, first of all, that this language seems to be devoid of wh-relatives; that is there are no relative with one of the following wh-words:

(22) *Musgum Wh-items*

Arguments: sia “who”

Ama “what”

Referential adjuncts: kazwa “when”

Wata “where”

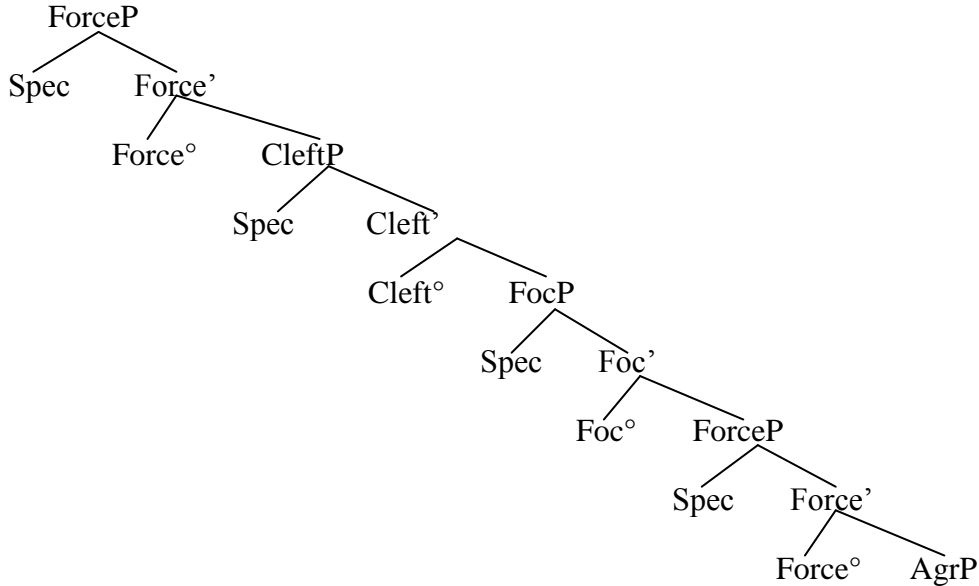
Non-referential adjuncts: masla “how”

Briima “why”

Recall that it was argued above with respect to the second strategy of Musgum focalization that when a constituent is focused, it is at the same time relativized. And it was suggested above that the landing site of relativization in this language is RelP (Relative Phrase), following Biloa (2013). This view departs from the one advocated by previous researchers over the years: Bresnan (1970, 1972, 1979), Chomsky (1977, 1986), Rizzi (1997). Bresnan (1970, 1972, 1979) and Chomsky (1977) argued that the landing site of relativization or of wh-movement in general was Comp. Chomsky (1986) revised this position by splitting Comp into Spec, CP and C, CP to the effect that Spec, CP became the host of extracted wh-items, relative operators or null operators, while C° accommodated lexical complementizers. Rizzi (1997, 2001, 2004) refined the system by suggesting that CP be *split* into a number of different projections – an analysis widely referred to as the *Split CP hypothesis* (Radford 2009). He suggested that “complementizers (by virtue of their role in specifying whether a given clause is declarative, interrogative, imperative or exclamative in *force*) should be analyzed as *Force* markers heading a *ForceP* (=Force Phrase) projection, and that focused constituents should be analyzed as contained within a separate *FocP* (= Focus Phrase) headed by a *Foc* constituent (=Focus marker)”. Furthermore, he argued “that just as focused constituents occupy the specifier position within a Focus Phrase, so too topicalised constituents should occupy the specifier position within a *TopP* (= Topic Phrase)” (Radford 2009: 280-281).

In the “Fine structure of the left periphery” advocated by Rizzi (1997), “relative operators occupy the highest specifier position, the Spec of Force” (Rizzi 1997: 289). If this is true for English and other languages (Radford 2009: 282), it can be problematic for a language like Musgum in view of sentences like the following:

(25)



In (25), the highest ForceP successively dominates CleftP, FocP and ForceP, as depicted below:

(26) ForceP>CleftP>FocP>ForceP

As indicated above, the most embedded ForceP is the potential landing site of relativization in Musgum if one rejects the proposal made in (19) according to which the relativizer in Musgum is base-generated as the head of a RelP (Relative Phrase). Adopting (25) – (26) violates one of “cartography’s basic tenets” as it implicitly allows ForceP “to be freely merged anywhere along the functional spine” (Craenenbroeck 2009: 3). (19), on the contrary, does not seem to violate any condition or principle of Universal Grammar (UG). It rather strengthens the assumption that “functional material is able to project syntactic structure in conformity with the X-bar – format [...] in combination with the principle in [(27)]” (Cinque and Rizzi 2009: 2; Van Craenenbroeck 2009: 1):

(27) One feature One Head (OFOH). Each morphosyntactic feature corresponds to an independent syntactic head with a specific slot in the functional hierarchy.

On the basis of the above reasoning, it seems plausible to assume that the maximal projection hosting the relativizer *na* is different from Force. It is difficult to account for the projection of the same functional XP in the same clause as in (26). On the other hand, this language is devoid of overt relative operators à la English or French. In English for instance, as indicated above, it has been argued by Rizzi (1997) that relative operators substitute for the specifier position of ForceP. In Musgum, relative operators being non-existent, it is the relativizer *na* that is said to assign its denomination to the projection hosting it, namely RelP (Relative Phrase), given X-bar theory and Cartography’s tenets.

Furthermore, Baker's (1989) Head Licensing Condition (HLC) that requires that every head be traced up to a single maximal projection is not violated since the relativizer *na* heads the maximal projection proposed, the Rel(ative) P(hrase). Moreover, Koopman (1996, 2005) PPA (Principle of Projection Activation) is equally respected in Musgum:

(28) *Principle of Projection Activation* (Koopman 1996) (PPA)

A Projection is interpretable iff it is associated with lexical material at some stage in the derivation.

The PPA is respected since the head of the proposed Rel(ative) P(hrase) hosts the relativizer *na*.

Koopman (2005) observes that “the PPA prevents representations with truly empty projections (where neither Spec, nor head contains a lexical item or a trace) and forces movement.” The PPA can be rephrased in the standard Minimalism terminology as follows:

(29) (Koopman's (2005), (11))

Functional heads are strong.

Overt material must be linearized. [...] the distribution of overt lexical items over these huge universal structures is determined by some version of LCA (Linear Correspondence Axiom (Kayne 1994)):

(30) (Koopman (2005), (12))

The modified LCA has as consequence that no Spec and head position can simultaneous contain overt lexical material.

But this modification of the LCA cannot be maintained given that there are languages for which the [Spec, FocP] and [Foc, FocP] positions are both lexically filled. In Tuki question formation, for instance, the raised *wh*-item is hosted by the specifier position of the focus phrase (FocP) while the head of FocP, Foc° accommodates the so-called focus marker (for details, see Biloa (2013)):

(31)

a. Ane odzu Puta a- nu- bana- m
 who Foc Puta SM f1 marry Inc.

“Who will Puta marry”

b. $[_{FocP}[_{Spec} \text{ane}[_{Foc'}[_{Foc^\circ} \text{odzu}[_{AgrP} \text{Puta a-nu-bana-m}]]]]]$

(32)

a. Mbara a- sesa- m ee ane odzu Puta a- nu- bana- m
 Mbara SM ask Inc. that who Foc Puta SM fl marry Inc.

“Mbara asks who Puta will marry”

b. Mbara a- sesa- m [_{ForceP} [_{Spec} Ø [_{Force'} [_{Force°} ee [_{FocP} [_{Spec} ane [_{Foc'} [_{Foc°} odzu [_{AgP} Puta a- nu- bana- m]]]]]]]]]]

Similarly, in Gungbe topicalization and focalization, both the Spec and head positions of TopP and FocP are equally filled (Aboh 2004; Rizzi 2013):

(33)

a. Un sè [_{ForceP} [_{Spec} [_{Force'} [_{Force°} do [_{TopP} [_{Spec} dan lo [_{Top'} [_{Top°} yà [Kofi hu ì]]]]]]]]]]
 I heard that snake the Top Kofi killed it

b. Un sè [_{ForceP} [_{Spec} [_{Force'} [_{Force°} do [_{FocP} [_{Spec} dan lo [_{Foc'} [_{Foc°} wè [Kofi hu ___]]]]]]]]]]
 I heard that snake the Foc Kofi killed

In languages like Gungbe, Tuki, Basaa (Bassong 2010, forthcoming), Muyang (Bebey, Forthcoming), the expression of scope-discourse semantics is “syntacticized” by the criterial heads that are overtly expressed, “with overt Q, Top, Foc markers, and also special complementizers for relatives, for exclamatives, for comparatives, and other kinds of A'-constructions” (Rizzi 2013: 201).

As is well known, these markers are not overt in all languages. For instance, the Top marker is non-existent in Tuki whereas it is attested in Gungbe, Basaa or Muyang. But, as argued by Rizzi (2013: 201-202), “under the uniformity guidelines that guide modern comparative syntax, the natural initial assumption, to be abandoned only on the basis of clear disconfirming evidence, is that all languages use a similar system of syntactic markers, except that such markers may be overt or not; this is a spell-out parameter, a familiar and widely attested kind of low level parametrisation.”

In Musgum, the Chadic language under investigation, there are “special complementizers” for relatives (*na*) and clefts (*a, ti*), while there seem to be no marker for topicalization or focalization. There are also “special complementizers” for questions (interrogatives), *bo*, and *dī*, for indirect and yes-no questions respectively:

(34)

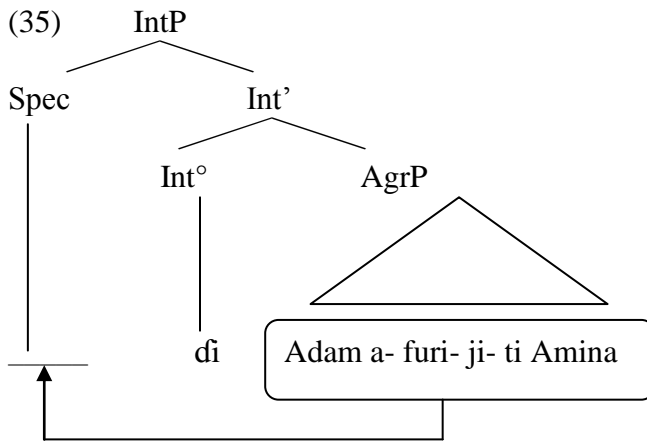
a. Dairou dara a sida bo Avele aga- a- da hilif
Dairou like SM know if Avele Future SM cook fish

“Dairou would like to know if Avele will cook fish”

b. Adam a- furi- ji- ti Amina *dî*
Adam SM love pos. res.pro. Amina QM

“Does Adam love Amina?”

Bo and *dî* are analysed in catography as Int(errogative) heads. *dî*, in particular, is believed to host the yes/no question operator or the pied-piped AgrP in Spec, IntP, as the following sketchy derivation of (34b) shows it:



Chomsky’s (1993) Extension Condition accounts for the pied-piping of AgrP into Spec, IntP: when a head is merged, movement into its specifier is obligatory (see also Koopman and Szabolcsi 2000:42).

4. 4.3. The licensing and structure of RelP

It was argued above that the relativizer *na* in Musgum is hosted by the head of the Rel(ative) P(hrase), Rel°. The question now is “how is RelP licensed in this language?” In (24), the RelP position is preceded and dominated by the Spec, FocP position, *Amina*. The Spec, RelP position is supposedly filled by a null operator whose antecedent is *Amina*. Licensing is therefore plausible.

If licensing is plausible, one still has to provide an answer to the question “what is the structure of Musgum relatives?” (24) seems to infer that in Musgum relatives, an abstract operator merges into the Spec, RelP position, a position in (24) that is lower than ForceP, CleftP

and FocP respectively. Moreover, the landing site of relativization is therefore distinct from the landing site of question formation or focalization in this language. This is hardly surprising since in many languages, the same situation obtains. In Tuki (Bilola 2013), the landing site of question formation is Spec, FocP whereas the landing site of relativization is Spec, RelP. In Hungarian (Horvath 1986), the landing site of relativization is COMP while the landing site of wh-question formation is a position inside VP. In English (Rizzi 1997), wh-phrases merge in Spec, FocP but relative operators are hosted by Spec, ForceP. Although Shlonsky and Soare (2011: 653) have recently argued that the non-referential adjunct *why*, as a relative operator, merges into Spec, RelP. On the basis of the above, the Musgum facts are no longer exotic.

In Rizzi (1997: 289), it is indicated that “relative operators occupy the highest specifier position, the Spec of Force”. This stand is taken by Rizzi on the basis of the English and Italian empirical materials. The Musgum data, under investigation in this endeavour, seem to suggest that in relatives a null operator merges in the Specifier position of a phrase called Rel(ative) P(hrase), the head of which is occupied by the relativizer *na*.

In view of the above, one wonders how the derivation and structure of Musgum relativization fares with regard to developments in generative grammar as far as head initial relative constructions are concerned (Kayne 1994; Bianchi 1999, 2000 a-b; Aoun and Li 2003; Bilola (2013).

Aoun and Li (2003: 117) carry out an extensive overview of work(s) on relativization and conclude that “both the head –raising analysis (31a) and the operator movement analysis (the matching analysis, (31b)) are needed to derive relative constructions.” The study of English relative constructions has, historically, been conducted either within the framework of the promotion analysis or in the light of the matching approach.

The promotion analysis claims that the head of a relative clause can be interpreted as if it is in the gap position inside the relative clause (reconstruction effects) (Aoun and Li, 2003: 97). More precisely, the head is raised from within the relative clause: this line of reasoning was called the promotion analysis (Schachter 1973, Vergnaud 1974). Kayne (1994) resuscitated this analysis and his approach to word order and phrase structure invalidates / rules out right adjunction structures in the grammar of natural languages. Kayne (1994) and Bianchi (1999, 2000 a-b) observe that relatives involve the following Head movement/raising process and complementation structure (see also Bilola 2013: 442, (83)):

(36) The promotion analysis



Chomsky (1977b) is the main proponent of the matching analysis for which relative constructions are derived via wh-movement, like wh-interrogatives (as are clefts, comparatives, topicalizations, easy-to-please, comparative, etc). In this respect, the following properties are illustrated by relatives:

(37) (Aoun and Li 2003: 99; Biloa 2013: 442)

- a. The construction contains a gap.
- b. Long –distance relatives are available.
- c. Island constraints are relevant.

Apart from Chomsky, other advocates of this approach include Safir (1986), Browning (1987).

Chomsky (1977b) suggests that relatives are derived as follows:

(38) The matching analysis

[NP/DP [_{Head} NP/DP_i...] [_{Relative CP} Wh_i[...t_i...]]]

Aoun and Li (2003: 106, (30)-(31)) summarize the promotion analysis and the matching analysis into the following subparts:

(39)

- a. Complementation structure: the relative clause is a complement to D.
- b. Adjunction structure: the relative clause is adjoined to the Head.

If a relative clause contains a trace, two analyses make themselves available:

(40) Head raising/ promotion and head base-generation / operator movement (see also Biloa 2013: 443):

a. Head raising/ promotion: the nominal to be relativized moves to the Head position; that is the trace in the relative clause is derived by movement of the Head.

b. Head base-generation/operator movement: the Head is base-generated in its surface position and interpreted with the relative clause via a wh-operator movement to the Spec of the relative CP; that is the trace in the relative clause is derived by operator movement.

Aoun and Li indicate that the Head raising approach (promotion analysis) involves non-wh relatives, while the operator movement approach (matching analysis) concerns wh-relatives. The following generalizations can be drawn from their study (p.114):

(41)

a. Non - wh – relatives exhibit reconstruction effects; that is the Head can be derived by movement from the position where it is interpreted to its surface position.

b. Wh-relatives do not exhibit reconstruction effects; that is the Head is not derived by movement from the position where it is interpreted to its surface position. It is base-generated in its surface position.

The Aoun and Li's typology infers that, within the class of restrictive relatives, there are two types of relative constructions: wh-relatives and non-wh-relatives. From the above reasoning, it follows that both a Head-raising analysis and operator analysis are important. Furthermore, the conjunction facts demonstrate that a relative construction, either a wh-relative or a non-wh-relative, must be projected as a DP (Aoun and Li, 2003: 118).

Additionally, a complementation structure, such as the one developed by Bianchi (1999) refines Kayne's (1994) proposal and can accommodate both Head-raising and operator movement.

In the Head-raising approach (promotion analysis of a non-wh-relative), the Head DP, with empty D, is raised to the peripheral position of the CP. Otherwise stated, a non-wh-relative is structured and derived in the following manner:

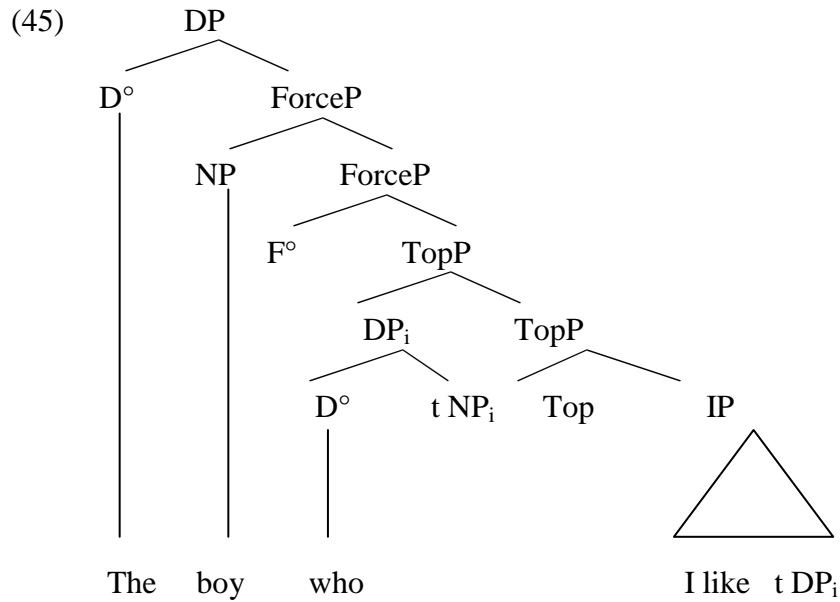
(42) [DP D [CP DP_i [C [IP... t_i...]]]]

(43) [DP the [CP [DP \emptyset picture]_i that [IP ... Bill liked t_i]]]

Kayne indicates that wh-relatives are derived the same way. Moreover, he argues that a wh-relative is derived in two steps: first, a wh-phrase is moved to the Spec of CP; second, the NP is raised to the Spec of the Wh-phrase:

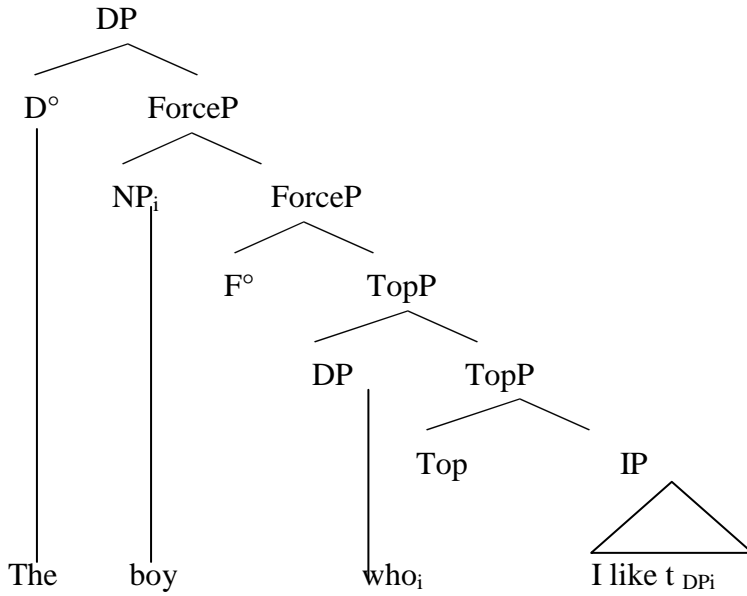
(44) [DP [D the] [CP [DP boy_i [who t_i]]]_C [IP I like]]]

On the contrary, Bianchi suggests that the NP is not raised to the Spec of the wh-phrase. Instead it is moved to the Spec of a higher projection, assuming Rizzi's (1997) Split-CP analysis:

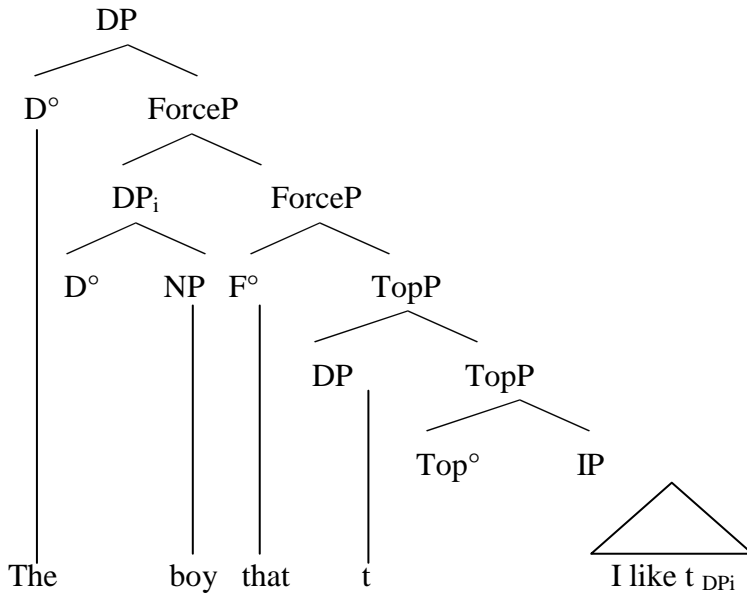


It is observed by Aoun and Li that, in Kayne’s and Bianchi’s approaches, “a relative clause with a *who* phrase is derived by base-generating [*who* NP] in the argument position”. The phrase [*who* NP] is raised from within the relative IP to the Spec of a Topic projection that is complement to a Force projection. “The NP of the phrase [*who* NP] undergoes further movement: it moves from inside the DP occupying the Spec of TopP to the Spec of ForceP” (pp. 119-120). Aoun and Li attempt to refine some of Kayne’s and Bianchi’s assumptions and proposals by proposing that the Spec of TopP hosts the *wh*-words *who*, *why*, *where*, *when*, *which*, and so on; their claim supposedly falls in line with Chomsky’s (1977b) suggestion that relativization is derived by the movement of a *wh*-operator to (the Spec of) Comp. “The *wh*-word is an operator predicated of the Head NP in the Spec of ForceP position [...] in contrast to the structure where the NP in the Spec of ForceP is moved from within the DP in the Spec of TopP, [they] suggest that the NP is *not* moved from within the *wh*-phrase. If it is not moved to the Spec of ForceP, it must be base-generated there. Accordingly, it is base-generated in the Spec of ForceP and a *wh*-operator occupies the Spec of TopP. The NP is the Head of the relative construction and enters into either a predication relation with the *wh*-operator or an agreement relation (see Chomsky 1977b; Safir 1986; Browning 1987)” (Aoun and Li 2003: 121-122). On the basis of the above reasoning, Aoun and Li conclude that English has two restrictive relative structures:

(46) Operator movement (wh-relative)



(47) Head-raising (non-wh-relatives)



In view of the above theoretical apparatus put forth by Aoun and Li, one wonders how the Musgum data can be accounted for. To provide some elements as a way of suggesting an adequate answer to the above question, consider the following Musgum sentence:

(48)

dif zihitiri nawiya na mu firiy-an a mrasu
man teacher my relativizer I like res.pro. SM dead

“My teacher that I like is dead”

Bear in mind that this language is devoid of articles such as *the/a*. Furthermore, (48) seems to illustrate the sole relativization strategy available in the language. Thus it seems to be the case that there are no wh-relatives. In other words, there are no relatives with one of these wh-items:

(49) (see (22) above)

Sia “who”

Ama “what”

Kazwa “when”

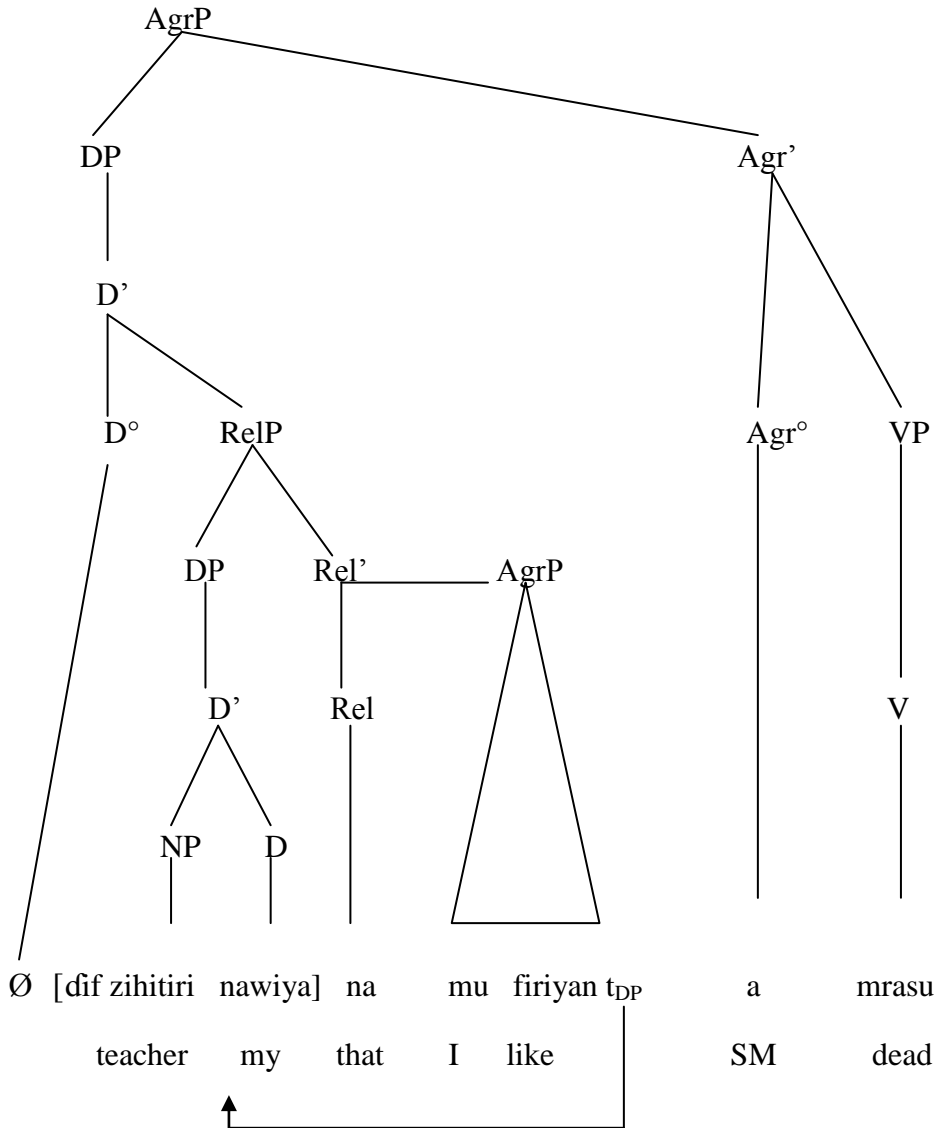
Wata “where”

Masla “how”

Briima “why”

Since Musgum has no wh-relatives, it seems to be the case that Musgum relatives are derived by Head raising. If the view defended by Bianchi (1999), Aoun and Li (2003) that wh-relatives and non-wh-relatives alike are projected as DPs is correct, then the above Musgum relative is structured and derived as follows:

(50)



Conclusion

On the basis of the criterial approach to scope-discourse semantics, the description of Musgum has revealed that overtly realized criterial particles project articulations relevant for the scope-discourse semantics such as CleftP, FocP and RelP. The Musgum data so analysed lend support to ‘the syntacization’ of scope discourse semantics’ (Rizzi 2103: 199). The fact that Musgum is overtly endowed with cleft heads (/a/, /ti/), a Rel head (/ra/), special complementizers for interrogatives (/bo/) and indirect and yes/no questions (/di/) seems to favour Rizzi’s criterial approach as it adamantly abides by the following arguments: ‘the existence [...] of overt criterial heads populating the left periphery, which are hard to reanalyse case-like or prepositions attached to the relevant phrases; and the existence of C-particles occurring in distinct positions

with respect to other elements, and even co-occurring in distinct positions of the same left-peripheral structure' (Rizzi 2013:221).

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Chapter 5

Cartography and double wh-fronting in Akoose

Introduction

This chapter explores the cartography of the left periphery in Akoose, a Bantu language of Cameroon, in relation to double wh-fronting. Several issues that lie at the core of the cartographic approach main interests are raised and discussed: what is the structure of the left periphery as far as question formation is concerned, in this language? When wh-phrases are fronted, are they (all) focused or topicalized? Do they abide by any ordering constraints? Is double wh-fronting in this language regulated by such principles as Superiority, Subjacency or Relativized Minimality?

This chapter is structured as follows. Section one is about Akoose genetic classification. Section two provides the word order of the language. Section three presents Akoose wh-phrases. Section four and five discuss wh-in-situ and wh-raising respectively. Section six deals with embedding contexts by addressing both indirect and yes-no questions. In section seven, focalization is discussed while section eight tackles double wh-fronting. Section nine discusses focalization and its relation to double wh-fronting. Section ten is about cartography and the derivation of double wh-fronting. It is shown that the main hosts of fronted wh-phrases in Akoose is the focused position which is split into two sub-focus fields, namely a higher focus phrase which encodes primary focus and a lower focus phrase which is the locus of secondary focus information. Section eleven discusses wh-ordering constraint with respect to UG principles such as Superiority, Subjacency and Relativized Minimality. Section twelve deals with the Wh-Cluster Hypothesis (Grewendorf 2001) according to which wh-phrases in a multiple fronting operation move in a cluster. It is argued that Akoose wh-phrases do not front in a cluster as this leads to a violation of the language internal word order and the antisymmetry framework which bans multiple specifiers and adjunction of any kind.

5.1. Akoose classification

According to the *Ethnologue* (2005);56), Akoose is a Niger-Congo, Atlantic-Congo, Volgta-Congo, Benue-Congo, Bantoid, Narrow Bantu language spoken in Cameroon: in South West Region, Kupe-Manengumba Division, Bangem and Tombel Subdivision; in the Littoral Region,

Moungo Division, Manjo Subdivision. Akoose is also called Bakossi, Bε kossi, Akosi, Kosse, Kosi, Nkosi, Nkoosi. It is spoken by 100, 000 people (SIL 2001, *Ethnologue* 2005).

5.2. Word Order

Akoose word order is SVO:

- (1) (Apuge 2012:87, (37a-b))
- a. Mod a- wú-ú mbód
man SM-kill-Perf goat
'The man killed a goat.'
 - b. mwǎn a- dɔb-é ε kub
child SM-close-Perf. door
'The child closed the door.'

This word order is not disrupted by negation:

- (2)
- a. Mod a- n- kê- wú- e mbód
man SM-P1-Neg-kill-Neg goat
'The man did not kill the goat.'
 - b. Mwǎn a- n- kε- dɔb-é- e εkub
child SM-Past-Neg-close-Perf. Neg door
'The child did not close the door.'

5.3. Akoose wh-phrases

The following wh-phrases are attested in Akoose (Apuge 2012:94):

- (3) Arguments
- a. Nzee 'who/whom'
 - b. chyě 'what'
- (4) Referential adjuncts
- a. Híí 'where'
 - b. Sútén 'when'
- (5) Non-referential adjuncts
- a. Chán 'how'
 - b.i. Nechán 'why'
 - ii. ayóle-chán 'why'
 - iii. chyěkón 'why'

5.4. Wh-in-situ

Akoose can form content questions by leaving wh-phrases in-situ:

(6) (Apuge 2012:95)

- a. Etuge a- n-nlúm nzee
Etuge SM-P1-send who
'Etuge sent who?' or 'who did Etuge send?'
- b. Akume a- n- pál be sabé sútén?
Akume SM-P1-harvest Pl oranges when
'When did Akume harvest oranges?'
- c. Akume a- n- běl nzag chán ?
Akume SM-P1-work farm how
'Akume worked his farm how?'/How did Akume work his farm?'

The above data clearly illustrate that arguments, referential adjuncts and non-referential adjuncts can stay in-situ in this language.

5.5. Raising

Wh-phrases can be raised as well in this language, as depicted by the following paradigm:

(7)

- a. nzee Etuge a- n- nlúm-é
who Etuge SM-P1-send who
'Who did Akume send?'
- b. sútén Akume a- n- pál-é besabé
when Akume SM-P1-harvest-Perf. Oranges
'When did Akume harvest oranges?'
- c. Chán Akume a- n- běl-é nzag
how Akume SM-P1-work-Perf farm
'How did Akume work his farm?'

In this language, arguments and adjuncts can be extracted and fronted. So two strategies are appealed to in order to form content questions: wh-items can remain in-situ or be subject to extraction.

5.6. Embedding

5.6.1. The lexical complementizer

Akoose is endowed with a lexical complementizer that is pretty much syntactically similar to the English language 'that':

(8) (Apuge 2012:97)

- a. Akume a- dúpé nén Yesu ă- pě ámpé
Akume SM-believes that Jesus SM-F2-come again
'Akume believes that Jesus will come again.'

- b. Akume a- hɔbé nén Yesu ǎ pě ámpé
 Akume SM-says that Jesus SM-F2-come again
 ‘Akume says that Jesus will come again.’

Nén ‘that’ is the head of CP (Chomsky 1986) or the head of ForceP (in the split CP framework originally developed by Rizzi 1997):

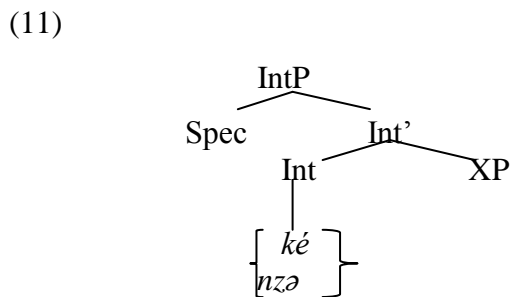


5.6.2. Indirect questions complementizers

This language has C-particles that introduce indirect questions:

- (10)
- a. Apuge a-n-sedí ke Etuge a-deeng Ntube
 Apuge SM-P1-asks whether Etuge SM-loves Ntube
 ‘Apuge asked whether Etuge loves Ntube.’
- b. Akume a- n- sedí nzə Esoh ǎ- pól
 Akume SM-P1-asks if Esoh SM-F2-travel
 ‘Akume asked if Esoh will travel.’

In cartography, *ké* ‘whether’ and *nzə* ‘if’ are analyzed as Int(errogative) heads (Rizzi 2001):



5.6.3. The yes-no question particle

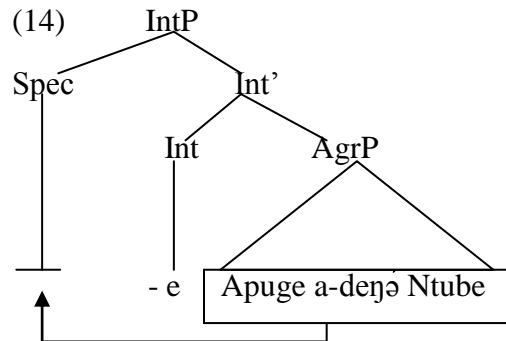
In Akoose yes-no questions, the final vowel of the last word is lengthened. For example, if the following sentence is taken to be the input one:

- (12) Apuge a- deŋó Ntube
 Apuge SM-love Ntube
 ‘Apuge loves Ntube.’

The yes-no question will be:

- (13) Apuge a- denǝ Ntube -e?
 Apuge SM-loves Ntube Q
 ‘Does Apuge love Ntube?’

In (13), descriptively, the question particle is the duplicated word final vowel. This phenomenon is very common in Bantu languages (Nkemnji 1995; Biloa 2013). Assuming cartography, the question particle is believed to host the yes-no question operator or the pied-piped AgrP in Spec-IntP, as illustrated by the following derivation (irrelevant details omitted):



Chomsky’s (1993) Extension Condition accounts for the pied-piping of the AgrP into Spec-IntP: when a head is merged, movement into its specifier is obligatory (see also Koopman and Szabolcsi 2000:42). This derivation equally abides by the Linear Correspondence Axiom (LCA) (Kayne 1994): AgrP raises to Spec-IntP because the head should be preceded by its specifier and followed by its complement. In case the complement precedes the head, this means that the former has been subject to movement to the left of the latter. As AgrP is the complement of IntP at a given stage of the derivation, and under Kayne’s predictions that there is no head final versus head initial dichotomy, it can be conjectured that the position of the yes-no particle in the clause final position is simply superficial. In fact, at a given stage of the derivation, this particle is merged in a position where it c-commands its complement AgrP, and in conformity with the LCA which requires that the head should precede its complement. However, since such a word order cannot yield a grammatical sentence, following the Extension Condition, AgrP must be pied-piped into Spec-IntP in order to obtain a convergent derivation.

5.7. Focalization

When wh-items are raised and fronted in this language, they can be followed by what is usually called a focus marker (FOC). This is an indication that wh-phrases are inherently focused (focalized) in question formation in Akoose when they have been extracted. When that happens,

the morphological shape of the focus marker depends on whether the wh-word is an argument or an adjunct, as the following table illustrates:

(14) Wh-words and their corresponding focus markers (Apuge 2012: 108)

a.

Arguments	Focus markers
nzee 'who'	mě
chye 'what'	chě

b.

Adjuncts	Focus markers
hii 'where'	dě
Suten 'when'	dě
chan 'how'	dě
nechan 'why'	dě

Referential and non-referential adjuncts alike have the same focus marker, whereas 'who' and 'what' have different focus markers.

To visualize the operation of the focalization strategy in Akoose question formation, consider the following data taken from Apuge (2012:213):

(16) **Arguments**

- a. nzee **mě** Akume a- n- lume
who FOC Akume SM-P1-send
'Who is it that Akume sent?'
- b. chye **chě** Akume a- hede
what FOC Akume SM-seeks
'What is it that Akume is looking for?'

(17) **Referential adjuncts**

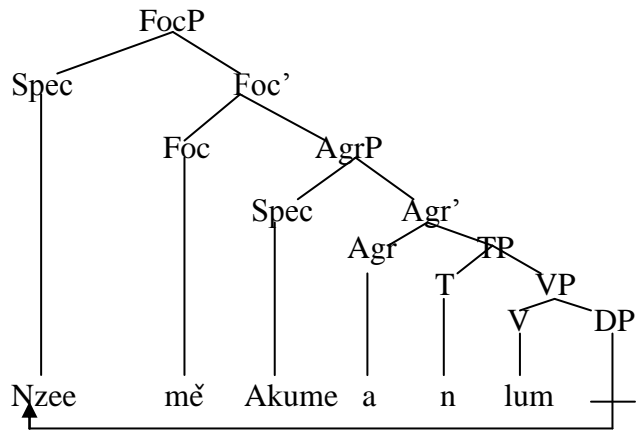
- a. hii **dě** Akume a- n- lume mwan
where FOC Akume SM-P1-send child
'Where is it that Akume sent the child?'
- b. suten **dě** Akume a- n- lume mwan
when FOC Akume SM-P1-send child
'When is it that Akume sent the child?'

(18) **Non-referential adjuncts**

- a. chan **dě** Akume a hóbe akan
 how FOC Akume SM-say something
 ‘How is it that Akume has said something?’
- b. nechan **dě** Akume a hobe akan
 why FOC Akume SM say something
 ‘Why is it that Akume (has) said something?’

Rizzi (1997) suggests that focused constituents should be analysed as contained within a separate FocP (Focus Phrase). Given this state of affairs, (16a) is assigned the following phrase marker:

(19)



In (19), the focalized constituent has merged to the Spec-FocP position while the focus marker is base-generated in the head position of FocP-Foc⁰.

5.8. Double wh-fronting

In Akoose, apparently, two wh-words can be fronted. Descriptively, it means that two wh-words can occupy the pre-subject position:

(20) (Apuge 2012:99)

- a. **nzee chye** e- bel- e
 who what SM-happen-Perf
 ‘Who has what happened to?’
- b. **chye nzee** a- bel-e
 what who SM-do-Perf
 ‘Who has done what?’

In (20a), *chye* ‘what’ is the grammatical subject of the clause, while *nzee* ‘who’ is the object of the verb. In (20b), it is *nzee* ‘who’ that is the subject whereas *chye* ‘what’ is the grammatical

object. On the basis of these two examples, one can infer that in a sequence of two wh-items in clause initial position in this language, the second wh-item must always be the grammatical subject. In other words, this second wh-word must always be an argument, the grammatical function of which should be the subject. It cannot be otherwise, as evidenced by the illicitness of the following sentence:

(21) ***nzee chye** a- bel-e
 who what SM-do Perf
 ‘Who has done what?’

The ungrammaticality of (21) can be accounted for by the fact that the second argument in the sequence is not a grammatical object. The subject is the first argument wh-word, which is not allowed. But if the second wh-word must be an argument subject of the clause, the first one can be of any type (argument, referential or non-referential adjunct). (cf. (20a-b) and the example below:

(22) (Apuge 2012)

hii nzee a- n- bel-e **chye**
 where who SM-P1-do-Perf what
 ‘Where did who do what?’

(23)

nechan nzee a- n- hob-e akan
 why who SM-P1-say-Perf something
 ‘Why is it that who said something?’

(24)

chan nzee a- wú- u mbód
 how who SM-kill-Perf goat
 ‘How is it that who killed the goat?’

In (22), the first wh-item in the first sequence is a referential adjunct. But in (23) and (24), non-referential adjuncts occur in first position, proving thereby that the type of wh-item does not matter in first position, whereas it does in second position.

Before I proceed with the investigation, bear in mind that, in Akoose, more than two wh-phrases cannot be fronted.

5.9. Focalization in double wh-fronting

Recall that, in this language, extracted/fronted wh-phrases can be focused. Until now, the focalized wh-phrases in case were single. It is therefore interesting to find out whether two fronted wh-phrases can be focalized or only one can be. In view of Rizzi (1997), according to

whom one clause can contain at most one focus, it is predicted that in Akoose only one of the two fronted wh-phrases can be focused. The prediction is borne out. As a matter of fact, only the first wh-phrase in a sequence can be focalized:

(25)

- a. nzee **me** chye e- bel- e
 who FOC what SM-happen-Perf.
 ‘Who has what happened to?’
 b. chye **chě** nzee a- bel-e
 what FOC who SM-do-Perf.
 ‘Who has done what?’

The same situation obtains irrespective of whether the first wh-phrase in a sequence is a referential or a non-referential adjunct:

(26) hii **dě** nzee a- n- bél-é chyé
 where FOC who SM-P1-do-Perf. What
 ‘Where did who do what?’

(27) nechan **dě** nzee a- n- hob-e akan
 why FOC who SM-P1-say-Perf. Something
 ‘Why is it that who said something?’

(28) chan **dě** nzee a- wú-ú mbód
 how FOC who SM-kill-Perf. Goat
 ‘How is it that who killed the goat?’

Moreover, Rudin (1985), Cheng (1991), Bošković (1998), Grewendorf (2001) indicate that wh-adjuncts can be fronted in Bulgarian but cannot precede a wh-argument in multiple questions. As mentioned above, in Akoose, a fronted wh-adjunct can precede a wh-argument in double questions. However, bear in mind that Rudin (1988: fn. 21) claims that nonsubcategorized adjuncts like ‘how’ and ‘why’ are not permitted in Hungarian and Romanian multiple questions (Grewendorf 2001: 89).

Now consider the following sentences:

(29)

a. *hii **chyě** **nzée** a- n-belé
 where what who SM-P1-do
 ↑ ↑
 ‘Who did what where?’

b. *hii **nzée** **chyě** a- n-belé
 where who what SM-P1-do
 ↑ ↑ ↑
 ‘Who did what where?’

‘Who did what where?’

Both sentences in (29) are ungrammatical because three wh-phrases cannot be fronted in Akoose. The Akoose empirical material is different from the Bulgarian and Romanian facts whereby ‘the subject must precede the object if both a subject and an object wh-elements are fronted.’ (Grewendorf 2001: 88; see also Rudin 1988).

The data illustrated in (25)-(28) raise questions about their structural maps, their derivation (s) and ultimately about their respect or not of some conditions or constraints or principles such as the Superiority Condition, the Subjacency Condition (subsumed by constraints such as the Wh-Island Constraint and so on...). I turn, next, to these issues.

5.10. Cartography and derivation

Having shown that in Akoose multiple wh-fronting, two wh-phrases occur in clause initial position, one wonders what host (s) accommodate (s) them.

5.10.1 The host(s) of the fronted wh-phrases

Recall that in Akoose double wh-fronting, the first wh-phrase in the sequence can be focalized, i.e. followed by a focused marker (FOC). As indicated above, this means that the first wh-phrase merges to the Spec of FocP and the focus marker that is base-generated in Foc⁰ heads the latter position. If that is the case, what position does the second wh-phrase merge to? This wh-phrase is an argument that fulfils the grammatical function of subject. This entails that in Akoose question formation, it moves vacuously from the Spec position of AgrP (or IP, assuming Chomsky 1986). But once again, where does it go to? It cannot plausibly be another FocP position. For if it were possible, the second wh-phrase could be followed by a focus marker. It is impossible:

(30)

a. nzee **mě** chye (***chě**) e- bel- e
who FOC what FOC SM-happen-Perf

‘Who has what happened to?’

b. chye **chě** nzee (***me**) a- bel-e
what FOC who FOC SM-do-Perf

‘Who has done what?’

(31)

a. hii **dě** nzee (***mě**) a- n- bél-é chyé
where FOC who FOC SM-P1-do-Perf. What

‘Where did who do what?’

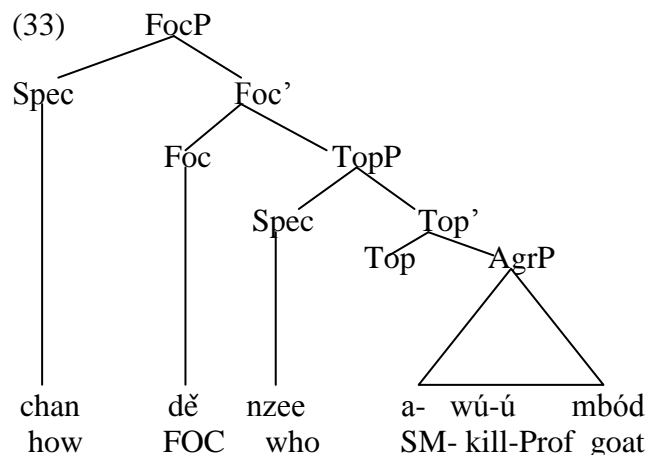
b. nechan **dě** nzee (***mě**) a- n- hob-e akan
 why FOC who FOC SM-P1-say-Perf. something
 ‘Why is it that who said something?’

c. chan **dě** nzee (***mě**) a- n- wú-ú mbód
 how FOC who FOC SM-P1-kill-Perf. goat
 ‘How is it that who killed the goat?’

It appears that in this language the first wh-phrase in a sequence of two is inherently focused; that is why it is followed by a focus marker. But the second wh-phrase CANNOT be focalized. Neither can the one in-situ (cf. (27), (31a)). This state of affairs reasonably rules out the possibility for the second wh-item to be hosted by Spec-FocP. So the question keeps on lingering: what is the (potential) host of the second wh-phrase? Notice that it occurs in what Rizzi (1997) calls “the left periphery of the clause”. In Rizzi (1997), the left periphery of the clause is seen as a structural zone defined by a system of functional heads and their projections, along the following lines:

(32) Force Top* Foc Top* Fin IP

The system is delimited upward by Force, the head expressing the clausal typing, the kind of information which must be readily accessible to an external selector, and downward by Finiteness, the head differentiating finite and non finite constructions (Rizzi 2004). Given the above, the task ahead consists in determining the host of the second wh-phrase in the cartography of structural positions devised by (Rizzi 1997, 2001, 2013a, 2013b). Of the positions listed in (32), FocP having been discarded as a potential host, the remaining candidates are ForceP and IP. ForceP, apart from being a place where illocutionary force is encoded, is located higher than FocP: consequently, it cannot linearly accommodate the second wh-phrase. FinP and IP are potential hosts of the wh-phrase prior to movement. But when movement is activated, the wh-phrase raises to a higher position, unless it is assumed that it has not migrated. So, for the time being, FinP and IP are disqualified. TopP, then, seems to be the sole remaining valid candidate. If this option turns out to be the correct one, (31c) would be assigned the following phrase marker:



The phrase marker (33) departs a little bit from (32) in that only the lower Topic is depicted. But (33) is likely to raise a number of questions. Notably, one might wonder whether the wh-phrase *nzee* ‘who’ (that is an operator) can merge in the Spec of the TopP projection. In view of Benincà and Poletto (2004), it is no longer surprising to conceive wh-words or operators being hosted lower than focus.

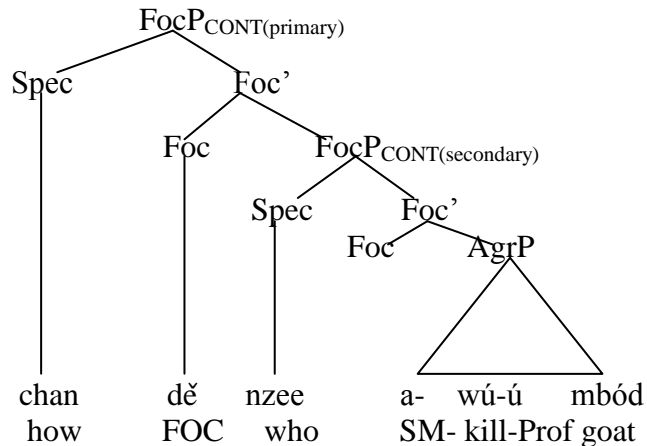
Rizzi (1997) (cf. (32) above) hypothesizes that topic is a set of recursive projections (an asterisk indicates recursion) that can occur both higher and lower than a single Focus projection. Benincà and Poletto claim that “recursion is not an option since there is a virtually infinite set of totally identical Topic phrases or Focus phrases”. They show that each projection has different semantic properties and can host a single XP (Benincà and Poletto 2004:53). With respect to the topic projection lower than Focus, they argue that “the projections [that are] lower than topic all have the syntactic characteristics of focused elements - that is, they behave as operators”. Consequently, there are “two different fields in CP: a higher Topic field hosting nonoperator elements, and a lower Focus field hosting operator-like elements”. On the basis of Italian data, they show that:

1. There is no Topic projection lower than Focus.
2. What is apparently a Topic projection lower than FocP has been shown to have the movement properties of focalized constituents (Benincà and Poletto 2004:57).

With this theoretical apparatus in mind, the question as to whether a wh-phrase can merge into Spec-TopP (lower than FocP) in (33) loses its relevance since the lower TopP is in fact another FocP. But there seems to be a systematic difference between the higher FocP (the one that hosts

the first wh-phrase) and the lower FocP (the one that houses the second wh-phrase): the higher FocP encodes contrastive focus whereas the lower FocP expresses contrastive focus as well. (33) can now become:

(34)



In (34), the first wh-phrase in the sequence is hosted by the higher FocP which is a primary contrastive Focus position: it is so because the wh-item *chan* ‘how’ is focused, as evidenced by the fact that it is accompanied by a focus marker. The second wh-phrase is argued to be accommodated by the lower FocP which is believed to be as well a contrastive Focus position, albeit a secondary contrastive Focus position. It is a Focus position because wh-phrases in question formation are inherently focalized crosslinguistically (Myers 1971, Heny 1971, Schachter 1971, Takizala 1972, Whitney 1984, Culicover and Wilkins 1984, Horvath 1986, Rochemont 1986, Rochemont and Culicover 1990, Biloa 1995, 2013). The degree of focus is not the same though since the second wh-phrase cannot be followed by a focus marker: this explains the secondary status it is assigned in this approach. This proposal, along with Benincá and Poletto’s (2004), challenges Rizzi’s (1997) suggestion that a given clause cannot contain two foci:

Uniqueness: *A clause can contain as many topic s as are consistent with its (topicalizable) arguments and adjuncts; on the other hand, there is a unique structural focus position, focalization of two elements [...] is excluded* (Rizzi 1997: 290).

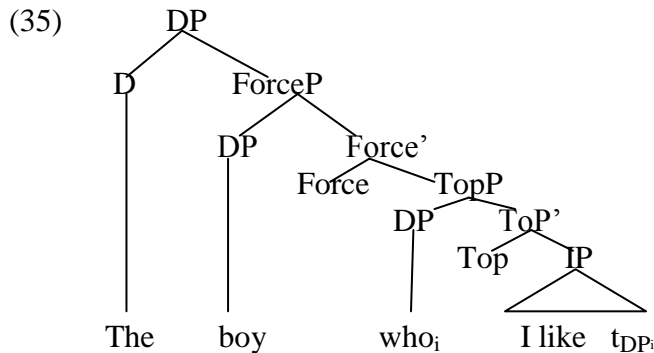
This suggestion cannot be maintained as such for languages like Akoose.

Coming back to the data at hand, if what is assumed is correct, then there are two contrastive Focus projections available in the left periphery in (34) whereby two operators (the two wh-

phrases) are housed by the two FocPs. Linearly speaking, the sequence of wh-phrases in (34) is to be interpreted as [Foc₁ Foc₂], suggesting thereby that ‘FocP is not a single XP but a ‘field’ as Topic is (cf. Brody 1990 on Hungarian; Benincà and Poletto 2004: 57). In other words, Focus is a field in the Akoose language left periphery where contiguous projections (FocPs) host/encode various types of focalized elements, one getting primary focus and the other being assigned secondary focus.

5.10.2. Could TopP be a potential host?

Above, the possibility that the second wh-item could have landed in Spec-TopP was considered but was quickly discarded. Let us come back to it and give it much attention, although I will ultimately not support it. After all, it should not be very surprising to argue that a wh-word can merge to Spec-TopP. Aoun and Li (2003) have indicated that in English wh-relatives the wh-words *who, why, where, when, which* and so on, occupy the Spec of TopP:



Aoun and Li’s approach is a refinement of Bianchi (1999) and Kayne (1994).

Rizzi (1997: 289) suggests that ‘relative operators occupy the highest specifier position, the Spec of Force, while question operators can occupy a lower position within the Topic/Focus field.’

Shlonsky and Soare (2011) indicate that the relative *why* raises to the Spec of Rel(ative) P(hrase). The same suggestion is extended to relative operators in Tuki, a Bantu language of Cameroon, by Biloa (2013).

This selective review of the specialized literature seems to indicate that wh-items can land in various positions, depending on the type of construction one is dealing with.

Returning to the Akoose data, the initial question was whether Spec-Top could host the second wh-item as in (33), bearing in mind that relative operators in Aoun and Li’s system can occupy

Spec-TopP and that Rizzi (1997: 289) also suggests that ‘question operators can occupy a lower position within the Topic/Focus field.’

If it is argued that the second *wh*-word in (33) deserves to be housed by Spec-TopP, then it means that it is a topic. But by all means, neither pragmatically, nor syntactically does it behave like a topic. It does not fit at all the definition of topic provided by Rizzi (1997:285): ‘the topic is a preposed element characteristically set off from the rest of the clause by ‘comma intonation’ and normally expressing old information, somehow available and salient in previous discourse; the comment is a kind of complex predicate, an open sentence predicated of the topic and introducing new information.’

The following sentence, from Haegeman (2012), ‘illustrates a topic-comment articulation, with the fronted constituent *this book* as the topic/old information and the clause as the comment/new information’:

(36) (Haegeman 2012: 8, (4b))

This book, I don’t need today

There is a world of difference between (33) and (36) as there is no phonological/graphic (comma) pause between the second *wh*-word in (33) and the rest of the clause. Moreover, this *wh*-item cannot be considered old information. As a matter of fact, it is requesting new information and is therefore semantically focalized. Bear in mind that sentence (33) is an interrogative. And the semantic similarities between interrogatives and focusing constructions are historically established (see Myers 1971, Heny 1971, Schachter 1971, Takizala 1972, Rochemont 1986, Biloa 1992, 1995, 2013). According to Takizala, a *wh*-question involves the same presuppositional structure as a focusing construction. This explains why *wh*-phrases are traditionally argued to be focused (see Whitney 1984, Culicover and Wilkins 1984, Horvath 1986, Rochemont 1986, Rochemont and Culicover 1990, Biloa 1992, 1995, 2013). If *wh*-phrases are inherently focused, it seems appropriate that the ones in (33) be positioned in Spec-FocP. Rizzi’s (1997: 287) definition of focus captures their pragmatic and syntactic behavior: ‘The preposed element, bearing focal stress, introduces new information, whereas the open sentence expresses contextually given information, knowledge that the speaker presupposes to be shared with the hearer.’ Given that in (33) *wh*-words are preposed and focused, it is logically deemed adequate to have them merged in Spec-FocP rather than in Spec-TopP.

5.11. Wh-ordering constraints

In Akoose, as indicated above, two wh-phrases can be fronted. But the order of occurrence of these wh-phrases is very rigid, as depicted by the following double wh-fronting frame:

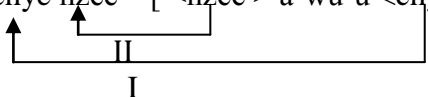
(37) Akoose double wh-fronting frame

LEFT PERIPHERY

Higher	Lower
FocP (primary focus) [1 st wh-phrase] -argument or adjunct -Can be focused -Grammatical function (GF): anything other than subject	FocP (secondary focus) [AgrP...] [2 nd wh-phrase] -argument -Cannot be focused -Grammatical Function (GF): subject

In a nutshell, the highest wh-phrase can be an argument or an adjunct, it can be focalized, but it cannot be the subject of the clause. The lowest wh-phrase must be an argument-subject and it cannot be focused. Now, since the two wh-phrases are assumed to have moved, one wonders which one moves first. Previous researchers on a language like Bulgarian that is notorious for multiple wh-fronting observed ‘that the wh-phrase that is first in the linear order in Bulgarian is the one that moves first’ (Bošković (2002: 353) refers to Rudin 1988, Bošković 1997, 1998, 1999, Richards 1997, 1998, and Pesetsky 2000). It seems to be the case that Akoose patterns alike. If that is the case, the derivation of (38a) will proceed as in (38b) below:

(38) a. chyě nzee a- wú- ú
 what who SM-kill-Perf
 ‘Who killed what?’

b. chyě nzee [<nzee > a-wú-ú <chyě>]


In (38b), the direct object of the verb first raises to clause initial position (to the highest Spec-FocP) while the grammatical subject moves to the lowest Spec-FocP position. The second movement is said to be vacuous (Chomsky 1986). The ordering of wh-phrases in Akoose has implications for UG conditions such as Superiority, Subjacency and Relativized Minimality.

5.11.1. Superiority

Chomsky (1973) notes the following subject/object asymmetry:

(39) Who_i [x_i saw what]

(40) *What_i [did who see x_i]

Such effects are not attested in Akoose since the equivalent of (40) is licit:

(41) chyě (**chě**) [nzee a-wú-ú x_i]

what FOC who SM-kill-Perf.

‘What did who kill?’

The LF representation of (41) is (42) below:

(42) [nzee_j chyě_i (chě)] [x_j a- wú-ú x_i]

who what FOC SM-kill-Perf

The equivalent of (42) in English is (43):

(43) [who_j what_i] [did x_j see x_i]

Let us come back a little bit and explain in pre-minimalist terms the asymmetry observed in (39)-(40). In (39) the wh-phrase in subject position raises to Spec-CP at S-structure while the object wh-phrase stays in situ. The raising of the object wh-phrase to Spec-CP is delayed until LF. (40) is the opposite situation of (39): the wh-phrase in object position moves to Spec-CP at S-structure, and the subject wh-phrase raising is delayed until LF. The dichotomy between (39) and (40) is an LF illustration of the well-known subject/object asymmetry with regard to movement/extraction/raising. The asymmetry entails that an object wh-phrase can raise to Spec-CP already occupied by another wh-phrase at LF (see (39)). But a subject wh-phrase cannot move to a Spec-CP already filled by another wh-phrase at LF (see (40)). These facts are called *Superiority Effects*.

Returning to (43), this construction violates the Empty Category Principle (ECP, Chomsky 1981) in that the variable left in subject position by the movement of *who* at LF is not properly governed.

In Akoose, as opposed to English, there is no subject/object asymmetry since Agr-S is a proper governor in this Bantu language. This accounts for the grammaticality of (41). More evidence that Agr-S is a proper governor in Akoose is provided by the fact that the language is immune to COMP-trace effects:

(44)

a. Etuge a- n- sédíd a- ken Akume a- n- lume Apuge

Etuge SM-P1-ask SM- that Akume SM-P1-send Apuge

‘Etuge believed that Akume sent Apuge.’

b. Nzee (mě) Etuge a- n- dúbé a- ken Akume a- n-lume <nzee>
who FOC Etuge SM-P1-believe SM- that Akume SM-P1-send who
‘Who did Etuge ask that Akume sent?’

c. Nzee (mě) Etuge a- n- sedid-e a- ken <nzee> a- n- lume Apuge
who FOC Etuge SM-P1-ask SM-that who SM-P1-send Apuge
‘Who did Etuge ask that sent Apuge?’

In (44c), the extraction of *nzee* ‘who’ in subject position above the lexical complementizer does not cause any ungrammaticality, thereby providing evidence that the variable so created is properly governed by Agr-S. The lack of COMP-trace effects in Akoose is expected under the assumption that the language is a null subject one. Since Perlmutter (1971), it has become customary to assume that pro-drop languages do not exhibit any subject/object asymmetry in cases of extraction across an overt complementizer.

5.11.2. Subjacency

The grammaticality of the Akoose sentence (41) that is immune to Superiority effects might lend one to believe that this language violates Subjacency since (41) seems to violate the wh-Island Constraint (Ross 1967). But there is overwhelming evidence that Akoose wh-constructions exhibit some island effects. For illustration, consider the following sentences:

- (45) a. *ngô mûtú nyú ekɔwɛ-ati odé Epoge á- nábò ?
which vehicle self wonder when Epoge SM-fix
‘Which car do you wonder when Epoge will fix?’
b. *Nzé nyú ekɔwɛ-atí wɛrə Epoge a-táa
who self wonder where Epoge SM-met
‘Who do you wonder where Epoge met?’
c. *nɛđ mûtú nyú ekɔwɛ-atí nə nganə bó ánábó
which vehicle self wonder how to fix
‘Which car do you wonder how to fix?’

The three sentences in (45) are ungrammatical because they violate the Wh-Island Constraint: the Spec-CP position of the embedded clause in each case is filled; this means that the wh-phrase in sentence initial position has raised from its base position to the landing site in one step, thereby crossing two clauses, i.e. two IPs (bounding nodes). This entails that IP is a bounding node in Akoose.

The following Akoose constructions are ungrammatical as well:

(46) Complex Noun Phrase Constraint (CNPC)

- a. **ηḡ mútu e-taá mod awε á-halə ánabə?*
 which vehicle SM-met someone who SM-able fix
 ‘Which car have you met someone who fixed?’
- b. **ηḡ mútú nyú εwɔɔ εbaá ná Epoge á-nabə*
 which vehicle self heard rumor that Epoge SM-fix
 ‘Which car did you hear the rumor that Epoge fix?’
- c. **Nze epoge be mbe a mútu mmə nkɔre*
 who epoge SM-be in car which hit

The above three sentences violate the Complex Noun Phrase Constraint (Ross 1967). Complex Noun Phrases, in Generative Grammar terms, are relative clauses, i.e. constructions in which there is a ‘CP-complement of N’ (Ouhalla 1994:238). In the three cases illustrated above, the extracted wh-phrase crosses at least one IP and one DP (NPs are so called by Abney 1987). This is tantamount to saying that DP and IP are bounding nodes in Akoose. And since the Wh-Island Constraint and the Complex Noun Phrase Constraint (CPNC), among other constraints (the Sentential Subject Constraint, the Upward Boundedness Constraint, the Left Branch Condition (Ross 1967)), subsume Subjacency (Chomsky 1973), it follows that Akoose abides by Bounding Theory regulations, despite the fact that it is immune to Superiority effects.

5.11.3. Relativized Minimality

Recall that it was argued above that in Akoose, when two wh-phrases occur in clause initial position, the order in which they occur is fixed. In English terms, the order can only be one of the following:

- (47) a. what who...
 b. when who...
 c. where who...
 d. why who...
 e. how who...

It appears that there is no freedom of order in Akoose double wh-fronting. In this respect, Akoose radically differs from other languages. For instance, Grewendorf (2001:88), quoting Rudin (1988), indicates that in ‘in both Bulgarian and Romanian the subject must precede the object if both a subject and an object wh-elements are fronted’:

(48) (Grewendorf 2001: 88, (1a-b))

a. Koj kogo e vidjal?

who whom is seen

‘Who saw whom?’

b. *Kogo koj e vidjal?

(Bošković 1998)

Moreover, while quoting Rudin (1988), Comorovski (1989) and Richards (1997), Grewendorf (2001:89) observes that, in these two languages, ‘fronted wh-elements exhibit a relative freedom of order if they are D-linked or constitute echo questions.’ No such freedom appears to be possible in Akoose. This situation begs at least one question: why can’t in this language the subject precede another wh-phrase when the two are fronted? Before attempting to answer this question, consider the following data:

(49) (Adapted from Apuge 2010: 159)

a. nzée á- n- belé chyě

who SM-P1-do what

‘Who did what?’

b. chyě nzée á- n- belé <chyě>

what who SM-P1-do what

‘What did who do?’

c. *nzée chyě <nzée> á- n- belé chyě

who what who SM-P1-do what

Angle-bracketting indicates that the wh-phrase has moved (Starke 2001). (49c) is illicit because it violates Akoose wh-ordering constraint according to which the subject must always follow another fronted wh-phrase. This ordering constraint can be accounted for by Relativized Minimality (RM) (Rizzi 2004, Abels 2012). In (49c), *chyě* ‘what’ induces a minimality effect on the raising of *nzée* ‘who’, both *chyě* and *nzée* being of “the same featural class” since relativized minimality effects are found within the same featural class but not across classes” (Rizzi 2004). Thus the left-peripheral sequence of Akoose wh-items is regulated by a locality principle (RM). Moreover, ‘this kind of locality-based explanation is fully consistent with detailed cartographic representations’ (Rizzi 2013b:325).

5.12. The Wh-Cluster Hypothesis

Grewendorf (2001), following Grewendorf and Sabel (1999) and Grewendorf (1999), devises a theory of multiple wh-fronting according to which ‘multiple wh-fronting does not consist of fronting individual wh-elements separately to [Spec-CP]; instead these individual elements form

a wh-cluster prior to movement to [Spec-CP], and a single complex wh-element therefore undergoes movement to [Spec-CP] in ‘multiple wh-fronting languages’ (Grewendorf 2001:93-94). The formation of wh-cluster (and the existence of multiple wh-fronting) is driven by the lexical property of the wh-words themselves. In other words, the morphological properties of wh-words are such that they motivate the formation of wh-clusters. In terms of feature theory, a particular feature in the head of wh-phrases ‘attracts’ wh-elements (that are operator landing sites), deriving thereby adjoined positions, in order to form multiple wh-constructions. Grewendorf states this idea as the ‘Wh-Cluster Hypothesis’ in terms of the minimalist theory of Chomsky (2005):

(50) Wh-Cluster Hypothesis (Grewendorf 2001:94, (5))

A particular feature of a wh-element acts as a checker for other wh-elements (wh-arguments as well as wh-adjuncts).

The checking potential stated in (50) has two exceptions: wh-elements located in [Spec-CP] and wh-adjuncts cannot act as checkers for other wh-elements.

As a result of the Wh-Cluster Hypothesis, wh-phrases may make provision for the internal operator positions that can act as landing sites for wh-movement. As indicated above, this property of wh-phrases is accounted for by their morphological properties. This is so because in multiple wh-fronting languages like Bulgarian, as observed by Cheng (1991, 1997), wh-words can be used to form indefinite NPs if a particular affix is added:

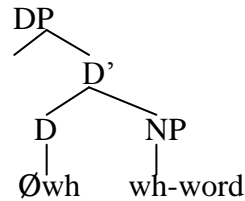
(51) (Grewendorf 2001:94 (6))

Kój	‘who’	njákoj	‘someone’
Kudé	‘where’	njákode	‘somewhere’
Kogá	‘when’	njákoga	‘sometime’
Kakvó	‘what’	njakakvo	‘some sort of’

Grewendorf refers to this observation made by Cheng as *Cheng’s Generalization*.

According to Cheng, since wh-words in these languages are devoid of any inherent quantificational force, they are similar to indefinite NPs. It follows that in multiple-fronting languages the interrogative force of wh-words is dependent upon a null determiner that bears a wh-features. Wh-phrases, in Cheng’s system, therefore are structured as follows:

(52) (Grewendorf 2001: 95, (7))



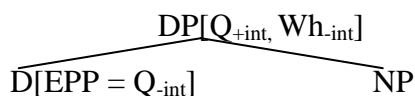
Cheng argues that this null determiner is licensed by being in a specifier-head relationship with a C[+wh] that lures wh-movement to [Spec-CP].

Recall that it was said above that a particular feature in the head of a wh-phrase attracts other wh-elements. The question is: how does this attraction/checking mechanism that favors the formation of fronted wh-clusters operate? To answer this question, Grewendorf adopts/adapts Cheng's basic idea and expresses it in terms of Chomsky's (2000, 2001) 'probe-goal' system. The latter assumes that there is an operation called Agree that encodes agreement between uninterpretable features of the former 'checker' (called 'probe') and the matching features of a local 'goal'. Agree also erases uninterpretable features of probe and goal under matching. Matching is understood as feature identity. And since Case (and lexical category) is not a feature of the functional heads that include a probe, it cannot enter into Agree and Case-checking requirements cannot induce Agree operations. Structural Case, on the contrary, is an uninterpretable feature of the goal which serves to 'activate' the goal of a probe, and by so doing triggering some operation (Agree, Move). It is also deleted under Agree. The uninterpretable features that serve as the probe of functional heads can be divided into two groups: \emptyset -features (phi-features) and P-features (Chomsky 2000). Phi-features include and generate the Case agreement system and induce A-movement, while P-(eripheral) features deal with the left periphery (e.g., force, topic, focus (see Rizzi 1997, 2001, 2004, 2013a, b)) and involve A'-movement. The selectional feature EPP triggers movement and is satisfied by Merge of a phrase P(G) upon which the goal of the probe depends in order to be determined. Features can neither move nor be attracted. The system is such that when an active goal and the uninterpretable feature that activates it match, the uninterpretable feature is deleted ('ancillary deletion'). In other words, checking is deletion under matching between the active local goal and the goal activating uninterpretable feature. In the probe-goal system, wh-movement operates like A-movement. Just as an NP has interpretable phi-features, so too do wh-phrases have an interpretable P(eripheral)-feature [Q]. The latter and the uninterpretable probe [Q] of a complementizer match in the final stage. Similarly, just as wh-phrases have an uninterpretable

feature [wh], so too does an NP have the uninterpretable Case feature. The latter NP case feature activates the wh-phrase as a goal is and deleted along with the uninterpretable feature [Q] of the probe when probe and goal (have) match (ed). Once more, movement is induced/triggered by the EPP-feature in C, which is likely to be redundant as a reflex of the uninterpretable P(eripheral) or edge-feature (Chomsky 2000, 2001, 2008).

On the basis of the above theory and assuming Cheng’s analysis of wh-words in languages such as Bulgarian, Grewendorf suggests that in languages like Bulgarian (but not English), the D-head of wh-elements is endowed with an EPP-feature, which he takes to be identical with the uninterpretable P-feature [Q]. Consequently, Bulgarian wh-words can function as a target of wh-movement by providing an operator position due to the presence of an uninterpretable feature [Q], just as interrogative C ‘attracts’ wh-elements. Grewendorf assumes that the wh-phrases that are ‘attracted’ by the uninterpretable probe of a wh-element adjoins to this wh-element. After the adjunction of a wh-element to another wh-element, Agree deletes the uninterpretable features of probe and goal. Grewendorf represents the internal structure of a wh-phrase as follows:

(53) (Grewendorf 2001: 96, (8)).



(53) captures Cheng’s idea that in languages like Bulgarian the null determiner provides the interrogative properties of wh-elements. In other words, it is not the inherent lexical properties of wh-items that provide their interrogative properties, as Chomsky and Lasnik (1993: 536) assume for English. D can bear an interpretable as well as an uninterpretable feature [Q]. The interpretable feature is the one that is relevant for semantic interpretation, while the uninterpretable feature is a selectional feature that searches for an XP to merge with the category it heads. As far as (53) is concerned, the probe and the wh-element must be in the same domain. This entails that the domain of the probe cannot be the wh-element’s D-head.

For a language like Bulgarian in which wh-cluster formation is overtly realized, in Grewendorf terms, ‘wh-elements must undergo overt fronting in such a way that the wh-subject precedes wh-adjuncts (Rudin 1985, 1988)’ (Grewendorf (2001:97). For illustration, consider the following Bulgarian example:

(54) Grewendorf (2001: 98, (9))

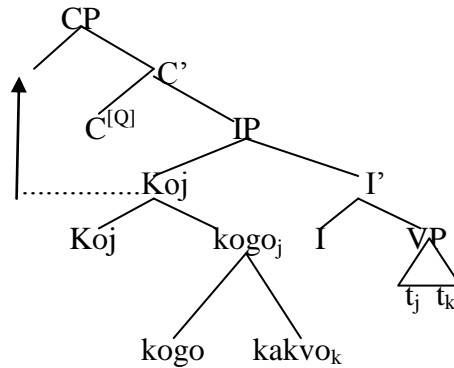
Koji Kogoj kakvo_k [t_i e pital t_j t_k]?

who whom what is asked

‘Who asked whom what?’ (Bošković 1998)

(54) illustrates a double object construction in which three wh-phrases have been fronted. Grewendorf reports that former researchers analyzed (54) as involving movement of the wh-subject to [Spec-CP] followed either by the right adjunction of the other wh-phrases to the wh-subject in [Spec-CP] or by movement of these wh-phrases to other specifier positions of CP. (55), below, departs from the former analyses and proposes a derivation of (54) based on the Wh-Cluster Hypothesis:

(55) (Grewendorf 2001: 98, (10))

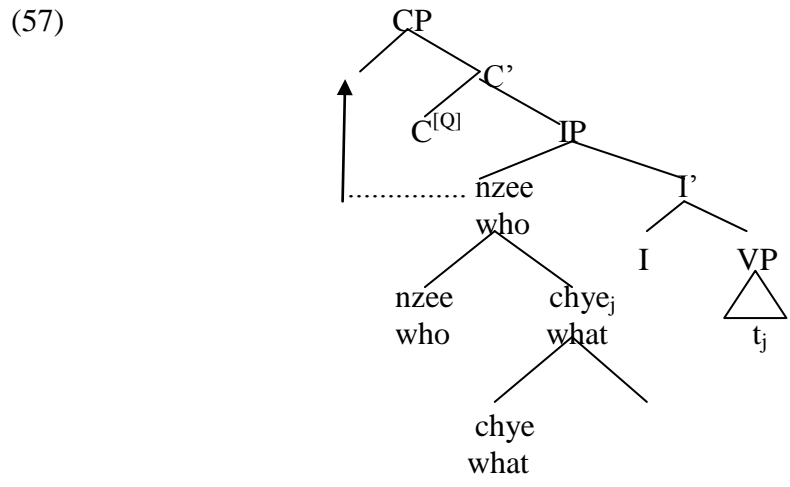


Kogo has an uninterpretable feature [Q] in its D-head. This feature ‘attracts’ the direct wh-object *kakvo* which therefore adjoins to the indirect wh-object *kogo*. The [Q]-feature of *kogo* is the probe that activates the [Q]-feature goal of *kakvo*. The two features match and are deleted (‘ancillary deletion’). Next, the wh-cluster that has just been formed ([*kogo-kakvo*]) is ‘attracted’ by the uninterpretable feature [Q] of the wh-subject *koj*. The latter feature matches with the interpretable feature [Q] of *kogo*. The uninterpretable [Q] of the wh-subject *koj* is the probe, while the uninterpretable feature [Q] of *kogo* is the goal: since the two match, they are deleted. The wh-cluster is now made up of three wh-items ([*koj-kogo-kakvo*]). In the final step, the three wh-items cluster just formed is ‘attracted’ to [Spec-CP] by the uninterpretable feature [Q] of C that matches with the interpretable feature [Q] of the wh-subject: the uninterpretable features are deleted as usual. In the probe-goal system, as argued by Grewendorf following Chomsky (2000, 2001), all uninterpretable features involved in the operation Agree are deleted in an ‘all or none’

fashion. This explains why the uninterpretable feature [Q] of the D-head of the lowest wh-phrase *kakvo* is also assumed to have been deleted.

Let us now return to Akoose and see how the Wh-Cluster Hypothesis fares with regard to this Bantu language empirical material. Recall that in Akoose only two wh-words can be fronted, not three as in Bulgarian. Moreover, the sequential order of the wh-words is such that the wh-subject (that is an argument) is always preceded by any wh-element (be it an argument or an adjunct, a wh-object, an indirect object). This means that for the Wh-Cluster Hypothesis to be operative in Akoose, the uninterpretable feature [Q] of the wh-subject would ‘attract’ the wh-element and the latter would left-adjoin to the former, and the resulting cluster would then be attracted by the uninterpretable feature [Q] of C. But the order of the wh-elements in [Spec-CP] would have to be such that any wh-phrase must precede the wh-subject. To implement this idea, reconsider the following sentence.

- (56) Chye nzee a-bel-e
 what who SM-do-Perf
 ‘Who has done what?’



In (57), it is difficult to imagine how to obtain the mirror image of the order [*nzee-chye*] in [Spec-CP] if the right-adjunction is adopted as in (55) above in the Wh-Cluster Hypothesis derivation of the Bulgarian data. So an application of this approach to Akoose seems to produce a flawed result as the wh-cluster so formed does not respect the language word order. Furthermore, the theoretical framework advocated here forbids adjunction. As in the antisymmetry perspective (Kayne 1994), [...]. Adjunction, multiple specifiers and multiple complements are disallowed (Rizzi 2013b).

Conclusion

This chapter has discussed double wh-fronting in Akoose, a Narrow Bantu language spoken in Cameroon, within the framework of cartography. It has been demonstrated that double wh-fronting in this language is dependent on two factors. First of all, the lowest wh-element in the C-domain must be the subject while the highest one must be of any kind (direct object, indirect object, or adjunct). Secondly, only the highest wh-phrase (non-subject) is focused marked whereas the lowest one displays no morphological focus marking. Under the assumption that wh-phrases are focalized by inheritance, it has been proposed that both wh-elements are hosted in the focus field so much so that the highest one conveys a primary contrastive focus interpretation whereas the lowest one is associated with a secondary contrastive focus reading. In addition, the discussion has revealed that the Akoose empirical data do not do justice to Grewendorf's Wh-Cluster Hypothesis according to which all wh-elements in a multiple fronting operation move in a cluster. An application of this prediction to Akoose produces wrong outcomes as the Wh-cluster does not respect the language word order, and violates the antisymmetry framework that prohibits multiple specifiers and adjunction of any kind.

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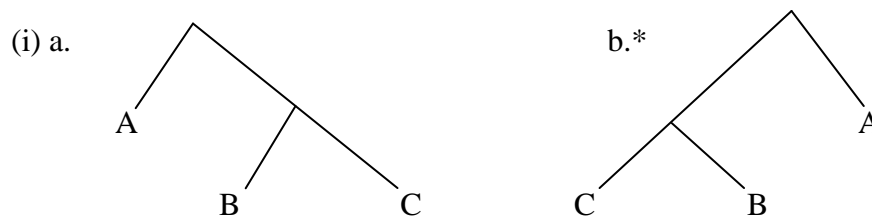
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Chapter 6

Antisymmetry and Masa

Introduction

Kayne's (1994) book *The Antisymmetry of Syntax* argues that "syntax is antisymmetric in the sense that if some subtree (with hierarchical structure and precedence relations specified), say (ia), is well-formed in some human language, its mirror-image, (ib), is not well-formed in any human language:



The precise implementation of the core idea of antisymmetry offered in Kayne's book is in terms of the LINEAR CORRESPONDENCE AXIOM (LCA), which "determines the linearization of hierarchical structure by mapping asymmetric c-command among terminal nodes onto precedence." (Kayne, Leu, Zanuttini 2014: 533).

The restriction that a phrase must have exactly one head is derived by the antisymmetric proposal. The existence of headedness parameters in the traditional directionality parameter sense (Travis 1989) is also denied by an antisymmetric approach for which hierarchical structure fully determines linear order (Kayne 2011; Kayne, Leu, Zanuttini 2014: 534). Furthermore, movement is assigned a central role by antisymmetry: it is unidirectional as "all movement is to the left" (Kayne 2011). "Movement must be upward, namely, leftward". It therefore follows that "any discrepancy in linear order must be related to movement" (Kayne, Leu, Zanuttini 2014: 53). More precisely, this means that if a constituent appears to have moved downstairs (rightward), it is in fact because one or more constituent(s) has (have) moved upward (leftward). Similarly, if a phrase seems to have right-adjoined, it is because a set of left-adjunction movements have previously occurred. Kayne, Leu, Zanuttini (2014: 534) pinpointedly indicate that "seeming rightward movement of a constituent must be analyzed as involving leftward movement of one or more constituents; seeming right-adjunction of a phrase must be analyzed as left-adjunction

followed by a set of movements.” In this context, derivations involving remnant movement become even more important (cf. den Besten and Webelhuth 1990; Muller 1998).

This chapter empirically aims at describing and discussing the nature and structure of the CP domain in Masa, a Chadic language spoken in Cameroon and in the Republic of Chad. The theoretical goal is to draw the map of the c-system of the language as well as account for the fact that focalized constituents invariably occur in clause/ sentence final position, thereby conflicting with antisymmetry and the LCA based theory of syntax that disqualifies “rightward adjunction movement rules” (Kayne 1994). More precisely, the chapter focuses on conditions on subextraction, pied-piping, remnant phrasal movement, relativization, topicalization and criterial heads in Masa. The article is structured as follows:

- 1- Introduction
- 2- Masa classification and word order
- 3- Focalization
- 4- Masa focalization cannot be lowering
- 5- Raising of IP into Spec, CP
- 6- Yes-no questions
- 7- Question formation
- 8- Remnant movement
- 9- Relativization
- 10- Topicalization
- 11- Criterial heads
- 12- Conclusion

6. 1. Masa classification and word order

Masa is an Afro-asiatic, north southern Chadic language spoken by 103,000 people in the upper north of (v Cameroon (SIL 1982), in the south east of Mayo-Danay division, in the Yagoua area. Its alternate names include Massa, Massana, Masa, Masana. The dialects are Walya (Walia), Bongor, Wina (Viri), Gizay (Guissey), Bugudum. This language is spoken on both sides of the Logone river, in Cameroon and Chad (see also *Atlas linguistique du Cameroun*, 2012: 151). The language order is SVO.

- | | | | |
|-----|-----------------------------|--------------|-----------|
| (1) | Gassissou | ĩn | zĩy-à |
| | Gassissou | build.IMPERF | house –FV |
| | “Gassissou builds a house.” | | |

This order is not altered by negation:

- (2) Gassissou (máy) ĩn zǐy dǐ
 Gassissou NEG build.IMPERF house –FV
 “Gassissou does not build a house.”

6.2. Focalization

Consider the following Masa sentence:

- (3) Gassissou vû l kēēkēē mĩ Ousmanou kāmāt-ā
 Gassissou give.PERF car to Ousmanou yesterday-FV
 “Gassissou gave Ousmanou a car yesterday.”

Any of the phrases of sentence (3) can be focalized, except the VP, as illustrated by the following paradigm:

- (4) a. ----- vû l kēēkēē mĩ Ousmanou kāmāt kāy-ń Gassissou
 give.PERF car to Ousmanou yesterday FOC Gassissou
 “It is Gassissou who gave Ousmanou a car yesterday.”
- b. Gassissou vûl-û m mĩ Ousmanou kāmāt kāy-ń kēēkēē-‘ē
 Gassissou give.PERF-O to Ousmanou yesterday FOC car-FV
 “It is a car that Gassissou gave Ousmanou yesterday.”
- c. Gassissou vû l kēēkēē kāmāt kāy-ń mĩ Ousmanou
 Gassissou give.PERF car yesterday FOC to Ousmanou
 “It is to Ousmanou that Gassissou gave a car yesterday.”
- d. Gassissou vû l kēēkēē mĩ Ousmanou ----- kāy-ń Kāmāt-ā
 Gassissou give.PERF car to Ousmanou FOC yesterday-FV
 “It is yesterday that Gassissou gave Ousmanou a car.”

The four sentences in (4) show that focalized phrase occur systematically in sentence final position. In (4a), it is the grammatical subject position that is focused. In (4b), it is the direct object complement that is put in emphasis. In (4c), it is the indirect object (i.e. the PP) that is focalized, whereas in (4d) the time adverb “yesterday” is given syntactic focus prominence.

Notice that all four sentences in (4) are simplex, i.e. in traditional grammar terms, they are called independent clauses. Now consider the following constructions:

- (5) Soussia dî Golo ālà Gassissou vû l kēēkēē
 Soussia tell.PERF Golo that Gassissou give.PERF car
 mî Ousmanou kāmāt-ā
 to Ousmanou yesterday-FV
 “Soussia told Golo that Gassissou gave Ousmanou a car yesterday.”

Construction (5) is a complex sentence made up of a main clause and an embedded one. When the subject and the object of the main clause are focalized, the following constructions are obtained:

- (6) a. ----- dî Golo ālà Gassissou vû l kēēkēē
 tell.PERF Golo that Gassissou give.PERF car
 mî Ousmanou kāmāt-ā kāy-ń Soussia
 to Ousmanou yesterday-FV FOC Soussia
 “It is Soussia who told Golo that Gassissou gave Ousmanou a car yesterday.”
- b. Soussia dî ----- ālà Gassissou vû l kēēkēē
 Soussia tell.PERF that Gassissou give.PERF car
 mî Ousmanou kāmāt-ā kāy-ń mî Golo
 to Ousmanou yesterday-FV FOC ADPOS Golo
 “It is to Golo that Soussia told that Gassissou gave Ousmanou a car yesterday.”

In descriptive terms, in (6a-b), the subject and the indirect object complement can logically be argued to originate from the main clause. And they are preceded by the so called focus marker (FOC). And since in this language, every focalized constituent ends up in sentence-final position, the subject and the indirect object complement similarly wind up in sentence-final position. In other words, descriptively, focalization seems to trigger the rightward movement of focused constituent, across clause boundaries, to the end of the sentence.

6.3. Masa focalization cannot be lowering (rightward movement)

Kayne (1994:47) argues that “If syntactic theory allowed lowering a phrase to a position c-commanded by the original position, such movement would have to be rightward. If lowerings are not available at all, as Chomsky’s (1993) proposals would lead one to expect that possibility can be set aside”. Given this theoretical standpoint, it can hardly be suggested that focalization in Masa is a case of lowering or rightward movement. On the one hand, the focused element is

systematically hosted in clause / sentence-final position wherefrom it does not c-command its original position or the trace. On the other hand, the latter position (or trace) is not c-commanded by the supposedly extracted focalized element. Consequently, if lowering (or rightward movement) is appealed to in order to account for the position at the end of the sentence/clause of the focused element, this argument “can be excluded by a familiar requirement to the effect that every trace must be systematically c-commanded by its antecedent, see Fiengo (1987)” (Kayne 1994: 47). Furthermore, excluding the lowering/ rightward derivation of Masa focalization is also based on the “antisymmetric prohibition against right-hand specifiers” (Kayne 2011: 4). Which is another way of saying that “all movement must be leftward” (Kayne 1994, 2011).

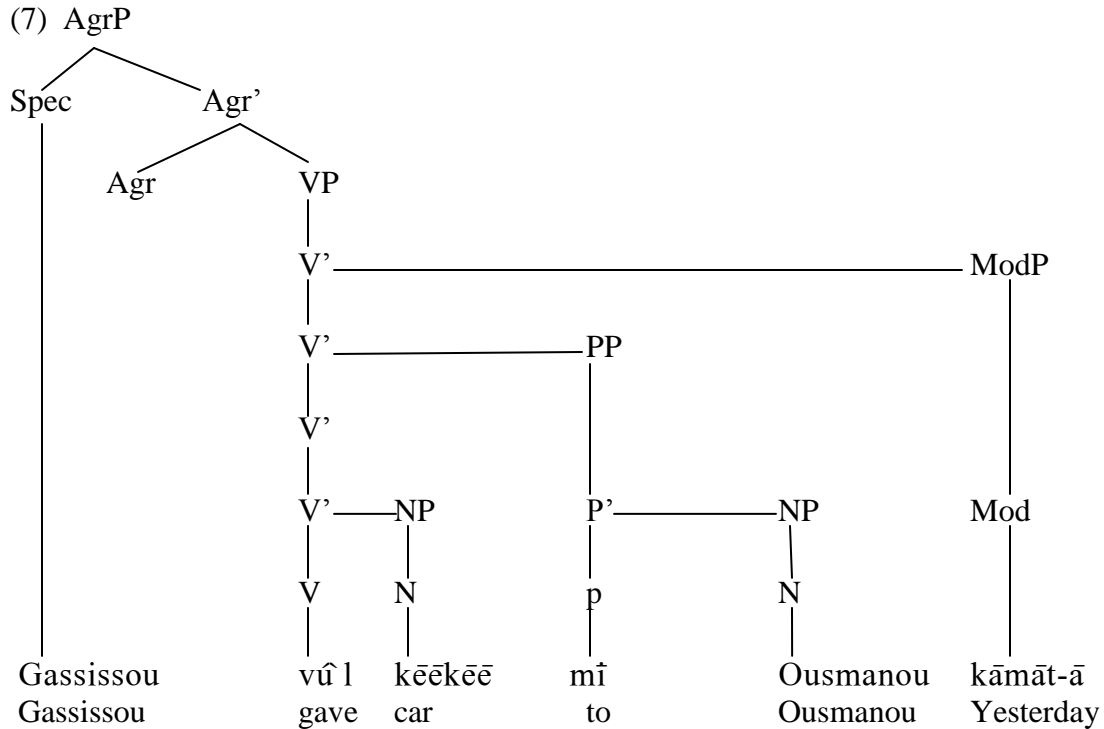
6.4. Masa focalization: raising of IP into Spec, CP

The following analysis will adopt the split-CP theoretical apparatus developed by Luigi Rizzi (1997, 2001b, 2004). Rizzi argues that CP should be split into a number of different projections – an analysis widely referred to as the split-CP hypothesis (Radford 2004, 2009). He indicates that complementizers (by virtue of their role specifying whether a given clause is declarative, interrogative, imperative or exclamative in force) should be considered as force markers heading a ForceP (Force Phrase) projection, and that focused constituents should be analyzed as contained within a separate FocP (Focus Phrase) headed by a Foc constituent (Focus marker). Similarly, the construction is said to be topicalization when a relevant movement operation marks a raised constituent as the topic of the sentence. Rizzi observes that just as focused constituents occupy the specifier position of a focus phrase, so too topicalized constituents are hosted by the specifier position of a topic phrase (TopP).

Rizzi (2001b) proposes another maximal projection IntP (interrogative Phrase, for which see also Nkemnji 1995), the specifier position of which can host specific interrogative operators such as Italian *perché* “Why” in main and embedded clauses or interrogative particles such as *se* “if” (Italian).

On the basis of the above sketched sentential configuration, how could the Masa empirical material be accommodated? More precisely, it is argued in the following lines that focalized items occur in Masa clause/sentence final position because IP raises to Spec, ForceP,

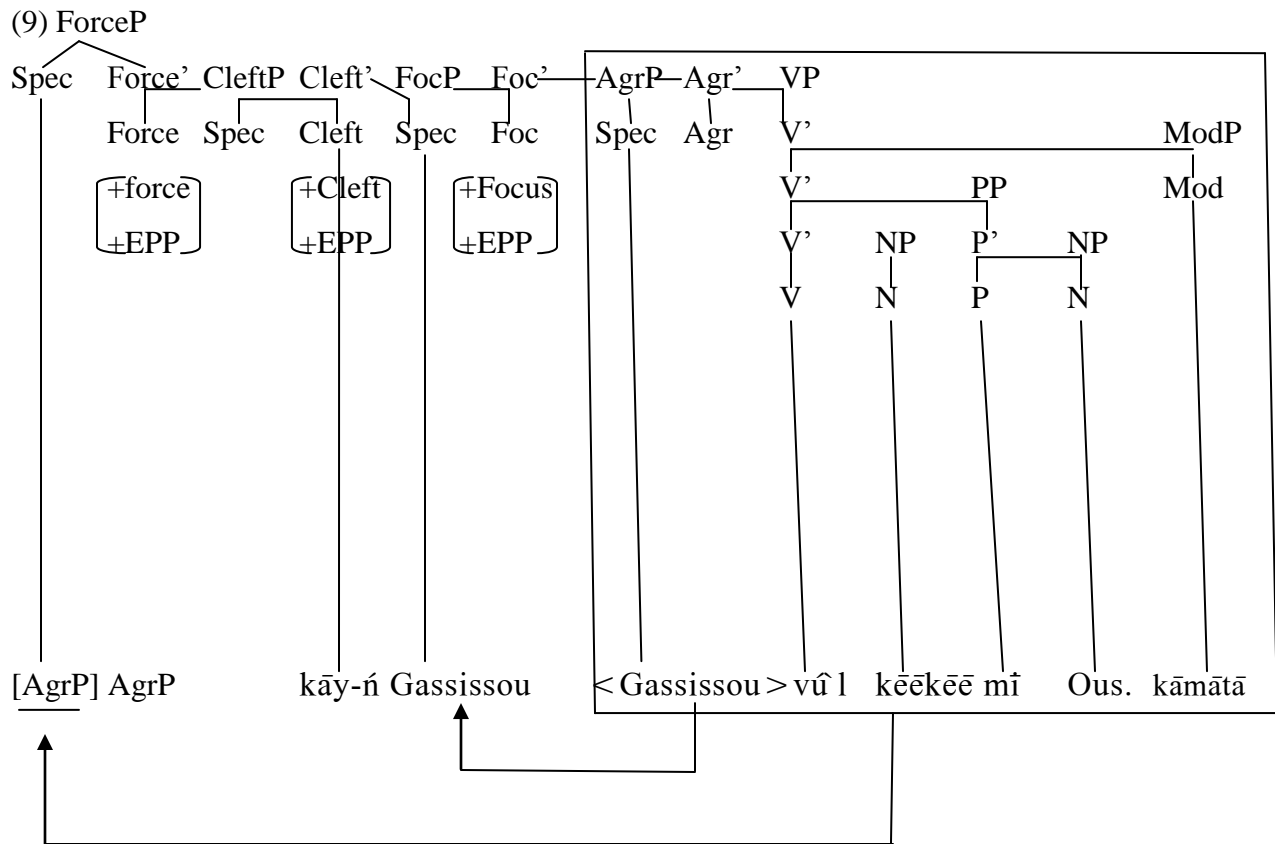
i.e., it moves leftward into Spec, ForceP: such movement is typically referred to in the specialized literature as heavy pied-piping (see Nkemnji 1995). With the above in mind, consider the following phrase marker assigned to sentence (3):



Given the tree representation illustrated in (7) above, in order to obtain a construction such as (8) below,

(8) vû l kēēkēē mî Ousmanou kāmāt kāy-n Gassissou
 Give.PERF car to Ousmanou yesterday FOC Gassissou
 "It is Gassissou who gave Ousmanou a car yesterday."

The subject position moves from the Spec, AgrP position to the Spec, FocP position because it is focalized. Then AgrP raises to Spec, ForceP. Two movement operations have taken place in order to derive a construction such as (8): (i) the raising of the grammatical subject from Spec, AgrP to Spec, FocP; and (ii) the movement of AgrP (IP) to Spec, ForceP. The tree structure in (9) below illustrates the two raising operations:

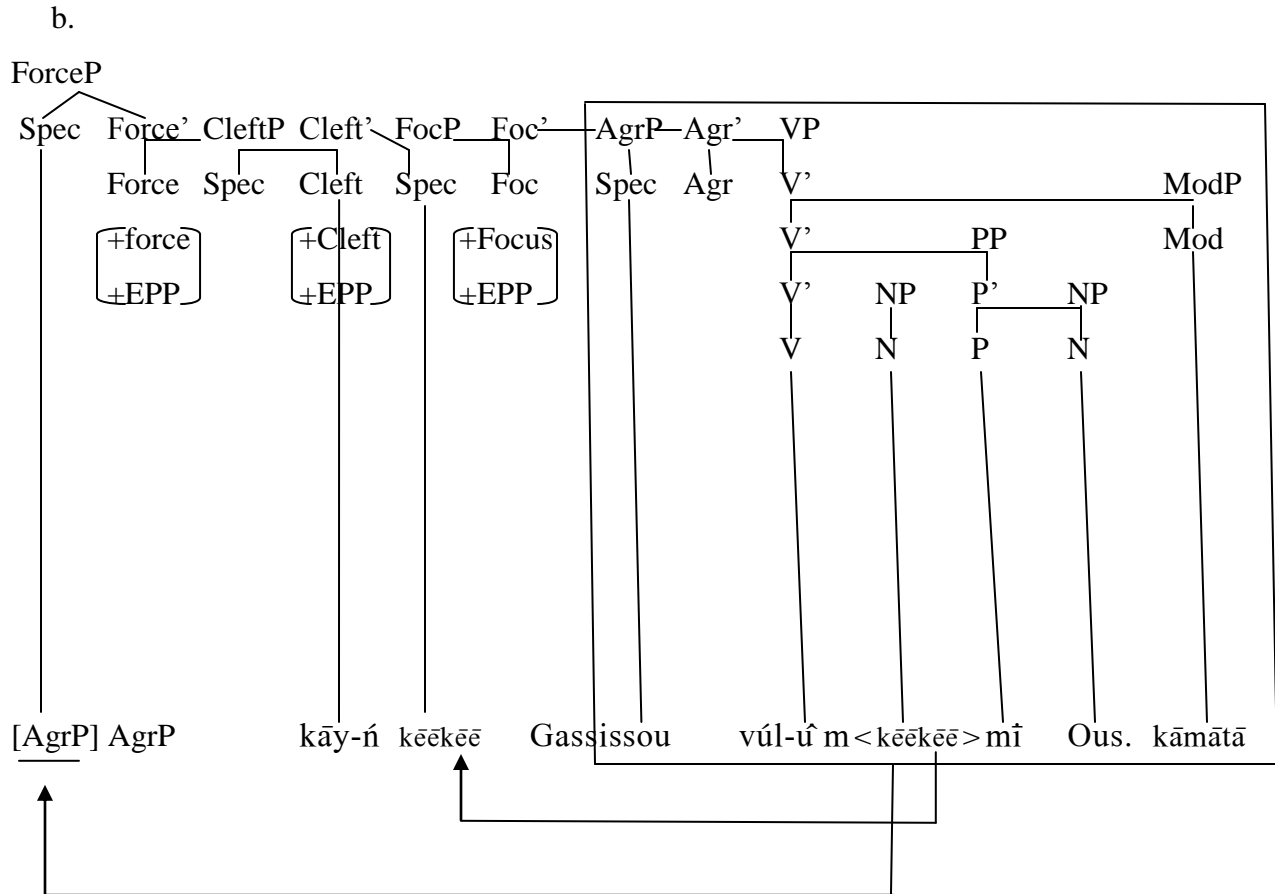


In (9) the raising of the subject NP to Spec, FocP preceded the migration of AgrP (IP) to Spec, ForceP. Both movement operations are leftward raising strategies as logically expected in this system and no questions about the licensing conditions of the traces thereby generated should arise. Moreover, notice that in (9), CleftP, the head of which, Cleft^o, hosts the so called focus marker (FOC), dominates FocP. In this language, the focus marker precedes the focalized element. Since the latter is accommodated by the specifier position of FocP, it entails that the latter maximal projection cannot contain the entirety of the focused material. Koopman (2000) suggests that when FocP cannot accommodate the entire focused material or when the focus word precedes the focalized item, the focus word (here called focus marker) must be hosted by the head of some higher position which she terms YP. The so called focus marker in Masa is “kāy-ń” and the sentential structure in which it occurs is a focus construction or a cleft construction. Since it is not part of FocP it does not seem appropriate to take it as a focus marker. It seems to be a cleft marker and since it is the head of a functional projection, the latter can

reasonably be termed a cleft phrase (Cleft Phrase). This explains why CleftP dominates FocP in (9) above.

In the following sentence and its phrase marker, it is the direct object complement that is focalized and the AgrP is heavily pied-piped:

- (10) a. Gassissou vúl-û m mĩ Ousmanou kāmāt kāy-ń kēēkēē-‘ē
 Gassissou give.PERF-O to Ousmanou yesterday FOC car-FV
 “It is a car that Gassissou gave Ousmanou yesterday.”



In (10b), two movement operations have taken place: primo, the direct object complement NP raises to the specifier position of FocP, entailing thereby that it is focalized; Segundo, AgrP (IP) moves to the specifier position of Force Phrase: this derivation accounts for the word order whereby AgrP is closed off by the focused constituent, since ForceP precedes and dominates FocP.

ForceP determines the clause-typing in (10b). But one wonders how the salvation of the features on Foc (+Foc, +EPP) and the subsequent raising of the NP-element into Spec, FocP are

done. Recall that in this language the focus marker (i.e. the focalizer) precedes (dominates) the focused item. It means that focusing in Masa is morphologically marked although the head of FocP lacks a Foc morpheme. In other words, the presence of the Cleft morpheme *kāy-ní* in Cleft^o reinforces the PF realization of focusing in Masa. The Cleft morpheme (marker) *kāy-ní* overtly complements the focus strategy in Masa. The FocP head being phonologically/morphologically void in this language, consequently the EPP feature cannot be valued overtly to trigger NP movement into Spec, FocP. The raising of NP into the latter position is done by default and it is phonologically constrained at the interfaces (PF, LF).

Above, the derivation of a simplex construction in Masa was described and analyzed. In the following lines, the derivation of a complex construction is considered. It is well-known that a complex sentence comprises a main clause and a subordinate one. For illustration in Masa, consider the following sentence:

- (11) Soussia *dî* Golo *ālà* Gassissou *vû l* *kēēkēē*
 Soussia tell.PERF Golo that Gassissou give.PERF car
 mî Ousmanou *kāmāt-ā*
 to Ousmanou yesterday-FV
 “Soussia told Golo that Gassissou gave Ousmanou a car yesterday.”

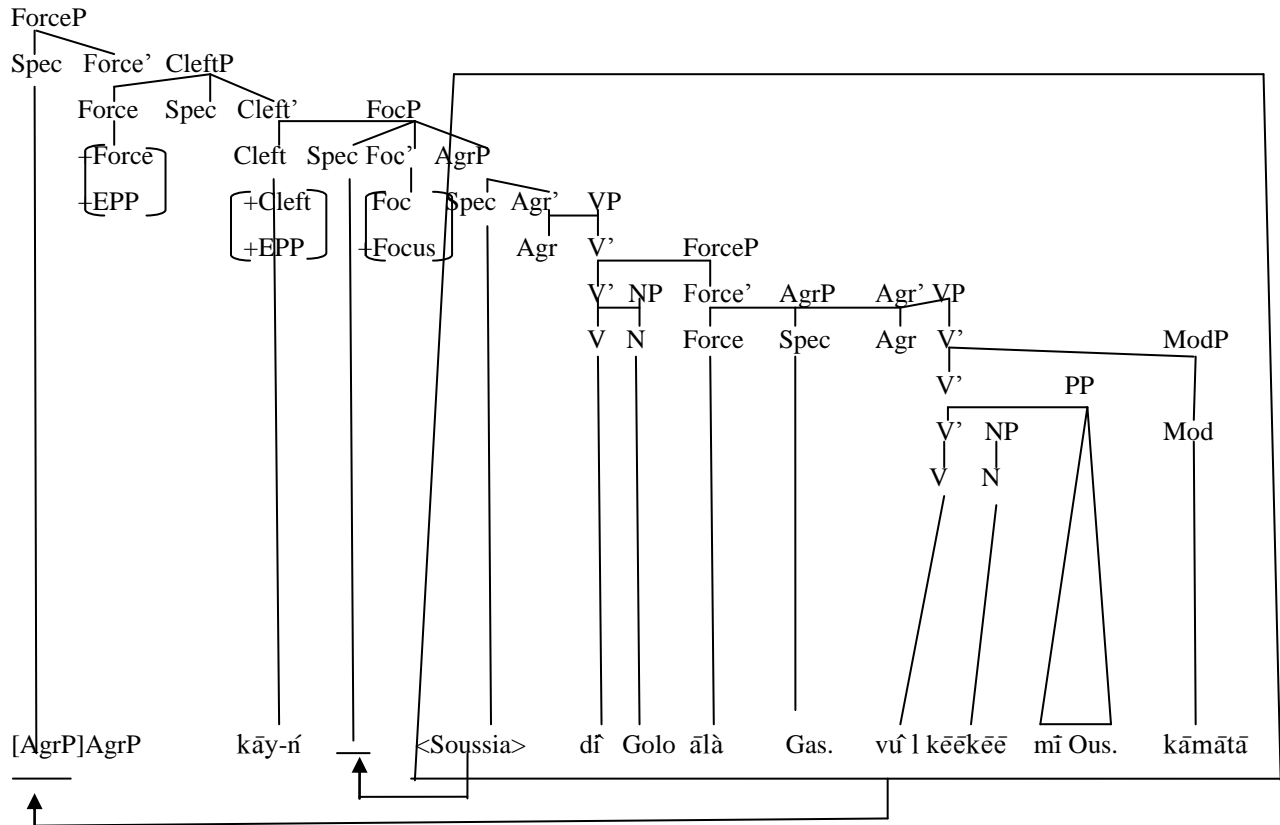
When the subject and the object of the clause are focalized, the following constructions are obtained:

- (12) a. ----- *dî* Golo *ālà* Gassissou *vû l* *kēēkēē*
 Soussia tell.PERF Golo that Gassissou give.PERF car
 mî Ousmanou *kāmāt-ā* *kāy-ní* Soussia
 to Ousmanou yesterday-FV FOC Soussia
 “It is Soussia who told Golo that Gassissou gave Ousmanou a car yesterday.”
 b. Soussia *dí* ----- *ālà* Gassissou *vû l* *kēēkēē*
 Soussia tell.PERF Golo that Gassissou give.PERF car
 mî Ousmanou *kāmāt-ā* *kāy-ní* *mî* Golo
 to Ousmanou yesterday-FV FOC to Golo
 “It is to Golo that Soussia told that Gassissou gave Ousmanou a car yesterday.”

Examples (12a-b) show that even in complex sentence structures, focalized constituents occur at sentence final position.

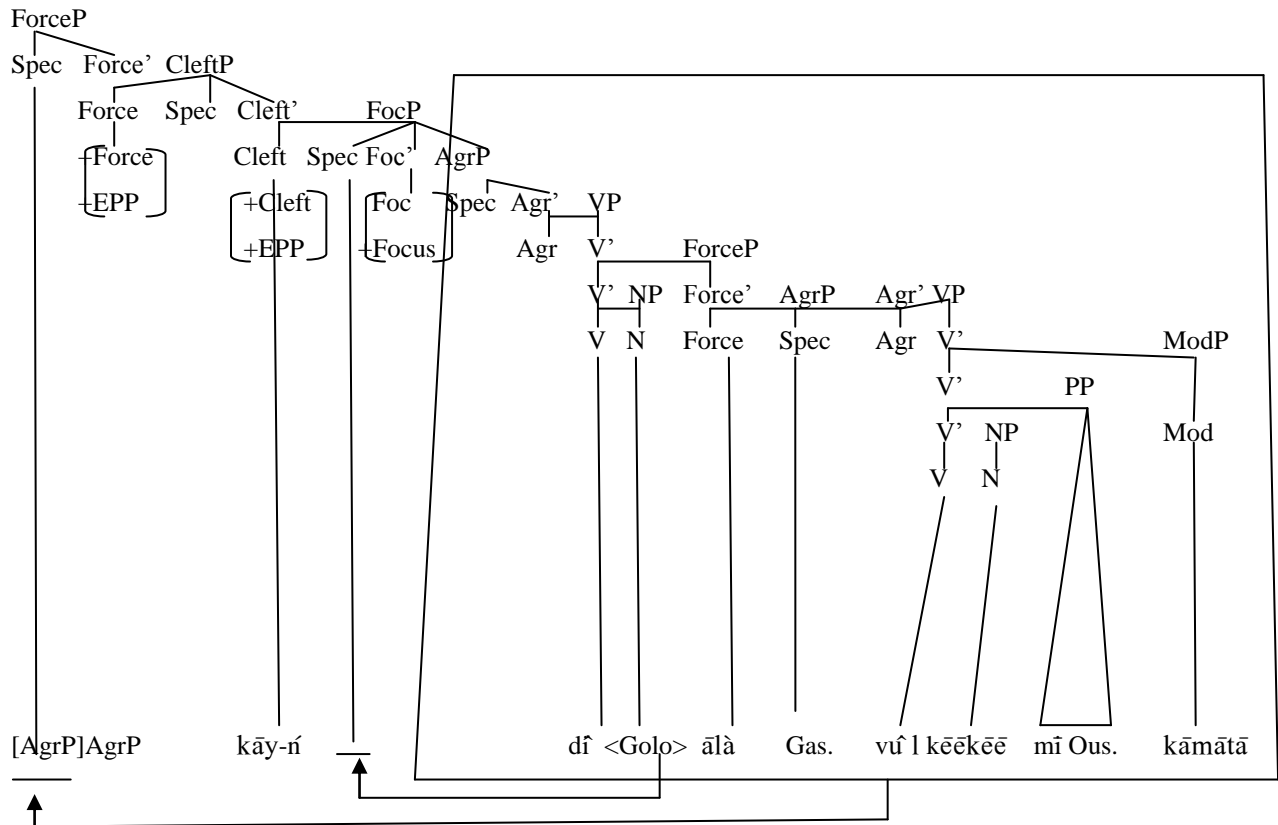
Take a look at the following tree representation in order to see how the derivation of (12a) is done:

(13)



There have been in (13) two movement operations: the subject of the main clause being focused, has raised to the specifier position of FocP. Afterwards the complex sentence (i.e. the main clause and the subordinate one) has been pied-piped to the specifier position of ForceP. It is the previous position of the subordinate subject, coupled with the following pied-piping, that accounts for the word order attested in (12a). Consider now (12b) the derivation of which is provided below:

(14)



In (14) the object of the main verb is focalized and moved to Spec, FocP. Subsequently, the whole sentence is pied-piped to Spec, ForceP, accounting thereby for the word order in (12b). Notice that in both derivations (13-14), the head of CleftP is occupied by the Cleft marker *kāy-ní*, as a result of the fact that instead of calling its accommodating maximal projection YP à la Koopman (2000), it has been deemed enlightening to call it CleftP as the latter denomination appears to be more in line with the structure of the host construction: after all it is a cleft construction.

Given the above, a question might be asked as to why the clause (sentence) is pied-piped to Spec, ForceP instead of landing at Spec, CleftP. Recall that Chomsky (1998, 1999, 2001) indicates that an [EPP] (Extended Projection Principle) feature is the mechanism which drives (triggers) the movement of wh-expressions to Spec, CP. CP having exploded into several different projections (Rizzi 1997), it is assumed that [EPP] triggers the raising of wh-expressions to Spec, ForceP or Spec CleftP or SpecFocP or SpecTopP etc. This explains why the focalized constituent moves to Spec, FocP: it so does in order to satisfy the [EPP] requirement. But the

specifier position of CleftP is empty despite the fact that the head, Cleft^o, is occupied by **kay-n**, it is assumed that Spec, CleftP hosts a null operator which is therein positioned by simple merger rather than movement (Grimshaw 1993, Roberts 1993 suggested a similar analysis for English yes-no questions). This can explain why the pied-piped AgrP in (14) above cannot land in Spec, CleftP. It is already occupied by a null operator. Moreover, “the [EPP] feature of C requires C to project as its specifier an expression which has a feature which *matches* some features of C: since C carries a [WH] feature, this amounts to a requirement that C must project a wh-specifier” (Radford 2004, 2009). Applying this reasoning to the tree representation in (14), the pied-piped AgrP and the head of CleftP, Cleft^o, do not match; consequently the pied-piped AgrP has to move to the next available Spec which is Spec, ForceP.

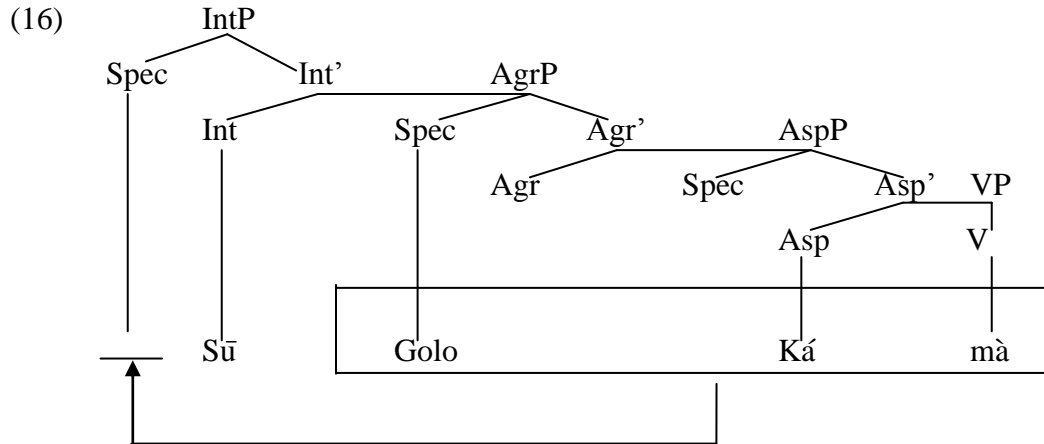
6.5. Yes-no questions

A heavy pied-piping process also operates in Masa yes-no questions. For illustration, consider the following two examples:

- (15) a. Golo ká mà-‘á
 Golo PROG come.IMPERF-FV
 “Golo is coming.”
- b. Golo ká mà sū
 Golo PROG come.IMPERF QM
 “Is Golo is coming?”

The particle “sū” is the polar question marker. It always occurs in clause final position and transforms a statement into a question.

“sū” is assumed to be hosted by Int^o of IntP if Rizzi’s (2001b) theory of phrase structure is adopted. The interrogative phrase (IntP) dominates AgrP (the clause, the sentence) for “sū” to have scope over it. To derive the word order attested at PF, the clause is pied-piped into the Spec, IntP position that dominates and precedes AgrP, as illustrated below:



Chomsky's (1993) Extension condition accounts for the pied-piping of AgrP into Spec, IntP: as soon as a head is merged, movement into its specifier is obligatory (see also Koopman and Szabolcsi 2000:42).

6.6. Question formation in Masa

In order to study question formation in Masa, first take a look at wh-words in this language

6.6.1. Masa wh-items

In the following lines, arguments, referential and non-referential adjuncts are illustrated.

(17) (a) Arguments

(i) gǐ-gé (complete form)/ gè⁻ (reduced form)
 who-QM
 "who"

(ii) mǐ-gé (complete form)/ mè⁻ (reduced form)
 what-QM
 "what"

(b) Referential adjuncts

(i) cíṭí-gé (complete form)/ cíṭá⁻ (reduced form)
 when-QM
 "when"

(ii) āṙí-gé (complete form)/ āṙā (reduced form)
 where-QM
 "where"

(c) Non-referential adjuncts

- (i) nánĩ-gé (complete form)/ nánā (reduced form)
How-QM
“How”
- (ii) lítĩ-gé (complete form)/ lítā (reduced form)
How-QM
“How do you feel?/ how are feeling?”
- (iii) gà:-gé (complete form)/ gà: (reduced form)
how-QM
“how much”
- (iv) ānĩ-gé (complete form)/ ānā̄ (reduced form)
Why-QM
“why”

6.6.2. Argument extraction

When arguments are used in root questions, the wh-word invariably winds up in clause final position, as the following (b) examples show:

(18) a. Golo tú' hā y sīnē-nà
Golo walk.IMPERF ADPOS farm-DEF
"Golo walks in the farm".

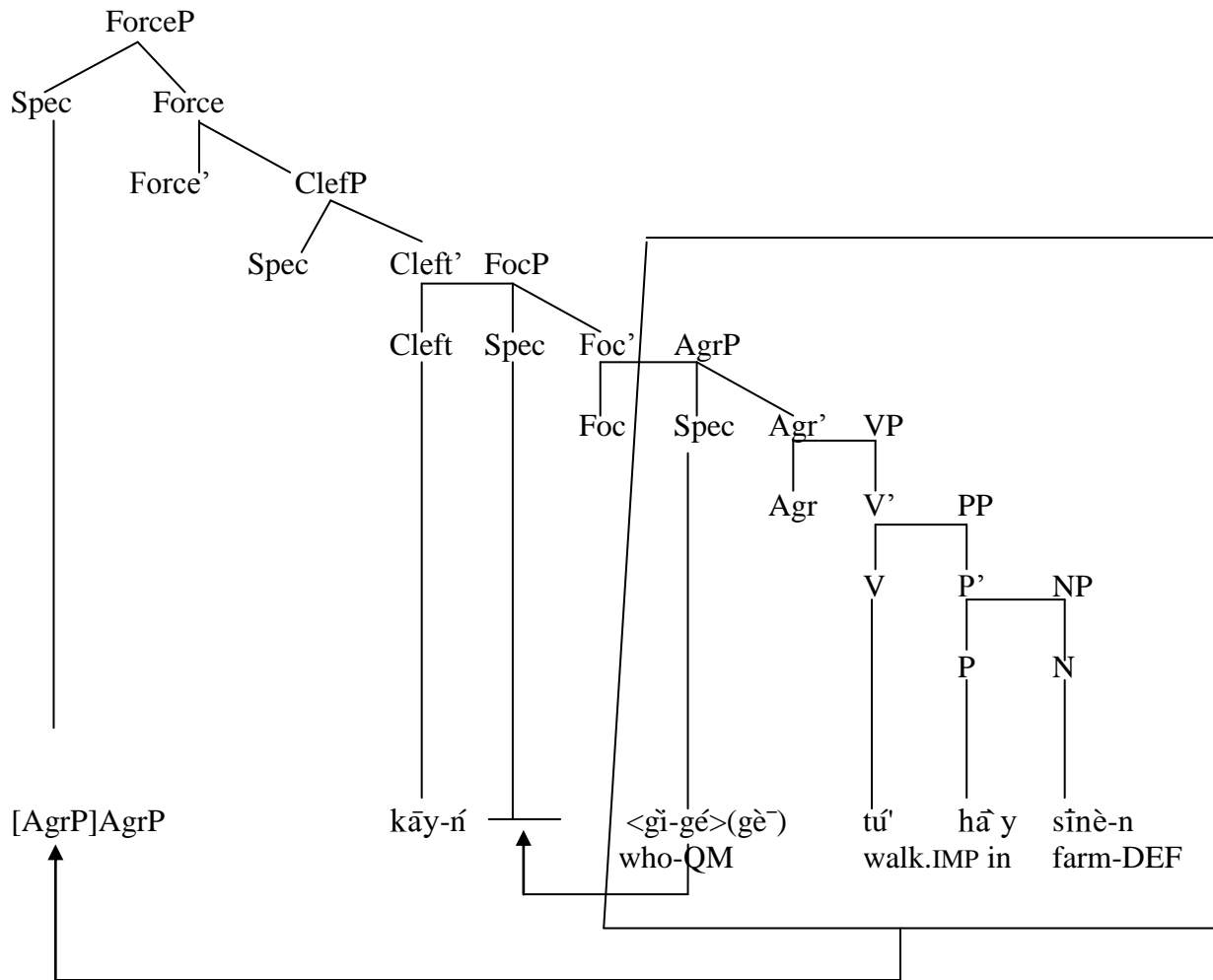
b. tú' hā y sīnē-n kāy-ń ġĩ-gé (gè̄)
walk.IMPERF ADPOS farm-DEF FOC WHO-Q
“Who walks in the farm?”

(19) a. dūrńáy-ń cí nĩy-ń ñòl-ò
Dogs-DEF drink.IMPERF water-DEF much-FV
“Dogs drink much water.”

b. cí nĩy-ń ñòl kāy-ń mĩ-gé (mē̄)
drink.IMPERF water-DEF much FOC WHAT-Q
What drinks much water?

In the relevant examples above, wh-items are focused and occur at clause-end. Notice that the reduced forms of the wh-words are put in parentheses following the complete forms. In (18b) and (19b), the wh-words should have occurred before the verb since they fulfill the grammatical function of subject. But, as said above, they show up in clause final position. The question, then, is how are these two constructions derived. To provide an answer to this question, consider the following tree representation:

(20)



In (20), which is a sample derivation of both (18b) and (19b), the grammatical subject is focused and thereby raises to Spec, FocP. This is subsequently followed by the pied-piping of the clause (i.e AgrP) to the Spec position of ForceP. This derivation accounts for the word order attested in both (18b) and (19b).

6.6.3. Adjunct extraction

Adjunct extraction patterns with argument extraction. That is when adjuncts are focalized, they too occur at the end of the clause. Consider the following construction as the input sentence:

(21) Golo vû l kēēkē kāmāt mī Bolda kālāf kūldīy
 Golo give.PERF car yesterday ADPOS Bolda IN hiding
 álá nà' lī lōp-mà
 THAT SHE do.NEUTRAL job-DEF

“Golo surreptitiously gave a car to Bolda yesterday in the house in order for her to do the job.”
 When the constituent in the input sentence is replaced by a wh-word that is focalized, the latter invariably occupies the end position of the sentence. This description is depicted by the following examples:

- (22) a. Golo vûl kēēkē kāmāt kālāf kuldīy
 give.PERF car yesterday IN hiding
 álā nà’ lî lōp-mà kāy-ń mî gǐ-gé
 THAT SHE DO.NEUTRAL job-DEF FOC ADPOS WHO-Q
 “To whom did Golo give surreptitiously a car yesterday in the house
 in order for her to do the job?”
- b. Golo vûl kēēkē kālāf kuldīy mî Bolda
 give.PERF car IN hiding ADPOS Bolda
 álā nà’ lî lōp-mà kāy-ń cíti-gé
 THAT SHE DO.NEUTRAL job-DEF FOC WHEN-Q
 “When did Golo give surreptitiously a car in the house to Bolda
 in order for her to do the job?”
- c. Golo vûl kēēkē kāmāt kālāf mî Bolda
 give.PERF car yesterday IN ADPOS Bolda
 álā nà’ lî lōp-mà kāy-ń nánî-gé
 THAT SHE DO.NEUTRAL job-DEF FOC HOW-Q
 “How did Golo give surreptitiously a car to Bolda in the house
 in order for her to do the job?”
- d. Golo vûl kēēkē kāmāt kālāf kuldīy mî Bolda kāy-ń āñî-gé
 give.PERF car yesterday IN hiding ADPOS Bolda FOC WHY
 “Why did Golo give surreptitiously a car to Bolda yesterday in the house?”

In view of the examples illustrated in (22), it appears that adjuncts pretty much behave like arguments in this language: when they are focalized, as it is assumed wh-adjuncts are, they occur in clause final position. Therefore, the derivations of the constructions exhibited in (22) are derived as in (20).

6.6.4. Echo questions

Radford (2004: 335; 2009: 454) defines an echo question as follows: “a type of sentence to question something which someone else has just said (often with air of incredulity), repeating all or most of what they have said. For example, if I say “I have just met Nim Chimpsky” and you don’t believe me (or don’t know who I’m talking about), you could reply with an echo question

such as “you’ve just met who?””. For illustration, consider the following set of English examples (Radford 2009: 183-184):

(23) (Radford, (2))

- a. You can speak **what languages**?
- b. You can like **which one**?
- c. She was dating **who**?
- d. You are going **where**?

The construction in (23) are called wh-in-situ questions because the wh-expressions (in bold) have not been subject to preposing (fronting/ movement/ raising/ extraction); in fact they have remained in situ (which means in Latin that they are on seat or in place). Notice that in (23) the wh-phrases are positioned immediately after the verbs that directly select them. It can be loosely said that they are complements of the relevant verbs. Radford (2009:184) observes that in English wh-in-situ questions are used primarily as echo questions, “to echo and question something previously said by someone else”.

The same state of affairs obtains in Masa. As a matter of fact, since Masa does not overtly move wh-expressions (i.e. it does not raise them at PF). The following constructions (25) are ambiguous between genuine wh-questions and echo questions:

(24) a. *gǐ-gé (gè̃) Putta mǐn-ím?

Who-QM Putta love.IMPERF

“Who does Putta love?”

b. *cǐtī-gé (cǐtā) Putta nà̃ vùdón?

When-QM Putta go.IMPERF house/ village

“When does Putta go to the village/house?”

(25) a. Putta mǐn-ím gǐ-gé (gè̃) ?

Putta love.IMPERF who-QM

“Putta loves who?”

- b. Putta nà̄ vùdón̄ cǐtī-gé (cǐtā)?
 Putta go.IMPERF house/ village when-QM
 “Putta goes to the village/house when?”

The sentences in (24) are illicit because wh-words have been fronted. In (25), they are in situ and both sentences are interpreted either as genuine interrogatives or as echo questions depending on the context of utterance.

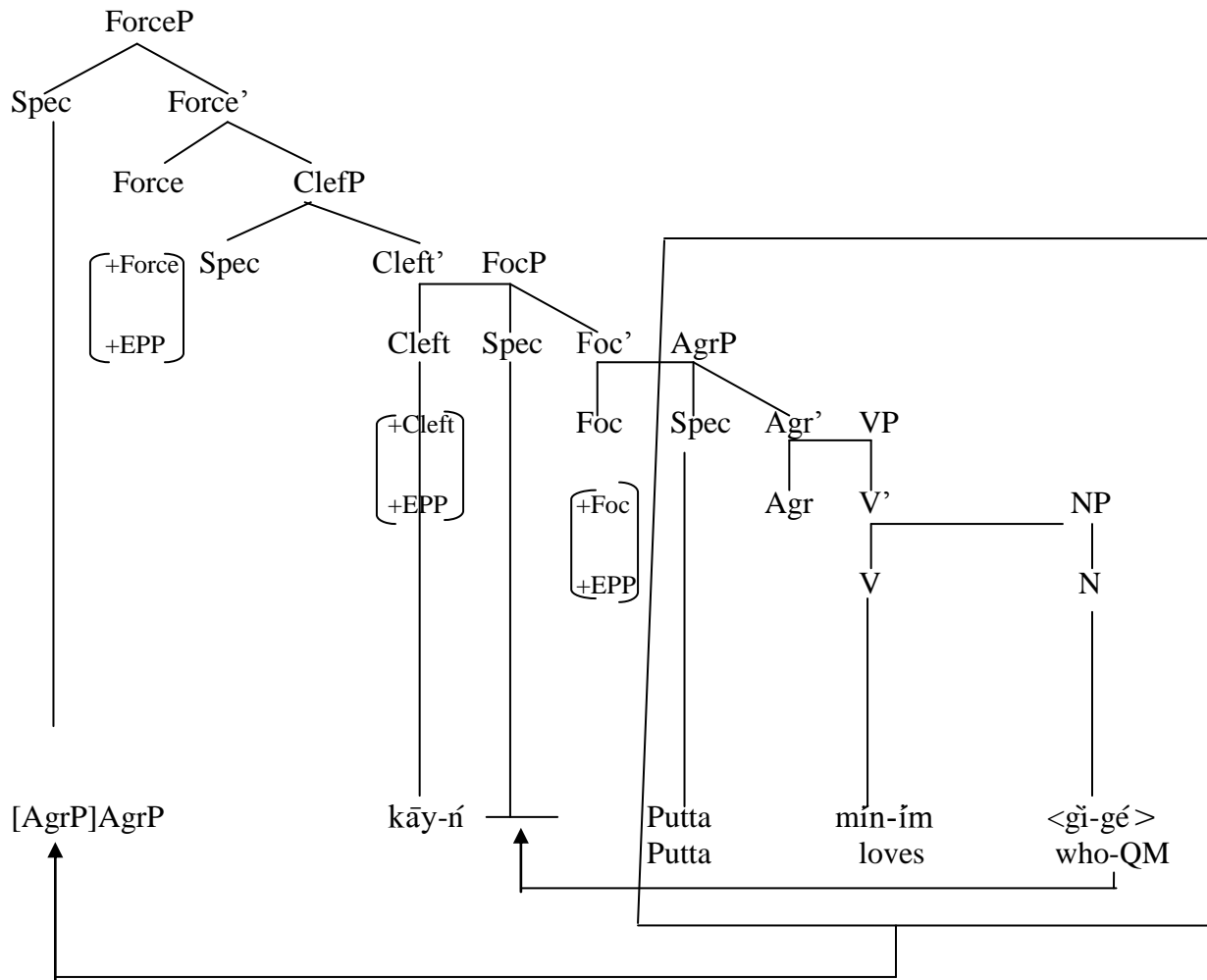
6.6.5. Wh-in-situ focus

In Masa, an in-situ wh-item is overtly focalizable. In that case, a wh-in-situ question cannot be interpreted as an echo question. It can only be interpreted as a genuine interrogative:

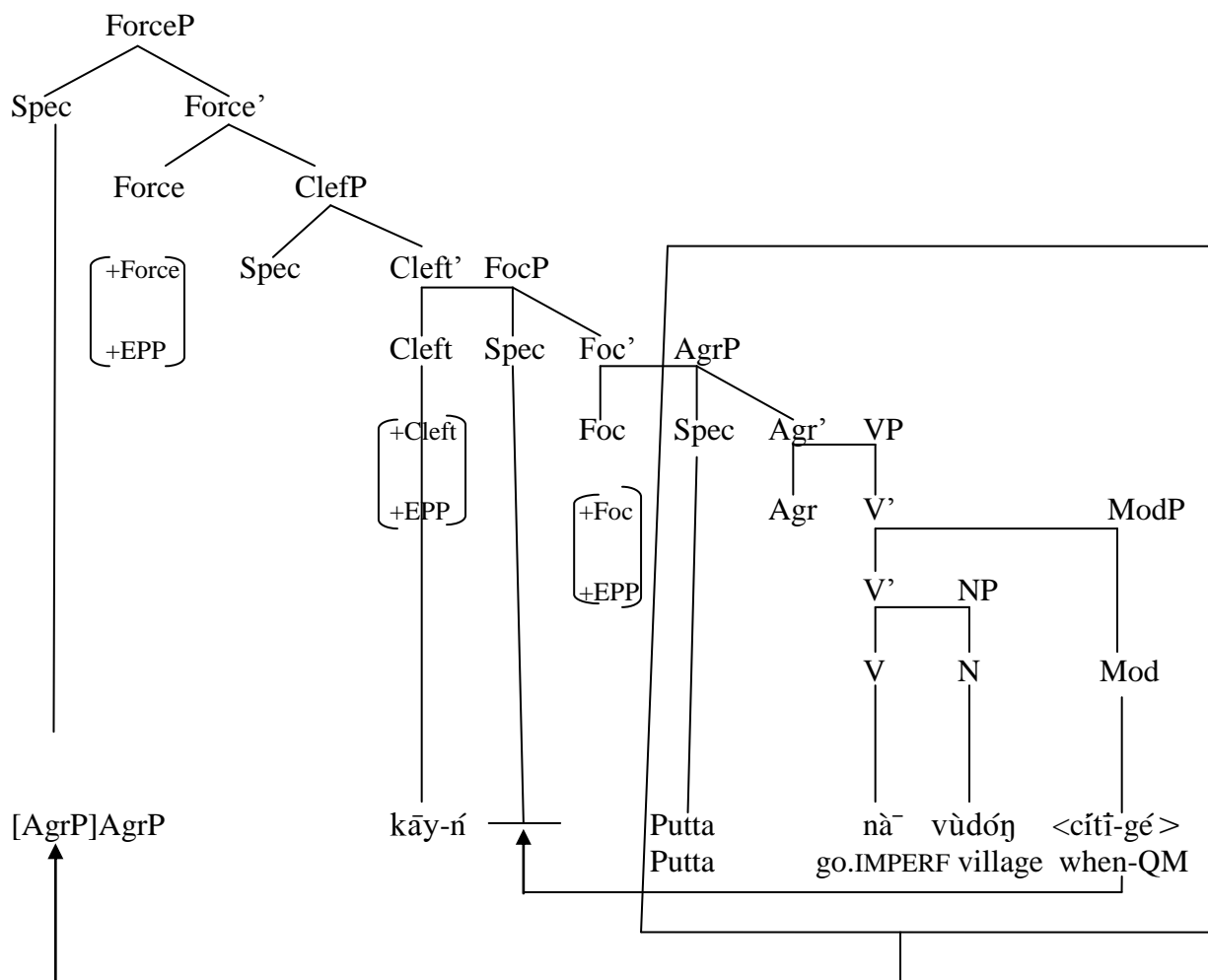
- (26) a. Putta mín-ím kǎ y-n gǐ-gé (gè̄)?
 Putta love.IMPERF-3sg.masc FOC WHO-QM
 “Who does Putta loves?”
- b. Putta nà̄ vùdón̄ kǎ y-n cǐtī-gé (cǐtā)?
 Putta go.IMPERF house/village FOC WHEN-QM
 “When does Putta go to the village?”

It seems to be the case that (26a-b) are genuine wh-questions because wh-items are focused. That being the case, (26a-b) would be derived in a now-familiar fashion. That is, since the Foc marker precedes the focalized element, it will be base-generated in the head of CleftP, Cleft^o; the focused element will raise from the direct object position in (26a) and land in Spec, FocP; and AgrP (the clause) will be pied-piped into Spec, ForceP:

(27) a.



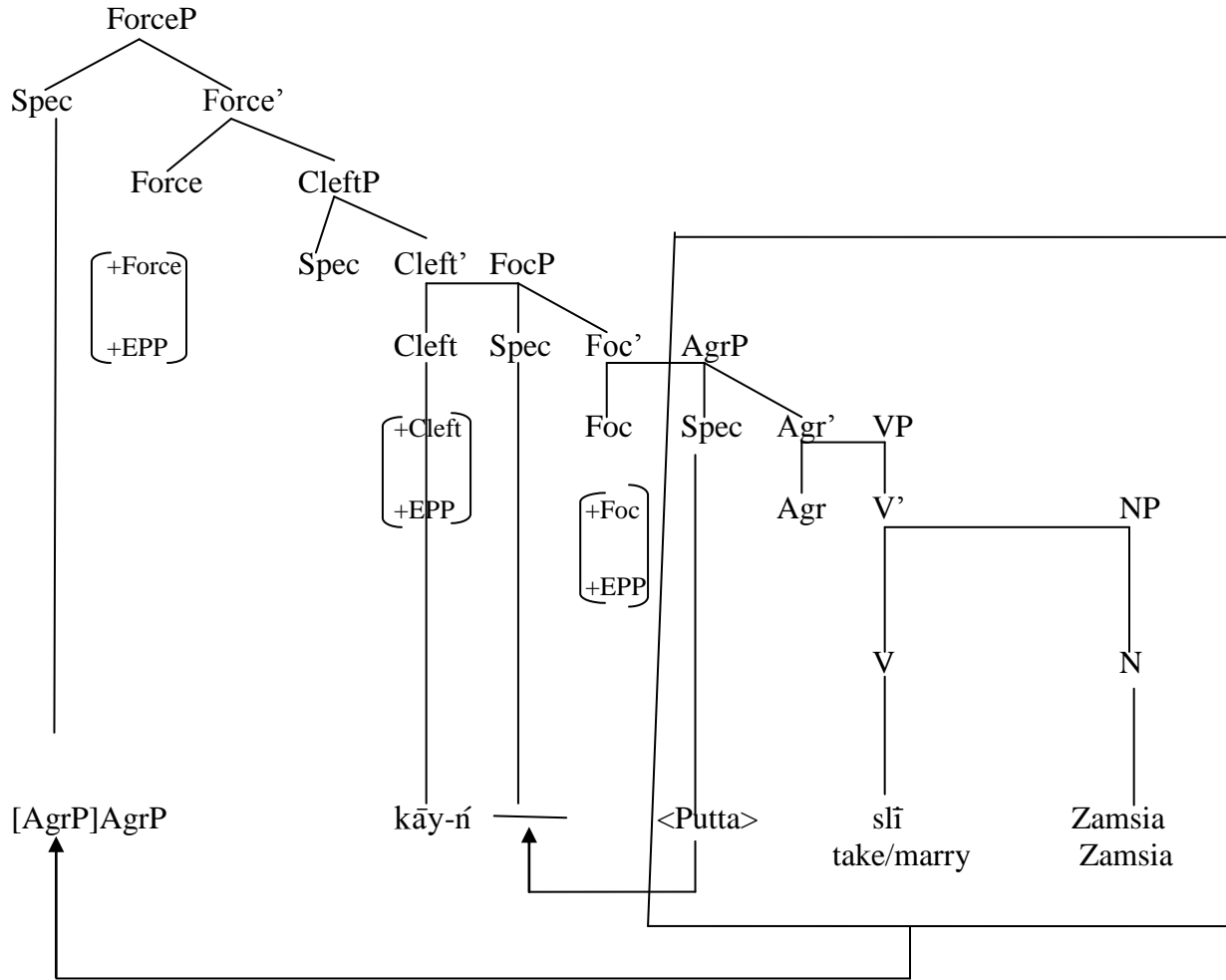
b.



It can be observed that the derivation of *wh*-questions in Masa is very similar to the derivation of the so called focus constructions (i.e. Cleft constructions). Consider, as a way of illustration, the following examples:

- (28) a. Putta slī Zamsia
Putta take/marry.PERF Zamsia
“Putta married Zamsia”
- b. slī Zamsia kāy-ní Putta
Take/marry.PERF Foc Putta
“It is Putta who married Zamsia”
- c. Putta sl-ūm kāy-ní Zamsia
Putta take/marry.PERF.-O Foc Zamsia
“It is Zamsia whom Putta married”

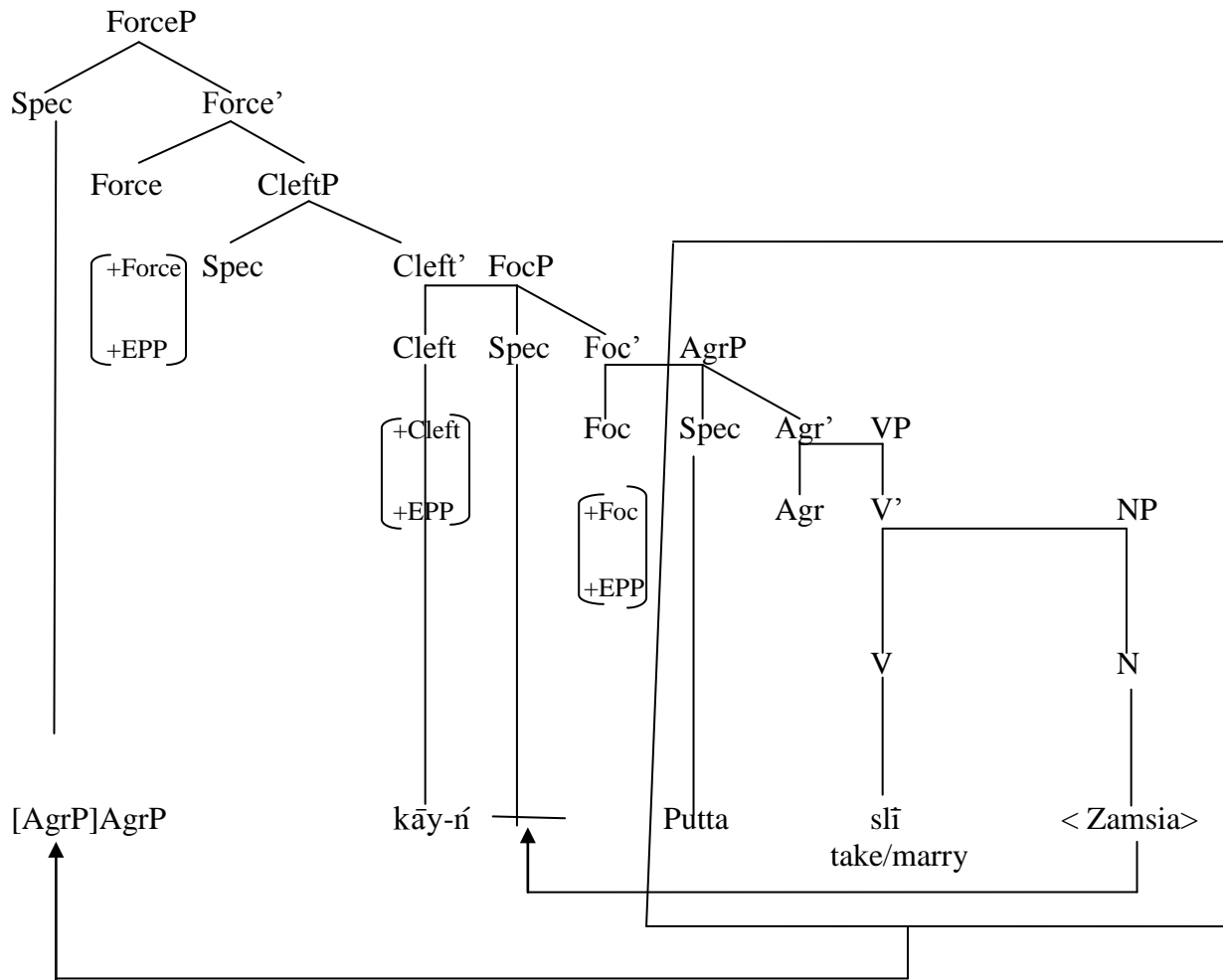
(29) a.



(29a) is the derivation of (28b). The tree representation depicts the raising of the subject NP to Spec, FocP because it is focalized. Afterwards, the rest of the clause (AgrP) raises to Spec, ForceP by pied-piping.

The following phrase marker portrays the derivation of (28c):

(29) b.



In (29b), it is the direct object complement DP that substitutes for Spec, FocP, indicating thereby that is focused. Secundo, AgrP climbs to Spec, ForceP through pied-piping.

6.7. Remnant movement

The Masa empirical material described and analyzed in the preceding sections illustrate configurations in which a constituent is raised, followed by a subsequent pied piping of the remaining structure to a higher landing position. The latter movement operation is usually called “remnant movement” (Koopman and Szabolesi 2000; Cecchetto 2004) or “remnant phrasal movement” (Poletto and Pollock 2004).

Remnant (phrasal) movement is typical of configurations such as the one below (Cecchetto 2004: 166):

(30) [Z....t_x....]....X....t₂.....

In (30), X raises from the constituent Z and lands in a position from which it c-commands its trace. After the movement of X, Z, which contains the trace of the latter, moves as well, thereby destroying the configuration in which the trace of X was linearly c-commanded by its antecedent. So it is the raising of Z in (30) that is called “remnant movement”.

The fact that the Masa data discussed above is grammatical shows that the c-command requirement on the raising of the constituent X can be satisfied once, even if the configuration containing the c-command relationship is later destroyed. Empirical material from English, Italian and German, described and discussed by Cecchetto (2004: 169-170), seems to suggest that remnant movement effects are lacking in configurations such as (30) above:

(31) [t₁ pass the exam]₂ John₁ indeed will t₂

(32) [fired t₁ by the company]₂ John₁ indeed was t₂

(33) [andato t₁ a casa]₂ Gianni₁ non è t₂
gone to house Gianni NEG is

(34) Gelesen hat Hans das Buch nicht
read has Hans the book NEG

Cecchetto argues that the examples (31)-(34) constitute prima facie evidence that configuration (30) is licensed by Universal Grammar.

6.8. Relativization

Relative clause formation in Masa is examined in this section by wondering, first, whether the language abides by the Accessibility Hierarchy devised by Keenan and Comrie (1977). Next, the landing site of relativization is probed.

6.8.1. Accessibility Hierarchy

With respect to relativization, Keenan and Comrie (1977) proposed a crosslinguistic valid hierarchy:

(35) Subject; Direct Object; Indirect Object of pre- or postposition; Possessor

For illustration, consider the following Masa data:

(36) Subject

a. nà̀n n̄á f s̄ā mā ká nà̀ vò'-n dōw-ní
I meet.PERF man rel.pron prog go.IMPERF village-DEF POS-DEM
“I met the man who is going to the village.”

b. nà̀n tū' h̄ā y s̄īnè mā góy ñò'r n̄y lūm-mā
I go.PERF inside farm rel.pron.masc outside back water river-DEF
“I went to the farm that is on the other side of the river.”

(37) Direct object

a. s̄ā mā nà̀n hūm ā̀lā Putta sl-ūm-ú-n m̄īd̄y-á
man rel.pron I hear.PERF that Putta marry.PERF-FV-COMPL die.PERF-PP-FV
“The whom I heard that Putta married has died.”

b. s̄ā mā h̄āt-nā mā d̄ī-y-nā v-à̀lām v-ú-m-m̄ m̄īd-īy-á
man rel.pron teach-DEF rel.pron dog-DEF of-him bite-him-DEF die-PP-FV
“The teacher whose dog bit him has died.”

(38) Indirect object

a. gòr t̄ā Digim búr z̄īn-á'-t̄ā h̄āy-à
Child rel.pron.fem Digim lie.PERF with-her-DEF stomach-FV
“The girl whom Digim made love is pregnant.”

b. gòr mā pé':-r l̄áw-ám-m̄ zò'w-n
Child rel.pron.masc priest-DEF talk.IMPERF-him-DEF POS.-DEM
“The child to whom the priest talks”

m̄î gò:-rá m̄ūl-là
presentative child-DEF lamido-DEF
is the lamido's son.

(39) Possessor

a. c̄ā-dà v-à̀n t̄ā k̄ū l k̄ū-l-á' sl̄ígá:-rà v-à'-t̄á
Wife-DEF of-me rel.pron.fem thief steal.PERF-her clothes-DEF of-her-DEF
“My wife whose clothes were stolen by a thief
ká t̄íy-ā
PROG cry.IMP-FV
Is crying.”

b. cā tā slīgá:-rà v-à' kŭlī'y-t ká mōy-à
 Wife rel.pron.fem clothes-DEF of-her steal.PERF-DEF PROG sickness-FV
 “The woman whose clothes were stolen is sick.”

The above data seem to demonstrate that Masa respects the Accessibility Hierarchy proposed by Keenan and Comrie (1977).

6.8.2. The landing site of relativization

Relativization, being an instance of Move Alpha (Chomsky 1977), therefore begs the question “what is the landing site of relative clause formation in Masa?” Wh-relatives do not seem to exist in this language. In other words, there are no relatives with one of the following wh-words:

(40) Masa wh-words

Arguments: Arguments: gĩ-gé (complete form)/ gè̄ (reduced form) “who?”
 mĩ-gé (complete form)/ mè̄ (reduced form) “what?”
 mā:/tā:-rĩ gé (complete form)/ mā:/tā:-rā (reduced form) “what/which?”

Referential adjuncts: cíťi-gé (complete form)/ cíťá̄ (reduced form) “when?”
 ārĩ-gé (complete form)/ ārā (reduced form) “where?”

Non-referential adjuncts: nánĩ-gé (complete form)/ nánā (reduced form) “how?”
 lítĩ-gé (complete form)/ lítā (reduced form) “how feel?”
 gà:-gé (complete form)/ gā: (reduced form) “how much?”
 āñĩ-gé (complete form)/ āñā̄ (reduced form) “why?”

It has been argued by Biloa (2013) that the landing site of relativization in Tuki is RelP (relative Phrase) (see also Shlonsky and Soare 2011:651-669). This viewpoint is different from the position (s) of previous linguists over the years: Bresnan (1970, 1972, 1979), Chomsky (1977, 1986), Rizzi (1997). In Bresnan (1970, 1972, 1979) and Chomsky (1977), the landing site of relativization in particular or of wh-movement in general was Comp. In *Barriers* (Chomsky 1986), Comp was split into Spec, CP and C, CP so much so that Spec, CP became the host of raised/extracted wh-words, relative operators or null operators, while lexical complementizers were hosted by C^o. The resulting system was refined by Rizzi (1997, 2001, 2004) who suggested that CP be *split* into a number of different projections- an analysis widely referred to as the *Split CP hypothesis* (Radford 2009). He argued that “complementizers (by virtue of their role in specifying whether a given clause is declarative, interrogative, imperative or exclamative in *force*) should be analyzed as *force* markers heading a *ForceP* (=Force Phrase) projection, and

that focused constituents should be analyzed as contained within a separate FocP (=Focus phrase) headed by a Foc constituent (Focus marker)". Furthermore, he indicated "that just as focused constituents occupy the specifier position within a Focus phrase, so too topicalized constituents should occupy the specifier within a TopP (=Topic Phrase)" (Radford 2009: 280-281).

Rizzi (1997) advocates that "relative operators occupy the highest specifier position, the spec of Force" (Rizzi 1997: 289). That being the case, how could the following Masa sentence be derived?

- (41) gòr m-ān mā nà̀n mǎ̀n-ím-mā
 Child to-me rel.pron.masc I love.IMPERF-him-DEF
 "My child that I love."

Recall that there are two main approaches to relativization: the promotion analysis (Schacher 1973, Vergnaud 1974, Kayne 1994) and the matching analysis (Chomsky 1977, Safir 1986, Browning 1987). Aoun and Li (2003: 106, (30)-(31) summarize the promotion analysis and the matching analysis into the following subparts:

(42)

- a. Complementation structure: the relative clause is a complement to D.
- b. Adjunction structure: the relative clause is adjoined to the Head.

If a relative clause contains a trace, two analyses make themselves available:

(43) Head raising/promotion and head base-generation/operator movement (see also

Bilua 2013: 443):

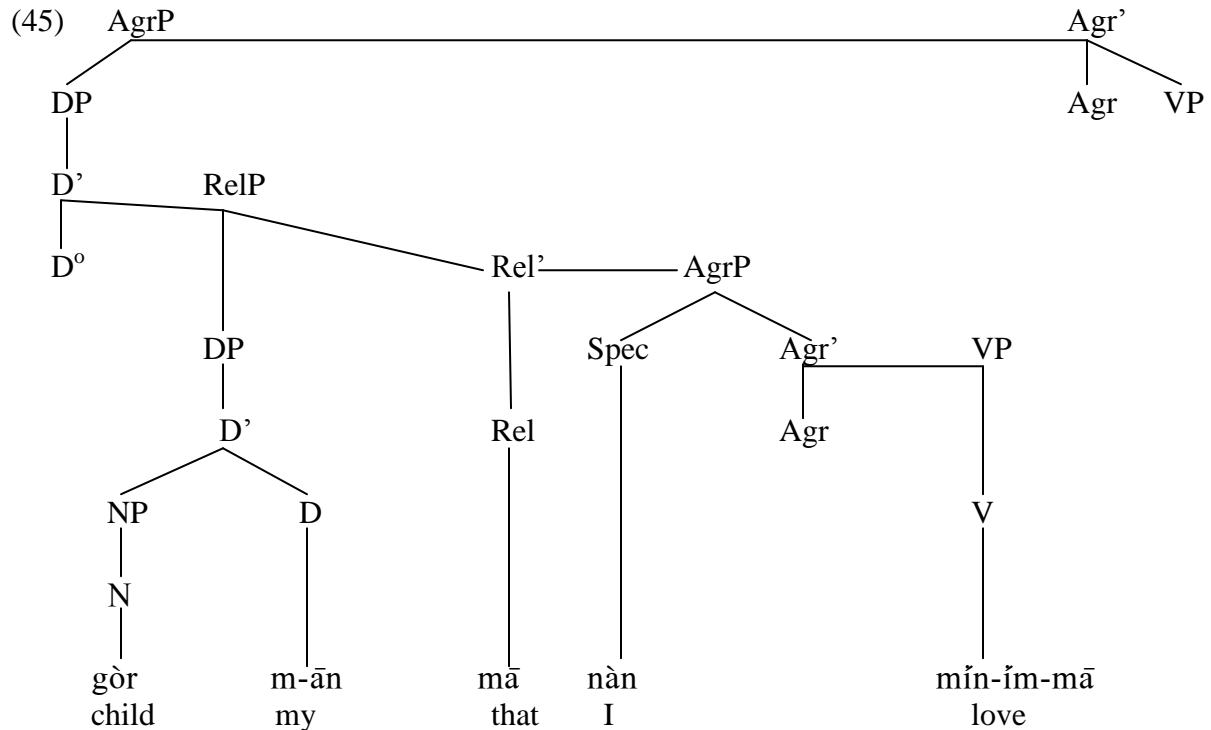
- a. Head raising/promotion: the nominal to be relativized moves to the Head position; that is the trace in the relative clause is derived by movement of the head.
- b. Head base-generation/operator movement: the head is base-generated in its surface position and interpreted with the relative clause via a wh-operator movement to the relative CP; that is the trace in the relative clause is derived by operator movement.

Aoun and Li observe that the head raising approach (promotion analysis) involves non-wh relatives, while the operator movement approach (matching analysis) concerns wh-relatives. Their study (P.114) proposes the following generalizations:

(44)

- a. Non-wh-relatives exhibit reconstruction effects ; that is the head can be derived by movement from the position where it is interpreted to its surface position.
- b. Wh-relatives do not exhibit reconstruction effects, that is, the Head is not derived by movement from the position where it is interpreted to its surface position. It is base-generated in its surface position.

Returning to Masa, since it has no wh-relatives, it follows that its relatives are derived by Head raising. Adopting the view defended by Bianchi (1999), Aoun and Li (2003) that wh-relatives and non-wh-relatives alike are projected as DPs, the Masa construction in (41) can be structured and derived as follows:



In (45), the relative clause is projected as DP and is hosted by RelP (Relative Phrase) as suggested by Biloa (2013) (see also Shlonsky and Soare 2011). In this analysis, the head noun in

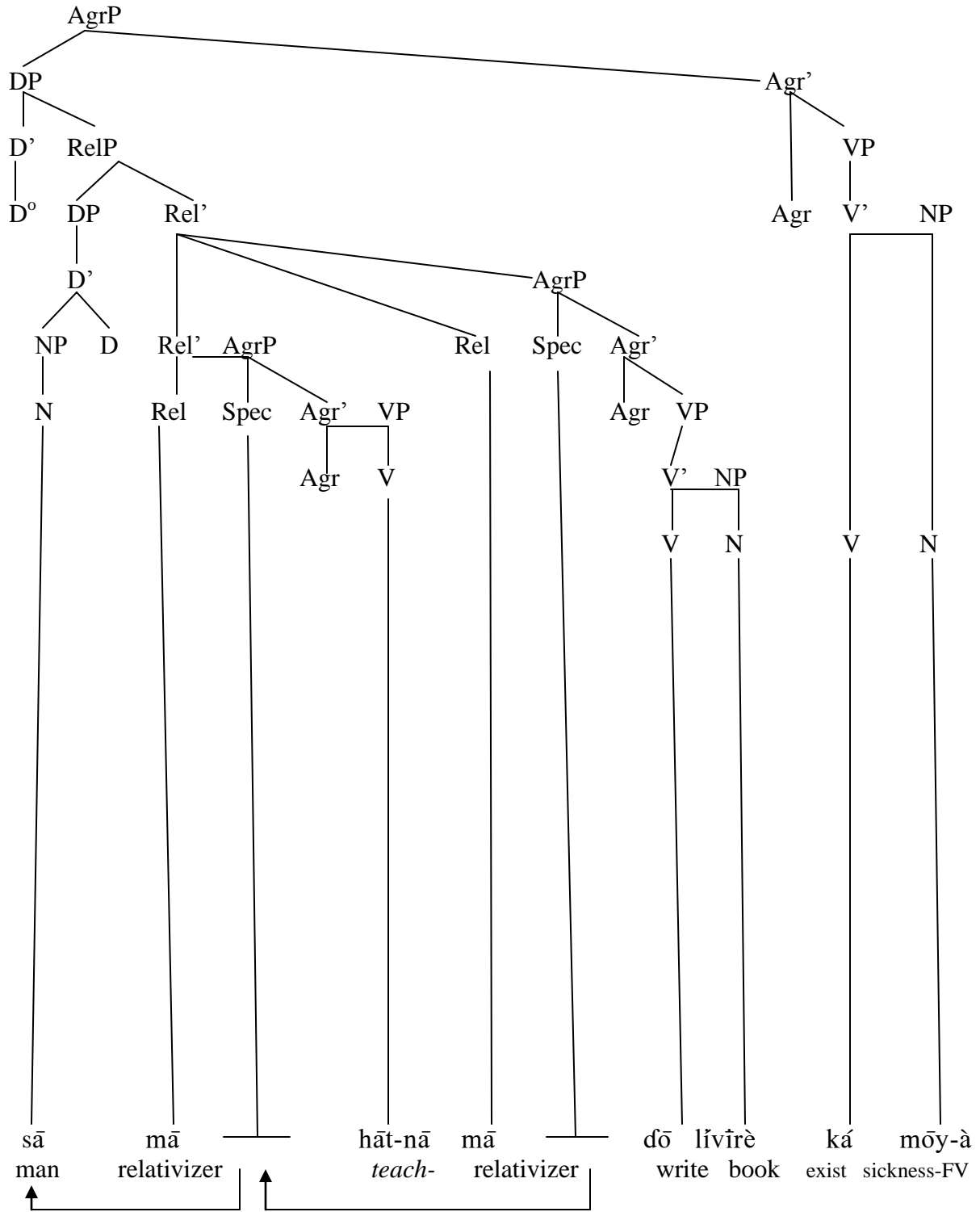
relative clause formation is hosted by Spec, RelP while the relativizer (what is descriptively called relative pronoun above) heads RelP (i.e. it is hosted by Rel⁰). In this language, an agreement relationship obtains between the head noun (in Spec, RelP) and the relativizer in Rel⁰. If the head noun is masculine, the relativizer is “mā”. When the head noun is feminine, the relativizer is “tā”. If it is plural, then the relativizer is “sā”. So in structures like (41) and (45), the specifier and the head of RelP both agree in gender and number. This state of affairs amply justifies the fact that the head noun and the relativizer are hosted by the same maximal projection in which Spec-Head agreement logically obtains.

This language exhibits constructions in which the same head is relativized twice:

- (46) sā mā hāt-nā mā dō lívîrē-nà (ká) mōy-à
 Man relativizer teach-DEF relativizer write.PERF book-DEF exist sickness
 The teacher who wrote the book is sick.

Literally, (46) means “the man who teaches and wrote a book is sick”. It seems to be the case that there are two relative clauses therein, with the same DP being the head noun. To try to understand what is going on, consider the following tree representation:

(47)



“The teacher who wrote the book is sick.”

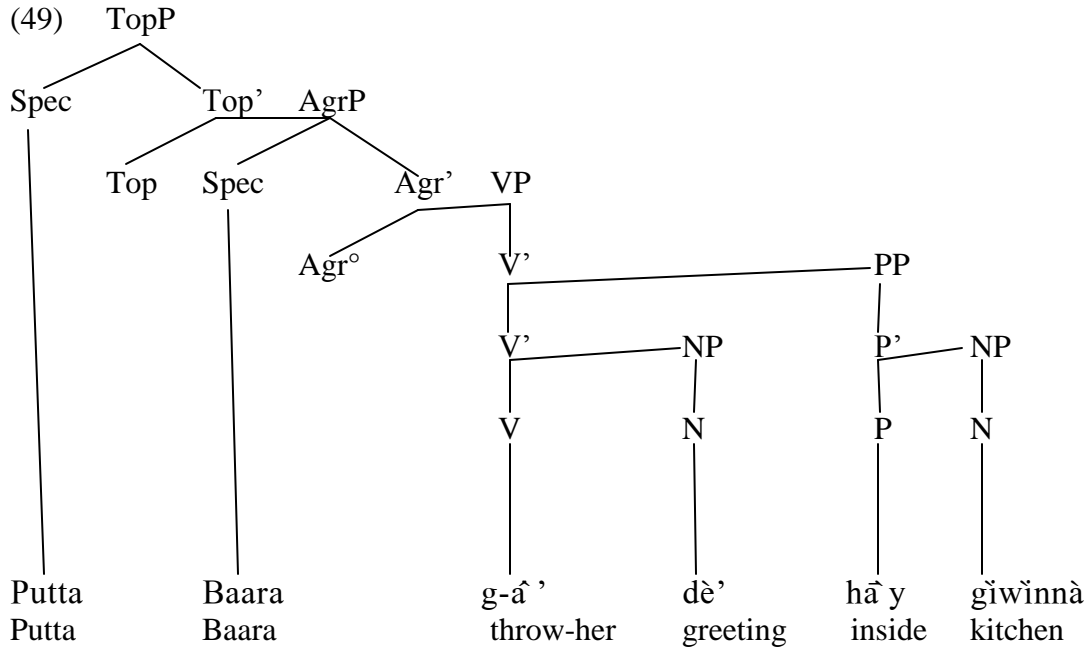
(47) indicates that the head noun has undergone NP movement (head raising) from the specifier of the most embedded AgrP in the subject position to the spec of the higher AgrP (that is attached to Rel'), hence from it raises to Spec, RelP. These two steps depict head-raising (which is usually called the promotion analysis). It follows that the relativizer is base-generated in the head position of RelP (i.e. Rel⁰), thereby justifying why there are no wh-relatives. This derivation seems to account nicely for the validity of the promotion analysis for the Masa language.

6.9. Topicalization

In Masa the topicalized constituent is fronted (i.e. is moved leftward). There is a phonological pause between the topic (the topicalized constituent), that is graphically marked by a comma, and the rest of the clause. For illustration, consider the following constructions:

- (48) a. Baara gĩ dè' mi Putta hã y gĩwĩn-nà
 Baara throw.PERF greeting to Putta inside kitchen-DEF
 “Baara greeted Putta in the kitchen.”
- b. Putta Baara g-â' dè' hã y gĩwĩn-nà
 Putta Baara throw.PERF-her greeting inside kitchen-DEF
 “Putta, Baara greeted her in the kitchen.”
- c. hã y gĩwĩn-nè Baara gĩ dè' mĩ Putta
 inside kitchen-DEF Baara throw.PERF greeting to Putta
 In the kitchen, Baara greeted Putta.

(8a) being the input sentence, in (48b-c) the topics are fronted. Masa is devoid of topic markers. The topic merges into Spec, TopP and the head of TopP is null:



In fact, in this language, when a direct object constituent is dislocated (i.e. topicalized/ fronted), a resumptive morpheme occurs attached/ suffixed to the verb. The following examples from the Masa language spoken in the Republic of Chad (Melis 1999 289) are illustrative as much:

- (50) a. zĩnĩl-là 'áy vùl-ùm mĩ sùm sá kúf-éy-nà
Panther-DEF we give-it to people relativizer with-us-DEF
“The panther, we give it to people who are with us”
- b. kùyòr hù-tà 'àk vùl-àn-tá
Foot goat-DEF you.fem give-me-it
“The foot of goat, you (must) give it to me.”
- c. dùmár-tà v-àŋ jĩyòp-òm hà y ñàràkɲà 'ir slè' slèdè
Herbs-DEF of-you.masc. soak-them inside clay pot eye cold cold
“Your herbs, you soak them in the clay pot as a sign of appeasement (purification rite)”

In all three examples above, a resumptive morpheme that refers to the topicalized direct object DP is suffixed to the verb. So in (50a), |-um| draws its reference from the topic | zĩnĩl-là| “panther”; in (50b), |-tá| is coreferential with | kùyòr hù-tà| “the foot of the goat”; in (50c), |-òm| refers to | dùmár-tà v-àŋ| “your herbs”. The resumption strategy does not operate when the topic is not a direct object.

6.10. Criterial heads

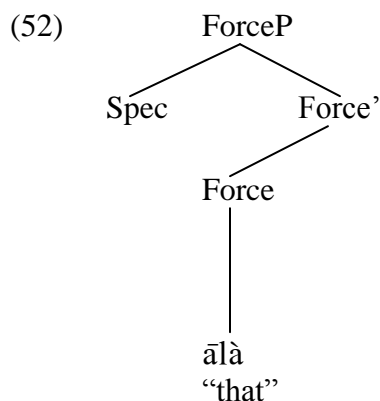
In languages like Gungbe (Aboh 2004), Tuki (Bilola 1995, 2013), Basaa (Bassong 2010, 2014), Muyang (Bebey 2014), the expression of scope-discourse semantics is “syntacticized” by the criterial heads that are overtly expressed –with overt Q, Top, Foc markers, and also special complementizers for relatives, for exclamatives, for comparatives, and other kinds of A’-constructions” (Rizzi 2013:201).

It is well-known that these markers are not overt in all languages. For instance, the Top marker is nonexistent in Tuki whereas it is attested in Gungbe, Basaa or Muyang. But, as argued by Rizzi (2013:201-202), “under the uniformity guidelines that guide modern comparative syntax, the natural initial assumption, to be abandoned only on the basis of clear disconfirming evidence, is that all languages use a similar system of syntactic markers, except that such markers may be overt or not; this is a spell-out parameter, a familiar and widely attested kind of low level parametrisation”.

In Masa, the Chadic language described, examined and discussed in this essay, a lexical complementizer is attested:

- (51) Putta wí ālà Amina mǐn-ím kāy-ń Ousmanou
 Putta know.IMP that Amina love.IMPERF-him Foc Ousmanou
 “Putta knows that it is Ousmanou that Amina loves.”

In (51) above, the lexical complementizer is “ālà”, the equivalent of English “that”. In Rizzi’s (1997) architecture of the clause, it would occupy the head of ForceP:



In this language, there are also “special complementizers” for relatives (*mā*, *tā*, *sā*, the choice of them depending on the gender and number of the head DP) and clefts (*kāy-n̄*, *dōw-n̄*), while there seem to be a question particle or focalization. There is also a “special complementizer” for indirect and yes-no questions (*sū*). In Masa, there is no English equivalent of “whether” and “if” in indirect questions. To frame an indirect question, the language resorts to the strategy depicted in the following example:

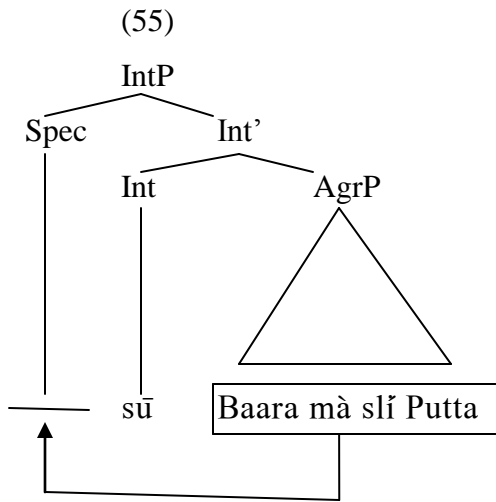
- (53) *Vrassou jōb ālā̃ Baar gî dè' mî Putta*
Vrassou ask.IMPERF COMPL. Baara throw.PERF greeting ADPOS Putta
kā y-n kālā f sū
FOC inside QM

“Vrassou asks whether it is in the bedroom that Mbara greeted Putta.”

In (53), the verb “asks” selects the lexical complementizer “*ālā̃*” where one would have expected a Masa equivalent of “whether/ if”. The latter is not attested. (53), however, ends up with a question marker (QM) that also occurs in yes/no questions:

- (54) (a) *Baara mà slí Putta*
Baara IRR marry.IMPERF Putta
 “Baara will marry Putta.”
- (b) *Baara mà slí Putta sū*
Baara IRR marry.IMPERF Putta Q
 “Will Baara marry Putta?”

In cartography, “*sū*” is analyzed as an Inter(rogative) head. It is believed to host the yes/no question operator or the pied-piped AgrP in Spec, IntP, as the following sketchy derivation of (54b) shows:



The above analysis of Masa has “integrate[d] the exploration of cartographic maps” (Rizzi 2013:199) by “syntacticizing” the scope-discourse particles attested in the language. One cannot imagine the success of such an endeavour outside the realm of cartography. Indirectly, this essay has once more therefore provided evidence that “there is no alternative to cartography” (Williams 2009).

Conclusion

This chapter has described and analyzed under close scrutiny four major syntactic operations in Masa, a Chadic language spoken in Cameroon and in the Republic of Chad. In the light of the cartographic approach to syntactic structures, it has been proven that most of the A-bar operations namely focalization, question formation, relativization and topicalization in Masa can only be handled under this framework, under pied-piping and remnant movement operations. This state of affairs clearly shows that no other alternative is capable of accounting for the empirical material attested in this Chadic language. Focalization involves two successive movement operations notably focus movement of the focalized material into the specifier position of the focus phrase (Spec-FocP) c-commanded by a Cleft Phrase (CleftP), the head of which is occupied by a discourse particle encoding clefting, then massive pied-piping of the remnant clause (AgrP/IP) into the specifier position of the force phrase (Spec-ForceP) which in turn c-commands the Cleft Phrase. Yes-no questions involve a clause final particle which participates in typing the targeted clause as interrogative. It was revealed that the sentence final particle is merged higher in clause structure where it scopes over the whole clause. The fact that this particle ends up in clause final position on the surface is due to the movement of the c-commanded material into the specifier position of the interrogative phrase (Spec-IntP). In the same vein, just like focalization, wh-questions also involve a cleft structure and two morphosyntactic processes, namely movement of the wh-phrase into Spec-FocP, then remnant movement of AgrP/IP into Spec-ForceP. It was proposed that relativization involves the movement of the relativized constituent into Spec-RelP whereby the relativized constituent exhibits gender and number agreement with an overt relativizer. As opposed to focalization, question formation and relativization, topicalization does not involve morphological marking. Although involving movement in the C-layer just like other counterparts, the main specificity of topicalization in the language is that it requires a phonological break/pause between the topicalized element and the rest of the clause containing a coreferential resumptive pronoun at

the extraction site in the case of direct object extraction. Overall, the Masa empirical data have been proven to be well accounted for under the realm of cartography, providing further support that there is no alternative to the cartographic enterprise.

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Chapter 7

The fine-grained structural cartography of the left periphery in Wandala

Introduction

This chapter describes and analyzes the fine structure of the left periphery of focus constructions, questions, relatives and topics in Wandala as part of my ongoing research on the left peripheral syntax of the Bantu and Chadic languages of Cameroon. It focuses on some scope-discourse properties which, apart from topicalization and adverbials/prepositional phrases fronting, are marked by specific morphemes that signal them in the discourse. The chapter shows that the Wandala empirical material, which portrays a lot of movement operations, is better accounted for under the cartographic framework (Rizzi 1997, 2001, 2004, 2013-a-b and related work) and the antisymmetry approach (Kayne 1994, Kayne et al. 2010). It is organized as follows: section one two talks about the language classification and word order. Section two is on focalization. Section three is about question formation processes with focus on wh-questions (in-situ and ex-situ). Section four handles indirect question formation. Section five deals with the force phrase and shows that Wandala makes use of a lexical complementizer *wa* which introduces declarative clauses. Section six is concerned with relative clauses formation with emphasis on Keenan and Comrie's (1977) Accessibility Hierarchy, i.e. on the different positions that can be relativized in the language. Section seven deals with topicalization and shows that the latter triggers only prosodic effects, but has no morphological marking. Section eight handles indirect question formation in matrix and embedded contexts and the position of the Interroative Phrase in the clause. Section nine discusses adverbials/PPs fronting and the Modifier Phrase. The last section is the conclusion.

7.1. Language classification and word order

According to *Ethnologue* (2005: 73), the Wandala language is also called Mandara, Ndara, Mandara Montagnard. It is spoken in Cameroon by 23,500 people. It is also spoken in Nigeria by 20,000 people. In Cameroon, it is spoken in the "Far North Region (Upper North Region), Mayo-Sava Division, in a belt starting east of Mora, around it to the North in a semicircle, and northwest to the Nigeria border" (*Ethnologue*). It is an Afro-Asiatic language, Chadic, Biu-Mandara, A, A.4, Mandara Proper, Mandara.

The word order in Wandala is SVO (Data from Ousman Kolia 2013: 56):

(1) Blama á-bakə babour ara
Blama SM-drives motorcycle his

"Blama drives his motorcycle"

Negation does not disrupt the word order attested above:

(2) Blama á-bakə ka babour ara
Blama SM-drives Neg motorcycle his

“Blama does not drive his motorcycle”

However, although the future tense marker occurs in this language between the SM (Subject marker) and the verb stem, as illustrated below,

(3) Ousman á-də-ga Alima
Ousman SM-Fut.-marry Alima

“Ousman will marry Alima”

the past tense marker occurs before the subject marker:

(4) Ousmanou ndza-á-shukwanve masalam
Ousmanou past-SM-buy sword

“Ousmanou bought a sword”

This state of affairs does not fundamentally change the language word order as it is still SVO. What presumably obtains in (4) seems to be an instance of head movement as it is well known that T(ense) sometimes moves from one position to another. The raising of the past tense marker will be discussed in detail when focalization in this language is talked about.

7.2. Focalization

When a constituent is focalized in Wandala, it is fronted and it is preceded by a focus marker (**ba** if the focused constituent is an argument; **aba** if it is an adjunct). For illustration, consider the following sentences:

(5)
a. Ousmanou á-də-shukwam-ve ha gə mukse ara
Ousmanou SM-fut.-buy house for wife his
makuralla
tomorrow

“Ousmanou will buy a house for his wife tomorrow”

b. Ba Ousmanou unənani á-də-shukwam-ve ha gə
 Foc Ousmanou relativizer SM-fut.-buy house for
 mukse ara makuralla na
 wife his tomorrow COMP(final)

“It is Ousmanou who will buy a house for his wife tomorrow”

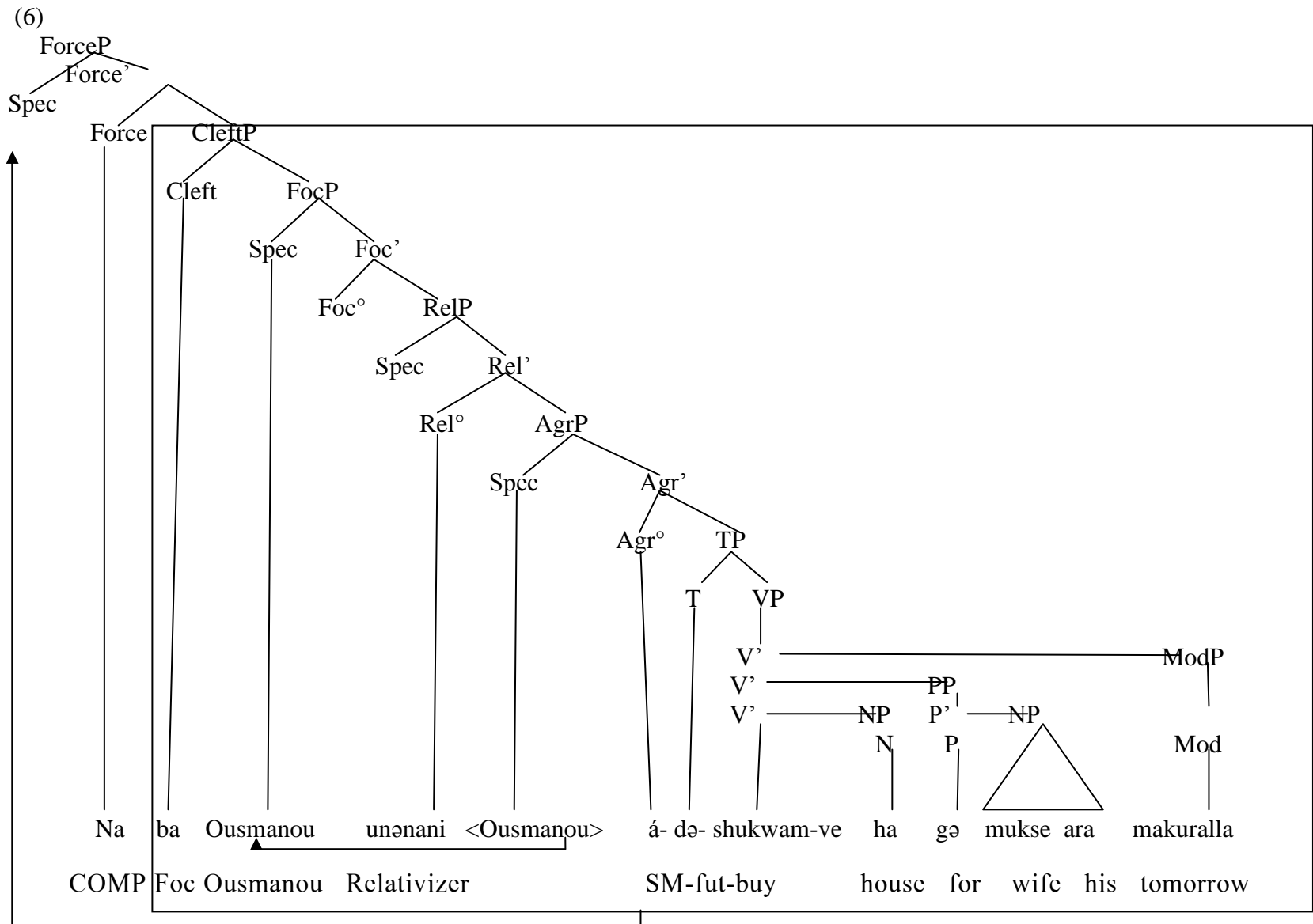
c. Ba ha unənani á-də-shukwam-ve Ousmanou gə
 Foc house relativizer SM-fut.-buy Ousmanou for
 mukse ara makuralla na
 wife his tomorrow COMP(final)

“It is a house that Ousmanou will buy for his wife tomorrow”

d. Aba makuralla unənani á-də-shukwam-ve Ousmanou
 Foc tomorrow relativizer SM-fut.-buy Ousmanou
 ha gə mukse ara na
 house for wife his COMP(final)

“It is tomorrow that Ousmanou will buy a house for his wife”

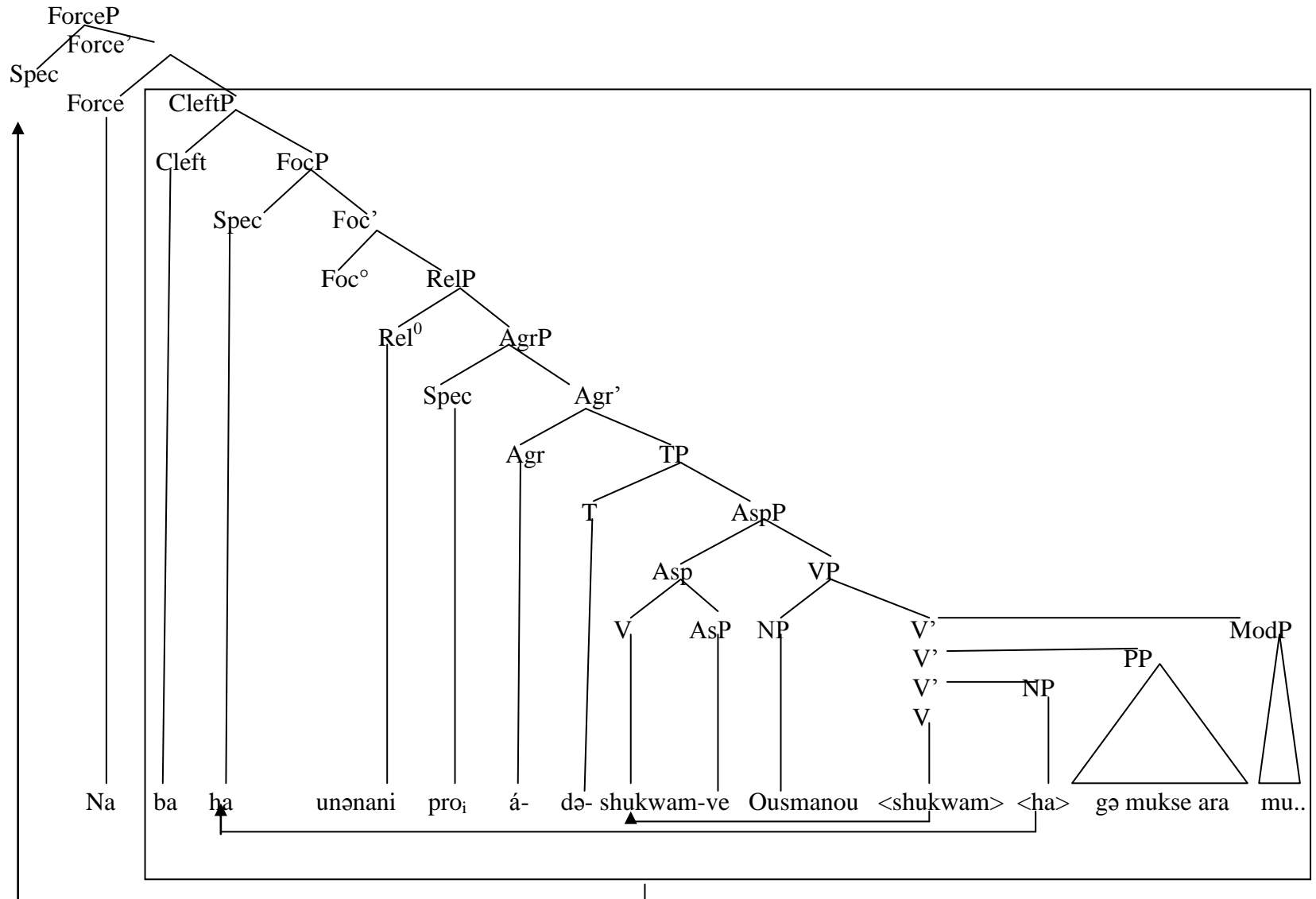
(5a) is the input sentence from which the other sentences are derived. In (5b), the subject of the sentence is focalized. In (5c), it is the direct object that is focused, whereas in (5d) the temporal modifier is fronted and focused. Notice that in (5c-d), when the direct object and the temporal modifier are focused, the verb occurs before the subject. Now, let us talk in detail about the derivation of (5b) in which the grammatical subject is focalized. Recall that in this language the focus marker (FOC) precedes the focused material. Koopman (2000) suggests that when the focus word (here focus marker) precedes the focalized item, the focus word must head some higher position which she terms YP. Given that Wandala construction in which the focus word precedes the focused material is, in fact, a cleft construction, we deem reasonable to call the maximal projection hosting the focus marker a cleft phrase (CleftP). Naturally, the focalized constituent is accommodated by FocP. So in (5b), the focus marker, *ba*, is the head of CleftP, Cleft°. And the focused DP, *Ousmanou*, merges to Spec, FocP. The relativizer *unənani* as its denomination would suggest, is in Rel°, the head of RelP (Relative Phrase). At a certain stage of the derivation, the final complementizer, *na*, occupies Force° above CleftP. After clefting and focalization have taken place, CleftP pied-pipes to Spec, ForceP i.e. to the left of the final complementizer *na*. The following tree representation depicts the derivation of (5b):



In (6), the pied-piping of CleftP into Spec, ForceP can be accounted for by Chomsky's (1993) Extension Condition: as soon as a head is merged, movement into its specifier is obligatory (see also Koopman and Szabolcsi 2000: 42).

At this moment, let us return to the example (5c) in which the direct object DP *ha* is focused and is followed by the verb *á-də-shukwamve* which precedes the subject and the rest of the sentence. The latter constituent ends with the complementizer *na*. The derivation of (5c) will proceed as bracketed below:

(7)



In (7), three movement operations take place: i. The focalization of the direct object complement and its merge into Spec, FocP; ii. V-to-Asp movement for aspect licensing (Aboh & Dyakonova); iii. The pied-piping of CleftP into Spec, ForceP. Notice that the head of the latter maximal projection is occupied by the final complementizer *na*. These three movement operations account nicely for the word order attested in (5c). (5d) would be derived in a similar fashion, although in this case it is an adjunct (the temporal modifier) that is focused and the focus marker is *aba*, rather than *ba*. Note that direct object focusing in (7) above is better accounted for in the light of the VP-Internal Subject Hypothesis (VP-ISH) (Kuroda 1988, Sportiche 1988, Koopman & Sportiche 1991 etc.). In (7), the subject of the sentence *Ousmanou* remains under Spec-VP while a null *pro* category is merged in Spec-AgrP and fulfills the Spec-Head requirements with the subject marker *-a* which is merged in Agr. The fact that the subject of the sentence follows the lexical verb on the surface in (7) is due to head movement of the latter across the former on its way to the aspect position for aspect licensing purposes à la Aboh and Dyakonova (2009).

Recall that it was indicated above (in section 2) that the order of elements in Infl varies with tense. In the future tense, the tense marker occurs between the subject marker (SM) and the verb root, whereas in the past tense, the tense marker (TM) occurs before the subject marker. In the examples analyzed above (cf. (5)), the verb was conjugated in the future tense. As it will be demonstrated below, the past-tensed-verb behaves differently with respect to the focusing of adjuncts. For illustration, consider the following paradigm:

(8)

a. Ousmanou dza-á-shukwamve ha gə mukse ara awaya
 Ousmanou past-SM-buy house for wife his yesterday

“Ousmanou bought a house for his wife yesterday”

b. Ba Ousmanou unənani dza-á-shukwamve ha gə mukse
 FOC Ousmanou relativizer past-SM-buy house for wife
 ara awaya na

his yesterday COMP

“It is Ousmanou who bought a house for his wife yesterday”

c. Ba ha unənani ndza Ousmanou á- shukwam-ve gə
 Foc house relativizer past Ousmanou SM- buy for
 mukse ara awaya na

wife his yesterday COMP

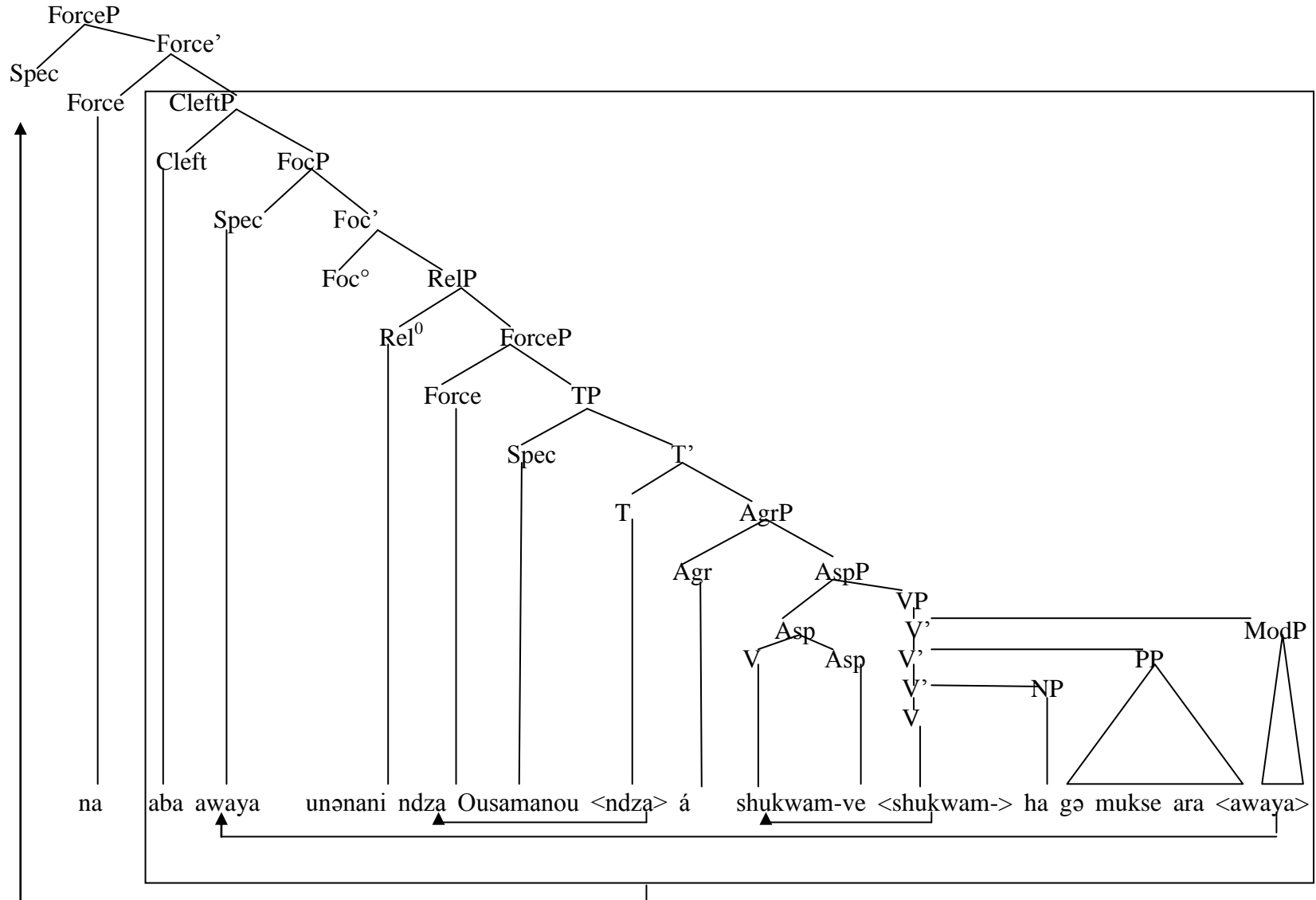
“It is a/the house that Ousmanou bought for his wife yesterday”

d. Aba	awaya	unənani	ndza Ousmanou á-	shukwam-ve
Foc	yesterday	relativizer	past	Ousmanou SM- buy
ha	gə	mukse	ara	na
house	for	wife	his	COMP

“It is yesterday that Ousmanou bought a house for his wife”

Basically, the derivation of (8b-c) should proceed as in (7): i. the subject/direct object complement is focused and substitutes for Spec, FocP; ii. The verb pied-pipes into Spec, ForceP (the highest one); iii. The rest of the clause (AgrP/TP) pied-pipes into the lowest Spec, ForceP. Recall that there is only a slight difference between the examples (5b-c) and (8b-c): the difference lies in the structuring of the verb. In (5) the structure of the verb is SM-TM-V whereas in (8) it is TM-SM-V. In both cases, when an argument is focused, the verb pied-pipes to Spec, ForceP. But in (8d), when the adjunct is focalized, it is the TM that is raised to ForceP. T, being a head, cannot go for the Spec position of ForceP. Assume therefore that it raises to Force°, the head of ForceP. T-to-Force movement in Wandala is similar to the familiar T-to-C raising postulated for English (Chomsky 1993, 1995, Toda 2007, Radford 2009...etc.). The question, however, remains open for future research as to why the past tense marker raises to Force, ForceP when an adjunct is focalized. In view of the above, the derivation of (8d) will proceed as follows:

(9)



Four movement operations have taken place in (9): i. the adjunct, the temporal modifier, *awaya* has moved to Spec, Foc because it is focused; ii. The past tense marker (TM), *ndza*, has moved to the head of the lower ForceP; iii. The verb stem *shukwam-* raises into Asp, the head of AspP, for aspect-licensing where it is left-adjoined to the aspectual marker *-ve*. CleftP is pied-piped into the specifier position of the highest ForceP. The order of functional projections in (6-7) is such that AgrP precedes TP as opposed to (9) whereby TP is higher than AgrP. For uniformity sake, it is plausible to conjecture that the order of functional projections within the I-domain is undelyingly TP>AgrP as attested in (9). The order in (6-7) is obtained as a result of head movement and incorporation of Agr into T.

Consider the following two sentences:

(10)

a. Ousman *á-də-ga* Alima

Ousman SM-fut.-marry Alima

“Ousman will marry Alima”

b. Alima *ndza-á-gya* *bəlsa*

Alima past-SM-cook horse

“Alima cooked horse meat”

The sentences in (10) are input ones for the following focus constructions:

(11)

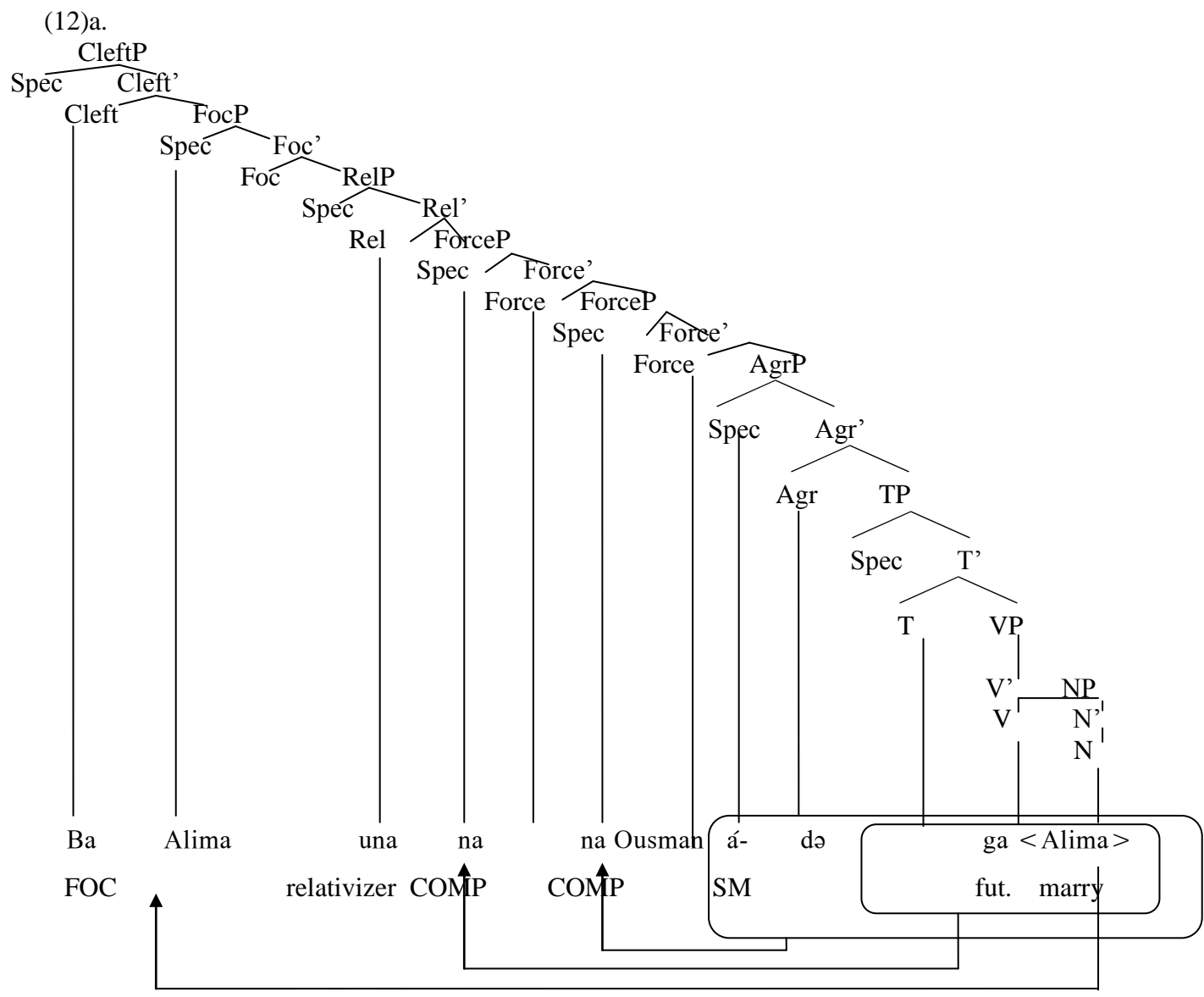
a. Ba Alima *una* *á-də-ga* *na* Ousman *na*
 FOC Alima relativizer SM-fut.-marry COMP Ousman COMP

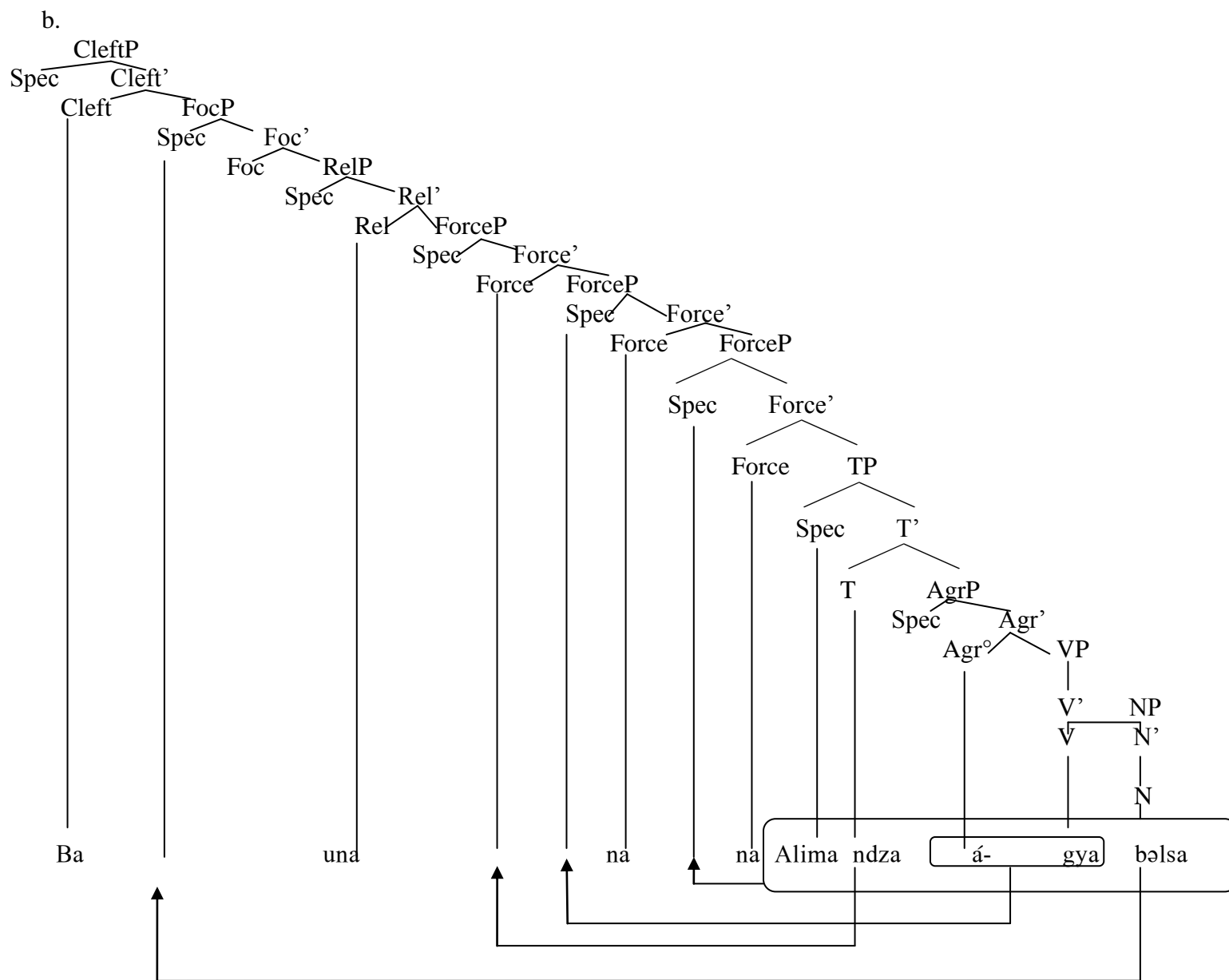
“It is Alima that Ousman will marry”

b. Ba *bəlsa* *una* *ndza-á-gya* *na* Alima *na*
 FOC horse relativizer past-SM-cook COMP Alima COMP

“It is horse meat that Alima has cooked”

Notice that in the above two focus constructions, there are two occurrences of *na* in each one whereas in (8b,c,d) there was one occurrence of *na* in each sentence. While the relativizer in (11a-b) is *una*, it is *unənani* in (8b,c,d). If (11a-b) and (8b,c,d) are structurally similar, one wonders why the difference in the number of *na*. Could it be that the so-called relativizers *una* and *unənani* are different in status /function and induce a different derivation of the constructions under scrutiny? Let us leave the question open for future research and proceed to find out how (11a-b) are derived in the following phrase markers:





In (12a), *Ba*, the focus marker, occupies the head of CleftP, Cleft^o. The focalized DP, *Alima*, is hosted by Spec, FocP. *Una*, the relativizer, heads RelP. The two occurrences of *na* are accommodated each by the head of ForceP (so there are two instances of ForceP). After the merge of *Alima*, the focused DP, into Spec, FocP, the verbal unit *a-də-ga* is pied-piped into the higher Spec, ForceP and the remnant AgrP moves to the lower Spec, ForceP. The analysis of (12a) can be nutshellled as follows: i. Merge of DP *Alima* into Spec, FocP; ii. Pied-piping of *a-də-ga* to the higher ForceP; iii. Pied-piping of remnant AgrP into the lower ForceP.

Turning to (12b), the heads of CleftP and RelP are respectively occupied by *ba* and *una*. Spec, FocP hosts the focused DP *bəlsa*. The head of TP, T which is occupied by the past tense marker *ndza* raises to the head of the higher ForceP. The verbal unit *á-gya* is pied-piped to the intermediate Spec, ForceP, the head of which is occupied by the complementizer *na*. The remnant AgrP is pied-piped into the lower Spec, ForceP whose head is also occupied by the complementizer *na*. Summing up, the following raising processes have applied in (12b): i. Raising of the focused DP to Spec, FocP; ii. T-to-Force movement; iii. Pied-piping of *á-gya* to Spec, ForceP; iv. Pied-piping of the remnant AgrP to Spec, ForceP. These different processes can nicely account for the word order attested in (11b).

It is well known that focus constructions and wh-questions pattern alike. Having discussed some aspects of focus constructions above, it is important to find out how question formation operates in this language.

7.3. Question formation

Wandala wh-phrases are classified below into arguments, referential and non-referential adjuncts:

(13) Wandala wh-items

a. Arguments

i. waré “who”

ii. uwé “what”

b. Referential adjuncts

i. vatará “when”

ii. amé “where”

c. Non-referential adjuncts

i. estará “how”

ii. aḍabawé/guwé “why”

ii. azarazara “how much/how many”

To frame questions, this language makes use of two strategies: wh-items can stay in situ or can overtly move. In the following examples, wh-words are in situ:

(14)

a. Bouba á-haya waré?

Bouba SM-loves who

“Who does Bouba love?”

b. ka maga uwé ?

you do what

“what are you doing?”

c. Bouba á-dua adəm əkse vatará ?

Bouba SM-go in village when

“When is Bouba going to the village?”

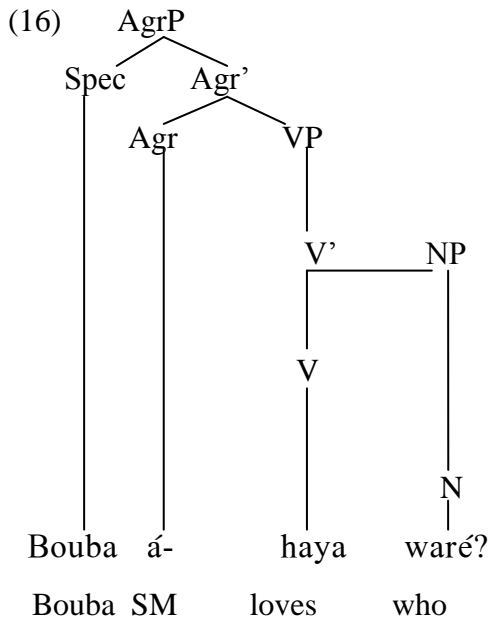
Since nothing much occurs when wh-phrases are in situ, attention will be paid to structures in which wh-phrases have overtly raised.

Consider (14a) to be the input sentence of the following construction:

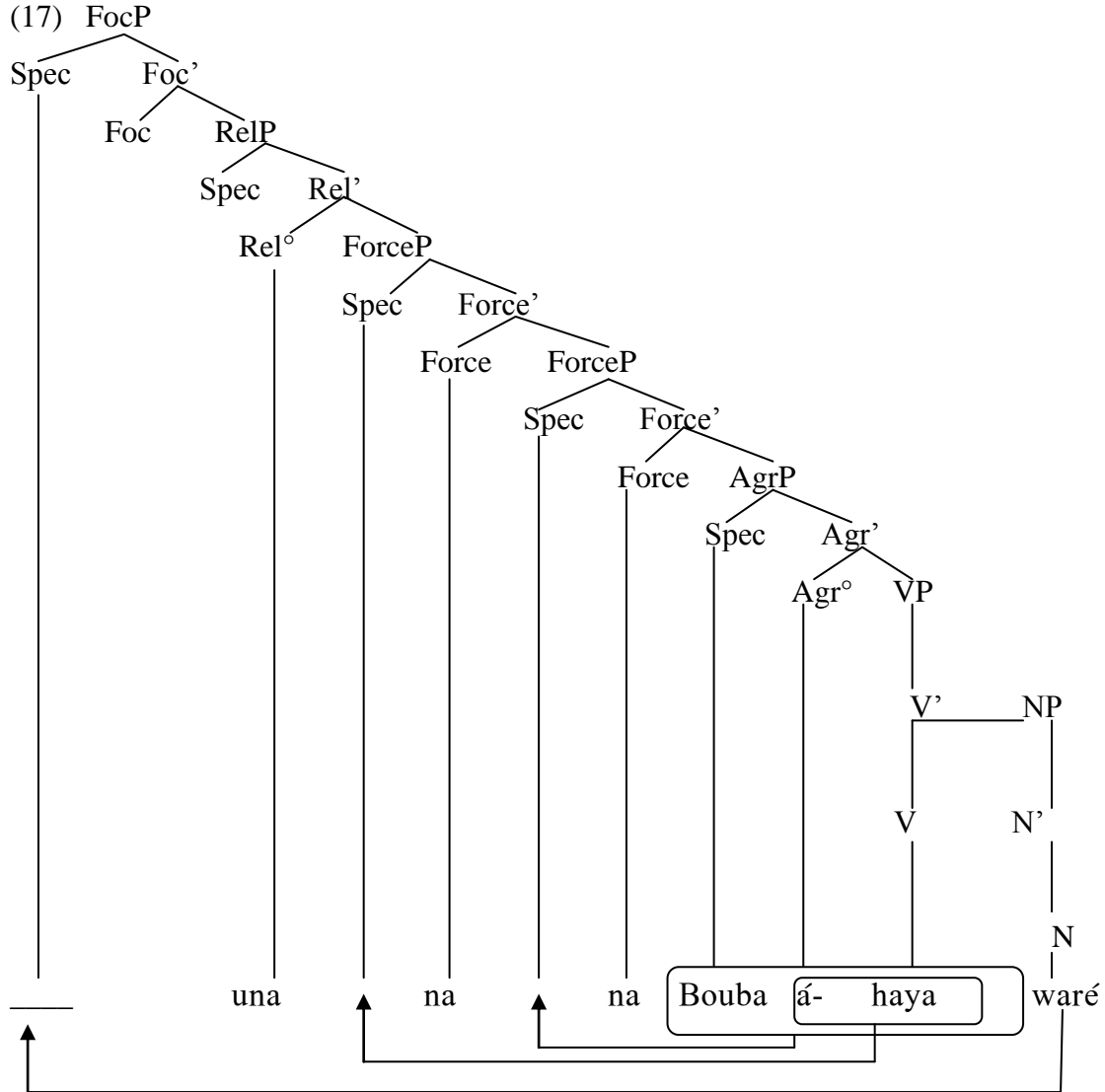
(15) waré una á-haya na Bouba na?
 who relativizer SM-loves COMP Bouba COMP

“Who does Bouba love?”

The tree representation of the input sentence is the following:



Assuming that *wh*-items are inherently focused, this entails that in the derivation of (15), *waré* will be hosted by Spec, FocP (Rizzi 1997, Biloa 2013); the relativizer *una* will head RelP (Relative Phrase) and the two instances of *na* will each head a ForceP, as portrayed in the following tree diagram:



In (17), the *wh*-word *waré* moves to Spec, FocP. The relativizer *una* occupies the head of the RelP. The three diagram contains two occurrences of ForceP, each of which is headed by the complementizer *na*. *A-haya* is pied-piped to the spec of the higher ForceP and the rest of AgrP is pied-piped to the lower Spec, ForceP. Notice that *a-haya* is a verb and one should have expected it to move to the head of ForceP but the head of the latter is already occupied. This could be an indication that in fact when it comes to pied-piping any material should merge to the specifier position of a maximal projection, as postulated by the Extension Condition (Chomsky 1993; Koopman and Szabolcsi 2000). It follows from this reasoning that in (7) as well the first

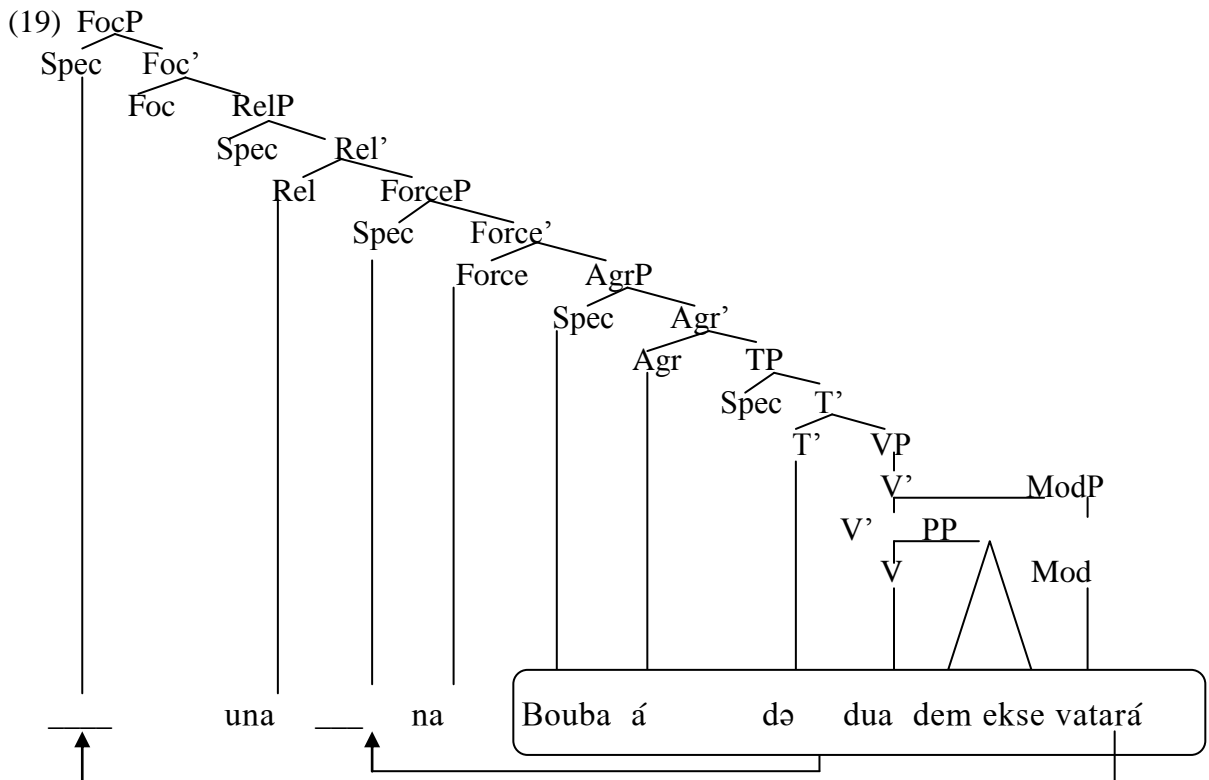
position advocated was on the right path, i.e. the verb *a-də-shukwanve* merged to Spec, ForceP. But in (9) it can be maintained that the TM, *ndza*, can move to the head of ForceP, Force°, as the T-to-C movement operation is a classic one that needs no further argumentation. Force, in Rizzi's (1997) system, being the equivalent of C in Chomsky's (1986) framework.

There seem to be some differences between the movement of an argument and the movement of an adjunct. As the derivation in (17) shows, there are two occurrences of the complementizer *na* that are hosted by the heads of ForceP. The specifiers of this latter phrase accommodates each pied-piped material from AgrP. Not so when the overtly moved wh-item is an adjunct. Assume that the following construction is the output sentence of (14c):

- (18) *vatara una Bouba a-də-dua dem ekse na ?*
 When relativizer Bouba SM-fut.-go to village COMP

“When will Bouba go to the village?”

If one compares (15) to (18), it appears that argument fronting triggers verb raising whereas adjunct fronting does not. Moreover, why do we have two instances of *na* in (15) and one in (18)? The diagrammed derivation of (18) below can certainly help visualize the distinction between argument raising (cf. (17)) and adjunct raising:



In view of the above, one wonders why arguments and adjuncts behave differently with respect to question formation, an issue worth debating in future research.

Above, it was argued that *wh*-phrases are inherently focused. But it so happens that in languages like Wandala *wh*-phrases can be overtly focused like ordinary DPs. For example, consider the following constructions:

(20)

a. Boukar á-haya waré?

Boukar SM-loves who

“Who does Boukar loves?”

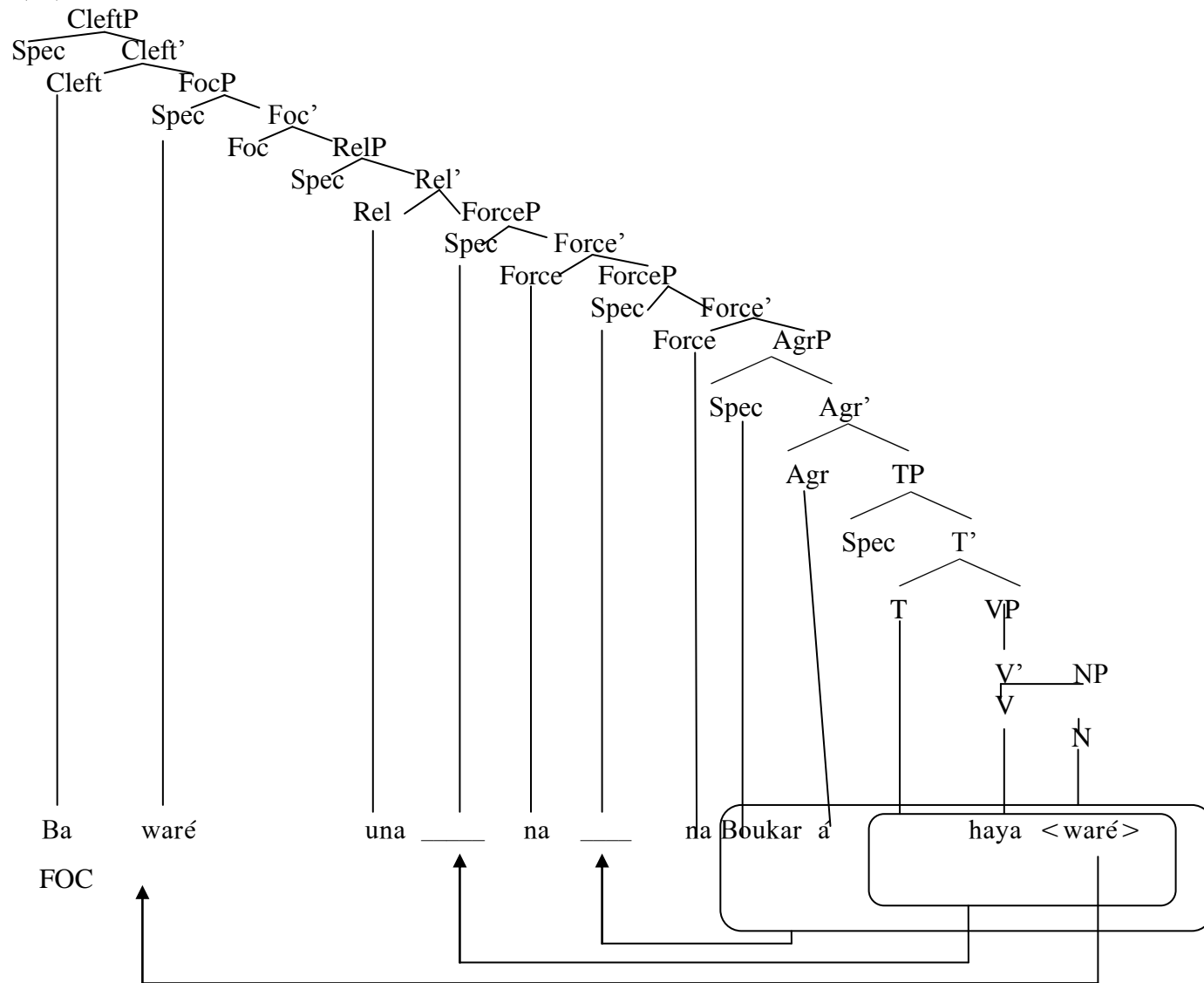
b. Ba waré una á-haya na Boukar na?

FOC who relativizer SM-loves COMP Boukar COMP

“Who does Boukar love?= Who is it that Boukar loves?”

(20a) being the input sentence, in (20b) the *wh*-phrase *waré* “who” is overtly focalized, which explains why it is preceded by the so-called focus marker (FOC). It follows from this situation that (20b) would be derived like any focus construction in which an ordinary DP is focalized (cf. (11a) derived as in (12a)). This constitutes, once more, *prima facie* evidence that *wh*- questions are somehow focus constructions (Myers 1971, Heny 1971, Schachter 1971, Takizala 1972, Whitney 1984, Culicover and Wilkins 1984, Horvath 1986, Rochemont 1986, Rochemont and Culicover 1990). So, modulo the different lexical and grammatical items contained therein, (12a) and the following tree representation pretty much look alike:

(21) a.



7. 4. Indirect questions

One of the objectives of this section is to see how wh-phrases behave in embedded contexts. Consider the following sentences:

(22)

a. Oumar	á-ndava-nu	gə	əgdza-ara	vatara	una
Oumar	SM-asks-3 rd sg	to	child -his	when	relativizer
á-də-ərva	kazlaŋa	aha-ara	na		
SM-fut.-wash	clothes	pl.-his	COMP		

“Oumar asks his child (son) when he will wash his clothes”

b. Bouba	ndza-á-ndava	waré	una	á-naha	na	Brahim	na
Bouba	past-SM-ask	who	relativizer	SM-see	COMP	Brahim	COMP

“Bouba asked who Brahim saw”

c. Bouba	á-ndava	gəni	guwé	Brahim	á-dja	ədza-ara	na
Bouba	SM-asks	that	why	Brahim	SM-beat	child-his	COMP

“Bouba asks why Brahim beats his child”

Notice that in indirect questions, the complementizer *na* occurs and closes off the interrogatives as well, this situation being reminiscent of matrix questions. In (22a), the verb *a-ndava-nu* subcategorizes for a [+wh] (*vatara* “when”). In (22b), the same verb subcategorizes for *waré* “who”. But in (22c), it subcategorizes for a [-wh], which means that its subcategorization frame is satisfied at LF. As for the derivation of (22a,b,c), they pattern with previous examples although in these cases derivational processes take place in embedded contexts.

In this language, a wh-phrase can be long-distance extracted by successive cyclic movement:

(23) waré	una	ka	djadja	na	gəni	Brahim	diadia
Who	relativizer	you	think	COMP	that	Brahim	knows
gəni	Alima	á-də-ga	na				
that	Alima	SM-fut.marry	COMP				

“who do you think that Brahim knows that Alima will marry?”

So long-distance extraction is attested in the language and no special explanation is required to account for it.

However, the derivation of some Wandala indirect questions might not seem so straightforward. Consider the following two sentences in which (a) is the input sentence:

(24)

a. A-ba Bouba wa əgdzara aha ndza ta-də am mbəca
SM says Bouba that children pl. past SM-go to forest

“Bouba said that children went to the forest”

b. ndza -ta-də amə əgdzara aha a-ba Bouba wa
Past SM-go where children pl. SM-say Bouba that

“Bouba said that children went where?”

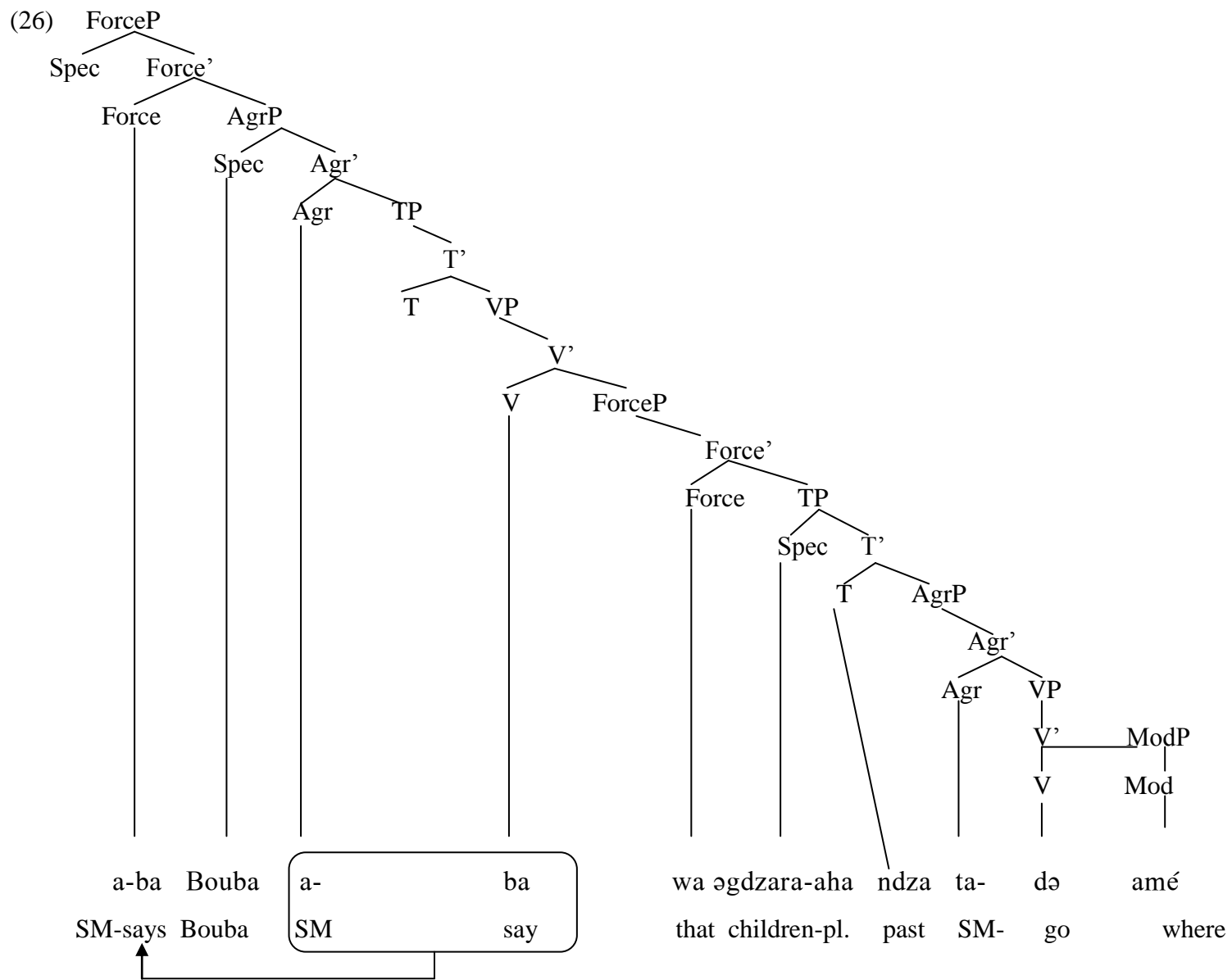
There should normally be an intermediate step in the derivation from (24a) to (24b) whereby *amé* “where” should replace *am mbəca* “to forest”:

(25)

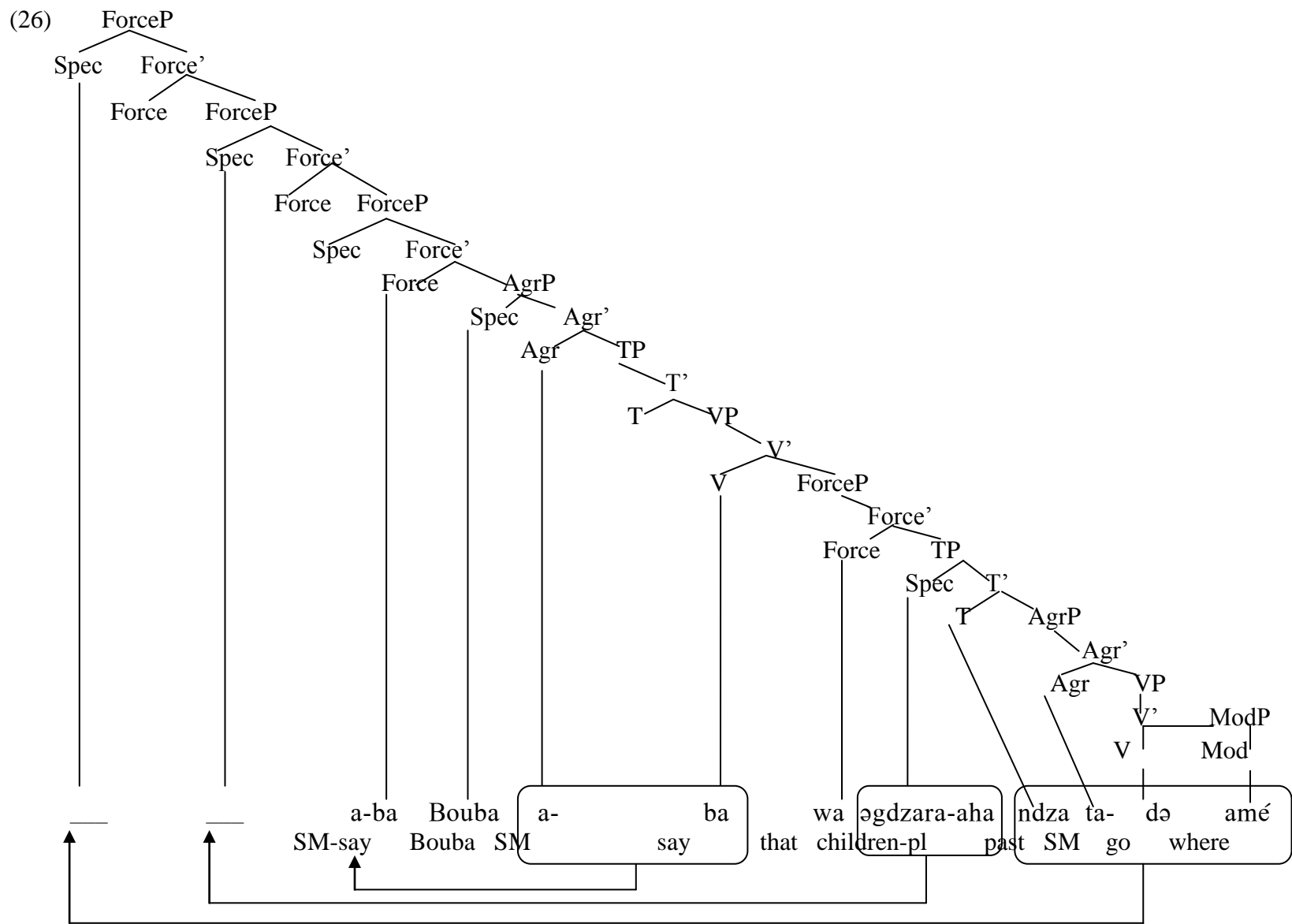
A-ba Bouba wa əgdzara aha ndza ta-də amé
SM-says Bouba that children pl. past SM-go where

“Bouba said that children went where?”

(25) is grammatical since *wh*-phrases can remain in situ in this language. But the question is: how does one move from (25) to (24b)? Notice, first of all, that in (24a-b) and (25) the verb *a-ba* occurs before the subject *Bouba*. One can assume that it raised by head movement to the Force, ForceP position, pied-piping being excluded since nothing could have triggered it. With that much in mind, (26) is proposed as the tree representation of (25):



In order to obtain sentence (24b) from (25 or (26), the unit *ndzata-də amé* will be pied-piped to the higher Spec, ForceP. Subsequently, the rest of TP, i.e. *əgdzara-aha* will merge into the intermediate Spec, ForceP. These two movement processes are depicted as follows:



(27) depicts three movement processes: i. Raising of the verbal unit *a-ba* to Force, ForceP; ii. Pied-piping of the material *ndzata-də amé* to the higher Spec, ForceP position; iii. Pied-piping of the remnant TP, *əgdzara-aha*, to the intermediate Spec, ForceP position. One could wonder what motivate these movement processes. In other words, why do these chunks of sentences move at all? Notice that these chunks are constituents. So the verbal unit *a-ba* could be the beginning of the answer to the question “what did Bouba do/say?”. Similarly, the material, *ndzata-dəamé* could help answer the question “what did the children do?” In the same vein, what is left of TP, *əgdzara-aha*, could be the answer to the question “who went where?” It is well known that constituents are potential answers to questions. It is also common knowledge that constituents are targets of transformations such as movement/raising, question formation, cleft, pied-piping...etc. This may explain why in (27) some chunks are targets of movement.

Furthermore, when one takes a look at the phrase marker (PM) (27), one may wonder why the complement of *a-ba* “says” does not move along with the raised material *a-ba*. The Convergence Principle (Chomsky 1995: 262; Radford 2004: 265) readily provides an answer to that question:

(28) *Convergence Principle*

When an item moves, it carries along with it “just enough material for convergence.”

In other words, if a derivation gives birth to a licit structure, i.e. it converges and enables one to obtain the correct word order, then the Convergence Principle is abided by.

7. 5. The Force Phrase (ForceP) in Wandala

Rizzi (1997, 2001b, 2003) suggests that CP should make way for a number of different projections: this analysis has come to be known as *the split CP hypothesis*. Rizzi indicates precisely that complementizers should be analyzed as Force markers heading a ForceP=ForcePhrase Projection because complementizers contribute in specifying whether a clause is declarative, interrogative, imperative, exclamative, relative or comparative in force. Otherwise stated, the ForceP projection encodes the illocutionary force of a given sentence, e.g. interrogative or declarative. Rizzi also claims that focused constituents should be analyzed as contained within a separate Top (=Topic) Phrase headed by a Top constituent (=Topic marker). The Focus Phrase in Wandala was discussed above. The Topic Phrase will be talked about in an upcoming section.

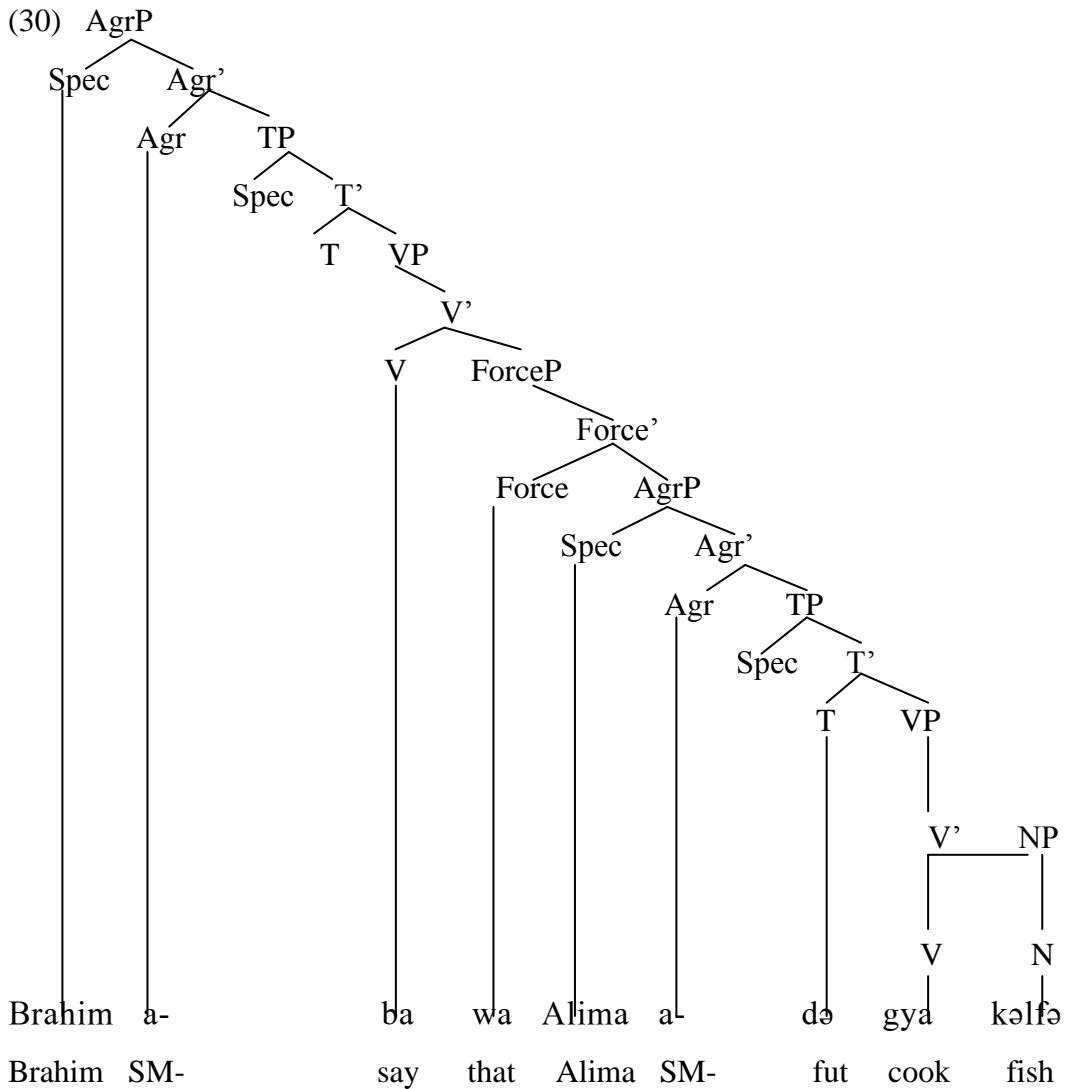
As for the existence of a ForcePhrase in Wandala, there are two lexical complementizers: *wa* and *gəni*. Both are equivalent of English *that*. *Wa* can occur only after the verb *ba* “say” but can be the complement of the following verbs *djadja* “think”, *diadia* “know”, *ndava* “ask”, *kata* “want”, etc.

(29) Brahim a-ba wa Alima a-də gya kəlfə
 Brahim SM-say that Alima SM-fut cook fish

“Brahim said that Alima will cook fish”

As expected, in (29) *wa* occurs after the verb *ba* “say”.

Sentence (29) is assigned the tree structure shown below:



(31)

a. Aissata diadia gəni əgdzara- aha ndza- ta- də am mbəca
 Aissata know that children-pl past - SM-go to forest

“Aissata knows that children went to the forest”

b. Mushe á- kata gəni pukura-aha ara ndaha laya
 teacher SM-want that pupils-pl his read writing

“The teacher wants his pupils to learn writing

c. Boukar á- djadja gəni əda- ɲara á- də - ɲye Aissata a mba
 Boukar SM-thinks that father – his SM-fut. chase Aissata off house

“Boukar thinks that his father will kick Aissata out of the house”

Wherever the lexical complementizer (*wa* or *gəni*) occurs, its presence is compulsory. Sometimes, Wandala indirect questions can be introduced by the lexical complementizer *gəni*:

(32) Bouba á- ndava gəni guwé Brahim á-dja əgdza-ara na
 Bouba SM-asks that why Brahim SM-beats child-his COMP

In (32), the subcategorization frame of the verb *ndava* “ask” is satisfied at LF because it subcategorizes for a [+wh] item. At S-structure, it subcategorizes for *gəni* that is definitely [-wh]. But notice that as far as indirect questions are concerned, they are not necessarily introduced by *gəni*. In fact, it seems to be the case that its presence is not required as a gateway to indirect questions:

(33) Bouba ndza- á- ndava waré una á-naha na Brahim na
 Bouba past- SM- ask who relativizer SM-see COMP Brahim COMP

“Bouba asked who Brahim saw”

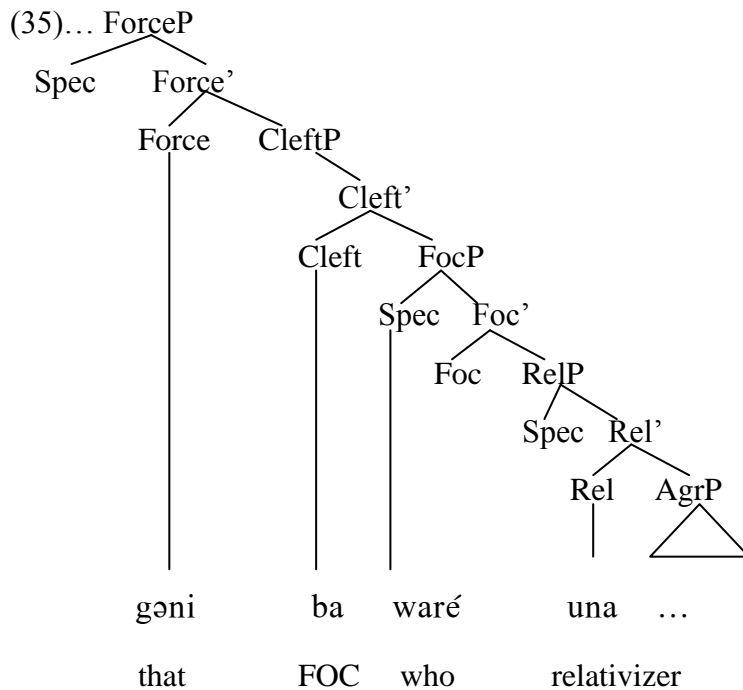
In (33), the subcategorization frame of the main verb is satisfied at S-structure. This seems to indicate that its selectional restrictions are such that its subcategorization frame can be met either at S-structure or at LF. This situation is reminiscent of what obtains in Tuki (see Biloa 1992, 1995).

With the above in mind, the licitness of the following construction is no longer surprising:

(34)
 Bouba ndza- á- ndava [gəni[ba[waré [una [á-naha na Brahim na]]]]]
 Bouba past- SM- ask that FOC who relativizer SM-see COMP Brahim COMP

“Bouba asked who (is it that) Brahim saw”

In (34), as opposed to (33), the wh-item *waré* “who” has been effectively focalized thereby explaining why it is preceded by a focus marker. The rest of the Wandala material in (34) is by now familiar. In (34), the bracketed material can be partially diagrammed as follows (irrelevant details omitted):



In the case of wh-phrase long - distance extraction, several occurrences of *gəni* are possible.

(36) waré una ka djadja na əkka gəni Brahim diadia gəni Alima

Who relativizer you think COMP that Brahim know that Alima

á - də- ga na

SM- fut.- marry COMP

“Who do you think that Brahim knows that Alima will marry”

Next, the focus of inquiry is relativization.

7.6. Relativization

This section aims at finding out what the landing site of relativization is in this language. But first, the question is asked as to what positions can be relativized in Wandala.

7.6.1. Accessibility Hierarchy

Keenan and Comrie (1977) proposed a crosslinguistically valid hierarchy with regard to relativization:

(37) Subject – Direct Object – Indirect Object of Pre - orpostposition - possessor

To see whether the Accessibility Hierarchy is respected in Wandala, consider the following data:

(38)

a. Subject

Mushe	nani	ndza-á-pua	laya	na	lapika
Teacher	relativizer	past-SM-pour	writing	COMP	sick

“The teacher who was writing is sick”

b. Direct object

Gyale	nani	ndza-á-wayta	Boukar	na	á-hufe
Girl	relativizer	past-SM-love	Boukar	COMP	SM-belly

“The girl that/whom Boukar loved is pregnant”

c. Indirect object

Jile	nani	ndza	ya	dja	ire	antara	na	á-tira
man	relativizer	past	I	hit	head	with	COMP	SM-prog
də	am	əkse	na					
go	in	village	COMP					

“The man whom/that I met went to the village”

d. Possessor

Mukse	nani	ndza-ta-ilu	kazlaɲa	ara	naile	aha	na	á-tira
Woman	relativizer	past-SM-steal	clothes	her	thief	pl.	COMP	SM-prog.
kyəwa								
cry								

“The woman whose clothes were stolen by a thief is crying”

In (38), all positions are relativized, demonstrating thereby that Wandala respects the Accessibility Hierarchy.

7.6.2. Relativization and Bounding theory

It is important to determine whether Wandala relative clause formation is an instance of Move Alpha. Consider the following sentences:

(39)

a. Jile nani ndza ya cəna gəni á-ga Fadi na kəɗakəɗa
man relativizer past I hear that SM-marry Fadi COMP die
“the man that I heard that Fadi will marry is dead”

b.* Tatá nani ndza ya cəna labara gəni Fadi ga jile ara
place relativizer past I hear news that Fadi marry man his
na yəyíye
COMP far

“The place where I heard the news that Fadi will get married is far”

c. Nawa gyale nani á-djadja na Bouba gəni Boukar
Here-is girl relativizer SM-think COMP Bouba that Boukar
diadia fakat gəni əda-ɲara á-də-ɲye a mba
know sure that father-her SM-fut.chase off house

“Here is the girl that Bouba thinks that Boukar knows for sure that her father will kick her out of the house”

(39a,b,c,) show that in Wandala relativization is an unbounded process: the relativized constituents have raised over several clauses and in so doing they have transgressed the Specified Subject Condition (SSC) and the Nominative Island Condition (NIC). However, (39b) is ungrammatical because it violates the Complex Noun Phrase Constraint (CNPC), thereby proving that Wandala obeys Subjacency and that relativization is an instance of Move Alpha. That being the case, what is the landing site of relativization in this language?

7.6.3. The landing site of relativization

It has been established above that relativization, in this language, is an instance of Move Alpha (Chomsky 1997). That being the case, one wonders “what is its landing site in Wandala?” This language seems to be devoid of *wh*-relatives as there are no relatives with one of the following *wh*-words:

(40) *Wandala wh-words* (see (13) above)

a. *Arguments*

i. waré “who”

ii. uwé “what”

b. *Referential adjuncts*

i. vatará “when”

ii. amé “where”

c. *Non-referential adjuncts*

i. estará “how”

ii. aḍabawé/guwé “why”

ii. azarazara “how much/how many”

Two main approaches to relativization are attested in generative grammar: the promotion analysis (Schachter 1973, Vergnaud 1974, Kayne 1994) and the matching analysis (Chomsky 1977, Safir 1986, Browning 1987). According to Aoun and Li (2003: 106, (30) – (31), the promotion analysis and the matching analysis can be respectively summarized as follows:

(41)

a. **Complementation structure:** the relative clause is a complement to D.

b. **Adjunction structure:** the relative clause is adjoined to the Head.

Two analyses are readily available when a relative clause contains a trace:

(42) Head raising/promotion and head-base-generation/ operator movement (see also Biloa 2013: 443):

a. Head raising/ promotion: the nominal to be relativized moves to the head position; that is the trace in the relative clause is derived by movement of the head.

b. Head-base generation/operator movement: the head is base-generated in its surface position and interpreted with the relative clause via a wh-operator movement to the relative CP; that is the trace in the relative is derived by operator movement.

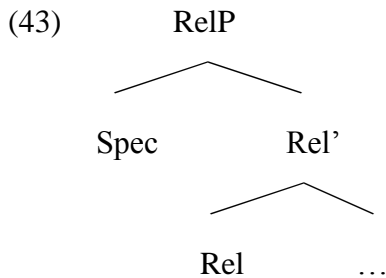
Aoun and Li indicate that the head raising approach (promotion analysis) involves non-wh relatives, while the operator movement approach (matching analysis) concerns wh-relatives.

Since Wandala is short of wh-relatives, its relatives must be derived by head raising. Having said that, it is not yet known what “the fine-grained structural cartography” (Belletti 2004) of Wandala relativization is.

Over the years, several generations of linguists have proposed what the landing site of relativization is: Bresnan (1970, 1972, 1979), Chomsky (1977, 1986), Rizzi (1997), Shlonsky and Soare (2011: 651-669), Biloa (2013), to name just a few. For Bresnan (1970, 1972, 1979) and Chomsky (1977), the landing site of relativization in particular or of wh-movement in general was Comp. Chomsky (1986) split Comp into Spec, CP and C, CP to the extent that Spec, CP became the host of raised/extracted wh-words, relative operators or null operators, while lexical complementizers were hosted by C°. Rizzi (1997, 2001, 2004) suggested that CP be *split*

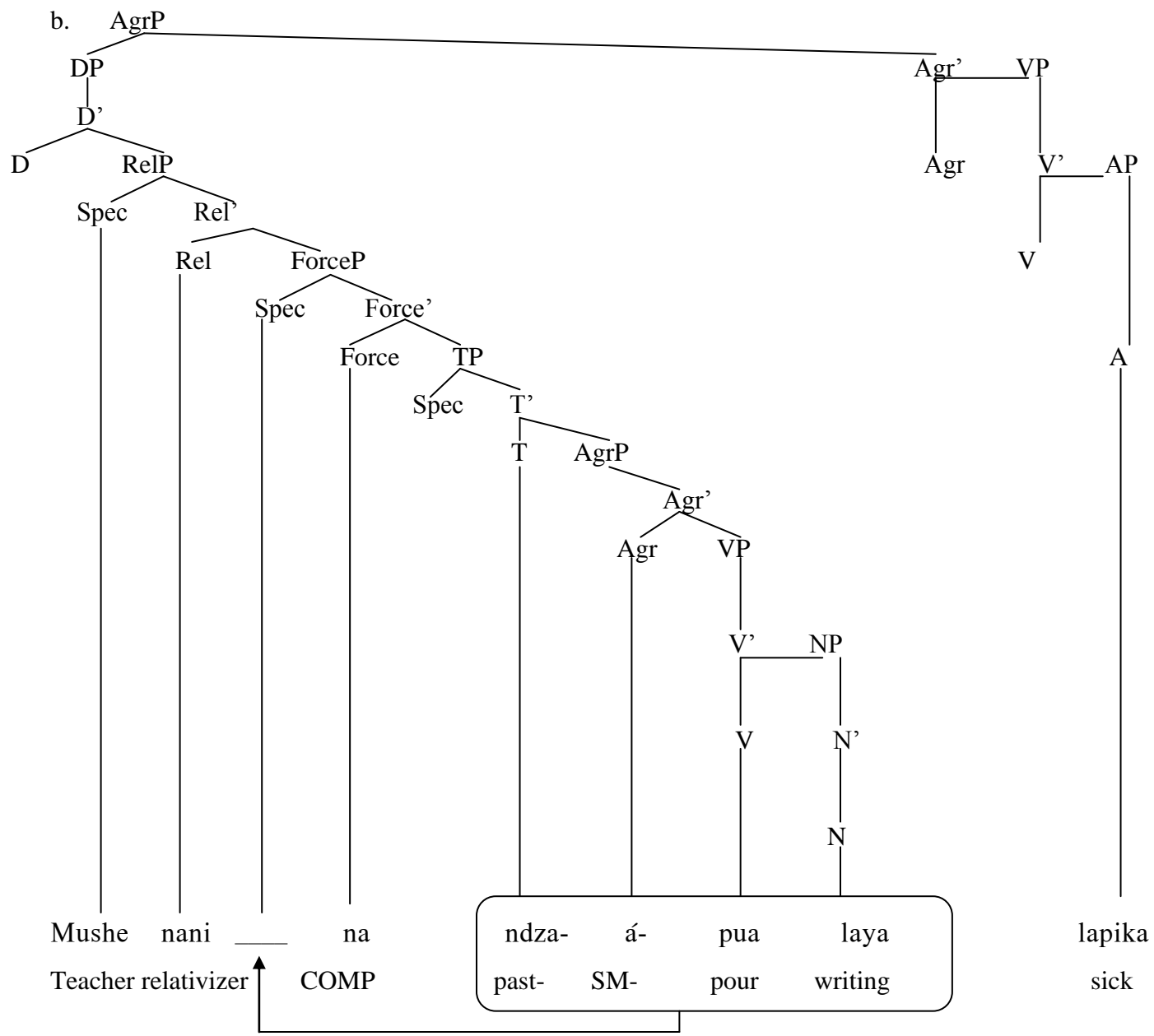
into a number of different projections – Radford (2004, 2009) refers to this analysis as the *Split CP hypothesis*. Rizzi (1977) argued that “complementizers (by virtue of their role in specifying whether a given clause is declarative, interrogative, imperative or exclamative in *force*) should be analyzed as contained within a separate FocP (=Focus Phrase) headed by a *Foc* constituent (Focus marker)”. Furthermore, he indicated “that just as focused constituent occupy the specifier position within a Focus Phrase, so too topicalized constituents should occupy the specifier within a TopP (=Topic Phrase)” (Radford 2009: 280-281). Biloa (2013) argued that the landing site of relativization in Tuki is RelP (Relative Phrase) (see also Shlonsky and Soare 2011: 651-669).

Now, recall that in the above description of focus constructions and relatives, some items were termed relativizers. They are so called because they are relative clause markers in the absence of *wh*-relatives. Analogically, they are supposed to play the same role as focus and topic markers. That being the case, they should logically head a maximal projection the denomination of which should follow from the name of its head, given X-bar theory. If the relativizer is a relative clause marker, it should head a maximal projection called RelP (Relative Phrase):



On the basis of above and adopting the view defended by Bianchi (1999), Aoun and Li (2003) that *wh*-relatives and non-*wh*-relatives alike are projected as DPs, the Wandala construction in (38a) (repeated as (44a) can be structured and derived as follows (cf. (44b)):

- (44)
- | | | | | | |
|----------|-------------|--------------|---------|------|--------|
| a. Mushe | nani | ndza-á-pua | laya | na | lapika |
| Teacher | relativizer | past-SM-pour | writing | COMP | sick |
- “The teacher who was writing is sick”

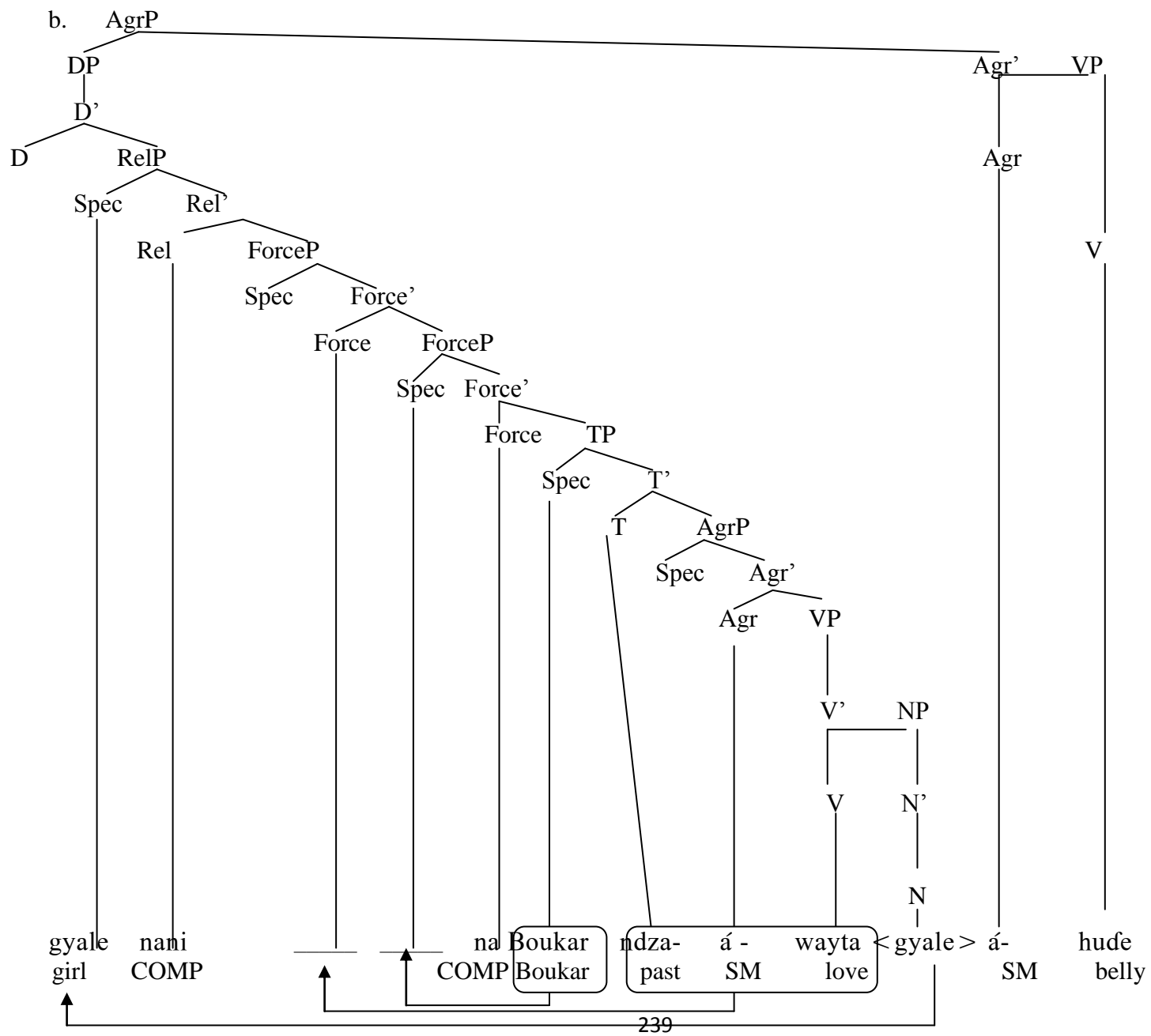


In (44b), the relative clause is projected as DP and is hosted by RelP (relative Phrase) as suggested by Biloa (2013) (see also Shlonsky and Soare 2011). This analysis postulates that the head noun in relative clause formation is hosted by Spec, RelP while the relativizer heads RelP (i.e. it is hosted by Rel^o). Notice that TP is pied-piped to Spec, ForceP, thereby preceding *na* in Force^o that closes off the relative clause and accounting for the word order attested. *Na* functions like a final complementizer as it occurs at the end of the relative clause (see Kayne 1994).

Now consider (38b) (repeated below as (45a)) and its derivation (cf. (45b)):

(45)

a. Gyale	nani	ndza-á-wayta	Boukar	na	á-hude	
Girl	relativizer	past-SM-love	Boukar	COMP	SM-belly	
“The	girl	that/whom	Boukar	loved	is	pregnant”



In (45b), there are three movement operations; i. The direct object NP, *gyale* “girl”, raises to Spec, RelP; ii. The verbal unit *ndza-á –wayta* “loved” moves to the higher Force, ForceP position; iii. Finally, the remnant phrase TP is pied-piped to the lower Spec, ForceP position. Three raising processes account for the word order attested in (45a-b). Notice that in (44b) and (45b), *nani* and *na* are respectively base – generated in Rel° and Force°. *Nani* is the relativizer and its presence explains why there are no *wh*-relatives. As for *na*, it is the final complementizer that closes off the relative clause domain.

7.7. Topicalization

In Wandala as in many languages, when a constituent is topicalized, it is fronted (i.e. it is raised leftward). There is a phonological pause between the topic (the topicalized constituent) that is graphically marked by a comma and the rest of the clause. For illustration, consider the following examples:

(46)

a. Bouba *ndza-á-ga-n* use *gə* Bintou am brimbe
 Bouba past-SM-greet-3sg greeting for Bintou in kitchen

“Bouba greeted Bintou in the Kitchen”

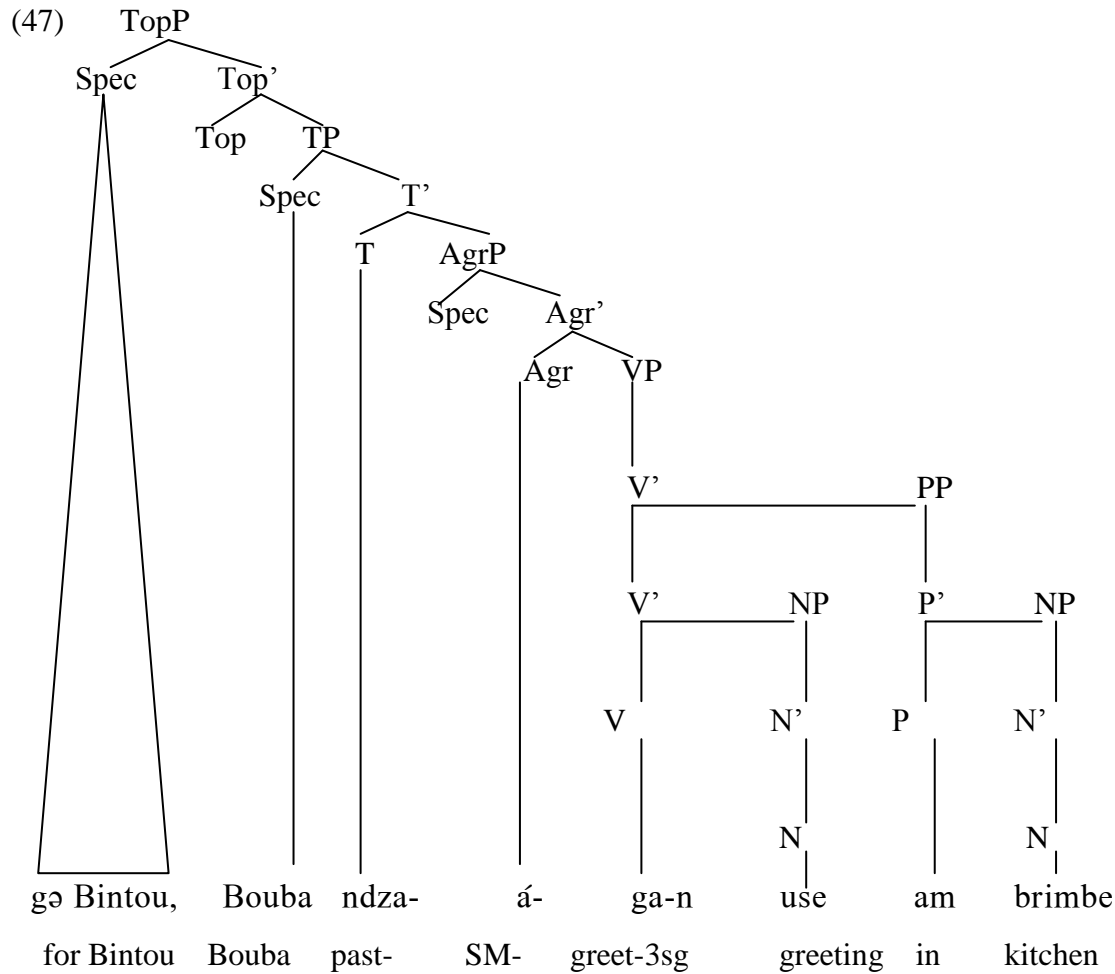
b. *gə* Bintou, Bouba *ndza-á-ga-n* use am brimbe
 for Bintou Bouba past-SM-greet-3sg greeting in kitchen

“Bintou, Bouba greeted in the kitchen”

c. am brimbe, Bintou *ndza-á-ga-n* use *gə* Bouba
 in kitchen Bintou past-SM-greet greeting for Bouba

“In the Kitchen, Bintou greeted Bouba”

(46a) is the input sentence from which (46b-c) are derived and in which topics are fronted. There are no topic markers in Wandala. Consequently, the topic merges into Spec, TopP and the head of TopP is null:



The recursion of topics can characterize Wandala topicalization. This means that it is possible to have several topics in the left periphery of the clause:

(48) mbakyeya, am zamane nga na, egdzara-aha am ekse, ta
 Last-year in period there this children-pl in village they
 am higa-aha tare, slekse ndza-á-djaha-ter-me ge dada
 in joy-pl them chief past-SM-gather-OM-past for big
 munguri
 feast

“Last year, at this time, the village children, full of joy, the chief invited them for a big feast”

So Wandala topicalization is characterized by the recursion of topics. The latter is a characteristic of Wandala wh-movement. In the above example, the left periphery is linearly structured as follows:

(49) Topic recursion in Wandala

TopP>TopP>TopP>TopP>AgrP

As a matter of fact, in (48) the PP *ge dada munguri* “for big feast” can be topicalized as well:

(50) Mbakyeya, am zamane nga na, egdzara-aha am ekse, ta
Last-year in period there this children-pl. in village they
am higa-aha tara, ge dada munguri, slekse ndza-á-djaha-ter-me
in joy-pl. them for big feast chief past-SM-gather-OM-past

“Last year, at this time, the village children, full of joy, for a big feast, the chief invited them”

The left periphery of the example in (50) is linearly structured as follows:

(51) Topic recursion in Wandala: TopP>TopP>TopP>TopP>TopP>AgrP

Having established that topic recursion is possible in Wandala, as it is in many languages (Rizzi 1997, Biloa 2013), attention can now be focused on the following question: can topicalization interact with relativization and wh-question formation? In order to provide answers to this question, consider the following examples:

(52) *Relative clauses*

a. Mukse nani ndza-á-bela na jile ara á-dua adem bre na
woman relativizer past-SM-send COMP man her SM-go in bedroom COMP

“The woman who(m) her husband sent to the bedroom...”

b.*Mukse adem bre nani ndza-á-bela na jile ara á-dua na
woman in bedroom relativizer past-SM-send COMP man her SM-go COMP

(53)

a. waré una ndza-á-bela na jile ara a-dua adem bre na?
who relativizer past-SM-send COMP man her SM-go in bedroom COMP

“Who did her husband send to the bedroom?”

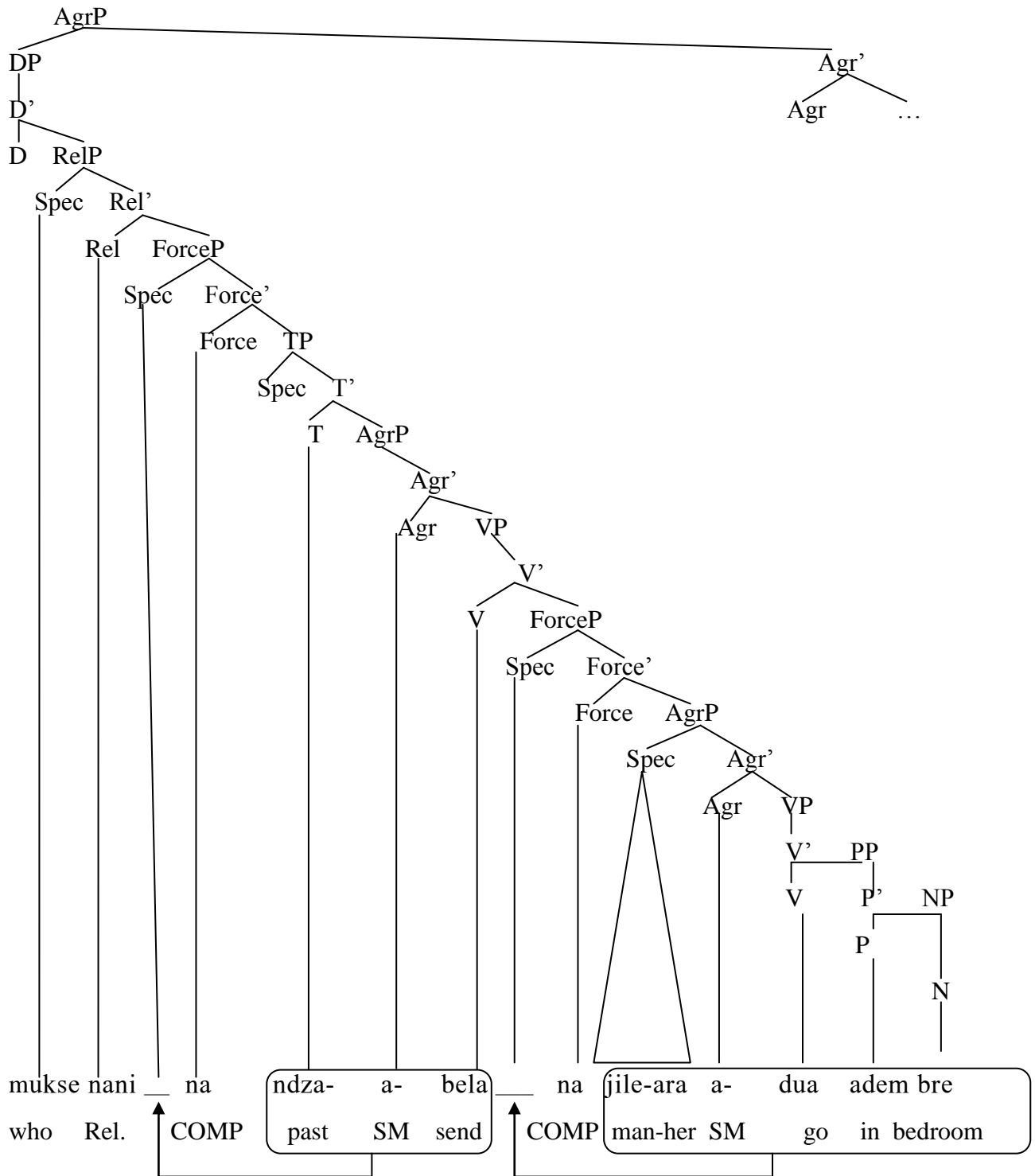
b.*Waré una, adem bre, ndza-á-bela na jile ara a-dua na
who relativizer in bedroom past-SM-send COMP man her SM-go COMP

c. Waré, adem bre, una ndza-a-bela na jile ara a-dua na
who in bedroom relativizer past-SM-send COMP man her SM-go COMP

(52a) and (53a) raise an interesting question: how are they derived? Notice, first of all, that in this language it seems impossible to topicalize inside a relative clause or an interrogative.

Now, to answer the question about the derivation of (52a) and (53a), consider the following tree representation:

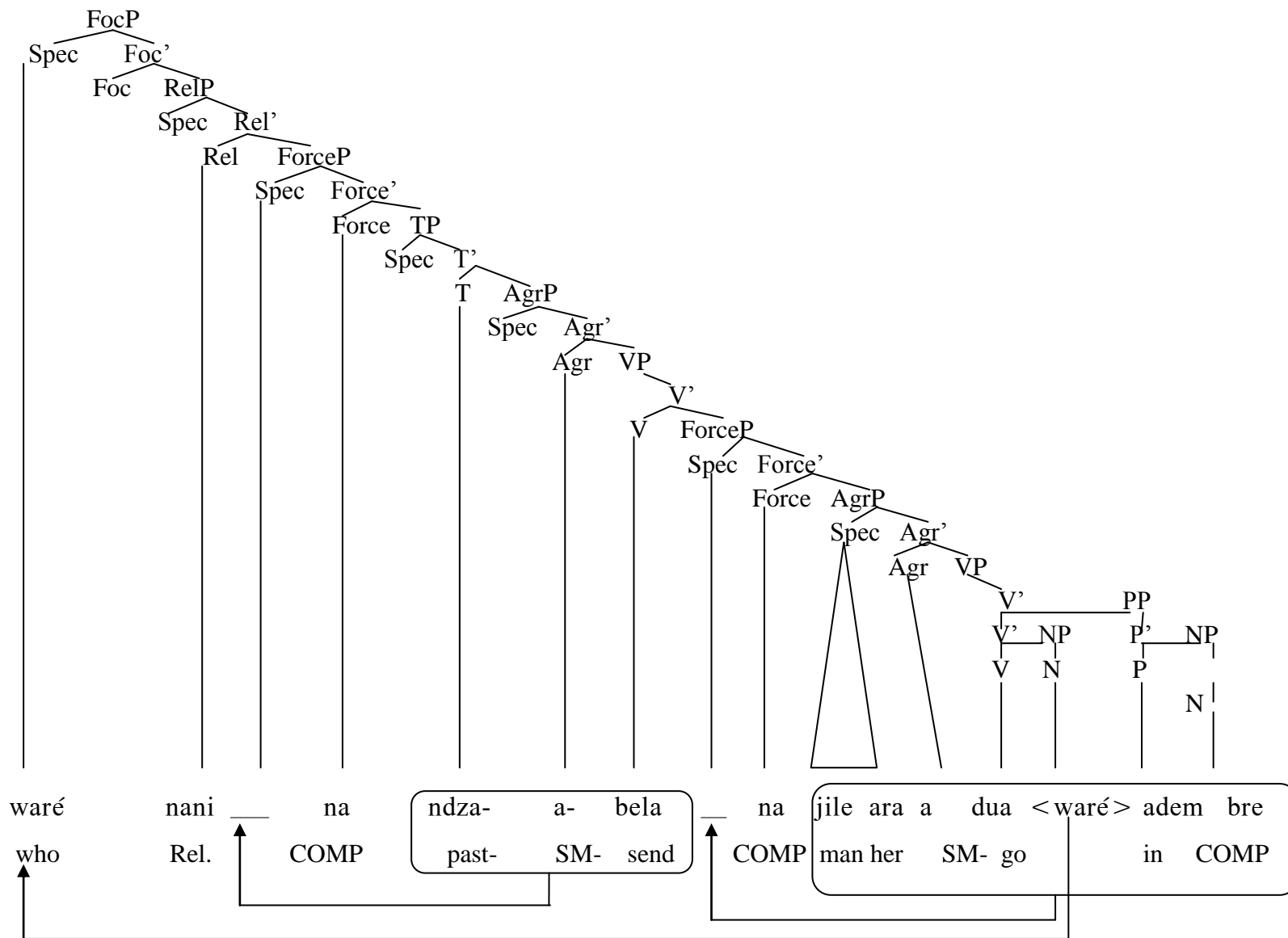
(54)



(54) depicts the derivation of (52a): there are two pied-piping processes whereby clauses are raised to the Spec, ForceP position, the head of which is each time occupied by the complementizer *na*.

(55) below portrays the derivation of (53a):

(55)



In (55), apart from the pied-piping operations attested in (54), the operator *waré* “who” has also merged to Spec, FocP.

In sum, it seems to be the case that topicalization is possible neither inside relativization (cf. 52b) nor inside question formation (cf. 53b-c). Nor is it possible above question formation:

(56)*Adem bre waré una ndza-á-bela na jile ara a-dua na
 in bedroom who Relativizer past-SM-send COMP man her SM- go COMP

7. 8. The position Int(errogative) in Wandala

In Wandala, embedded yes/no questions are introduced by *amane* “if, whether”:

(57) Kolia á-ndava amane Abdoul á-ba am mba
 Kolia SM-asks if Abdoul SM-be in house

“Kolia asks whether Abdoul is in the house”

In this language, the lexical complementizer *gəni* “that” and *amane* are in complementary distribution, as illustrated by the contrast between the following two sentences:

(58) Abdoul á-djadja gəni aba am bre una ndza Bouba
 Abdou SM-thinks that FOC in bedroom relativizer past Bouba

á-ga-n-use gə Bintou na
 SM-greet-greeting for Bintou COMP

“Abdoul thinks that it is in the bedroom that Bouba greeted Bintou”

(59) Abdoul á-ndava amane aba am bre una ndza Bouba
 Abdoul SM-asks whether FOC in bedroom Relativizer past Bouba

á-ga-n-use gə Bintou na
 SM-greet-greeting for Bintou COMP

“Abdoul asks whether it is in the bedroom that Bouba greeted Bintou”

(59) and (60) below show that *amane* can be followed by a focalized phrase:

(60) Bouba á-ndava amane aba awaye una ndza Sali
 Bouba SM-asks whether FOC yesterday Relativizer past Sali

á-gak-n-use gə Bintou am bre na
 SM-greet-greeting for Bintou in bedroom COMP

“Bouba asks whether it is yesterday that Sali greeted Bintou in the bedroom”

Similarly, a topic can follow *amane* (61a) being the input sentence, (61b) is the derived one in which the topic *mato* “car” occurs in embedded context after *amane*:

(61) a. Abdoul á-ndava amane ndza Bouba á-shukuve mato
 Abdoul SM-asks whether past Bouba SM-buy car

“Abdoul asks whether Bouba bought a car”

b. Abdoul á-ndava amane mato, ndza Bouba á-shukuve
 Abdoul SM-asks whether car past Bouba SM-buy

“Abdoul asks whether a car, Bouba bought”

As a matter of fact, it seems to be the case that in this language the interrogative marker *amane* ‘if’ can precede a topic and a focus or vice. For illustration, consider first the following input sentence:

(62) Abdoul á-ndava amane ndza Bouba á-shukuve mato awaya
 Abdoul SM-asks whether past Bouba SM-buy car yesterday

“Abdoul asks whether Bouba bought a car yesterday”

In the following two sentences, the direct object DP *mato* and the modifier *awaya* are focalized and topicalized in (63a), and topicalized and focalized in (63b):

(63) a. Abdoul á-ndava [_{IntP} amane [_{FocP} ba mato [_{TopP} awaya [_{RelP} una
 Abdoul SM-asks whether past FOC car yesterday Relativizer
 [_{ForceP} ndza [_{AgrP} Bouba á-shukuve]]]]]]
 past Bouba SM-buy

“Abdoul asks whether it is a car, yesterday, that Bouba bought”

b. Abdoul á-ndava [_{IntP} amane [_{FocP} aba awaya [_{TopP} mato [_{RelP} una [_{ForceP} ndza
 Abdoul SM-asks whether FOC yesterday car relativizer past
 [_{AgrP} Bouba á-shukuve]]]]]]
 Bouba SM-buy

“Abdoul asks whether it is yesterday, a car, that Bouba bought”

The above two sentences indicate that either of the following two positional sequences is allowed in the language:

(64)

a. IntP> FocP> TopP> RelP> ForceP> AgrP

b. IntP> TopP> FocP> RelP> ForceP> AgrP

7. 8.1. The Interrogative Phrase in main clauses

In Wandala, yes/no questions are introduced by a special morphological marker: |ba|. This question marker (QM) is not to be confused with the focus marker |ba|. The two items are homophonous, but they do not share the same distribution.

(65)

a. Bouba á-də-ga Bintou

Bouba SM-Fut.-marry Bintou

“Bouba will marry Bintou”

b. á- ba- də- ga Bintou Bouba

SM-QM- Fut. marry Bintou Bouba

“Will Bouba marry Bintou”

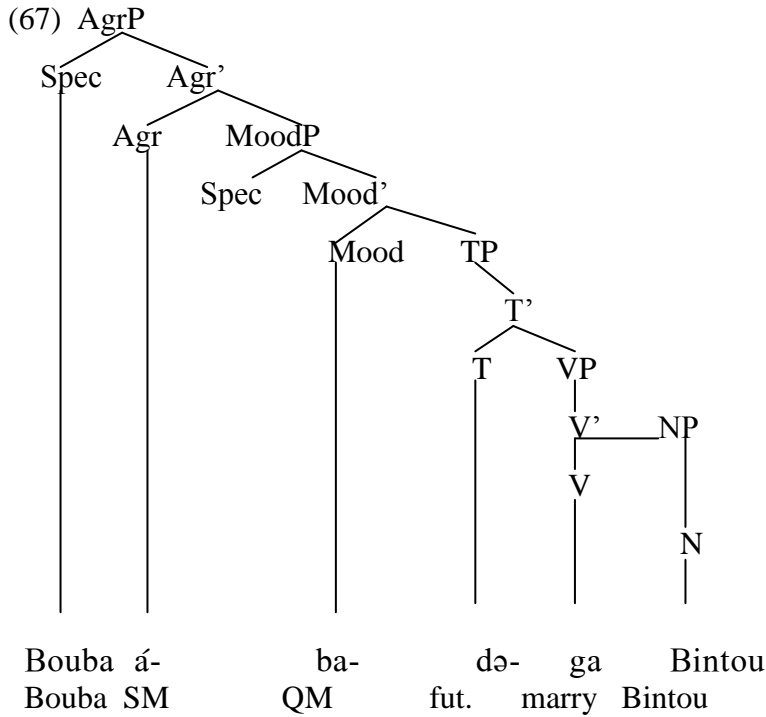
Notice that the direct question (65b) can be turned into an indirect one, as below:

(66) Idrissou á- ndava amane Bouba á-də-ga Bintou

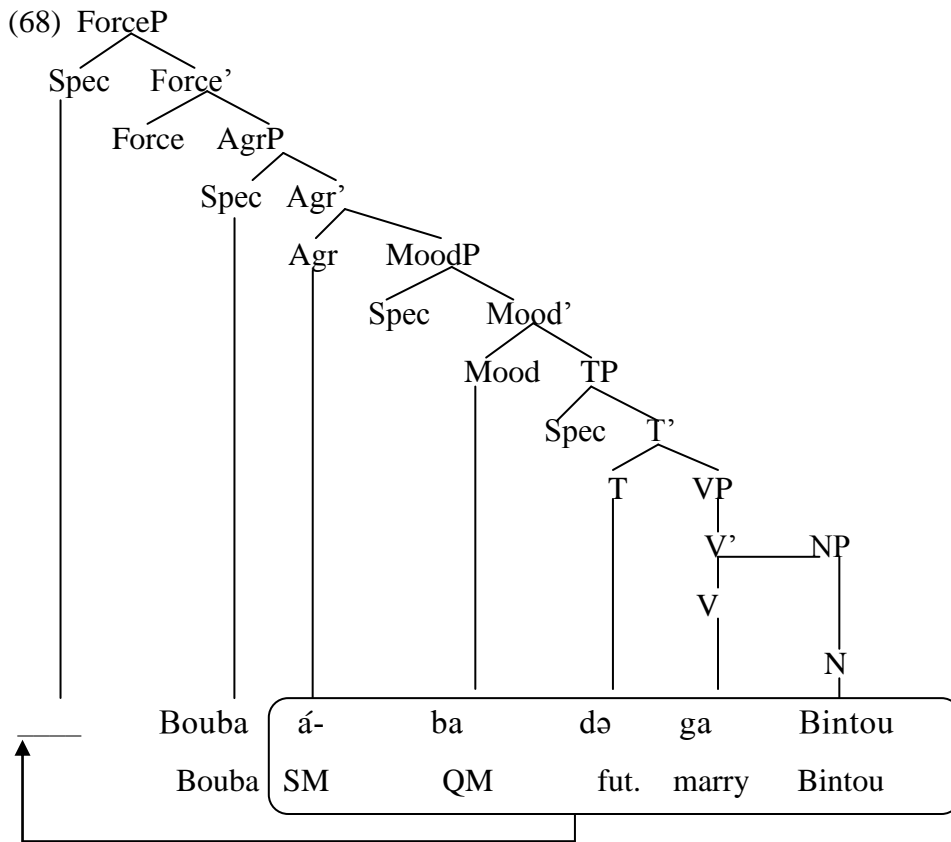
Idrissou SM-asks whether Bouba SM-fut. marry Bintou

“Idrissou asks whether Bouba will marry Bintou”

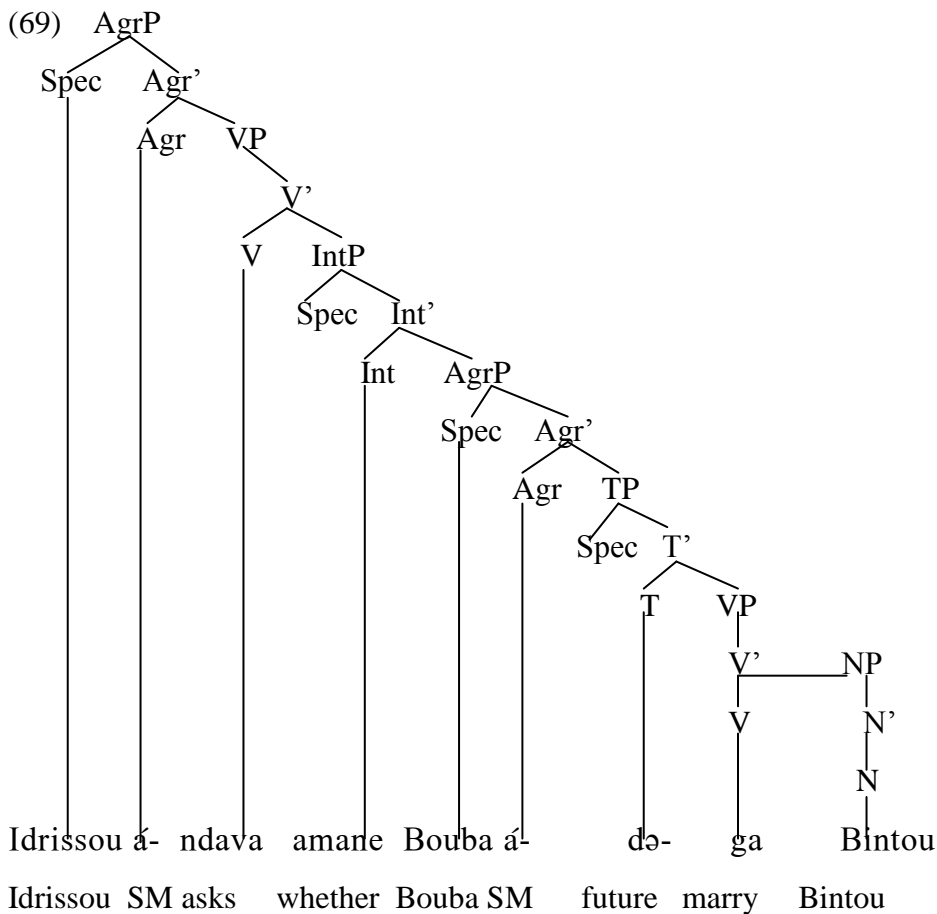
Coming back to (65b), the question marker (QM) occurs between the subject marker (SM) and the tense marker (TM). It seems to be the case that the introduction of the QM triggers the change in word order whereby the inflectional phrase and the verb phrase are fronted. Since the question marker is part of inflection (I), one can assume that it is mood. In many African languages, the question marker sometimes occurs in the form of a mood-like particle (cf. Biloa 2012). If that is the case, the input sentence for (65b), that is (65a), should be tree-represented as follows:



In (65b), the verb has been fronted along with its inflectional markers and the direct object DP *Bintou*. This entails that it cannot have raised to the head of ForceP. This movement can only be a case of heavy pied-piping merging into Spec, ForceP, as depicted below in the following phrase marker:



(65b) above shows that Wandala yes/no questions in matrix contexts are triggered by a special morphological marker which I have termed a question marker (QM). In the pre-Rizzi (1997)'s framework, questions are CPs headed by a C which carries [TNS, WH, EPP] features. Following standard assumptions and accordingly, wh-questions as well as yes-no questions are CPs containing an interrogative specifier. Grimshaw (1993) and Roberts (1993) suggest that yes/no questions contain a null question operator which is directly generated in the [Spec, CP] position: this operator is therein generated by merge rather than by movement (cf. Biloa 2013: 459). Adopting Rizzi's split CP hypothesis while preserving Grimshaw and Roberts suggestions, the Wandala item that triggers yes/no questions in embedded contexts, *amane* "whether, if", assume with Aboh (1998), Rizzi (2001b) and Biloa (2013) that there is a position called Int(errogative) P(hrase) that is dominated by ForceP. Wandala *amane* occupies the head of IntP. The interaction between IntP and the surrounding maximal projections will be discussed later. For the time being, the following phrase marker depicts the grammatical structure of sentence (66)



predictions cannot be correct since there is no direct relation between question particles and *wh*-in-situ, on the one hand, and *wh*-indefinites and *wh*-in-situ, on the other hand (Soare 2007: 111). A language like Tuki in which both the Q-particle and *wh*-raising (*wh*-movement) are attested clearly violates Cheng’s (1991) typology. Vata, a Kru language of the West African Republic, the Ivory Coast, carefully studied by Hilda Koopman (1984), also exhibits syntactic *wh*-movement as well as a clause-final Q-particle (Bilola 2013: 472). Wandala, the language under study, moves *wh*-phrases and is endowed with an affixal Q-particle. Once more, there seems to be a bone of contention between the Wandala empirical material and Cheng’s typology. Aboh and Pfau (2011) have observed that “crosslinguistic studies on question formation suggest that *yes/ no* – questions and *wh*-questions have different syntax even though they may appear to share certain morpho-syntactic properties, such as the presence of a question particle, auxiliary insertion, or word order alternation (Cheng 1991)”. They provide and analyze examples from Gungbe, an SVO language spoken in Benin, that “appear to support the view that *yes/no*-questions involve different derivations.” That notwithstanding, they propose a unified analysis for *wh*-questions and *yes/no*-questions as being expressed by Int(errogative) P(hrase), the concern of which is beyond the scope of this essay.

7.9. The Mod(ifier) P(hrase) in Wandala

In Wandala, as in many languages (Cinque 1999, Rizzi 2004b, Bilola 2013), adverbs can occupy a position in the left periphery of the clause and inside the clause. Given that fronted adverbs may be accommodated in positions inside the C-domain, it might be necessary to restructure the latter space.

Rizzi (2004b) argues that although the left peripheral adverbs apparently fill the regular topic positions, they do not behave, on interpretative grounds, like full-fledged topics. He observes that, in Italian, a sentence with a topic (expressed via the Clitic Left Dislocation construction) is not felicitous in out-of-the-blue (or “what happened?”) contexts, while a fronted adverb is grammatically acceptable in such contexts. Analyzing Italian, Rizzi concludes that “a preposed adverb seems to have something in common with a topic, the fact of being made prominent by movement to the left periphery, but it does not share with the topic the necessary connection to the background, whence its compatibility with “what happened context”. Furthermore, preposed adverbs in the left periphery land in positions that are distinct from topic positions. In some respects, Wandala is similar to Italian (Rizzi 2004b) and Tuki (Bilola 2013) in that a left peripheral adverb can dominate a topic and a focalized constituent:

(72) An watsautsire, gyegale, ndza a-dja matsame
 with speed rat past SM-kill hunter
 “Quickly, the rat, the hunter killed”

(73) An watsautsire, ba gyegale, una ndza a-dja matsame na
 with speed FOC rat relativizer past SM-kill hunter COMP
 “Quickly, it is the rat that the hunter killed”

But unlike what prevails in Italian and Tuki, a left peripheral adverb can dominate a wh-phrase in Wandala:

(74) An watsautsire, uwe una ndza a-dja matsame na
 with speed what relativizer past SM-kill hunter COMP
 “Quickly, what did the hunter kill?”

Why is (74) grammatical although it appears to violate the wh-Island Constraint (Ross 1967). That is left for future research. But (74) shows unequivocally that a preposed adverb in the left periphery can precede a wh-phrase.

In Wandala, adverbs can also fill IP-internal positions:

(75) a. Amina ndza a-gye ukkula an watsautsire
 Amina past SM-cook chicken with speed
 “Amina quickly cooked chicken”

b. Amina, an watsautsire, ndza a-gye ukkula
 Amina with speed past SM-cook chicken
 “Amina, quickly, cooked chicken”

c.* Amina ndza a-gye an watsautsire ukkula
 Amina past SM-cook with speed chicken

Sentence (75c) is ungrammatical. Presumably because the intervening adverbial prevents the verb from assigning accusative case to the direct object complement, violating thereby the adjacency requirement.

How do left peripheral adverb(ial)s behave in embedded contexts? To answer this question, consider the following paradigm:

(76) a.* Habibatou a- ndava gəni amane an enkale, kazlanga aha,
 Habibatou SM-asks that whether with slowness clothes pl.
 aba an sapoune una Bintou a- arva na
 FOC with soap relativizer Bintou SM-washes COMP
 b.* Habibatou a- ndava gəni amane an enkale, aba an sapoune
 Habibatou SM-asks that whether with slowness FOC with soap

una kazlanga aha Bintou a- arva na
 relativizer clothes pl. Bintou SM-washes COMP
 c.Habibatou a-ndava gəni amane an enkale uwe una
 Habibatou SM-asks that whether with slowness what relativizer
 a-arva na Bintou na
 SM-asks COMP Bintou COMP

Wandala is devoid of the English equivalent of *slowly*. However, the adverbial *an enkale*, which literally means “with slowness” is attested. And it appears that in this language a left peripheral adverbial in an embedded context cannot dominate and precede a TopP, a FocP and a wh-phrase. So it seems to be the case that a topic, a focus and a wh-item pattern alike, which is an indication that they all take part in the general rule Move Alpha (cf. Lasnik and Saito 1992).

But the following examples show that a FocP, a TopP can licitly dominate a left peripheral adverbial in embedded context:

(77) Habibatou a- ndava gəni amane aba an sapoune una,
 Habibatou SM-asks that whether FOC with soap relativizer
 kazlanga aha, an enkale, Bintou a- arva
 clothes pl. with slowness Bintou SM- washes
 “Habibatou asks whether it is with soap that, clothes, slowly, Bintou washes (them)”

Similarly, a wh-phrase can dominate a left peripheral adverbial in embedded context:

(78) Habibatou a-ndava gəni amane uwe una an enkale
 Habibatou SM-asks that whether what relativizer with slowness
 a-arva na Bintou na
 SM-washes COMP Bintou COMP
 “Habibatou asks whether it is what that, slowly, Bintou washes”

The question remains open as to why a left peripheral adverbial in embedded context cannot dominate and precede a TopP, a FocP and a wh-item. Similarly, why should TopP, FocP and wh-phrase be able to dominate a left peripheral adverbial in embedded context? Food for thought left for future research.

The examples described and analyzed so far have shown that the preposed adverbial in the Wandala left periphery occupies a non-focal as well as a non-topic position. The same can be said about the IP-internal adverbial:

(79) *Habibatou a-ndava gəni amane aba an sapoune una Bintou*
Habibatou SM-asks that whether FOC with soap relativizer Bintou
a- arva kazlanga- aha an enkale
SM-washes clothes pl. with slowness
 “Habibatou asks whether it is with soap that Bintou washes clothes slowly”

In (79), the adverbial *an enkale* occurs in clause-final position which is a non-focal and a non-topic position.

On the basis of his work on Italian, Rizzi (2004b) argues that the adverb, be it preposed or IP-internal, occupies the specifier of Mod(ifier) P(hrase). This conclusion stems from his following “the usual restrictive theory of syntactic position” according to which “a phrasal slot can only arise as the Spec of a head licensing the position”. This head is called “Modifier”. Adopting Rizzi’s theory, adverbials in Wandala substitute for the specifier of ModP. As seen above, in the left periphery of the clause, ModP may co-occur with TopP or FocP: all these phrases fulfilling different roles and functions. This state of affairs notwithstanding, an adverbial can also be focalized in Wandala and fill the Spec of FocP:

(80) *Aba an watsautsire una Bintou ndza a-gye ukkula awaya na*
FOC with speed relativizer Bintou past SM-cook chicken yesterday COMP
 “It is quickly that Bintou cooked chicken yesterday”

Conclusion

This chapter has discussed four scope-discourse properties in Wandala, an Afro-Asiatic Chadic language spoken in Cameroon. Focus fronting, relativization and wh-fronting in this language are morphologically marked and appeal to relativization i.e. each time a constituent is focalized, relativized or a wh-word is fronted, it is not only preceded by a focus morpheme but also followed by an overt relativizer. Besides, both strategies (focus fronting, relativization and wh-fronting) license an overt lexical complementizer in clause final position. While relativization is substitution of a relativized constituent into Spec-RelP, focus and wh-fronting processes rather involve substitution into Spec-FocP. It was shown that the word order attested in these constructions is better accounted for in the light of the Kayne’s (1994) antisymmetry approach and Rizzi (1997, 2001, 2004, 2013) cartographic framework. There appears to be a noticeable asymmetry between direct object and adjunct focalization and other focalization strategies. In the first case (adjunct and direct object focusing), the subject of the sentence remains within the verbal layer (Spec-VP) whereas focalization of any other sentence constituent does not make use of the same strategy. Indirect questions are morphologically marked by specific interrogative morphemes which are said to occupy Int, the head of Interrogative Phrase while topics are only marked prosodically i.e. via the use of a phonological break (graphically

materialized by a comma). Fronted adverbials or prepositional phrases are hosted in Mod, the head of the Modifier Phrase and illocutionary force is marked by an overt lexical complementizer which occupies the topmost position in the clausal left periphery. Globally, the ordering and positioning of these scope-discourse properties in Wandala allows for the following structural make-up: *IntP* > *FocP* > *TopP* > *RelP* > *ForceP* > *AgrP* and *IntP* > *TopP* > *FocP* > *RelP* > *ForceP* > *AgrP*.

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Chapter 8

Wh-movement, Q-particles and Pied-piping in Giziga

Introduction

This essay is structured as follows. In section 1, the language under study, Giziga, is genealogically classified. Information about the language word order is provided in section 2. Section 3 deals with focalization or cleft formation. Wh-phrases and Q-particles are introduced to the reader in section 4. The syntax of Giziga wh-in-situ is discussed in section 5. While in section 6, PF wh-raising is talked about. The (final) complementizer *ná* and the argument-referential adjunct/non-referential adjunct asymmetry are analyzed in section 7. In section 8, wh-questions are considered as focus constructions. In section 9, Cable's (2010) *Grammar of Q* is tested on the Giziga empirical material. Q-particles are explored in section 10 and their role (s) in Giziga wh-questions is probed. The Force Phrase is scrutinized in section 11. Whereas section 12 tackles relativization, section 13 looks at topicalization. The position Int(errogative) P(hrase) in Giziga is described and analyzed in section 14. Finally, section 15 concludes the essay.

8.1. Language classification

Giziga is an Afro-Asiatic, Chadic, Biu-Mandara language spoken by approximately 80,000 people in the Far North Region of Cameroon, in the Diamare and Mayo Kani divisions. It is also called Guiziga, Gisiga, Gisika, Tchere, Mi Marva. Its dialects include Maturami (Maturwa, Muturua, Giziga de moutouroua, Loulou), Mi Mijivin (Giziga de Midjivin), Rum.

8.2. Word order

This language word order is SVO:

(1) a. Dairoua a- wuḍ Soma

Dairoua SM love Soma

“Dairoua loves Soma”

b. Dairoua á- pura Soma le a viŋé

Dairoua SM+past see Soma Perf. in bedroom

“Dairoua saw Soma in the bedroom”

This word order is not altered by negation, as the negation marker occurs in clause final position:

(2) a. Dairoua a- wuḍ Soma ta

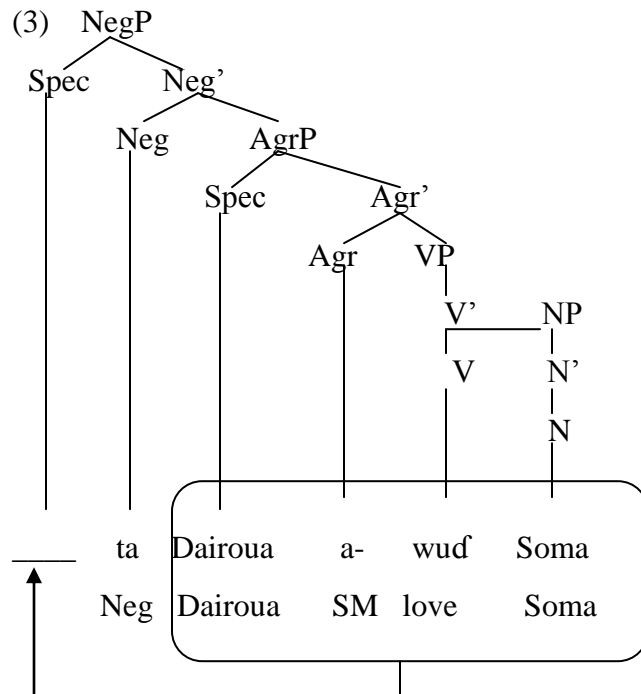
Dairoua SM love Soma Neg

“Dairoua does not love Soma”

b. Dairoua á- pura Soma le a viŋé ta
 Dairoua SM+past see Soma Perf. In bedroom Neg

“Dairoua did not see Soma in the bedroom”

Although negation marker occurs clause-finally, it has scope over the entire clause. This is accounted for by the following phrase marker that depicts the derivation of (2a):



In (3), NEG dominates and c-commands the rest of the clause. The latter is pied-piped into Spec, NegP which accounts for the word order attested in (2a).

8.3. Focalization

In this section, focalization is studied in detail. In this language, when a constituent is focused, it is preceded by the marker *i*. Consider (4a) to be the input sentence:

(4) a. Mamaya á- hiðik dá ngwas naŋa hay ngidambu
 Mamaya SM+past buy to wife his house yesterday

“Mamaya bought his wife a house yesterday”

b. I Mamaya mi hiðik dá ngwas naŋa hay ngidambu
 Foc Mamaya rel. buy to wife his house yesterday

“It is Mamaya who bought his wife a house yesterday”

c. I hay mi Mamaya mi hiđik a dá ngwas naŋ ngidambu ná
 Foc house rel. Mamaya rel. buy ben. to wife his yesterday COMP

“It is a house that Mamaya bought for his wife yesterday”

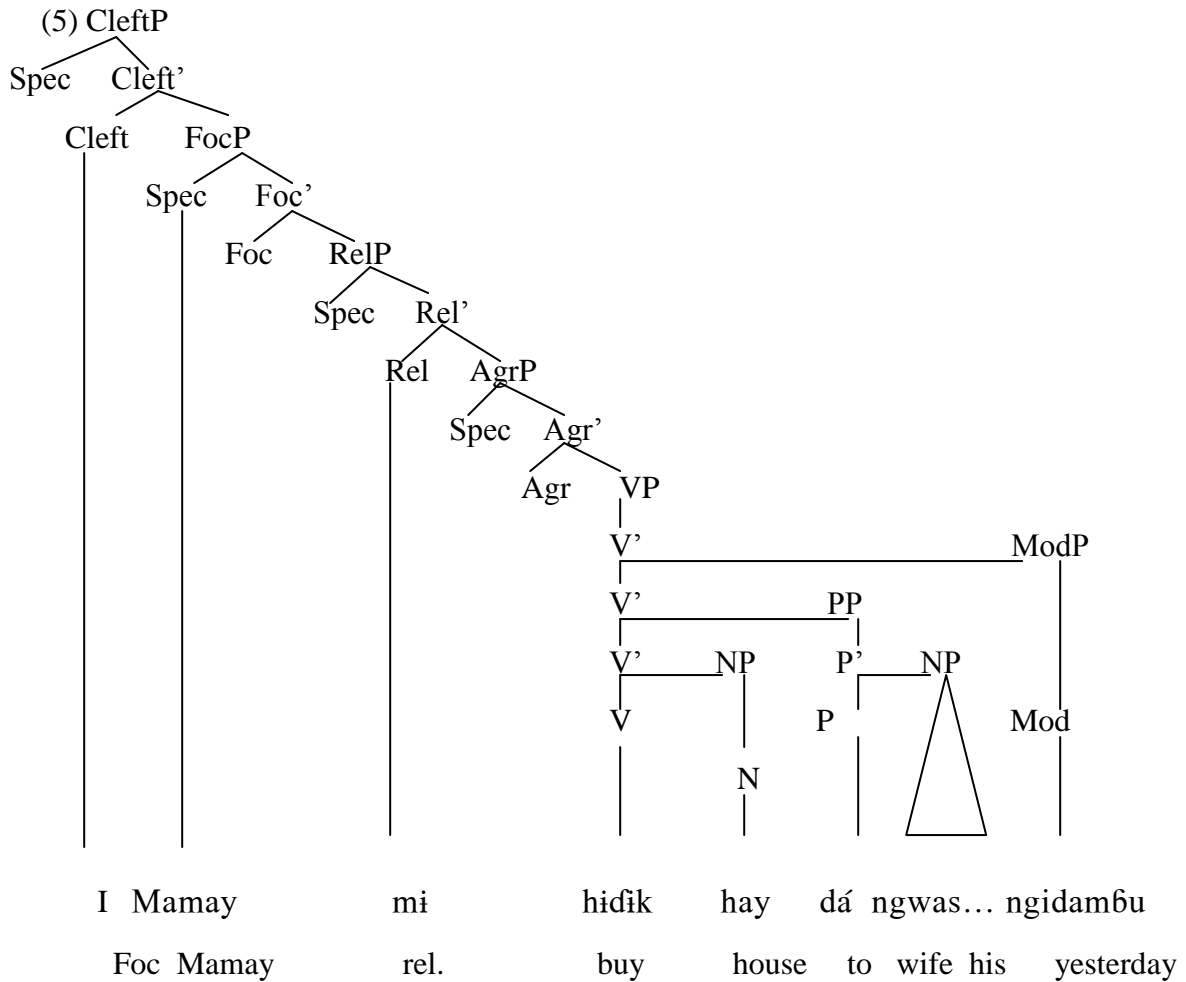
d.* I dá ngwas naŋ misi Mamaya mi hiđik hay ngidambu ná
 Foc to wife his rel. Mamaya rel. buy house yesterday COMP

“It is to his wife that Mamaya bought a house yesterday”

e. I ngidambu mi Mamaya mi hiđik-a hay dá ngwas naŋ ná
 Foc yesterday rel. Mamaya rel. buy- ben. house to wife his COMP

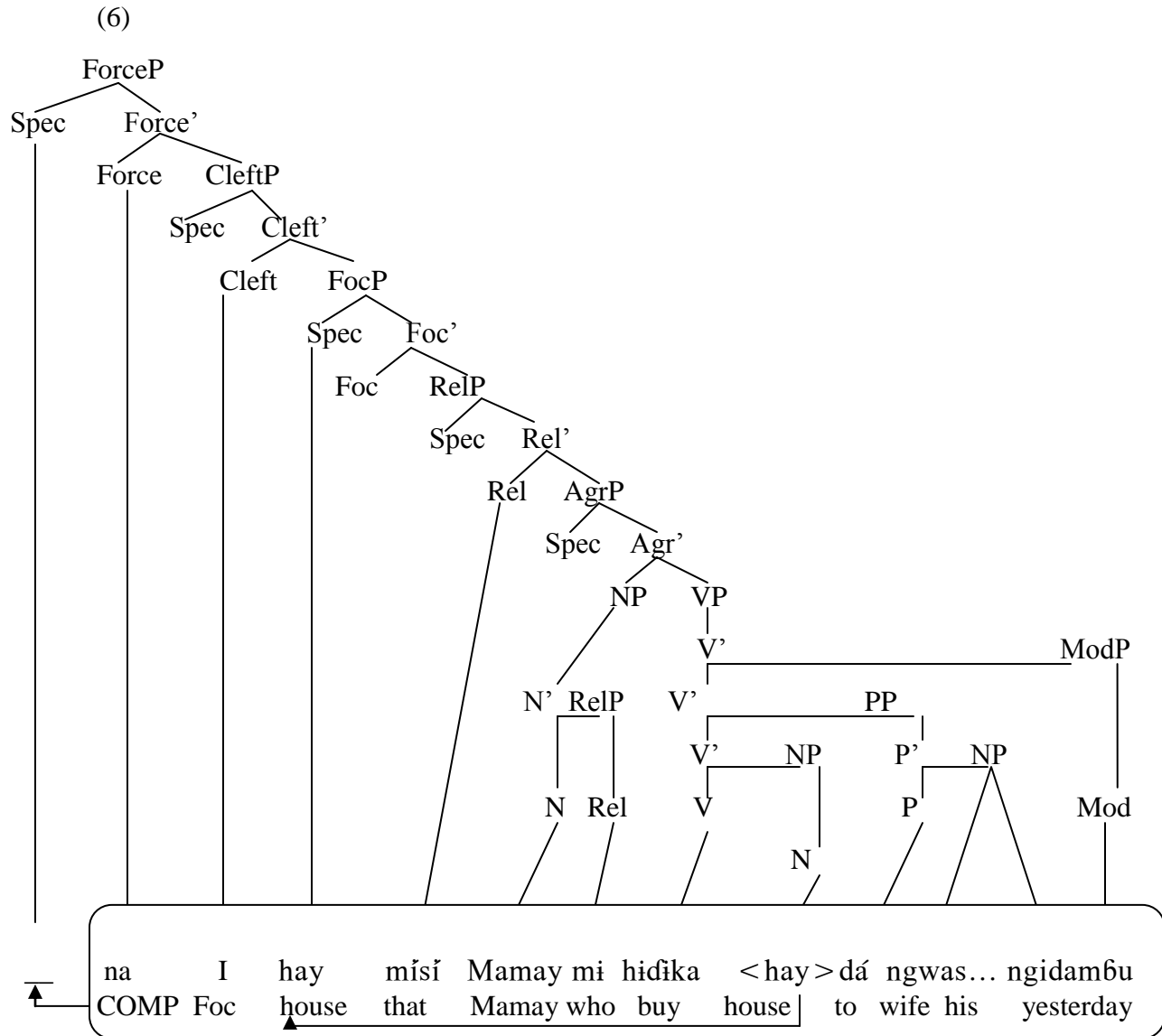
“It is yesterday that Mamaya bought a house for his wife”

In (4b), it is the grammatical subject, *Mamaya*, that is focalized. It is followed by the relativizer *mi* that means “who”. As it will be demonstrated in the section devoted to relativization, there are no *wh*-relatives in this language. Assume, as in Shlonsky and Soare (2011), Biloa (2013), that the relativizer is hosted by the head of the Relative Phrase (RelP). As for the focalized constituent, it merges to Spec, FocP, following standard assumptions stemming from Rizzi (1997). The focus marker precedes and dominates the focalized constituent. Assume that it heads a maximal projection of its own called CleftP since it contains overt lexical material and it encodes the meaning of a cleft construction. On the basis of the above reasoning, (4b) can be assigned the following tree structure representation:



In (4c), it is the direct object NP, *hay*, that is focused. It is preceded by the focus marker *I* and it is followed by the relativizer *mĩsĩ*. Notice also that the grammatical subject is equally followed by the relativizer *mi*. The latter occurs, in this language, whenever a constituent is focused, questioned or relativized. As far as focalization is concerned, only direct object focalization triggers the occurrence of the final complementizer *ná*. Subject focalization does not, as illustrated by (4b). (4d-e) shows that adjunct focalization is not allowed in this language. That is, it is impossible to focus a PP (see (4d)) and a modifier (see (4e)). This situation is reminiscent of what obtains in other Chadic languages like Musgum. However, this state of affairs is not crosslinguistically attested: in Tuki (cf. Biloa 2013), arguments as well as adjuncts are focalizable. The question is: why do languages like Musgum and Giziga exhibit an argument/adjunct asymmetry with regard to focalization? The question is left open for future research.

Returning to (4c), one wonders how the word order observed therein is obtained. The following phrase marker depicts its derivation:



In (6), *I* is hosted by $Cleft^{\circ}$; *hay*, the focused DP, merges to Spec, FocP; Rel° accommodates the relativizer *mĩsí*; *na* occupies $Force^{\circ}$. The rest of the clause, AgrP, is pied-piped to Spec, ForceP: this explains why the complementizer *ná* ends in clause final position. That is also why it has been called a final complementizer. The movement of AgrP to Spec, ForceP is called heavy pied-piping (see Nkemnji 1995). Chomsky's (1993) Extension Condition accounts for the pied-piping of AgrP into Spec, ForceP: as soon as a head is merged, raising into its specifier is compulsory (see also Koopman and Szabolcsi 2000: 42).

8.4. Wh-phrases and Q-particles

The following wh-words are attested in Giziga :

(7)a. *Arguments*

i. wá “who”

ii. mí “what”

b. *Referential adjunct*

i. ti vuna “when”

ii. ama “where”

c. *Non-referential adjuncts*

i. ka wana “how”

ii. vúr mí “why”

This language contains question particles (Q-particles) that occur with wh-items in a given domain (clause/sentence). The co-occurrence of wh-words and Q-particles will become explicatively explicit as the analysis proceeds in the following lines.

8.5. Wh-in-situ

In Giziga questions in which wh-phrases occur in situ, they are immediately followed by a question particle. This is tantamount to saying that in interrogatives, wh-items co-occur with Q-particles. Consider the following examples:

(8)

a. Somaa a- wud' wá ká?

Soma SM love who QP

“Soma loves who?”

b. Somaa a- dá mí ké?

Soma SM cook what QP

“Soma cooks what?”

(9)

a. Somaa a- sa- ru nga hiriwuy naṅa ti vuna ká?

Soma SM Fut. go to village his when QP

“Soma will go to his village when?”

b. Dairoua á- pura Somaa ama ka ?

Dairoua SM+past see Somaa where QP

“Dairou saw Soma where?”

(10) Somaa á- zlid-a dalaa' vúr mí ka
Somaa SM+past steal-ben. money why QP

“Soma stole money why?”

The above examples show that in *wh*-in-situ questions, *wh*-words occur side by side with question particles. More precisely, *wh*-phrases in situ must immediately precede question particles. That is not the case when *wh*-phrases have been subject to movement.

8.6. Wh-raising

When a *wh*-phrase moves in syntax, it is fronted and by so-doing it leaves behind the *Q*-particle. Moreover, the *QP* (question particle) is preceded by *ná* which is termed a (final) complementizer, the grammatical status of which will be discussed later. For illustration, consider the following questions:

(11)

a. wá Somaa ma wud' ná ká?
who Soma relativizer love COMP QP

“Who does Soma love?”

b. mí Somaa ma dá ná ké?
what Soma relativizer cook COMP QP

“What does Soma cook?”

(12)

a. ti vuna Somaa ma sa- ru ngá hirwiy naŋ ná ká?
when Soma relativizer Fut. go to village his COMP QP

“When does Soma go to his village?”

b. ama Dairoua mi pura Somaa na ka ?
where Dairoua relativizer see Somaa COMP QP

“Where did Dairou see Soma?”

(13) vúr mí Somaa má- zlid-a dalaa' ka
why Somaa relativizer steal-ben. money QP

“Why did Soma steal money?”

The above examples are the counterparts of wh-in-situ questions. In this section, wh-phrases have been fronted, stranding thereby Q-particles in clause-final positions. It can be observed that in both wh-in-situ interrogatives and wh-raising ones, the presence of Q-particles is obligatory. In other words, the occurrence of the wh-phrases alone does not make a genuine wh-question in this language. The Giziga empirical material seems to imply that “there is nothing inherently interrogative about wh-phrases” (Aboh and Pfau 2011). Furthermore, it raises interesting questions about Cheng’s (1991: 30) Clausal Typing Hypothesis (CTH):

“Clause Typing Hypothesis:

Every clause needs to be typed. In the case of typing a wh-question, either a wh-particle in C° is used or else fronting of a wh-word to the Spec of C° is used, thereby typing a clause through C° by Spec-head agreement.”

Cheng’s Clause Typing Hypothesis is not validated by Giziga since the language moves wh-phrases and has Q-particles. It thus seems to be the case that “wh-phrases do not participate in clause – typing” as suggested by Aboh and Pfau (2011). It is rather the presence of the Q-particle that makes a construction an interrogative. This would imply that in languages that are devoid of overtly realized Q-particles and yet move wh-phrases, Q-particles are present though null. This follows from the reasoning that all languages are similar as argued by Rizzi (2013: 201-202) “under uniformity guidelines that guide modern comparative syntax, the natural initial assumption, to be abandoned only on the basis of clear disconfirming evidence, is that all languages use a similar system of syntactic markers, except that such markers may be overt or not; this is a spell-out parameter, a familiar and widely attested kind of low level parametrisation.”

Coming back to the Giziga constructions in which there has been overt wh-raising, notice that clause-ending Q-particles are immediately preceded by the complementizer *ná*. How is this word order obtained? Take, for example, (11a):

(11a)

wá Somaa ma wuɗ ná ká?

who Soma relativizer love COMP QP

“Who does Soma love?”

The input of (11a) is (8a):

(8a)

Somaa a- wuɗ wá ká?

Soma SM love who QP

“Soma loves who?”

The QP *ka* scopes over the clause in (8a). *ka* is therefore posited as the head of IntP at the beginning of the clause:

(14) [IntP [Int *ka* [AgrP *Somaa a- wud' wá*]]]
 QP Soma SM love who

The complementizer *ná* is base-generated in the head of ForceP:

(15) [ForceP [Force *ná* [IntP [Int *ka* [AgrP *Somaa a- wud' wá*]]]]
 COMP QP Soma SM love who

The wh-phrase *wá* is fronted and is assumed to have merged into Spec, FocP (following Rizzi 1997):

(16)
 [FocP [Spec *wá* [Foc [ForceP [Force *ná* [IntP [Int *ka* [AgrP *Somaa a- wud'*]]]]]]]]
 who COMP QP Soma SM love

in order to obtain the word order attested in (11a), the clause AgrP must raise. This type of raising/movement is called heavy pied-piping and can only merge to the Spec position of a maximal projection. Spec, FocP is already occupied by *wá* “who”. Spec, ForceP is empty and is available. AgrP therefore pied-pipes into Spec, ForceP. This pied-piping produces the desired result: WA-AgrP-NA-KA. The derivation of (11a) seems to lend support to Rizzi’s positions (1997, 2001) that distinguish FocP from IntP and casts doubts on Aboh and Pfau’s (2011) claim that wh-questions and yes-no questions can have a unified analysis.

Notice that in (11a) the grammatical subject is followed by the relativizer *má*. This post-subject relativizer occurs in wh-questions, focus constructions and relatives for reasons that, for the time being, seem unclear or unmotivated.

The facts observed in matrix wh-questions obtain as well in embedded wh-questions:

(17)
 a. Mamayá a- cufud' a zuŋ náŋ- a ti vuna naŋ má sa- bun-
 Mamay SM asks ben. child his when he relativizer fut. wash
 a záná naŋ- ay ná ka
 ben. cloth his plur. COMP QP
 “Mamay asks his child when he will wash his cloth”
 b. Mamayá a- bi (i) wá soma mi púr zléé ná ka
 Mamay SM ask FOC who Soma relativizer + past see past COMP QP

“Mamy asks who Soma saw”

c. Mamayá a- bi vúr mĩ Somaá a- kid- a zuŋ naŋá ka
Mamay SM ask why Soma SM beat-ben. child his QP

“Mamy asks why Soma beats her child”

In embedded contexts, the raising of *wh*-items seems to trigger the base-generation of the complementizer *ná* before the clause-final QP: the same fact obtain in matrix contexts.

8.7. The final complementizer *ná* and the argument-referential adjunct/non-referential adjunct asymmetry

Recall that it was shown above that there exists an asymmetry between arguments and adjuncts with regard to focalization. More specifically, if it is possible to focus arguments (subject, direct object), it is impossible to focalize PPs and adjuncts (cf. section 4 above).

Another asymmetry concerns the raising/movement of arguments-referential adjuncts and non-referential adjuncts. In effect, when arguments and referential adjuncts are fronted, the complementizer *ná* occurs just before the clause/sentence final QP, except when it is the argument *who* in subject position that is vacuously moved (Chomsky 1986). Examples (11 a-b) show that when direct objects *wá* “who” and *mĩ*

“what” are fronted, *ná* occurs where it is expected. But in (13), when *vúr mĩ* “why”, which is a non-referential adjunct is raised, the complementizer *ná* is no where to be seen. Similarly, in (17c) the raising of *why* in the embedded context does not trigger the generation of *ná*, as expected. More evidence that *ná* does not co-occur with extracted non-referential adjuncts is provided by the following examples:

(18) a. Cine díke naŋ mbri ke

father your him how QP

“Your father is feeling how?”

b. Mbri cine díke ka?

How father your QP

“how is your father feeling?”

In the verbless clause (18b), despite the fronting of *mbri* “how”, *ná* is absent. So *how* patterns with *why* in Giziga in that their movement does not generate the birth of *ná* whereas the extraction of arguments and referential adjuncts does. Why is there such an asymmetry in Giziga? The exploration of this issue is beyond the scope of this essay.

8.8. Wh-questions as focus constructions

Bilola (2013 : 421-428) observes that the similarities between focus sentences and wh-questions strongly argue not only for a uniform account of the two construction types but also for a semantic relation between them. The semantic relation between wh-questions and focusing constructions has been discussed in the literature (see for instance Myers (1971), Heny (1971) and Rochemont (1986); for a discussion of the relation between focus and relativization see Schachter (1971) and Takizala (1972)). Takizala argues that a wh-question involves the same presuppositional structure as a focusing construction. Compare, for example, sentences (19) (focus) and (20) (wh-question) below (Takizala's (79) and (80)):

(19) It was/wasn't Kipese that bought a chair = Presupposed 'Someone bought a chair'

Asserted: 'That person is Kipese'

(20) Who bought a chair? = Presupposed 'Someone bought a chair'

Querried 'That person is who?'

The semantic structure seems to be the same although the performative involved is different in both constructions (declare for focus, request for a wh-question). The Tuki and Duala facts lend considerable support to the above analysis (cf. Bilola 1992). Several proposals have been put forward in order to formalize the semantic connection between wh-questions and focusing constructions (Whitney (1984), Culicover and Wilkins (1984), Horvath (1986), Rochemont (1986), Rochemont and Culicover (1990)). We will briefly review some of these proposals and choose the one that aptly accounts for the material discussed here.

Whitney (1984) argues that all constructions involving movement to an A-bar position should be analyzed as obligatory focusing constructions in terms of her A-bar Focus principle (Whitney (1984, 191)):

(21) A-bar Focus principle

If alpha results from adjunction to an A-bar position, then alpha is necessarily focused.

Whitney's analysis could not easily accommodate the Tuki data on wh-questions and cleft constructions, since the relevant Tuki constructions do not involve adjunction.

Culicover and Wilkins (1984) and Rochemont (1986) indicate that the focus effect is associated with the occurrence or raising of a phrase in a universally identified focus host in the clause. This focus host is a VP adjoined position. Rochemont (1986) proposed the Cleft Focus Principle:

(22) Cleft Focus Principle

In the S-structure [V... α ... V... α ...], where: α ... β

i. one occurrence of $\alpha = e$,

ii. V governs α , and

iii. α is not theta-marked by V (V = be), α is a contrastive Focus

Since Giziga wh-questions and cleft constructions are not cases of adjunction to VP, we suggest that the configuration proposed above is inadequate. The same reasoning was applied to Tuki (Bilola 1992, 2013).

Following Rochemont (1986) who suggests that a cleft focused phrase appears at S-structure in a subcategorized position but is not theta-marked in that position by the governing head, Rochemont and Culicover (1990) propose the Focus principle:

(23) The Focus principle

α is a structural focus if

i. $a = \text{NP, CP, PP}$

ii. there is a $\beta = X^\circ$ such that β canonically governs a and a is neither case-marked nor theta-marked by β .

iii. β is not excluded by any t , $t = \text{xiii}$, that dominates α .

By ‘structural focus’, the authors mean ‘a focused phrase that is identified as a focus by virtue of its appearing in a specific position in a given construction...’ ‘Canonical government’ refers to the canonical government configuration of Kayne (1983).

Recall that in Giziga wh-questions and cleft constructions, the foci occur after the so-called focus marker (FOC):

(24)

a. i Bole (mísí) mi hidík jaŋgá ná
FOC Bole (that) Rel+past buy chair COMP

“It was Bole who bought a chair”

b. i wá mi hidík jaŋgá ná ka?
FOC who Rel+past buy chair COMP QP

“It is who that bought a chair?”

(24) shows that ordinary NPs can be focalized just like wh-phrases.

Although it has been argued that wh-phrases are inherently focused because they require information, there are cases when they are not overtly focused, i.e. the focusing is not phonomorphosyntactically marked as in the following example which is the counterpart of (24b):

(25) wá mi hidík jaŋgá ná ka?
who Rel+past buy chair COMP QP

“Who bought a chair?”

The following paradigm clearly illustrates that in Giziga, a wh-phrase is overtly focusable only when it is fronted. In other words, when it is in situ, it cannot be marked by a focus marker:

(26)

a. Somaá a- dí zléé (*i) mí ké
 Soma SM cook past FOC what QP

“Soma was cooking what?”

b. mí Soma má dí zléé ná ka?
 FOC Soma Rel. cook past COMP QP

“What was Soma cooking?”

c. i mí Soma má dí zléé ná ka?
 FOC what Soma Rel. cook past COMP QP

“It is what that Soma was cooking?”

As a remainder, when a constituent in Giziga is focused, questioned (fronted) or relativized, the clause – final COMP *ná* occurs (cf. (24a-b), (25b-c)). When it is fronted in an interrogative, the QP occurs after the COMP *ná* (cf. (24b), (25)).

According to Horvath (1986), FOCUS is a syntactic feature assigned under adjacency. She defines FOCUS as follows:

(27) In a configuration [... α ... β ...] or [... β ... α ...], α is x° , α assigns a syntactic feature [gamma] to β if:

- a. α governs β and
- b. α and β are adjacent

In (27), β would be assigned FOCUS by α , much in the same way as FOC assigns FOCUS to wh-items in Tuki (Bilola 2013). Let us assume that, in order to be interpreted as a nonecho question, a wh-question word must receive the feature FOCUS at the appropriate level of representation, call it [+ gamma] from either Infl or V (see Kinyalolo 1991 for the same line of reasoning):

(28) A wh-phrase must be gamma-marked by a phonetically realized head.

In Giziga, the focus marker precedes the focalized constituent, be it an ordinary DP or a wh-operator. In this case, it is the head of CleftP, the morpheme *i* that gamma-marks the focused element.

Notice that the focus word is optional in Giziga wh-questions:

(29)

a. (i) wá Soma má sa- zúǎ ná ka ?
 FOC who Soma Relativizer fut. marry COMP QP

“(it is) who (that) Soma will wed?”

- b. (i) wá má wúf Soma ka ?
 FOC who Relativizer love Soma QP

“Who is it that loves Soma?”

The optionality of the focus word in Giziga entails that an overt FOCUS assigner does not have to be phonetically realized. In other words, an extracted wh-phrase in Giziga must be gamma-marked by a preceding head, be it phonetically realized or not.

Unlike the situation that obtains in Giziga wh-questions, the presence of the focus word is compulsory in cleft constructions. Thus in the following sentences, the focus word may not be omitted (if the sentence is to be interpreted as a cleft construction):

(30)

- a. I Soma mǐsǐ Dairou má wuǫf ná
 FOC Soma Relativizer Dairou Relativizer love COMP

“It is Soma that Dairou loves”

- b. I dili-hey mǐsǐ mizliy mizile-hey má wuǫf-am ná
 FOC girl-plural relativizer man male-plural relativizer love-plural COMP

“It is girls that men love”

In cleft constructions, the presence of Foc is mandatory, whereas in wh-questions it is optional. Now why is the focus word optional in Giziga wh-questions and required in cleft constructions? Biloa (2013: 424) has conjectured that a wh-question is by definition a focus construction, thus irrespective of whether there is a FOCUS assigner or not, a wh-item in a wh-question will be interpreted as the focus of the construction. The same reasoning does not apply to ordinary NPs.

In Giziga, when a constituent is focused, a number of mechanisms take part into the ball game: relativization of the focused constituent, relativization of the grammatical subject (for unknown reasons), occurrence of the sentence-closing complementizer *ná*. If these focalization inducing mechanisms all of a sudden vanish in (30a-b), these sentences become topicalized constructions:

(31)

- a. Soma Dairou a-wuǫf
 Soma Dairou SM-love

“Soma, Dairou loves”

b. Dili -hey mizliy mizile-hey a-wud-am
 girl-plural man male-plural SM-love-plural
 “Girls, men love”

In order to account for the adjacency requirement between the verb and the focus/wh-phrase in the relevant Hungarian constructions, Brody (1990) suggested that the feature [+focus] be assigned to Spec of FP. As far as Giziga is concerned, although the presence of a focus word in the case of preposed wh-phrases is optional, we have assumed that wh-phrases in Tuki are inherently [+f], thus the presence of a focus word is not required. In the case of [+f, –wh] –phrases, however, [+f] assignment is obligatory, hence the obligatory presence of the focus word (the same facts obtain in Tuki, cf. Biloa 1992, 2013).

Apart from the fact that the focus word may not be omitted from cleft constructions while it may in wh-questions, there are other differences between these two constructions. A number of syntacticians (cf. Heggie (1988), Radford (1988)) among others) assume that cleft sentences have the following schematic form:

(32) [it be XP CP]

Thus, the following English sentences are typical cleft sentences:

(33) a. It is Bob [who Betty loves]

b. It is Bob [that Betty loves]

(34) It is Bob [∅ Betty loves]

It is fairly obvious that English cleft sentences differ from English questions such as (35):

(35) who does Betty love?

(35) has the following schematic structure:

(36) [CP IP]

(32) and (36) differ in that the copula is conspicuously missing in the latter structure.

But the copula may not be the real culprit for the ungrammaticality of the following sentence:

(37) *it is who (that) Betty loves?

The illicitness of (37) may be accounted for by two facts:

(a) wh-in-situ elements are not licensed in English, except in echo questions and multiple interrogation; (b) inversion is normal in wh-questions except when the subject is questioned. In (37), *who* is not in situ per se, but in effect it occurs in situ inside the predicate. The validity of this reasoning is supported by the following sentence:

(38) who is it --- that Betty loves?

Notice that in (38) *who* has moved from the post-predicate position to the clause – initial position, triggering inversion in the process. Thus, partial movement of *who* and absence of subject-verb inversion help explain the ungrammaticality of (37).

In sum, although wh-questions and cleft constructions share the same presuppositional structure, they do not have the same sentential structure in English. One may expect to find a language in which both wh-questions and cleft constructions share the same presuppositional structure as well as the same sentential structure. Giziga seems to be the language in point. Consider the following sentences:

(39)

a. I Dairou (misi) Nada má wud' ná
 FOC Dairou relativizer Nada relativizer love COMP

“It is Dairou that / who(m) Nada loves”

b. I wá (misi) Nada má wud' ná ka?
 FOC who relativizer Nada relativizer love COMP QP

“It is who that Nada loves?”

In (a), the direct object NP *Dairou* has been focused; whereas in (b) it is the wh-element *wá* “who” that has been focused. Notice that (39b) is grammatical while its English equivalent is not (cf. (34)). What obtains in Giziga is also valid in Tuki (Bilola 2013: 426-427). (39 a-b) seem to have the same sentential structure:

(40) [FOC XP RelP AgrP RelP...]

There is one slight difference between (39a) and (39b) in that the latter construction ends with a QP because it is an interrogative.

If the direct object is no longer focalized in (39a-b), the focalization inducing effects disappear, i.e. in (39a) the relativizer after *Dairou* and the one after *Nada* both vanish as well as *ná*; in (39b) the relativizer after *wá* gets lost. Thus the two sentences in (39) can become:

(40)

a. Dairou Nada a-wud'
 Dairou Nada SM-love

“Dairou, Nada loves”

b. wá Nada má wud' ná ka?
 who Nada relativizer love COMP QP

“Who does Nada love?”

Without focalization and its inducing effects, (39a) becomes a topicalized construction (cf. (41a)). (41b) is ambiguous between a cleft construction in which a wh-word has been focused and a simple content wh-question. This ambiguity is due to the fact that in questions wh-items are always focalized, much in the same way as ordinary NPs are focused in cleft constructions.

8.9. Seth Cable's (2010) *The Grammar of Q*

Cable (2010) wrote an interesting seminal book in which he claims that with regard to wh-operators, “the proper locus of explanation is not those wh-operators themselves, but rather a distinct element bearing a special semantic (and sometimes syntactic) relationship to the wh-operator.” This element is referred to as the Q-particle. His analysis is based on the study of wh-questions in Tlingit (Na-Dene; Alaska, British Columbia, Yukon). Tlingit is a “wh-fronting language”: “wh-words in its wh-questions must appear at left peripheral positions” (p.14):

(42) (Cable 2010: 13, (11))

Daa	sá	i	éesh	al'óon?
what	Q	your	father	he.hunts.it

“What is your father hunting?”

(43) (Cable 2010: 22, (7a-b))

a. Wáa	sá	sh.tudinookw	i	éesh
How	Q	he.feels	your	father

“How is your father feeling?” (Dauenhauer and Dauenhauer 2000: 138)

b. Daa	sáwé	i	éesh	al'óon?
what	Q.FOC	your	father	he.hunts.it

“What is your father hunting?” (Dauenhauer and Dauenhauer 2000: 186)

(45) (Cable 2010: 24, (11a-d))

a. Aadóoch	sá	kgwatóow	yá	x'úx'?
who. ERG	Q	he.will.read.it	this	book

“who will read this book?”

b. Aadóoch	sá	yá	x'úx'	kgwatóow?
who. ERG	Q	this	book	he.will.read.it

c. yá	x'úx'	Aadóoch	sá	kgwatóow?
this	book	who. ERG	Q	he.will.read.it

d. * yá x'úx' akgwatóow Aadóoch sá?
 this book he.will.read.it who. ERG Q

In Tlingit long-distance movement, the wh-word is displaced along with the Q-particle:

(46) (Cable 2010: 28, (23a-b))

a. Daa sá oowajée wutoo.oowú?
 what Q he.thinks we.bought.it

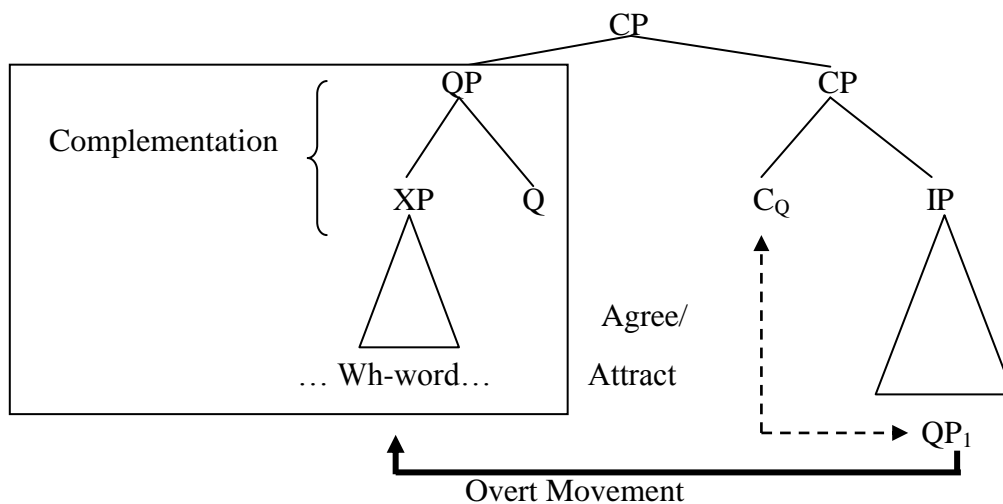
“What does he think we bought?”

b. Daa sá wutoo.oowú oowajée?
 what Q we.bought.it he.thinks

Cable argues that “*sá* is a Q-particle on the basis of its similarity to the particle *da* in Sinhala and the particle *ka* in Japanese” (p.30). He demonstrates that *sá* must appear with wh-operators in wh-questions and wh-indefinites in declarative clauses; that it must c-command the wh-word it is paired with; it cannot be separated from the edge of a clause by a syntactic island; it cannot appear at the end of matrix clauses, although it can occur clause-finally in subordinate clauses (for details see Cable 2010: 30-36).

Recall that, in Tlingit, the wh-operator and its Q-particle must appear in the left of the clause. As a result of this fact, Cable (2010: 38) suggests that the fronting of wh-word in Tlingit wh-question be analyzed as a secondary effect of Q-movement:

(47) (Cable 2010: 38, (53))



In this derivation, the Q-particle *sá* takes the phrase containing the wh-operator as complement. Thus the Q-particle and the sister node hosting the wh-operator are projected into a maximal projection (QP = Question Phrase). QP is a projection of Q and bears the Q-feature

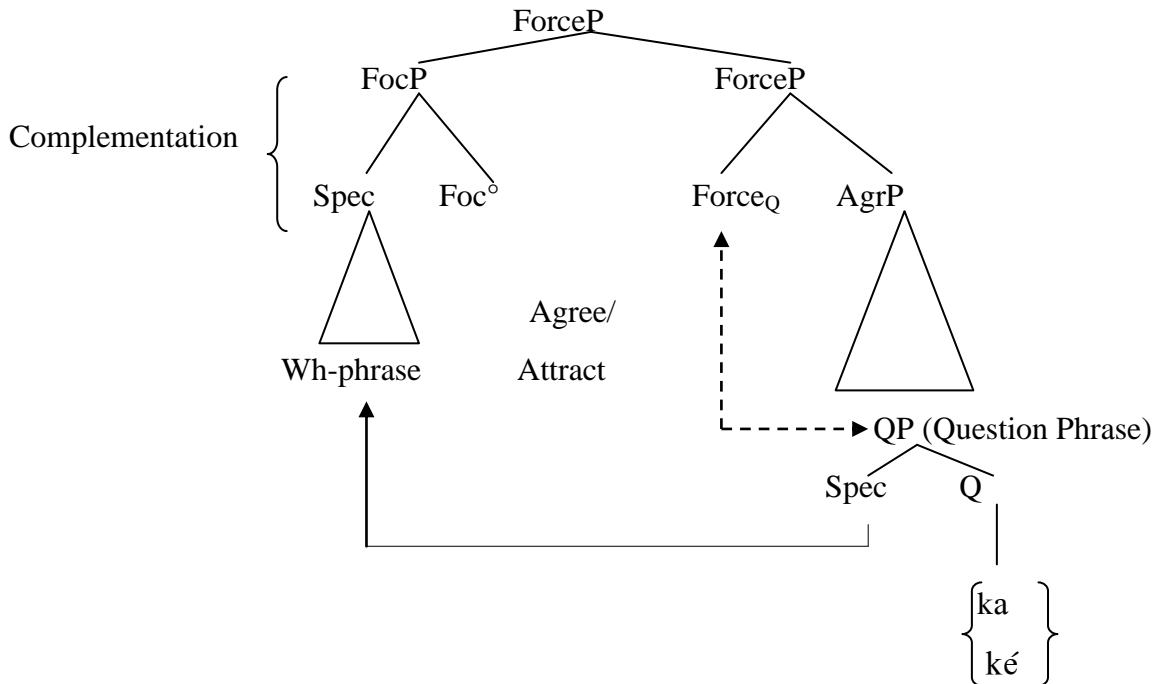
probed by the interrogative C. QP is therefore the first node bearing the Q-feature to be probed by the interrogative C. Following standard algorithm for probing, C in Tlingit must Agree with this QP projection. The goal (QP) is required by this agreement to move into the projection of the interrogative C, i.e. to the specifier of CP. The entire QP is thus attracted into the left periphery of the interrogative clause. QP necessarily contains the wh-operator in wh-questions: this explains why wh-operators in wh-questions are hosted in the left periphery. This analysis predicts that in Tlingit wh-questions, both the wh-word and the Q-particle must be fronted. Cable (2010: 39-41) shows that the prediction is borne out.

How does Cable’s theory bear on the Giziga Q-particles?

8.10. Giziga Q-particles

In Giziga, Q-particles do not move around. They are always in clause –final position. When wh-phrases are in situ, they immediately linearly precede Q-particles. When they are fronted or raised, they do so alone, leaving Q-particles in clause – final position. Adapting Cable’s analysis to Rizzi’s (1997) architecture of the sentence, the following derivation of Giziga wh-questions is proposed:

(48)



In (48), it is not the entire QP that raises to Spec, FocP. It is only the Spec of QP, i.e. the wh-word, that is attracted by Spec, FocP, the Q-particle remaining in situ in Giziga. (48) can therefore account for the derivation of Giziga wh-questions: only wh-items can move; Q-particles stay in situ, irrespective of whether the wh-phrase is moved short or long distance:

(49)

a. wá mí zuma peŋ dó ka ?
who relativizer ate bread my QP

“who ate my bread?”

b. mí ka ma wud ki gé na ka ?
what you relativizer want you do COMP QP

“What do you want to do?”

c. mí naŋ ma wa ndra mi hidikam na ka ?
what him relativizer think we relativizer bought COMP QP

“What does he think we bought?”

d. Ama mísi Soma mí bi ziriye á-rám
where relativizer Soma relativizer say+past children SM-be+plur+past

le zléé adigá ná ká
perf. Past locative COMP QP

“where did Soma say that children went?”

It was shown above that when wh-phrases are in situ, they are immediately followed by Q-particles. When wh-phrases are moved, as shown in (49 a-d), Q-particles do not follow them up: they remain in situ.

8.11. The Force Phrase in Giziga

Rizzi (1997, 2001b, 2003) suggests that CP should make way for a number of different projections: this analysis has come to be known as the split CP hypothesis. More precisely, Rizzi indicates that complementizers should be analyzed as Force markers heading a ForceP (Force Phrase) Projection because complementizers contribute in specifying whether a clause is declarative, interrogative, imperative, exclamative, relative or comparative in force. In other words, the ForceP projection encodes the illocutionary value of a given sentence, e.g. interrogative or declarative. For an application of this apparatus to Tuki, a Bantu language of Cameroon, see Biloa (2013: 428-431).

In Giziga, there is a lexical complementizer *ná* that appears in pre-AgrP of clauses introduced by verbs such as *bi* “say”, *wud* “want”, *misi* “think” ...etc:

(50)

a. Mamayá á- bí zléé ná Somáá a- wúf zléé 6a
 Mamay SM+past say past that Soma SM- want past subj.

a- Sa- dí kilif
 SM fut. cook fish

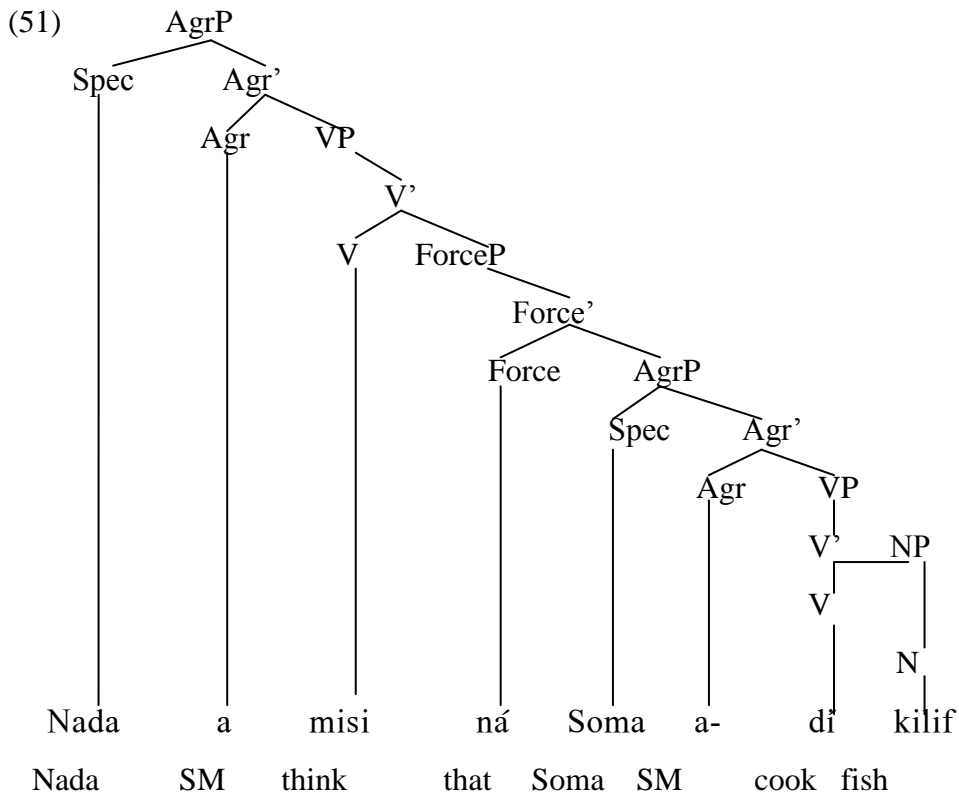
“Mamay said that Soma would cook fish”

b. Metiré a- wúf ná ziriyy lekoolol naɣayá a-dubunam (gwaɗ)
 teacher SM- want that students school his SM-learn thing

“The teacher wants his students to study”

c. Nada a- misi ná Soma a-di kilif
 Nada SM- think that Soma SM-cook fish

Given Rizzi’s proposal, the sentence (50c) would have the tree structure shown below:



In (48), the head of ForceP is occupied by the lexical complementizer *ná*.

In Giziga, indirect questions can be introduced by the lexical complementizer *ná*:

(52)

a. Mamayá a-bi (ná) i mĩ Soma mí hidfik ná ka
Mamay SM-say/ask that FOC thing Soma Rel+past buy COMP QP

“Mamay asks what Soma bought”

b. Mamayá a-bi (ná) i wá Soma má wuf ná ka
Mamay SM-say/ask that FOC who Soma Rel love COMP QP

“Mamay asks who Soma loves”

In (52), the lexical complementizer *ná* is optional, which is an indication that in indirect questions its presence is not compulsory. Similarly in normal declarative sentences, its presence is not required:

(53) I 6ĩ (ná) Nada á-sin
I say that Nada SM-know-something

“I say that Nada is intelligent”

But, for reasons that are unknown for the time being, the verb *sina* “know” cannot select *ná* as its complement:

(54) Nada a- sina (*ná) Soma a- dí kilif
Nada SM know that Soma SM cook fish

“Nada knows that Soma cooks fish”

8.12. Relativization

In this section, the accessibility hierarchy proposed by Keenan and Comrie (1977) is checked with respect to the Giziga empirical material in order to find out whether this language respects it. More precisely, it is important to determine positions that can be relativized in the language.

8.12.1. Accessibility hierarchy

Keenan and Comrie (1977) devised a crosslinguistically valid hierarchy aiming at determining positions that are relativizable:

Subject – Direct Object – Indirect Object of Pre- or postposition – Possessor. In the following lines, one wonders whether all the above positions can be relativized in Giziga. To achieve this goal, consider the following sentences:

(55)

a.ngwas má dǐ kilif ná naŋ ti záná gagaza
woman relativizer cook fish COMP she with dress red

“the woman who cooks fish is wearing a red dress”

b.mota mísi cine ɗu mi hiɗika na naŋ gagaza
car relativizer father my relativizer buy COMP she red

“the car that my father bought is red”

c. ngwas mísi ya má ɓa-ŋ ná ǐ metir
woman relativizer me relativizer speak-to-her COMP is teacher

ngi mangal ɗu

of son my

“the woman to whom I am talking is my son’s teacher”

d. ngwas mísi mi kidaka sukum naŋ ná á-rá- wuɗí
woman relativizer relativizer kill sister her COMP SM-prog.crying

“the woman whose sister was killed is crying”

In (55a), the subject position is relativized. In (55b), it is the direct object that is relativized. In (55c), the indirect object is relativized. In (55d), the possessor is relativized. On the basis of the above paradigm, all positions are relativizable in Giziga.

8.12.2. Relativization and Bounding theory

In this subsection, the Giziga data are checked against movement constraints such as the Complex Noun Phrase Constraint (CNPC). More importantly, it is important to see whether Giziga relativization is an instance of Move Alpha. If it is, it cannot violate Bounding Theory or Subjacency. Consider the following sentences:

(56) a. Mbur ya mi cina mísi Soma mí zuɓa zle’é ná
Man me relativizer hear that Soma relativizer marry past COMP
á- mú le
SM+past die+past perf.

“the man who I heard that Soma married died”

b.*Li mǐsǐ adigá ya mi cina bí mǐsǐ Soma á- zuba
 place that where me relativizer hear story that Soma SM+past marry
 zil naṅá le ná naṅ kíléṅ
 husband his perf. COMP an away

“The place where I heard the story that Soma married her husband is far away”

c. Hana i zuṅ Nada má bi mǐsǐ Vagay mǐ
 this is child Nada relativizer think that Vagay that
 sina le gisiṅ cine naṅa a-sa-ḡula ti hayá
 know perf. well father her SM-fut.chase her house

“This is the girl whom Nada thinks that Vagay knows for sure that her father will kick her out of the house”

d.*Haná I típrík ti vuna Nada a-wa mǐsǐ Vagay á-
 this is tomorrow when Nada SM-think rel. Vagay SM
 sina bí misi sojeheyé á-sa-jaka múhutoy
 know story that policemen SM-fut. arrest thieves

“This is tomorrow when Nada thinks that Vagay knows the story that the police will arrest the thieves”

In the first three sentences (cf. (53a) and (53b,c)), the relativized constituents have raised over several clauses, thereby apparently violating the Specified Subject Condition (SSC) and the Nominative Island Condition (NIC): these examples constitute *prima facie* evidence that relativization is an unbounded process. (53b) and (53d), however, are ungrammatical because the Complex Noun Phrase Constraint is transgressed: this shows that relative clauses in Giziga obey Subjacency.

8.12.3. The landing site of relativization

In this subsection, the issue of the landing site of relativization in Giziga is addressed. Bear in mind that there are no *wh*-relatives in this language. In other words, there are no relatives with one of the following *wh*-words:

(57) Giziga *wh*-words

a. *Arguments*

i. wá “who”

ii. mĩ “what”

b. *Referential adjuncts*

i. ti vuna “when”

ii. ama “where”

c. *Non-referential adjuncts*

i. ka wana “how”

ii. vúr mĩ “why”

Given that there are no wh-relatives in Giziga, one wonders how its relative clauses are derived. To provide an answer to this question, one has to choose between two options. Historically, there are two main approaches to relative clause formation: the promotion analysis (Schachter 1973, Vergnaud 1974, Kayne 1994) and the matching analysis (Chomsky 1977, Safir 1986, Browning 1987). The promotion analysis and the matching analysis are subsumed by Aoun and Li (2003: 106, (30) – (31)) into the following subparts:

(58) a. Complementation structure: the relative clause is a complement to D.

b. Adjunction structure: the relative clause is adjoined to the head.

There are two possible analyses when the relative clause contains a trace:

(59) Head raising/promotion and head base-generation/operator movement (see also Biloa 2013: 443):

a. head raising/promotion: the nominal to be relativized moves to the Head position; that is the trace in the relative clause is derived by movement of the head.

b. Head – base generation/ operator movement: the head is base-generated in its surface position and interpreted with the relative clause via a wh-operator movement to the relative CP; that is the trace in the relative clause is derived by operator movement.

It is indicated by Aoun and Li that the head raising approach (promotion analysis) involves non –wh-relatives, while the operator movement approach (matching analysis) concerns wh-relatives.

Since Giziga is devoid of wh-relatives, it means that its relatives are derived by head raising. Given the above theoretical layout, how could the following Giziga sentences be derived?

(60) a. zuŋ du (mĩsí) ya má wud ná
child my relativizer I relativizer love COMP

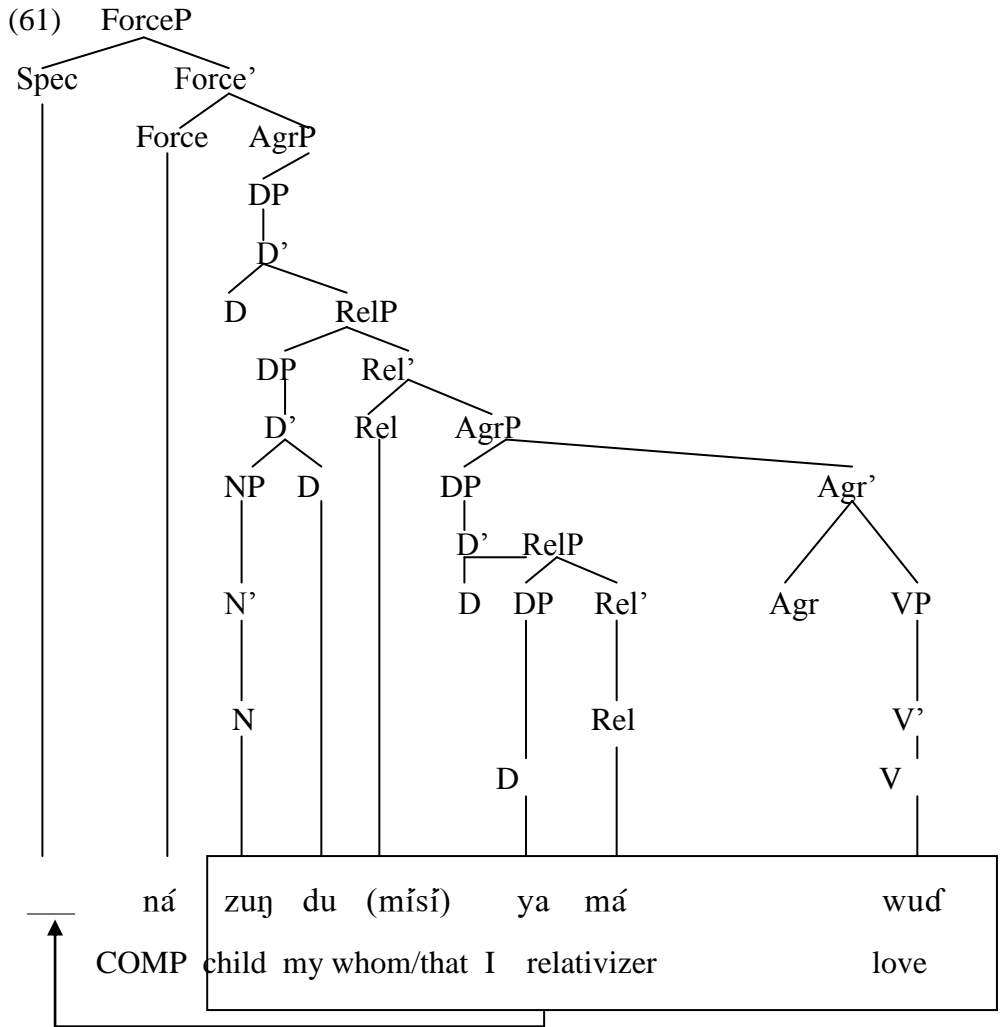
“My child that I love”

b. Metir (mĩsí) mí túh derewol ná v-ó á-rá-jaŋ

teacher relativizer rel+past write book COMP body SM-prog-sick-him
 “The teacher who wrote a book is sick”

c.Metir (mísí) i kiri mí ja ná á-múc le
 teacher relativizer FOC dog rel+past bite COMP SM-die+past perf.
 “The teacher whom it is the dog that bit (him) died”

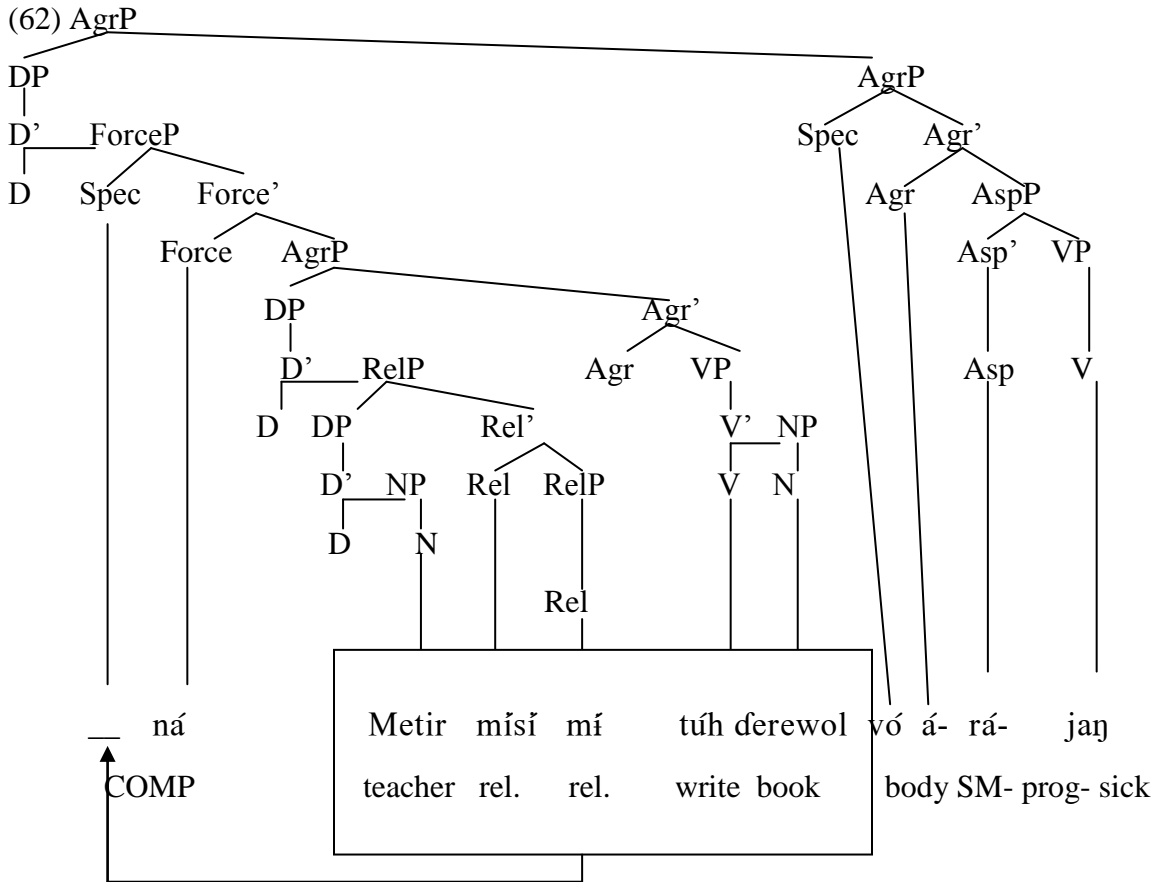
Assuming the view defended by Bianchi (1999), Aoun and Li (2003) that wh-relatives and non-wh-relatives alike are projected as DPs, the Giziga construction in (57a) can be structured and derived as follows:



In (61), the relative clause is projected as DP and is hosted by RelP (Relative Phrase) as suggested by Biloa (2013) (see also Shlonsky and Soare 2011). In this frame, Spec, RelP hosts the head noun whereas Rel° (the head of RelP) accommodates the relativizer (the marker of relative clause formation). The head nominal and relative clause are heavily pied-piped to Spec,

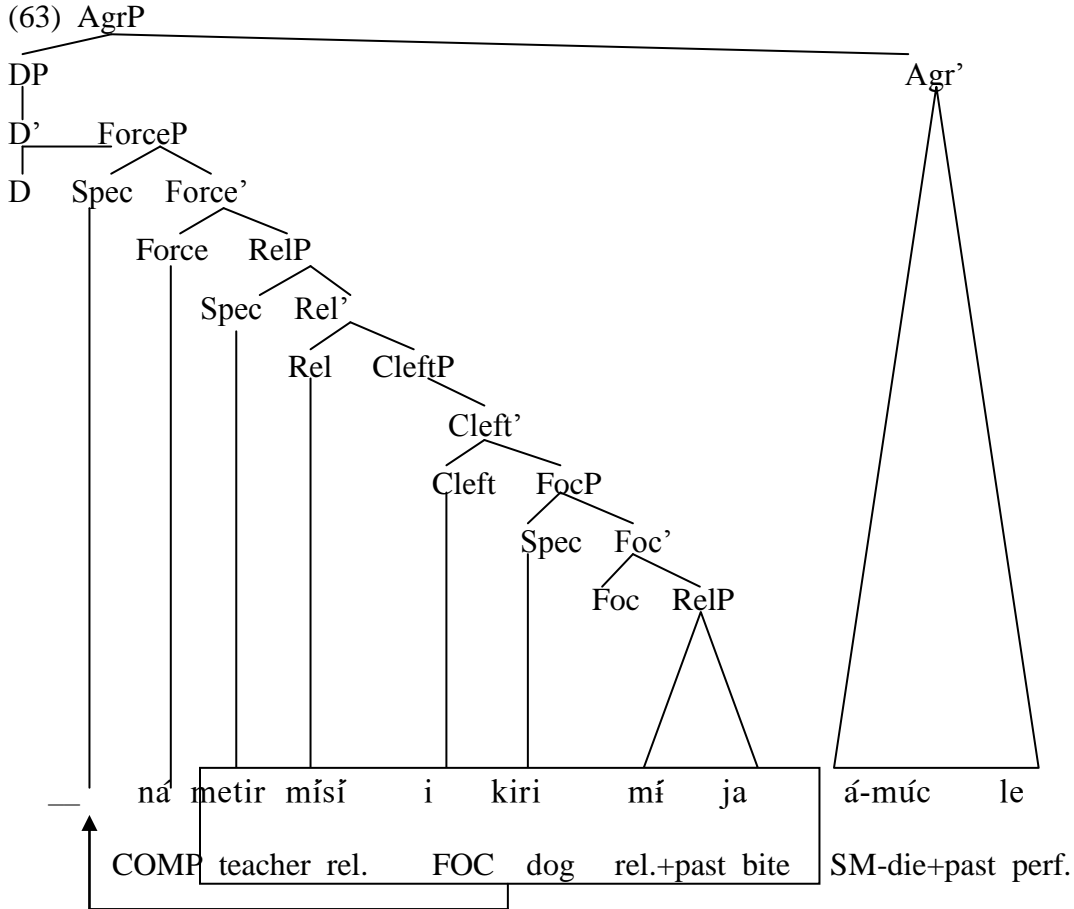
ForceP, which explains why the complementizer *ná* in Force° closes off the relative clause in (60a).

Consider in (62) below the tree representation and the derivation of (60b):



For reasons that are not, for the time being, accountable, there are two relativizers inside the subject position, although the first one is optional. The head noun and the relative clause are heavily pied-piped into the Spec, ForceP position, preceding thereby the complementizer *ná* in Force°, thereby accounting for the word order attested in (60b).

Next, attention is turned to the derivation of (60c). To this effect, consider the following phrase marker:



The derivation in (63) operates pretty much like the one in (62): the head noun and the relative clause that make up the grammatical subject position are heavily pied-piped into Spec, ForceP, the head of which, Force°, hosts the complementizer *ná* that closes off the relative clause (as is by now familiar).

8.12.4. Topicalization

Until now, it has been observed that focalization, question formation and relativization involves the presence of the (final) complementizer *ná*. In other words, any time a constituent is moved (or raised), i.e. focused, questioned overtly or relativized, its domain is sanctioned by the occurrence of *ná*. It would be interesting to find out whether topicalization patterns with relativization and question formation with respect to the occurrence of *ná*. To test this hypothesis, consider the following examples:

- (64) a. Mamayá á-jáhaŋ le dá Somaá a huduló
Mamay SM-greet perf. to Soma in kitchen
“Mamay greeted Soma in the kitchen”

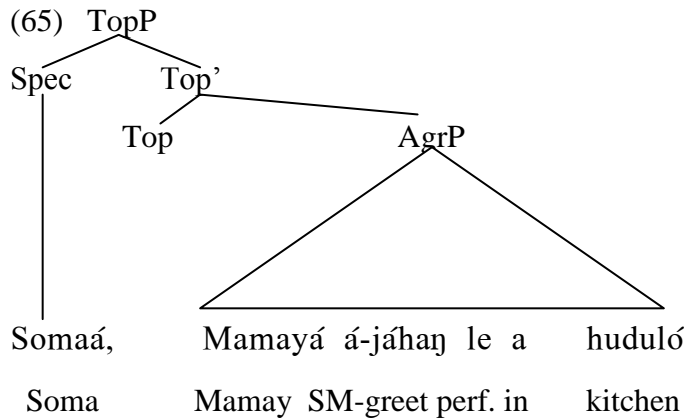
b. Somaá, Mamayá á-jáhaŋ le a huduló
 Soma Mamay SM-greet perf. in kitchen

“Soma, Mamay greeted (her) in the kitchen”

c. a huduló, Mamayá á-jáhaŋ le dá Somaá
 in kitchen Mamay SM-greet perf. To Soma

“In the kitchen, Mamay greeted Soma”

In Giziga, as in many languages, the topicalized constituent is fronted (i.e. moved leftward). A phonological pause, graphically marked by a comma, intervenes between the topic (the topicalized constituent) and the rest of the clause. Consider (64a) above to be the input sentence. In (64b-c) the topics are fronted: in (64b), it is the direct object DP, *Somaá*, that is fronted; in (64c), it is the PP, *a huduló*, that is fronted. As in Tuki (Bilola 2013), there are no topic markers in Giziga. The topic merges into Spec, TopP and the head of TopP is null:



Next, attention is drawn to the following question: what happens in Giziga when topicalization co-occurs with relativization or wh-questions? To answer the question, consider the following data:

(66) zil naŋá á- slin- a ngwásá le nga viŋ ŋgi hana
 Husband her SM-send-ben. woman perf. to bedroom from this
 “her husband send the woman to the bedroom this morning”

(67) Relative clause

* Ngwas mĩsí nga viŋ zil naŋ mi slin- a ná
 Woman rel. to bedroom husband her rel.+past send-ben. COMP
 “The woman who(m), to the bedroom, her husband sent”

(68) Wh-question

* Wá ngá viŋ mǐsí zil naŋ mí slin-a ná ka?

Who to bedroom rel. husband her rel.+past send-ben. COMP QP

“Who, to the bedroom, did her husband send?”

Sentence (66) can be considered as the input construction from which (67) and (68) are derived. The ungrammaticality of (67) and (68) seems to suggest that in Giziga RelP cannot dominate TopP and FocP cannot dominate TopP. But the reverse is possible, i.e. TopP can dominate RelP and TopP can dominate FocP, as illustrated by the following constructions:

(69) Nga viŋ wá mǐsí zil naŋ mi slin-a ná ka?

To bedroom who rel. husband her rel.+past send-ben. COMP QP

“To the bedroom, who did her husband send?”

(70) Nga viŋ ngwas mǐsí zil naŋ mi slin-a ná

To bedroom woman rel. husband her rel.+past send-ben. COMP

“To bedroom the woman whom her husband sent”

Coming back to (66), the following sentence that is derived from it shows that RelP cannot dominate FocP and the latter cannot dominate TopP (as demonstrated above):

(71) * Ngwas mǐsí, ŋgi vuna, nga viŋ, zil naŋá á-slin-a le kwa

Woman rel. when to bedroom husband her SM-send-ben. perf. QP

“The woman who, when, to the bedroom, did her husband send?”

(71) seems to prove that the following positional structure is disallowed in the Giziga CP system:

(72) *RelP > FocP > TopP

8.12.5. The position Int(errogative) in Giziga

In this subsection, the position Int(errogative) is investigated in Giziga. First, the position of *da* “if” is explored.

8.12.5.1. The position of *da* “if”

In Giziga, embedded yes-no questions are introduced by *da* “if”. *Da* can precede and dominate a focalized phrase:

(73) a. Djamá a- wuɗ ɓa a- sina da i viŋ mĩsí Mamay mi
 Djam SM-want subj. SM-know if FOC bedroom rel. Mamay rel.+past

já haŋ dá Soma ará ná
 greet to Soma in COMP

“Djam wonders if it is in the bedroom that Mamy greeted Soma”

b. Djamá a- wuɗ ɓa a- sina da mamayá á- híđík mota le ná
 Djam SM-want subj. SM-know if Mamay SM- buy+past car perf. COMP
 “Djam asks if Mamy bought a car”

Da can also precede and dominate a topic in Giziga:

(74) a. Mamayá a- wuɗ ɓa a- sina da a viŋ ngidambu
 Mamay SM- want subj. SM know if/whether in bedroom yesterday

mĩsí Bole mí jáhaŋ dá Soma ará ná
 rel. Bole rel.+past greet to Soma in COMP

“Mamay asks if (it was) in the bedroom yesterday that Bole greeted Soma”

b. * Mamayá a- wuɗ ɓa a- sina, a viŋ, da ngidambu
 Mamay SM- want subj. SM know in bedroom if/whether yesterday

mĩsí Bole mí jáhaŋ dá Soma ará ná
 rel. Bole rel.+past greet to Soma in COMP

In this language, the lexical complementizer *ná* “that” and *da* “if/whether” can co-occur in the same sentence. In other words, the sequence *ná da* “that if/whether” is allowed in the language:

(75)

a. Dairou a- wuɗ ɓa a- sina ná da Somaá á- vul-a
 Dairou SM want subj. SM know that if/whether Soma SM-give-ben.

Mbileé dala

Mbile money

“Dairou asks if Soma gave Mbile money”

b. Djamá a- wuɗ ɓa a- sina ná da i viŋ mĩsí

Djama SM-want subj. SM-know that if/whether FOC bedroom relativizer

Mamay mí jáhaŋ dá Soma ará ná

Mamay rel.+past greet to Soma in COMP

“Djam wonders/asks if it is in the bedroom that Mamay greeted Soma”

c. Mamayá a- wuɗ ɓa a- sina ná da i viŋ ngidambu

Mamay SM want subj. SM-know that if/whether FOC bedroom yesterday

mĩsí Bole mí jáhaŋ dá Soma ará ná

rel. Bole rel.+past greet to Soma in COMP

“Mamay asks/wonders if it was in the bedroom yesterday that Bole greeted Soma”

The three sentences in (75) in which the sequence *ná da* is attested are all grammatical, suggesting thereby that *ná* and *da* occupy two distinct positions: Force° and Int°. This situation is reminiscent of Tuki *ee* “that” and *ngi* “if/whether” (Bilola 2013: 455). Italian *que* and *si* exhibit a similar behavior (cf. Rizzi 2001b who quotes Plann (1982) and Suñer (1994)). So in Giziga, as in Tuki and Italian, the sequence ForceP – IntP is allowed. Moreover, this sequence can be either followed by a Cleft Phrase (CleftP), Focus Phrase (FocP) and a Topic Phrase (TopP) or vice versa:

(76)

a. Mamayá a- wuɗ ɓa a- sina [_{ForceP} ná [_{IntP} da [_{CleftP} i [_{FocP} viŋ

Mamay SM want subj. SM-know that if/whether FOC bedroom

[_{TopP} ngidambu[mĩsí [Bole mí jáhaŋ dá Soma ará ná]]]]]]]]

yesterday rel. Bole rel.+past greet to Soma in COMP

“Mamay asks if it was in the bedroom yesterday that Bole greeted Soma”

b. Mamayá a- wuɗ ɓa a- sina [_{ForceP} ná [_{IntP} da [_{TopP} ngidambu

Mamay SM want subj. SM-know that if/whether yesterday

[_{CleftP} i [_{FocP} viŋ [mĩsí [Bole mí jáhaŋ dá Soma ará ná]]]]]]]]

FOC bedroom rel. Bole rel.+past greet to Soma in COMP

“Mamay asks if yesterday it was in the bedroom that Bole greeted Soma”

Notice that in all the indirect question structures described and analyzed so far, there is the occurrence of the complementizer *ná*. This is consistent with what was said above: i.e. the

final complementizer *ná* occurs in questions, relative clauses and focus (cleft) constructions, but not in topicalization constructions. It seems to be the case that *ná* is merged in Force^o when an operator (null or overt) is on the move in interrogative formation, relativization or focalization. It is, however, important to remember that a distinction should be made between the lexical complementizer *ná* “that” and the final complementizer *ná* that occurs in questions, relatives and cleft constructions.

8.12.5.2. Yes/no questions in Giziga

To form yes/no questions in Giziga, a special morphological marker occurs either clause internally or in clause-final position. I call this special morphological yes/no question marker QM (i.e. question morpheme). To see how this QM operates in the language, consider the following examples:

(77) a. Mamayá a- sa- zub -a Somaá

Mamay SM-fut. marry ben. Soma

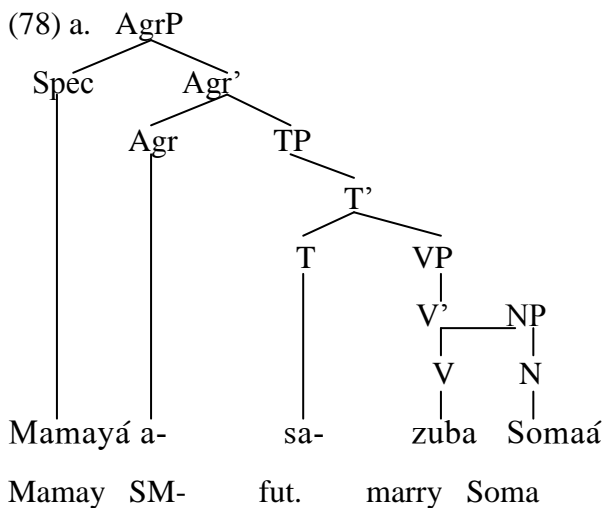
“Mamay will marry Soma”

b. a- sa- sub- a Somaá kwa Mamayá

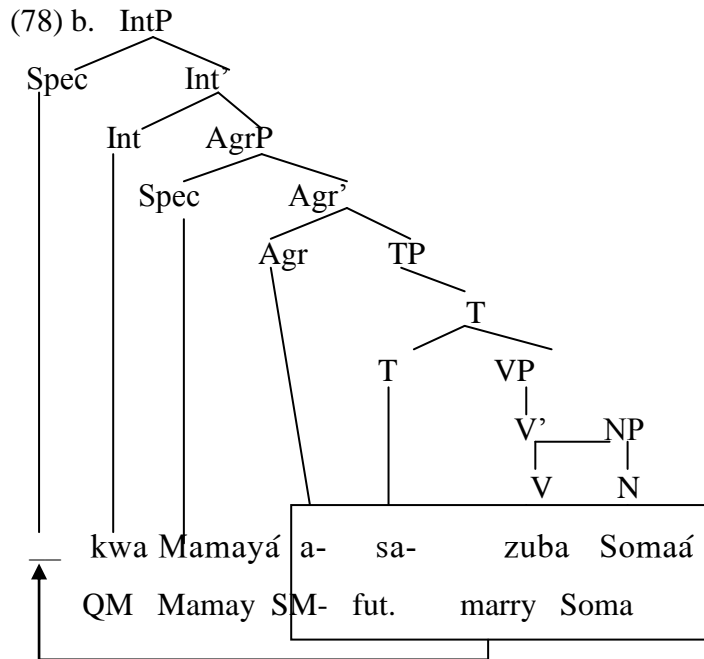
SM-fut.- marry ben. Soma QM Mamay

“Will Mamay marry Soma?”

(77a) is assigned the following tree representation:



In (77b) which is derived from the input (77a) the QM is *kwa*. Assume it to be hosted by the head of Int(errogative) P(hrase), Int^o. With that much in mind, the derivation of (77b) will proceed as in (78b) below:



In (78b), the QM *kwa* has merged into Int, IntP and part of AgrP (i.e. minus the subject position) has been heavily pied-piped into Spec, IntP (cf. Nkemnji 1995). This move can be accounted for by the combination of several grammatical principles such as the Extension Condition, the Convergence Principle and the Linear Correspondence axiom. Chomsky’s (1993) Extension Condition accounts for the pied-piping of Agr’ into Spec, IntP: as soon as a head is merged, movement into its specifier is compulsory (see also Koopman and Szabolcsi 2000: 42). Antisymmetry can also explain the situation that prevails in (78b). “The precise implementation of the core idea of antisymmetry offered in Kayne’s book [*The Antisymmetry of Syntax*] is in terms of the LINEAR CORRESPONDENCE AXIOM (LCA) which “determines the linearization of hierarchical structures by mapping asymmetric c-command among terminal nodes onto precedence” (Kayne, Leu and Zanuttini 2014: 533). Kayne’s (2003) starting point is his “hypothesis that syntactic structure is universally and without exception of the form S – H – C [Specifier – Head – Complement]. The complement of a head invariably follows the head. The associated specifier invariably precedes both head and complement.” In (78b), Agr’ is pied-piped into Spec, IntP so that the specifier can be filled: if it is empty it might not as well exist. Because lexical material is merged into it and the head of IntP is occupied as well by *kwa* and the complement, AgrP, hosts the subject position, (78b) abides by the LCA; the universally valid form of syntactic structure, i.e. S – H – C, is respected. As for the Convergence Principle, it states that “when an item moves, it carries along with it just enough material for convergence” (Chomsky 1995: 262; Radford 2004: 165). This principle rightly provides an answer to the following question: why isn’t the subject moved with the rest of AgrP in (78b)? Because it is not necessary. And the fact that it does not move does not cause any ungrammaticality.

Next, consider the following data:

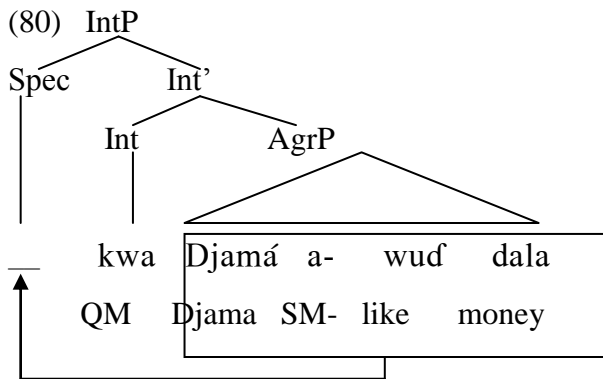
(79) a. Djamá a- wuɗ data
 Djama SM- like money

“Djam likes money”

b. Djamá a- wuɗ dala kwa?
 Djama SM- like money QM

“Does Djam like money?”

(79a) is the baseline sentence from which (79b) is generated. The question is: how is (79b) derived? The following phrase marker depicts its derivation:



In order to obtain the word order attested in (79b), AgrP pied-pipes onto Spec, IntP thereby preceding the QM *kwa* that occurs clause-finally. When (80) is compared to (78b), one notices that in (80) the whole content of AgrP is raised to Spec, IntP; but in (78b), as talked about above, the subject position is left stranded when the rest of AgrP migrates to the specifier position of IntP. In other words, why doesn't AgrP, in its entirety, pied-pipe to Spec, IntP? For the time being, no answer is forthcoming and the issue is left open for future research.

Conclusion

Cartography (cf. Rizzi), antisymmetry (cf. Kayne) and the Grammar of Q (cf. Cable), among other theoretical frameworks, impinge on the description and analysis of Giziga. I have lengthily discussed, although unevenly, aspects such as focalization, wh-phrases and Q-particles, wh-in-situ, wh-raising, the (final) complementizer *ná*, the asymmetry between the argument – referential adjunct and the non-referential adjunct, wh-questions as focus constructions, the Force Phrase in Giziga, relativization, topicalization, the position Int(errogative) in Giziga. Pied-piping and remnant movement have also made it possible to account for some changes in word order. In the absence of the cartographic perspective, it would have been nearly impossible to appeal to these various movement operations which, ultimately, can be explained on the basis of the Extension Condition, the Convergence Principle and the Antisymmetry approach. Certainly,

there is much more to be said about this language, particularly in view of the theoretical frameworks summoned to its aid.

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Chapter 9

Sluicing and functional heads in Bantu

Edmond Biloa and Paul Roger Bassong

Introduction

This chapter describes, analyzes and discusses data from Basaá and Tuki, two virtually neighbouring Bantu languages spoken in Cameroon (Central Africa) within the framework of Merchant's (2001, 2004, 2004) ellipsis approach with special focus on sluicing, a domain of linguistic investigation which, to the best of our knowledge, is still less known or even unknown in the context of African linguistics inquiries. The paper carries out the study in the light of ellipsis also known as movement plus deletion approach by showing that sluicing in these two Bantu languages involves leftward movement of a wh-word into the clausal left periphery and precisely into the specifier position of an evidential phrase (EvidP) in a local Spec-Head relation with an overt agreeing evidential morpheme. Of great interest is that sluicing triggers emergence of a conglomerate of functional projections associated with various scope-discourse properties such as force, interrogative, evidentiality, focus and alternative question, ordered in a hierarchical fashion and providing a fine-grained clausal left peripheral architecture. The chapter is framed as follows. Section one provides linguistic, geographical and grammatical background information on the languages under scrutiny. Section two focuses on sluicing. Specifically, section 2.1.1 handles sluicing with linguistic antecedents while section 2.1.2 is concerned with sluicing with non-linguistic antecedents. It is shown that, as opposed to Tuki where both kinds of sluicing exhibit the same morphosyntactic mechanisms in terms of focus and evidentiality marking, Basaá only licenses overt evidential marking which is attested in the case of sluicing with linguistic antecedent exclusively. Section three deals with Merchant's (2001, 2004, 2008 etc) [E]-feature-based approach and examines the phonological, syntactic and semantic properties of this feature. Section 3.1 discusses the [E]-feature from a Bantu perspective by showing that Basaá and Tuki differ from English at the level of the overtness versus covertness of the [E]-feature. More concretely while the [E]-feature responsible for ellipsis is covert in English, in Basaá it may be overt while it is always overt in Tuki. Section 3.2 discuss the [E]-feature in relation to the make-up of the clausal left periphery. It shows by depicting the

architecture of the complementizer layer that sluicing in Bantu triggers the emergence of distinct functional projections, each associated with a specific semantic interpretation. The last section is the conclusion.

9.1. Background

The following sections briefly provide background information on the languages under study with focus on their linguistic, geographical and grammatical aspects.

9.1.1. Linguistic and geographical context

Basaá and Tuki are noun class and tone languages that belong to the Bantu language family. They are mostly spoken in the Littoral and Center Regions of Cameroon. More specifically, Basa'a is mostly spoken in the Sanaga Maritime and Nyong and Kelle divisions. Some speakers can be found here and there in the Ocean, Fako and Nkam divisions (cf. Bassong 2014 for very recent studies). As for Tuki and as indicated by Biloa (2013), it is spoken in the Lekié (Leti a Tuki dialect spoken in this area according to Biloa (2013: 38)) and Mbam and Kim divisions. Tukombe, which is the Tuki variety spoken in the Mbangassina subdivision Biloa 1995, 2013) (Bassong 2014) is the one discussed here. Mbêne (spoken by the second author) is the Basa'a variety widely spoken and is mutually intelligible by all the language speakers.

9.1.2. Word order and clause structure

Both languages display SVO basic word order and are characterized by rich agreement morphology and complex verbal morphology. Subject verb agreement in tensed clauses is obligatorily underlain by subject markers which agree in class and number with the subject of the sentence. The lexical verb can be surrounded by various elements of the TAM system as illustrated in (1-2).

- (1) Basaá
- a. **mudaá** *(a)- lámb-áy kón
 1.woman 1.SM-ccok-PROG.PST1 10.rice
 'The woman was cooking rice.'
- b. **mudaá** *(a)- lámb-áy ɓ é kón
 1.woman 1.SM-ccok-PROG.PST1 NEG 10.rice
 'The woman was not cooking rice.'

- (2) Tuki
- a. **Kúré** *(a)- nú- nyá mányá
1.tortoise 1.SM-FUT1-eat food
'The tortoise will eat the food.'
- b. **Kúré** *(a-) tá- nú- nyá mányá
1.tortoise 1.SM-NEG-FUT1-eat food
'The tortoise will eat the food.'

Recall that in case the subject marker is dropped, none of the sentences above will be well-formed. Based on (1-2) above, both languages differ in the structural positioning of negation. In Basaá negation is postverbal while it is preverbal in Tuki. Another similarity between both languages is that they allow for in-situ and ex-situ wh-words in genuine question contexts (3-4).

- (3) Basaá
- a. Mudaá a- lám-b-áy **kíí** *in-situ wh-question*
1.woman 1.SM-cook-PROG 9.what
'What was the woman cooking?'
- b. **kíí** mudaá a- lám-b-áy *ex-situ wh-question*
1.what 1.woman 1.SM-cook-PROG
'What was the woman cooking?'
- (4) Tuki
- a. Putá a- dingám **áné** *in-situ wh-question*
Putá 1.SM-loves who
'Who does Putá loves?'
- b. **áné** Putá a- dingám *ex-situ wh-question*
who Putá SM- loves
'Who does Putá love?'

Just like wh-questions, focused constituents can occur in-situ and ex-situ (5-6). Note that b's statements are associated with contrastive or identificational focus reading while a's ones are associated with information focus in the spirit of Kiss (1998) and subsequent work. However, it is not always the case that information focus is in-situ. Ex-situ focus can also convey an information focus interpretation (cf. Bassong 2014 for further details).

- (5) What was the **woman_i** cooking?
- a. pro_i a_i- lám-b-áy **kón** *in-situ focus*
pro 1.SM-cook-PROG.PST1 10.rice
'She was cooking RICE.'
- b. **Kón** yó-n pro_i a_i- lám-b-áy *ex-situ focus*
10.rice 1-FOC pro 1.SM-cook-PROG
'She was cooking RICE (as opposed to fish for instance).'
- (6) Who does **Putá_i** love?
- a. pro_i a_i- dingám **Mbára** *in-situ focus*
pro 1.SM-loves Mbara

- ‘She loves Mbara?’
- b. **Mbara ódzú** pro_i a_i- dingám *ex-situ focus*
 Mbara FOC pro SM-love
 ‘She loves MBARA (it is Mbara that she loves).’

In the same vein, one of the unifying factors between both languages is that focus constituents as well as wh-questions can co-occur with the lexical complementizers that encode declarative and interrogative illocutionary force respectively as attested in (7-8) below.

(7) Basaá

- a. Mɛ m'- bat-ɓá lé tɔ́ kíí mudaá a- n- lámɓ
 I PRS-ask-REC that if what 1.woman 1.SM-PST1-cook
 ‘I wonder what the woman has cooked’
 Lit: ‘I wonder that if what the woman has cooked’
- b. Mɛ m'- bat-ɓá lé tɔɔ kón yó-n mudaá a- n- lámɓ
 I PRS-ask-REC that if 10.rice 1-FOC 1.woman 1.SM-PST1-cook
 ‘I wonder if it is rice that the woman has cooked.’
 Lit: ‘I wonder that if it is rice that the woman has cooked.’

(8) Tuki

- a. Mbárá a- sésám éé **ngi** (i-mu) **áné (ódzú)** Putá a- m(á)-ena
 Mbara SM-asks that if it be who FOC Puta SM-PST2-see
 ‘Mbara asks who Puta Saw’
 Lit: Mbara asks that if it is who that Putá saw’
- b. Mbárá a- sésám éé **ngi** (i-mu) **Dimá ódzú** Putá a- m(á)-ena
 Mbara SM-asks that if it be Dima FOC Puta SM-PST2-see
 ‘Mbara asks if it is Dima that Puta Saw’
 Lit: *Mbara asks that if it is who that Putá saw.’

What differentiates between the two languages is that Basaá, as opposed to Tuki, does not make use of an overt verbal copula introducing cleft-constructions. In Tuki, the wh-phrase and the focalized material may be preceded by the expletive subject *i* ‘it’ and the verbal copula *mu* ‘be’. In addition, while the morpheme that directly follows the focalized constituent in Basaá is bimorphemic (i.e. made up of of an agreeing gender morpheme and a focus marker *-n*) as in (7b), in Tuki, there is only one morpheme that simultaneously encodes agreement and focus as in (8a-b). Wh-words, when fronted in Tuki, may be focus marked as shown in (8a). It is also important to mention that although fronted wh-items cannot be focus marked in Basaá, they can however be marked for agreement as depicted in (9) below whereby only the non-wh constituent *kón* ‘rice’ is marked both for focus and agreement (9b), while the wh-word *kíí* ‘what’ is marked only for agreement.

- (9) a. **njéé nyé-*n** a- n- lám̄b kón *subject wh-question*
 1.who 1.AGR-FOC 1.SM-PST1-cook 10.rice
 ‘Who has cooked rice?’
 Lit: ‘Who is it that has cooked rice?’
- b. **Mudaá nyé -n** a- lám̄b yó *subject focus*
 1.woman 1-FOC 1.SM-cook 1o.it
 ‘The WOMAN has cooked it’

Note that when a wh-word is marked for agreement as shown in (9a) above, it has more pragmatic effects than when the agreement marker is dropped altogether. For instance, sentence (9a) can be uttered when the speaker expresses unexpectedness i.e. a situation which, in the context, is not expected to happen (e.g. cooking rice has been forbidden but someone has managed to cook it, so the speaker is inquiring on the author of the cooking (the one who dared cook it)). On the contrary, when the agreement marker is dropped, the question remains a genuine content question requiring new information. As for why wh-words are not focus marked in Basaá as it is the case in Tuki (see also Biloa 1992, 1995, 2013), and Gungbe (Aboh 1998, 2004, 2010 *inter alia*), Bassong (2014) argues that as argument and referential adjunct wh-words are inherently focused in Basaá, they need not be focus marked due to a clash of features between the wh-word and the focus marker. More precisely, there is a noticeable crosslinguistic variation in the behavior of wh-phrases. Languages like Gungbe and Tuki license focus markers (they are optional in Tuki) in wh-fronting constructions while Basaá does not license any focus marker. As a result and as argued by Bassong (2014), fronted arguments and referential adjuncts cannot be focus marked because they are inherently focused and need not be marked morphologically (non-referential adjuncts are said to occupy the Specifier position of Wh-Phrase (Wh-P) while arguments and referential adjuncts are said to be hosted in the focus field, (see Bassong 2014 for more details).

9. 2. On sluicing

The term sluicing in the literature is due to Ross (1969) and refers to an elliptical construction in which all of a constituent question goes missing except for the wh-phrase. The following construction in (10) below adapted from Merchant (2004:664) is an instance of sluicing.

- (10) Jack bought **something**, but I don’t know **what**?

What is important in a sentence like (10) is that the bold printed wh-phrase ‘what’, called the correlate, is identical to its antecedent, namely the indefinite quantifier ‘something’. Also, an

elliptical construction such as (10) conveys the same semantic interpretation as its non-elliptical counterpart in (11a) and represented as (11b) below whereby the sentence part following the wh-remnant goes missing.

(11) a. Jack bought **something**, but I don't know [CP **what**₁ [IP Jack bought **t**₁]]

b. Jack bought **something**, but I don't know [CP **what**₁ [~~IP Jack bought **t**₁~~]]

More concretely, a structure like (10) results from a series of movement and deletion operations involving wh-movement of the wh-phrase in the complementizer domain, followed by the deletion of the remnant clause (IP) out of which extraction has been previously applied as shown in (11b). There have been long-standing debates as to whether the remnant wh-phrase such as 'what' in (10) is derived by movement followed by IP/TP deletion as illustrated in (11b) or that it is just base-generated in place i.e. subcategorized by the preceding epistemic verb 'know'. Opinions are divided in the literature and scholars have not yet reached consensus. The line of analysis defended in this paper is the one according to which sluicing involves a movement plus deletion approach (cf. Ross 1969; Lasnik 2001; Merchant 2001, 2004, 2008, 2013; Van Craenenbroeck & Lipták 2006; Temmerman 2013) among others and contra the 'interpretative analysis' defended by scholars such as Ginzburg (1992), Riemsdijk (1978) etc. according to which sluicing is semantics-driven.

9.2.1. Sluicing in Basaá and Tuki

Sluicing in these two Bantu languages exhibits considerable structural differences vis-à-vis the English empirical data. However, it is equally important to indicate that although the two languages mostly share the same structural properties, they display some superficial differences depending on whether sluicing involves a linguistic antecedent or not. The following section shows that Basaá and Tuki behave differently. In concrete terms, while Tuki appears to be uniform in sluicing realization, sluicing in Basaá is rather different depending on the nature of the wh remnant. Sluicing with a linguistic antecedent is structurally different from its non-antecedent counterpart in Basaá whereas the same phenomenon is not attested in Tuki.

9.2.1.1 Sluicing with linguistic antecedent

The following examples show that in both languages, the wh remnant can be preceded by two lexical complementizers, namely the declarative complementizer and the interrogative one and is

followed by an evidential marker and a focus marker (in Tuki) although the order of these latter markers seems to be different superficially (a point to be discussed in a subsequent section).

(12) Basaá

- a. **Maaŋgé** a- m- míl **ŋgim jǒm**, mε n- yí bέ mé jɔ,
 1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 mε m'- mbat-bá lé tɔɔ **kíí í**
 I PRS-ask-REC that if/whether 9.what 9.EVID

‘The child has swallowed something, I don’t know it. Look, what!’

Lit: ‘The child has swallowed something, I don’t know it. Look, what is it?’

- b. **ŋgim mut** i- ḡ- kɔɔdé líkoɔ́, beŋgé tɔɔ **njéé nû**
 9.some 1.man 9.SM-PRS-knock 5.door look if/whether 1.who 1.EVID
 ‘Someone is knocking at the door, look who?’
 ‘Someone is knocking at the door, look, who is it?’

(13) Tuki

- a. **Mutu mo** a- mú- íbá itutu rǎme eéná. Nu nga-tá- mu-ídzíma omwéné.
 Man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him
 Veda nu nka-mbim **éé ngí** (i-mu) **ane (ódzú) dzú kéé...**
 but I SM-astonish that if (it is) who FOC EVID ALT
 ‘Someone stole my motorcycle here. I do not know him/her. But I wonder who?’
 Lit: ‘Someone stole my motorcycle here. I don’t know him. But I wonder who **or...**?’
- b. Mangadzu a- kutu- ny-a **wanda**, nu nt-setsá-m (i-mu-) **ate aye ye kéé**
 woman SM-PROG-eat-FV thing I SM-ask-INC SM-be what FOC EVID ALT
 ‘The woman is eating something, I wonder what?’

Note that in (12) above, the bold printed indefinite antecedents *ŋgim jǒm* ‘something’ (12a) and its counterpart *ŋgim mut* ‘someone’ (12b) corefer to the bold printed object *kíí* ‘what’ and subject *njéé* ‘who’ respectively which are followed by evidential morphemes which in turn agree in class and number with the wh-words preceding them. In like manner, the lexical complementizer *lé* ‘that’ and *tɔɔ* ‘if/whether’ in Basaá encode declarative and interrogative illocutionary force respectively. The same properties are attested in Tuki, whereby the indefinite subject *mutu mo* ‘someone’ (13a) and its object counterpart *wanda* ‘something’ corefer to the wh-items *ane* ‘who’ and *ate* ‘what’ respectively and which are in turn followed by agreeing focus markers (optional) *odzu* and *aye*, agreeing evidential markers *dzu* and *ye* as well as an alternative question morpheme *kee* ‘or’. Recall that the bold-printed indefinites *wanda* ‘something’ (13a) and *mutu mo* ‘someone’ (13b) corefer with the bold-printed wh-words *ane* ‘who’ and *ate* ‘what’

respectively. Just like in Basaá, Tuki also resorts to the use of the declarative and interrogative complementizers *ee* ‘that’ and *ngi* ‘if’. What differentiates between both languages is the presence of the focus markers after the wh-word and the alternative question morpheme in Tuki versus their absence thereof in Basaá. In addition, before the wh-words *ane* ‘who’ and *ate* ‘what’ (13a), and as opposed to Basaá, Tuki makes use of an expletive subject *i* ‘it’ and the verbal copula *mu* ‘be’, which, although optional, introduce a cleft construction.

Recall that as Basaá and Tuki are noun class languages, they are very sensitive to agreement insofar as any mismatch between the wh-word and the evidential and/or focus marker(s) yields an illicit construction as attested in (14-15) below.

(14) Basaá

- c. *Maṅṅé a- m- míl ṅgim jǒm, mɛ́ n- yí b́é mé jɔ,
 1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 mɛ́ m- mbat-bá lé tɔɔ kǐí *nú
 I PRS-ask-REC that if/whether 9.what 1.EVID

‘The child has swallowed something, I don’t know it. Look, what!’

Lit: ‘The child has swallowed something, I don’t know it. Look, what is it?’

- d. *ṅgim mut i- ṅ- kɔɔdé líkoṳá, beṅṅé tɔɔ njéé *i
 9.some 1.man 9.SM-PRS-knock 5.door look if/whether 1.who 9.EVID

‘Someone is knocking at the door, look who?’

‘Someone is knocking at the door, look, who is it?’

(15) Tuki

- c. *Moto mo a- mú- ibá itutu rǎme eéna. Nu nga-tá- mu-idzima omwéné.
 man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him
 Veda nu nka-mbǐm éé ngi (i-mu) ane (*aye) *ye kee...
 but I SM-astonish that if (it is) who FOC EVID ALT

‘Someone stole my motorcycle here. I do not know him/her. But I wonder who?’

Lit: ‘Someone stole my motorcycle here. I don’t know him. But I wonder who or...?’

- d. *Mangadzu a- kutu- ny-a wanda, nu nt-setsá-m (i-mu-) ate (*ódzú) *dzu kéé
 woman SM-PROG-eat-FV thing I SM-ask-INC SM-be what FOC EVID ALT

‘The woman is eating something, I wonder what?’

The ill-formedness of the above sentence is an indication that agreement between the wh-word and the following evidential and/or focus morphemes is mandatory. The fact that the evidential morphemes and /or the focus morphemes used in the grammatical sentences (12-13) have been interchanged in (14-15) shows that agreement is predictable in these languages and that any random or misuse of these morphemes results in ungrammaticality (see the use of asterisks).

What is interesting in sluicing is that the structure of the elliptical construction conveys the same semantic interpretation as its non-elliptical counterpart. The following non-elliptical constructions have the same propositional content as their elliptical counterparts in (12-13) above.

(16) Basaá

a. Maanǵé a- m- míl **ŋgim jǵm**, me ní- yí b́é mé jɔ,

1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it

me m'- mbat-bá lé tɔɔ **kíí í** [pro_i a_i- m'- míl]

I PRS-ask-REC that if/whether 9.what 9.EVID pro 1.SM-PRS-swallow

‘The child has swallowed something, I don’t know it. Look, what he has swallowed’

Lit: ‘The child has swallowed something, I don’t know it. Look, what is it that he has swallowed?’

b. **ŋgim mut** i- ŋ-kɔɔde líkoḡá, beeŋǵé tɔɔ **njéé nû** [a- ŋ- kɔɔde]

9.some 1.man 9.SM-PRS-knock 5.door look if 1.who 1.EVID 1.SM-PRS-knock

‘Someone is knocking at the door, look who is knocking?’

‘Someone is knocking at the door, look, who is it that is knocking?’

(17) Tuki

a. **Mutu mo** a- mu- iba itutu rǎme eéna. Nu nga-fa- mu-idzímá omwéné.
man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him

Vedá nu nka-mbim **éé ngi** (i-mu) **ane (ódzú) dzú** [pro_i a_i- mú- iba]

but I SM-astonish that if (it is) who FOC EVID pro 1.SM-PST1-steal

‘Someone stole my motorcycle here. I do not know him/her. But I wonder who stole (it)’

Lit: ‘Someone stole my motorcycle here. I don’t know him. But I wonder who stole (it)’

b. Mangadzu a-kutu- ny-a **wanda**, nu nt-setsá-m (i-mu-) **ate aye ye** [mangadzu

woman SM-PROG-eat-FV thing I SM-ask-INC SM-be what FOC EVID woman

a-kutu -ny-a]

SM-PROG-eat-FV

‘The woman is eating something. I wonder what she is eating’

The only superficial difference between the elliptical structures in (12-13) and their non-elliptical counterparts in (16-17) lies at the level of the spell-out versus non-pronunciation of the propositional content that follows the evidential morphemes. The data in (16-17) are good indication that the bracketed structures following the evidential morphemes have just been elided/deleted or dropped in (12-13), something which supports the idea that the elliptical structures in (12-13) and their non-elliptical counterparts in (16-17) have the same syntax and semantics but differ at the PF component i.e. a level of representation whereby a given item or

structure is spelled out. At this level, the bracketed structures following the evidential morphemes have a null spellout in the elliptical sentences while the same structures are overtly spelled out in their non-elliptical counterparts. The data provided above are instances of sluicing with overt linguistic antecedents in the sense that each bold-printed wh-word (preceding the evidential and/or the evidential marker) in the sluicing construction correlates/corefers to an overt linguistic antecedent which is an indefinite nominal expression in bold. The following section handles sluicing with non linguistic antecedents and shows the structural disparity that exists between both languages.

9.2.1.2. Sluicing with non-linguistic antecedents

This section focuses on another instance of sluicing whereby the wh-remnant has no overt linguistic coreferent/correlate or antecedent. It is demonstrated that while Tuki exhibits uniformity or symmetry in the realization of sluicing, Basaá rather displays a considerable asymmetry in the same context. In other words, while sluicing with a linguistic antecedent displays the same superficial structure as sluicing with non-linguistic antecedent in Tuki, Basaá is rather different given the structural asymmetry or disparity that is attested between the two sluicing types. The following sentences are instances of sluicing with non-linguistic antecedents/correlates.

(18) Basaá

- a. Mε n- nɔ́y lé mudaá a- bí- tibil lítówa jé yaaní
 I PST1-hear that 1.woman 1.SM-PST2-repair 5.car 5.her 1.yesterday
 mε m'- bat-6á **lé tɔ́ (lé)laá** [~~pro_i a_i — bí — tibil — dʒɔ́ (lé)laá~~]
 I PRS-ask-REC that if how pro 1.SM-PST2-repair 5.it how
 ‘I heard that the woman repaired her car yesterday. I wonder how?’
 Lit: ‘*I heard that the woman repaired her car yesterday. I wonder that if how?’
- b. 6aúdu 6á- bí- kos- ná 6é mákebla, mε m'- bat-6á
 2.students 2.SM-PST2-receive-APPL NEG 6.presents I PRS-ask-REC
lé tɔ́ inyuukíí [~~pro_i 6a_i — bí — kos — ná — mákebla — inyuukíí~~]
 that if why pro 2.SM-PST2-receive-APPL 6.presents why
 ‘The students did not receive the presents yesterday, I wonder why?’
 Lit: ‘*The students did not receive the presents yesterday, I wonder that if why?’

(19) Tuki

- a. Puta ø- ub-á-m mbesé, vedá nu nt-sets- a-ám **éé ngí** (i-mu)
 Puta SM-hear-FV-INC. anger but I SM-ask-FV.INC. that if it-be

owate owu wu (kéé) [~~Putá ø ub a m mbese owate~~]

why FOC EVID ALT Puta SM-hear-FV-INC anger why

‘Putá is angry, but I wonder why?’

‘Putá is angry, but I wonder that if it is why?’

- b. Puta a-mú- fenda-a matuwa wáá,veda nu nt- sets-á- m **éé ngi** (i-mu) **twí owu**
P. SM-PST1-repair-FV car her but I SM-ask-FV-INC that if SM-be how FOC
wu (kee) [~~Putá a mu fend a~~]

EVID ALT Puta SM-PST1-repair-FV

‘Putá repaired her car, but I wonder how?’

Lit: ‘Putá repaired her car, I wonder that how?’

It can be observed that sluicing with non linguistic antecedents in Basaá involves a wh-remnant (a non-referential adjunct) preceded by the interrogative complementizer *tɔɔ* ‘if/whether’ which in turn is preceded by its declarative counterpart *lé* ‘that’. In Tuki on the contrary, it is shown that in addition to the fact that the wh-remnant (non-referential) is preceded by the interrogative lexical complementizer *ngi* ‘if/whether’ which in turn is preceded by the declarative lexical complementizer *ee* ‘that’, the wh-remnant is preceded by an optional expletive subject *i* ‘it’ and the verbal copula *mu* ‘be’ and followed by the focus marker, the evidential marker and the alternative question morpheme *kee* ‘or’. In addition, note that in case the elided structure in square brackets happens to be spelled out, the alternative question marker should also be dropped. This is an indication that the alternative question marker only appears if there is no overt linguistic material following it.

In partial conclusion, Basaá sluicing licenses an evidential morpheme only in the presence of an overt linguistic antecedent while Tuki sluicing, in addition to an optional copula and a focus marker, makes use of an alternative question marker irrespective of the nature of sluicing. The presence of the alternative question requires that the latter should not be followed by overt/pronounced linguistic material. The unifying factor between both languages is that each of them resorts to the use of lexical complementizers (interrogative and declarative) before the wh-remnant. Both languages also make use of an evidential marker.

That a wh-remnant in sluicing is followed by specific morphemes is not new in natural languages. Recently, it has been demonstrated that in certain varieties of Dutch (Craenenbroeck & Lipták 2006) and in Gungbe (Aboh 2010, Lipták & Aboh 2013), a wh-word in sluicing can be followed by a specific discourse morpheme encoding either focus or some other discourse-related property as attested in the following examples.

(20) Gungbe (Liptak & Aboh 2013:103-104)

a. Kfí nɛ yró mè ɖé bó ʼn kánbɔ́ ɖɔ́ mɛ̀nù wè

Kòfí fut call person IND but/and I ask that person.Q FOC

‘Kofi will call someone and I wonder who.’

b. Mè ɖé wá, á mɔ́n má nyón èn ní Kofi wè.

someone IND come but 1SG.NEG know it if Kofi FOC

‘Someone came, but I don’t know if (it was) Kofi.’

(21) Wambeek Dutch (Craenenbroeck 2010:13)

a. A: Jef ei gisteren **iemand** gezien. B: **Wou da?**

Jeff has yesterday someone seen who that

‘A: Jeff saw **someone** yesterday. B: **Who?**’

b. Jef eid **iemand** gezien, mo ik weet nie **wou da**.

Jeff has someone seen but I know not who that

‘Jeff saw **someone**, but I don’t know **who**.’

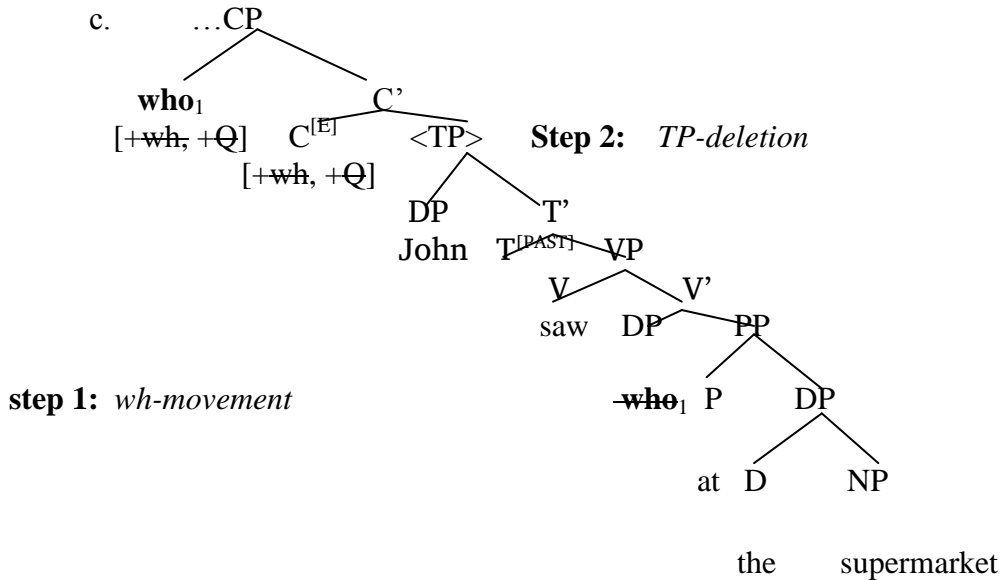
The data from Gungbe and Wambeek Dutch (Dutch variety) are similar to some extent to what is attested in Basaá and Tuki in the sense that, just like in the latter, the wh-remnant in the former is also followed by a morpheme which is associated with discourse properties, namely focus (in Gungbe) and deixis (Wambeek Dutch). However, Gungbe appears to be closer to Basaá and Tuki because in addition to the focus marker which is right adjacent to the wh-word, there is a lexical interrogative complementizer that precedes the wh-remnant. All things being equal, the empirical material in Basaá, Gungbe, Tuki and Wambeek Dutch, offer interesting cues from a crosslinguistic perspective.

9.3. Merchant’s PF-theory of sluicing and the [E]-feature

According to Merchant’s (2001, 2004, 2008 etc.) PF-theory of ellipsis, sluicing involves a movement plus deletion mechanism which consists in extracting a wh-remnant from its canonical site inside the clause domain IP, followed by PF deletion/elision of that IP. In terms of Merchant, English sluicing is an instance of wh-movement into Spec-CP followed by PF deletion of the remnant IP out of which extraction has applied as shown in (22) below.

(22) a. John saw somebody at the supermarket, I wonder who?

b. John saw somebody at the supermarket, I wonder **who**₁[~~John saw **who**₁ at the supermarket~~]



Merchant proposes that what upholds ellipsis such as in (22) is an [E]-feature i.e. the feature responsible for non-pronunciation/ellipsis of the TP in (22c) is an abstract [E]-feature endowed with syntactic, phonological and semantic characteristics.

[E] is merged under C the head of CP, the complement of which is the elided or deleted TP/IP. The role of [E] in the syntax is to dictate non-pronunciation of the c-commanded TP complement. Only a null C head of constituent questions licenses its TP complement to be elided by sluicing in English. The feature specification of [E] is that it is endowed with [+wh,+Q] features which are marked as uninterpretable and strong (marked by the asterisk). In minimalist terminology (Chomsky 1995 and related work), these features need to be checked in a local Spec-Head configuration (here Spec-CP, C).

Phonologically, the role of [E] is to instruct the phonological component (PF) not to parse or process TP the complement of C.

Semantically, the role of [E] is to ensure the recoverability or identification requirement on the deleted TP constituent. In order to be elided, a constituent needs to be e-given or discourse given. In more concrete terms, only phrases that are given in the discourse and with appropriate antecedent can undergo ellipsis. The syntax, phonology and semantics of [E] are presented in (23) below as discussed in Merchant (2001:55–61, 2004:670–673):

(23)

- a. The syntax of [e]: e[uwh*,uQ*]
- b. The phonology of [e]: uIP fi Ø/e ___
- c. The semantics of [e]: [[e]] ¼ kp: e-given (p) [p]

In a structure like (22c) above, [E] is hosted by C the head of CP and c-commands the elided TP constituent. Because [E] is strong and has uninterpretable [wh] and [Q]-features, the latter need to be checked in a local spec-head configuration between the extracted wh-phrase ‘who’ in Spec-CP and C the head of CP. [E] at the phonological component dictates non-pronunciation of TP while the semantics of [E] is such that TP can be elided if and only if it is given in the discourse. It is true that since the elided TP ‘John saw somebody at the supermarket’ is given in (22), so according to (22c), it can get deleted.

9.3.1. The movement plus deletion approach and the [E]-feature in Bantu

This section focuses on the idea that sluicing involves syntactic movement of a wh-remnant in the complementizer domain followed by PF deletion of the proposition containing the silent copy (or trace in the Principles and Parameters framework) of the extracted wh-item.

That sluicing involves A-bar movement is supported by a number of arguments among which are island effects, subcategorization, binding and connectivity effects etc. Island and subcategorization effects, as well as the use of focus and/or evidential markers, are arguments advanced in this essay in favour of a movement plus deletion/ ellipsis approach.

In terms of subcategorization, both Basaá and Tuki make use of lexical complementizers, whose main function, as attested cross-linguistically, is to subcategorize for complement or embedded clauses. Each bracketed clause below is preceded by an obligatory lexical complementizer (declarative or interrogative) so much so that if the latter happens to be dropped, one obtains an ill-formed sentence.

(24) Basaá

- a. Mɛ n'-yí *(lɛ́) [bɔɔŋgɛ́ bǎ- ŋ- gwêš kón] *lé-clause (that-clause)*
I PRS-know that 2.children 2.SM-PRS-like 10.rice
‘I know that children like rice.’
- b. Mɛ n'-yí bɛ́ *(tɔɔ) [bɔɔŋgɛ́ bǎ- ŋ- gwêš kón] *tɔɔ-clause (if-clause)*
I PRS-know NEG if/whether 2.children 2.SM-PRS-like 10.rice
‘I wonder if children like rice.’

(25) Tuki

- a. Viróó a- bunganám *(**éé**) [Mbárá a- má- batíya Putá na tsúmbá]
Viroo SM-think that Mbara SM-PST2-greet Puta in bedroom
‘Virro thinks that Mbara greeted Puta in the bedroom.’
- b. Viróó a- sésám *(**ngí**) [Mbárá a- má- batíya Putá na tsúmbá]
Viroo SM-asks if Mbara SM-PST2-greet Puta in bedroom
‘Virro asks if Mbara greeted Puta in the bedroom.’

However, in neutral discourse contexts, under no circumstances, can these lexical complementizers subcategorize for a DP constituent as the ungrammatical sentences below attest.

(26) Basaá

- a. ??Mε n- yí **lé** ɓɔɔŋgé...
I PRS-know that 2.children
‘I know that children...’
- b. ??Mε n- yí ɓé **tɔɔ** ɓɔɔŋgé...
I PRS-know NEG if/whether children
‘I don’t know if children...’

(27) Tuki

- a. *Viróó a- bunganám **éé** Mbárá
Viroo SM-think that Mbara
‘*Virro thinks that Mbara’
- b. *Viróó a- sésám *(**ngí**) Mbárá
Viroo SM-asks if Mbara
‘*Virro asks if Mbara’

Recall that (26a-b) can only be felicitous in a very specific context, but cannot be acceptable as out-of-the blue utterances. For example, they can be felicitous as a follow-up to a previously uttered statement. As suspension marks show, they require continuation that may be overt or implied. So sentence (26a) can be a direct answer to a ‘what do you know/what do you say?’ question while its (26b) counterpart can be a direct answer to a ‘what don’t you know/what do you say/think?’. In this vein, the two sentences can be followed by the bracketed sentences in (24a-b) respectively. The previous examples are a strong indication that lexical complementizers in Basaá and Tuki license but complement clauses and never a DP category.

More interesting is that in both languages the declarative lexical complementizer and its interrogative counterpart can co-occur, with the former preceding the latter as illustrated in (28a-b) below (see also 7-8 above).

(28)

- a. Mε m- bat-ɓá **lé tɔɔ** mudaá a- n- lámɓ kón (Basaá)
I PRS-ask-REC that if 1.woman 1.SM-PST1-cook 10.rice
‘I wonder if the woman has cooked rice.’ Lit: ‘*I wonder that if the woman has cooked rice.’

b. Viróó a- sésám **éé** **ngí** Mbárá a- má- batiya Putá na tsúmbá (Tuki)
 Viroo SM-ask that if Mbara SM-PST2-geet Puta in bedroom
 ‘Viroo wonders if Mbara greeted Puta geeted Puta in the bedroom’ Lit: ‘*Mbara wonders that if Mbara greeted Puta in the bedroom.’

Under close scrutiny, there is doubt that the lexical Basaá complementizers *lé* ‘that’ and *tɔɔ* ‘if’ and their Tuki counterparts *éé* ‘that’ and *ngi* ‘if’ are distinct and not complex (combined) functional items. Each lexical item can stand in the presence of the other and fulfills a specific discourse function in each language. With this in mind and given the ill-formedness of (26-27), it is obvious that the elliptical sentences (29b) and (30b) below are derived from their non-elliptical counterparts in (29a) and (30a) Note that ~~strike through~~ indicates deletion/ellipsis.

(29) Basaá

a. Maɔŋgé a- m- mĩl **ŋgim jǒm**, me n- yí b́é mé jɔ,
 1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 me m- mbat-6á *lé tɔɔ* **kíí** **î** [pro_i a_i- m- mĩl ~~kíí~~]
 I PRS-ask-REC that if/whether 9.what 9.EVID pro 1.SM-PRS-swallow 9.what
 ‘The child has swallowed something, I don’t know it. Look, what he has swallowed’
 Lit: ‘The child has swallowed something, I don’t know it. Look, what is it that he has swallowed?’

b. Maɔŋgé a- m- mĩl **ŋgim jǒm**, me n- yí b́é me **jɔ**,
 1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 me m- mbat-6á *lé tɔɔ* **kíí** **î** [pro_i a_i- ~~m- mi~~ ~~l~~ ~~kíí~~]
 I PRS-ask-REC that if/whether 9.what 9.EVID pro 1.SM-PRS-swallow 9.what
 ‘The child has swallowed something, I don’t know it. Look, what he has swallowed’
 Lit: ‘The child has swallowed something, I don’t know it. Look, what is it that he has swallowed?’

(30) Tuki

a. **Mutu mo** a- mú- ibá itutu rǎme eéná. Nu nga-tá- mu-ídzimá omwéné.
 man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him
 Veda nu nka-mbĩm *éé* *ngi* (i-mu) **ane₁ (odzu)dzu** [**ane₁** a- mu- iba]
 but I SM-astonish that if (it is) who FOC EVID 1.who 1.SM-PST1-steal
 ‘Someone stole my motorcycle here. I do not know him/her. But I wonder who stole (it)’

b. **Mutu mo** a- mú- iba itutu rǎme eéná. Nu nga-tá- mu-ídzima omwéné.
 man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him
 Veda nu nka-mbĩm *éé* *ngi* (i-mu) **ane₁ (odzu) dzu** [**ane₁** a- ~~mu~~ ~~iba~~]
 but I SM-astonish that if (it is) who FOC EVID 1.who 1.SM-PST1-steal
 ‘Someone stole my motorcycle here. I do not know him/her. But I wonder who stole (it)’

Based on (29-30), it becomes obvious that the wh-words *kíí* ‘what’ in Basaá and *ane* ‘who’ in Tuki respectively underlyingly originate in the postverbal and preverbal positions i.e. first merged via subcategorization as direct object of the predicate *mi* ~~l~~ ‘swallow’ and subject of the

predicate *iba* ‘steal’ in the non-elliptical sentences (29a & 30a) and have subsequently moved to an adjacent position to the lexical complementizers, the focus marker (Tuki) and the evidential marker. This movement operation (A-bar movement indeed) is followed by ellipsis/deletion of the sentence containing a silent copy of the previously moved wh-word.

A second argument that unambiguously militates in favour of a movement approach to sluicing in these languages is that neither the focus marker, nor the evidential morpheme occur in-situ. Otherwise stated, the focus marker and the evidential marker can never occur in wh-in-situ contexts as shown below.

(31)

- a. *Maangé a- m- míl **ngim jǒm**, mɛ́ n- yí bɛ́ mɛ́ **jɔ**,
 1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 mɛ́ m- mbat-bá lé tɔ́ [pro_i a_i- m- míl **kíí *î**]
 I PRS-ask-REC that if/whether pro 1.SM-PRS-swallow 9.what 9.EVID
 ‘The child has swallowed something, I don’t know it. Look, what he has swallowed?’
 Lit: ‘The child has swallowed something, I don’t know it. Look, what is it that he has swallowed?’
- b. *Mangadzu a- kutu- ny-á **wanda**, nu nt-sétsá-m
 woman SM-PROG-eat-FV thing I SM-ask-INC
éé ngi [mangadzu a- kutu- ny-á **ate *aye *ye**
 that if woman SM-PROG- eat-FV what FOC EVID
 ‘The woman is eating something. I wonder what she is eating’

The fact that neither Basaá nor Tuki licenses focus and/or evidential markers in in-situ wh-questions and that they appeal to them only if the wh-word has been fronted is tantamount to saying that sluicing constructions such as (29-30) above are derived by A-bar movement. In addition, given that the focus and evidential markers only occur in ex-situ wh-question contexts, one should wonder what positions they occupy in Basaá and Tuki clause structure, an interesting theoretical issue that shall be unveiled in the next section.

Under the assumption that Bantu sluicing involves a movement plus deletion operation, one is tempted to wonder if it is sensitive to locality constraints that uphold long dependencies operations (A-bar movement) such as island constraints. Since Chomsky (1965), Ross (1967), Rizzi (1980) and related works, it has been customary to realize that some syntactic environments are opaque or resistant to extraction. With this in mind and given that sluicing, based on the abovementioned arguments, involves a long dependency operation, it becomes interesting to diagnose if sluicing in Basaá and Tuki is sensitive to island constraints. The answer

is straightforwardly negative as it is the case cross-linguistically. Although wh-movement in Basaá and Tuki is sensitive to island effects, it should be borne in mind that such effects are alleviated in the context of sluicing. Given that the environment out of which the wh-word is extracted subsequently undergoes PF deletion, this deletion process eschews island effects and the structure is rescued by non-pronunciation (Lasnik 2001). The following examples show that extraction across island domains in non-elliptical sentences yields ungrammaticality (31-32) while this ungrammaticality is averted under sluicing (33-34).

(32) Basaá

a. *Coordinate Structure Constraint (CSC)*

*Maangé a- n- dzé kón ni ngim jǒm, me n- yí bé mé jɔ,
1.child 1.SM-PRS-eat 10.rice and 9.some 7.thing I PRS-know NEG I.EMPH 9.it

me m- bat-6á lé tɔɔ kíí₁ î [pro_i a_i- n- dzé kón ni kíí₁]
I PRS-ask-REC that if/whether 9.what 9.EVID pro 1.SM-PRS-eat 10.rice and 9.what

‘*The child has eaten rice and something, I don’t know it. I wonder what he has eaten rice and’

Lit: ‘*The child has eaten rice and something, I don’t know it. I wonder that if what is it that he has eaten and?’

b. *Complex Noun Phrase Constraint (CNPC)*

*Me bí- 6ómá [máangé nú a- bí- dzé ngim jǒm] ndí me bí- yí bé jô,
I PST2-meet 1.child 1.Rel 1.SM-PST2-eat IND 9.thing but I PST2-know NEG 9.it

me m- bat-6á lé tɔɔ kíí₁ î me m- 6ómá [máangé nú a- bí- dzé kíí₁]
I PRS-ask-REC that if 9.what 9.EVID I PST1-meet 1.child 1.Rel 1.SM-PST2-eat 9.what

‘*I met the child who ate something, but I didn’t know it. I wonder what I met the child who ate’

Lit: ‘*I met the child who ate something, but I didn’t know it. I wonder that if what I met the child who ate’

(33) Tuki

a. *Coordinate Structure Constraint (CSC)*

*Putá a- mu- kús-a karate na wanda wundyé, veda nu nga t(á)-idzím-a

Putá SM-PST1- buy-FV book/letter and thing other but I SM-Neg-know-FV

ate₁ aye Putá a- mu kús-a karate na_ate₁

what FOC Putá SM-PST1-buy-FV book/letter and what

‘*Putá has bought a book and something, but I don’t know what Putá has bought a book and.’

b. *Nu nga-me- baruma na mutu [ɔdzɔ [(əə) [a- me- tira wanda wundyé] veda

I SM- PST2-meet with man Rel that SM-PST2-write thing other but

nu nga-t(a) -idzím-a ate aye nu ngá-me- baruma na [mutu ɔdzɔ [(əə)

I SM-NEG-know-FV what FOC I SM-PST2-meet with man Rel that

[a- má-tira ate₁]

SM-PST2-write what

‘*I met the man who wrote something, but I don’t know what I met the man who wrote.’

The following Basaá sentences that are the elliptical counterparts of (31a-b) are unambiguously grammatical given that the islands out which extraction applies goes missing (is deleted) at the PF component (deletion is marked by strikethrough).

(34) Basaá

a. *Coordinate Structure Constraint (CSC)*

Maangε a- n- dzé kón ni **ngim jǒm**, me n- yí bé mé jɔ,
 1.child 1.SM-PRS-eat 10.rice and 9.some 7.thing I PRS-know NEG I.EMPH 9.it
 mé m'- bat-6á le tɔɔ **kíí₁ î** [~~pro_i a_i n- dzé kón ni kíí₁~~]
 I PRS-ask-REC that if/whether 9.what 9.EVID pro 1.SM-PRS-eat 10.rice and 9.what
 ‘The child has eaten rice and something, I don’t know it. I wonder what’

Lit: ‘*The child has eaten rice and something, I don’t know it. I wonder that if what it is’

c. *Complex Noun Phrase Constraint (CNPC)*

Me bí- 6ómá [máangε nú a- bí- dzé **ngim jǒm**] ndí me bí- yí bé jô,
 I PST2-meet 1.child 1.Rel 1.SM-PST2-eat IND 9.thing but I PST2-know NEG 9.it
 me m'- bat-6á lé tɔɔ **kíí₁ î** [~~me m- 6ómá [máangε nú a- bí- dzé kíí₁~~]
 I PRS-ask-REC that if 9.what 9.EVID I PST1-meet 1.child 1.Rel 1.SM-PST2-eat 9.what
 ‘I met the child who ate something, but I didn’t know it. I wonder what’

Lit: ‘*I met the child who ate something, but I didn’t know it. I wonder that if what it is’

In the same vein, following Tuki sentences that are elliptical counterparts of (33a-b) are unambiguously grammatical given that the islands out which extraction applies goes missing (is deleted) at the PF component (deletion is marked by strikethrough).

(35) Tuki

a. *Coordinate Structure Constraint (CSC)*

Putá a- mú- kus-a karate na wanda wundyé, veda nu nga t(á)-ídzím-a
 Putá SM-PST1- buy-FV book/letter and thing other but I SM-Neg-know-FV
ate₁ aye ye kéé [~~Putá a- mu- kus-a- karate- na_ate₁~~]
 what FOC EVID ALT Putá SM-PST1-buy-FV book/letter and what
 ‘Putá has bought a book and something, but I don’t know what.’

b. *Complex Noun Phrase Constraint (CNPC)*

Nu nga-me- barám-a na mutu [ɔdzɔ [(əə) [a- me- tira wanda wundyé] veda
 I SM- PST2-meet-FV with man Rel that SM-PST2-write thing other but
 nu nga-t(á) -ídzím-a **ate aye ye** [~~nu nga-me- baruma na [mutu ɔdzɔ [(əə)
 I SM-NEG-know-FV what FOC EVID I SM-PST2-meet with man Rel that
 a-me-tira-ate₁]~~
 SM-PST2-write what

‘I met the man who wrote something, but I don’t know what.’

It is important to recall that the morpheme *kee* which encodes an alternative question in Tuki only appears in elliptical constructions. This morpheme does not license overt linguistic material on its right in non-elliptical constructions.

9.3.2. The [E]-feature and the architecture of the clausal left periphery

This section shows that the [E]-feature that triggers ellipsis in Bantu (the same mechanism is attested in Kwa (see Aboh 2010 & Lipták 2013 for Gungbe) may be overt as opposed to English-like languages whereby this feature is covert. The theoretical tool that better accounts for the Bantu empirical data is Rizzi's (1997, 2001, 2004, 2013a-b) split-CP hypothesis according to which the complementizer domain is prolific as it can host various functional projections, the heads of which encode very specific scope-discourse properties. Sluicing in Basaá and Tuki involves A-bar movement of a wh-item into the specifier position of an Evidential Phrase (Bassong 2014) followed by a focus phrase, which in turn is followed by an Alternative Phrase (in Tuki), head of which hosts the alternative question morpheme.

Following this line of reasoning, the sentences in (12a) and (13a) repeated as (36a) and (36-b) respectively are derived as depicted in (37a-b) whereby the highest functional projection is the force phrase (ForceP) followed by the interrogative phrase (IntP) which in turn is followed by the evidential phrase (EvidP). The Tuki clause structure is closed off downwards by the alternative phrase which is not attested in Basaá.

(36)

a. Basaá

Maanǵé a- m- mǐl **ngim jǵm**, me n'- yí b́é mé jɔ,
1.child 1.SM-PST1-swallow 9.some 7.thing I PRS-know NEG I.EMPH 9.it

me m'- mbat-bá lé tɔɔ **kíí í**

I PRS-ask-REC that if/whether 9.what 9.EVID

'The child has swallowed something, I don't know it. Look, what he has swallowed'

Lit: 'The child has swallowed something, I don't know it. Look, what is it that he has swallowed?'

b. Tuki

Mutu mo a- mu- iba itutu rǎme eéna. Nu nga-tá- mu-ídzíma omwéné.
man IND SM-PST1-steal motorcycle my here I SM-Neg-OM-know her/him

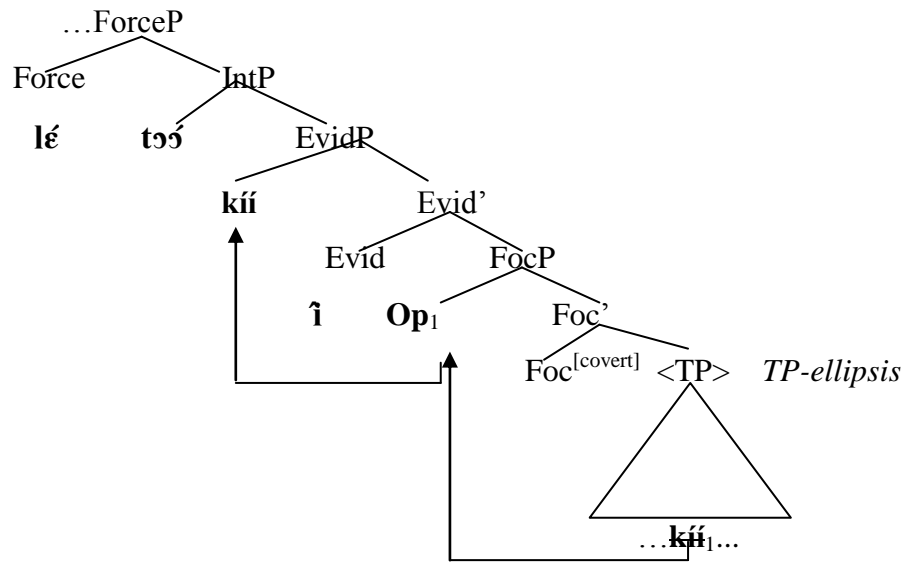
Veda nu nka-mbím *éé ngi* (i-mu) **ane (ódzú) dzu kéé...**

but I SM-astonish that if (it is) who FOC EVID ALT

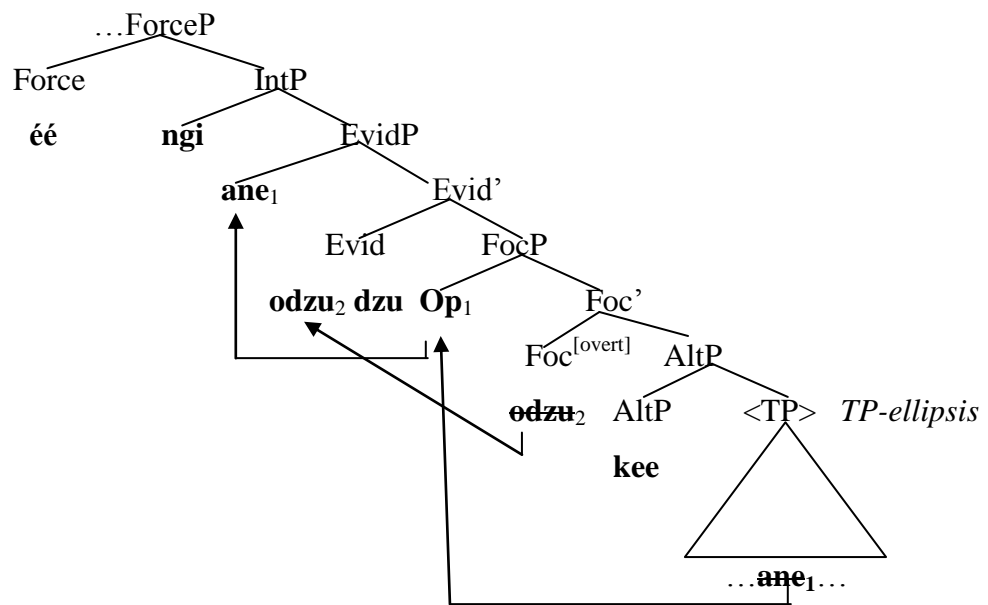
'Someone stole my motorcycle here. I do not know him/her. But I wonder who?'

Lit: 'Someone stole my motorcycle here. I don't know him. But I wonder who **or**...?'

(37) a. *Basaá sluicing and clause structure*



b. *Tuki sluicing and clause structure*



The clausal architectures above indicate that the Bantu clausal left peripheral layer is a conglomerate of distinct discourse functional projections, the heads of which may be overt and associated each with a specific scope-discourse semantics. As can be seen, Foc, the head of the focus phrase is virtually silent in Basaá whereas it is overt in Tuki. This state of affairs stems from the fact that extracted wh-items are not morphologically in Basaá (cf. ex. 9) while they may be in Tuki. Under the assumption that Wh-phrases are inherently focused to some extent in some

languages (cf. Heny 1971; Myers 1971; Schlachter 1971; Horvath 1986; Rochemont 1986; Culicover & Rochemont 1990; Biloa 1992, 1995, 2013, Aboh 2004 *inter alia*), one can conjecture that Basaá and Tuki fundamentally pattern alike but apparently differ on the covertness and overtness of the focus morpheme. If this reasoning holds along the lines, then one can establish uniformity in terms of the structural positioning of the focus phrase projection in both languages. Talking of uniformity, one can also see that although both languages seem to exhibit some disparity in terms of covertness/overtness of the focus morpheme (in Basaá, the focus marker is silent and precedes the evidential morpheme while in Tuki it is overtly realized), both are underlyingly similar. What happens in Tuki is that the focus marker raises from Foc into Evid via head movement which seems to be invisible in Basaá. The only noticeable difference between the both languages lies in the absence of the Alternative Phrase (AltP) in Basaá versus its presence thereof in Tuki. Note also that the *wh*-remnant *kíí* ‘what’ (37a) and *ane* ‘who’ (37b) move into Spec-EvidP via Spec-FocP in a successive cyclic fashion. The first movement step takes place for the focus-criterion purposes (Rizzi 1997, Brody 1990 etc) while the second one is motivated by evidentiality requirements or in a very informal way, for the ‘evidentiality-criterion’ i.e. the requirements that a given constituent with evidentiality features should be in a local Spec-Head configuration with a functional head endowed with evidentiality features. As for the position of the focus and evidentiality morphemes, they are originally merged under Foc and Evid respectively. Once they have are merged, the focus morpheme *odzu* in Tuki raises into Evid by head movement and incorporates into the evidentiality morpheme *dzu* by head left-adjunction (Kayne 1994). After head raising has taken place, both *odzu* and *dzu* are combined and form a complex head *odzu dzu* via incorporation (Baker 1988) as in (37b). One can postulate that the same movement and incorporation processes take place in Basaá but with a slight difference that there is no overt focus morpheme in this language. One can suggest that what raises into Evid is but a silent/implicit focus morpheme.

It is important to mention, based on (18) and (19), that non-referential *wh*-adjuncts in Basaá are marked neither for focus like their referential and argument counterparts nor for evidentiality. On the contrary, argument and referential adjuncts are marked for evidentiality. This notwithstanding cannot in any way falsify the Basaá clause structure under sluicing depicted in (37a). The only slight difference between sluicing with linguistic antecedents and non-linguistic antecedents is that the latter (i.e. the one with non-referential adjuncts like in (18))

does not trigger overt realization of the evidential marker under Evid, the head of EvidP. Put aside this slight difference, the clause structure is intact and undergoes no alternation.

Overall, it goes without saying that the Basaá and Tuki empirical material discussed in the context of sluicing offers interesting results as they well contribute not only to the understanding of sluicing cross-linguistically, but they also constitute a way forward into the understanding of the syntactic blocks that make-up the clausal left edge as pictured in (38).

- (38) a. *Basaá clause structure under sluicing*
ForceP > IntP > FocP > EvidP > TP/AgrSP
- b. *Tuki clause structure under sluicing*
ForceP > IntP > FocP > EvidP > AltP > TP/AgrSP

Conclusion

This chapter has provided, analyzed and discussed novel data from a Bantu perspective within the framework of ellipsis with special focus on sluicing, a research area that has not yet been been considerably investigated in the literature of African linguistics apart from very recent works by (Aboh 2010, Lipták & Aboh 2013 and Bassong 2014). The discussions have revealed that sluicing in Bantu is a syntactic operation that involves leftward movement of a wh-item into the specifier position of an evidentiality phrase (EvidP) which is hierarchical preceded upwards by a Force Phrase (ForceP) and an Interrogative Phrase (IntP). Downwards, EvidP is followed by a Focus Phrase (FocP) and an Alternative Phrase (Alternative Phrase in Tuki). Each of these functional projections may be associated with a specific overt morpheme in a head position which signals their presence in clause structure, providing therefore a fine-grained ‘landscape’ (architecture) of the clausal left periphery which furthermore does justice to the cartographic project (Rizzi 1997, 2001, 2004, 2013a-b).

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General conclusion

In this book, I have provided a cross-linguistic study of the internal structure of IP and CP in the light of very recent developments in generative syntax, notably Kayne's (1994, 2003, 2011) antisymmetric and Rizzi's (1997, 2001, 2002, 2013a-b etc.) cartographic approaches to syntactic structures. Based on a variety of Bantu and Chadic languages, it has been demonstrated once more that syntactic structures are very complex and composite objects, the internal characterization of which requires an in-depth analysis based on relevant descriptive and theoretical tools. Bantu and Chadic languages are not only characterized by intricate morpho-syntactic internal make-ups, but they also resort to several movement operations which are elegantly and unambiguously supportive of the idea that syntax is fundamentally antisymmetric, cartographic and comparative.

The inflectional layer of Bantu languages explored in this collection has provided additional support to Pollock's (1989) split-IP hypothesis according to which this specific syntactic area is prolific and composite. Bantu languages display a conglomerate of inflectional morphemes which cannot only encode agreement, tense, aspect, mood, linking relations etc, but can also simultaneously co-occur in clause structure as attested in the Bantu language Mbeligi where agreement, tense, aspect, linking and question morphemes interact simultaneously.

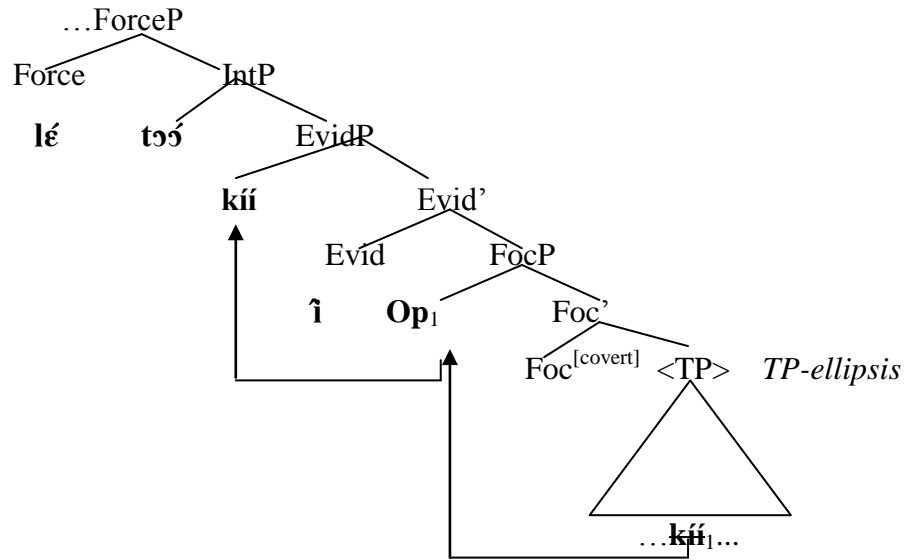
- (i) Abeti a- bi- kə- (i)ŋ- gi'i la ni Funwi ?
 Abeti SM F1 progr. link. talk QM to Funwi
 "Abeti will be talking to Funwi?"

Similarly, the exploration of the complementizer layer has been very fruitful in this study as evidenced by the fact that, not only Bantu, but also Chadic languages, make use of a variety of specific scope-discourse morphemes that, in turn, are associated with corresponding specific information structure-related properties such are focus, topic, interrogation, cleft, relativization, alternative question, evidentiality, force etc.

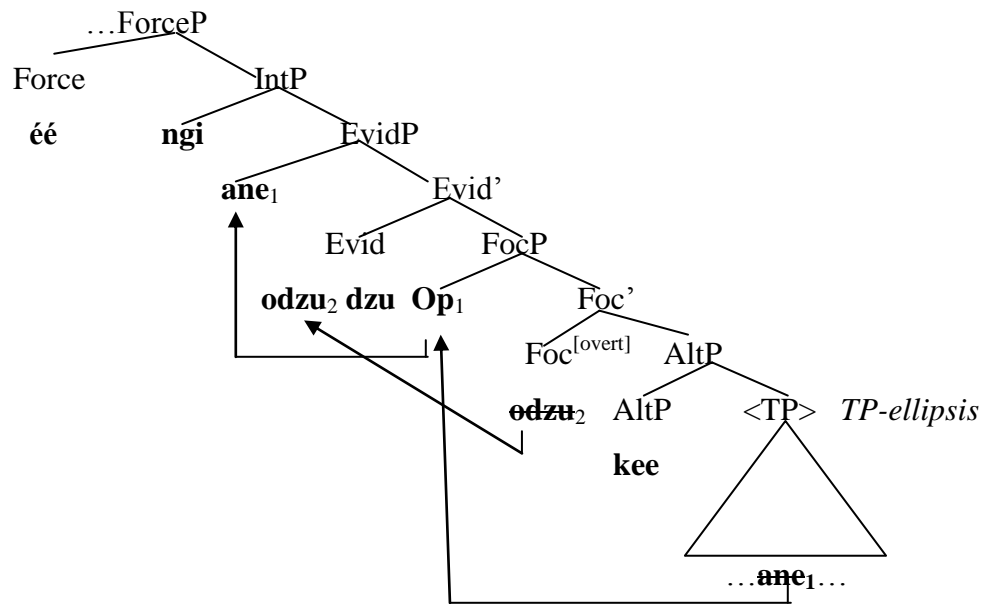
In Musgum, a Chadic language, for instance, different discourse-related information properties in clause structure can be expressed by different specific morphemes encoding force, cleft, relativization, and focus morphemes that may be overt as shown in (ii-iii)below.

- (ii) Avele a sida bo ti Amina na Sali a- diriti
 Avele SM know that FM Amina relativizer Sali SM loves

(vi) *Basa'a sluicing and clause structure*



(vii) *Tuki sluicing and clause structure*



As their counterparts in the I-layer, discourse-related morphemes can co-occur simultaneously in a very well-defined hierarchical order and offer a fine-grained and articulate cartography of a complementizer system which is even more richer than that of Rizzi's (1997) and subsequent work. The empirical data discussed in this book are not only supportive of Rizzi's split-CP hypothesis, but they are also novel in the sense that some of them have not yet been mentioned so far in the literature of generative grammar.

Although sometimes seemingly covert, it has been shown that the different morphemes that are attested either in the inflectional or complementizer domain can be not only syntacticized, but cannot also be avoided or overshadowed in clause structure. As a matter of fact such morphemes need to be 'syntacticized' à la Rizzi (2013a-b).

As shown thoroughly, Bantu and Chadic languages make use of various morpho-syntactic processes which, at first sight, seem to constitute a major challenge to the antisymmetric approach. More precisely, antisymmetry prohibits rightward movement and adjunction processes and advocates a uniform tenet for movement across natural languages. In these languages, it was demonstrated that the configurations whereby the superficial or surface orders differ from the deep functional structures are accounted for in terms of movement operations ranging from simplex ones to complex ones such as heavy pied-piping and remnant movement. Globally, the intricate nature of the internal composition of syntactic atoms of these languages can only be accounted for in the light of both cartography and antisymmetry which unambiguously constitute relevant theoretical tools for the understanding of a good number of mechanisms which could not be satisfactorily accommodated before the nineties.

As a result, the order of functional projections examined in this book has been offered very detailed, articulate and precise structural maps in a hierarchical fashion. This state of affairs, consequently, has not only provided supportive evidence to the antisymmetric, cartographic and comparative nature of syntax, but has also proved that there is no alternative to cartography.

Unresolved issues and future prospects

Although a good number of issues have been solved in this book, there still remain some intricate issues that will require solutions. These certainly constitute a major challenge to be met in future works. In the light of cartography and antisymmetry, it was shown, for instance, that

apparently rightward movement of constituents in focus, relative and wh-movement in Chadic languages is linked to a series of successive movement operations that involve pied-piping and remnant movement.

One of the intricacies encountered is the salient argument/adjunct asymmetry attested in Musgum focalization. When an item is focused in Musgum, it occurs in clause final position. In this Chadic language, while it is possible to focalize either the subject NP or the direct object NP, as illustrated by the following constructions:

(viii)

a. Sali a- na- θi6- ti Amina arni luwaŋai gi daβala
 Sali SM be beat res.pro Amina between trees with whip
 “Sali beats Amina in the forest with a whip”

b. a- θi6- ti Amina arni luwaŋai gi daβala a Sali
 SM beat res.pro Amina between trees with whip FM Sali
 “It is Sali who beats Amina in the forest with a whip”

c. Sali a- θi6- ti arni luwaŋai gi daβala ti Amina
 Sali SM beat res.pro between trees with whip FM Amina
 “It is Amina that Sali beats in the forest with a whip”

It is impossible to focalize prepositional phrases (PPs), i.e. NPs introduced by prepositions:

(ix)

a.* Sali a- na- θi6- ti Amina gi daβala a/ti arni luwaŋai
 Sali SM be beat res.pro Amina with whip FM between trees
 “It is in the forest that Sali beats Amina with a whip”

b.* Sali a- na- θi6- ti Amina arni luwaŋai a/ti gi daβala
 Sali SM be beat res.pro Amina between trees FM with whip
 “It is with a whip that Sali beats Amina in the forest”

The data in (viii-ix) show that focalization of PPs is not possible in Musgum. While an argument NP is focalizable, be it in subject or direct object position, focalization is no longer possible when the NP in question is introduced by a preposition:

(x)

a. Adam a- diri- ti metir ni
 Adam SM loves res.pro teacher his
 “Adam loves his teacher”

b. Adam a- na- a- muda gi metir ni
 Adam SM be SM talk with teacher his
 “Adam is talking to his teacher”

The subject position is easily focalizable in both sentences:

(xi)

a. a- diri- ti metir ni a Adam
SM loves res.pro teacher his FM Adam

“It is Adam who loves his teacher”

b. a- na- a- muda gi metir ni a Adam
SM be SM talk with teacher his FM Adam

“It is Adam who is talking with his teacher”

While in (viii-b-c), argument NPs can be focused, the PPs in (ix-a-b) cannot, providing once more prima facie evidence that arguments are focusable, but PPs are not. The question of the theoretical relevance is: why is that so?

Another issue that still remains to be discussed is the fact that in the Chadic languages Giziga, Musgum and Wandala, focalization and wh-movement require relativization i.e. in addition to focusing or wh-fronting a constituent, relativization shows up via the presence of a relativizer as shown below:

(xii) *Musgum focalization involves relativization*

a. Sali a- diriti Amina
Sali SM loves Amina
“Sali loves Amina”

b. A Sali na a- diriti Amina
FM Sali rel. SM loves Amina
“It is Sali who loves Amina”

c. Ti Amina na Sali a- diriti
FM Amina rel. Sali SM loves
“It is Amina that/whom Sali loves”

The data in (xi-b-c) seem to indicate that the focalized NP is fronted and preceded by the focus marker (FM): in (xi-b), the FM is *a* because *Sali* is a male, while in (xi-c) the FM is *ti* because *Amina* is a female. Moreover, descriptively the focused NP is followed by *na* which I term a relativizer because it occurs as well in relative clauses. Having described these constructions, one wonders how they are derived.

(xiii) *Wandala wh-movement and focalization involve relativization*

a. Boukar á-haya waré?
Boukar SM-loves who

“Who does Boukar loves?”

b. Ba waré una á-haya na Boukar na?
FOC who relativizer SM-loves COMP Boukar COMP

“Who does Boukar love?= Who is it that Boukar loves?”

(xiv) *Wh-movement and focalization involve relativization in Giziga*

a. Somaá a- dí zléé (*i) mí ké
Soma SM cook past FOC what QP

“Soma was cooking what?”

b. mí Soma má dí zléé ná ka?
what Soma Rel cook past COMP QP

“What was Soma cooking?”

c. i mí Soma má dí zléé ná ka?
FOC what Soma Rel cook past COMP QP

“It is what that Soma was cooking?”

Similarly, in Giziga, focalization triggers relativization as illustrated in the following examples.

(xv) *focalization involves relativization in Giziga*

a. Mamaya á- hidík dá ngwas naṇa hay ngidamḅu
Mamaya SM+past buy to wife his house yesterday

“Mamaya bought his wife a house yesterday”

b. I Mamaya mi hidík dá ngwas naṇa hay ngidamḅu
Foc Mamaya Rel buy to wife his house yesterday

“It is Mamaya who bought his wife a house yesterday”

c. I hay mi Mamaya mi hidík a dá ngwas naṇ ngidamḅu ná
Foc house Rel Mamaya Rel buy ben. to wife his yesterday COMP

“It is a house that Mamaya bought for his wife yesterday”

The above examples show that when an item is focalized in Giziga it is preceded by the focus morpheme *I* while the subject of the sentence is relativized, as shown by the presence of the relativizer *mi*.

Argument/adjunct asymmetry with respect to focalization, wh-movement and focalization triggering relativization are striking issues that hitherto remain unresolved and constitute aspects to be handled in future research because the motivations that uphold such morphosyntactic phenomena have remained unexplained in this book.

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This collection of essays explores the nature and structure of full clauses, with special emphasis on the inflectional domain (IP) and the left periphery of the clause (CP). This research enterprise wishes to unearth a rich body of complex syntactic structures that lead to the drawing up of equally complex and detailed structural maps. In so doing, Edmond BILOA provides unequivocal and convincing proof, from Bantu and Chadic languages, that syntax is, without alternative, cartographic and antisymmetric.

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