

Questions Formation in Musey

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ABSTRACT

This article is interested in questions formation in Musey, a chadic language spoken in Chad and Cameroon. It comes within the competence of generative grammar. Kayne's (1994) Antisymmetry and Rizzi's (1997, 2001b) Split-CP are used for analyzing the Musey data. Musey is made up of arguments (*nge* (who) and *mege* (what)), referential adjuncts (*saba* (when), *aige* (where)) and non-referential adjuncts (*an mege* (how); *kai mege* (why)). They are focalized à la clause final comp and à la clause initial comp. Since the focus marker *ni* precedes focused arguments and adjuncts, they are hosted by Spec-FocP. In yes/no questions, the question marker *su* ends the structures and is hosted by IntP. In embedded questions, the lexical complementizer *ana* (that) is hosted by ForceP. This study leads to the following projections hierarchy: Int > Cleft > Foc > Force > Agr.

KEYWORDS

questions formation; antisymmetry; Split-CP; arguments; referential adjunct; non-referential adjunct.

INTRODUCTION

Questions formation is a syntactic transformation that consists in requesting, asking. Some previous analysis uncovered English type languages in which questions markers move to the left periphery, and China-Japanese type languages in which there is no *wh*-movement. After his Split-CP hypothesis, Rizzi (1997) advocates a maximal projection: Interrogative Phrase (IntP). This one is supposed to be hosted by Force Phrase (ForceP), the highest projection of his left periphery pattern: Force...Top*...Foc...Top*...Fin. However, after analyzing respectively Tuki and Musgum, Biloa (2013) and Brahim (2018) state that the landing site of Interrogative Phrase (IntP) is Focus Phrase (FocP). Earlier, Takizala (1972) indicates that the focus and the interrogation are endowed with the same presupposition; that is why they are similar. In this paper, we are interested in Musey, a Chadic language whose words order is SVO. Lopez Villaseñor (2021) publishes a Musey classic grammar after comparing this language with Semitic and Indo-European languages like Aramaic, Hebrew, Arab, Greek, Latin. Brahim (2021) analyzed the focalization in Musey; he identified two focusing strategies (*à la clause final comp* and *à la clause initial comp*). In this paper, we tackle questions formation in Musey. We want to understand whether the questions markers move to the left. If yes, which can be their landing site? Can Interrogative Phrase be hosted by Force Phrase? Our previous work as regards the focalization can permit us at least to state that some questions markers move to the left. In this article, we analyze matrix *wh*-questions, yes/no questions, embedded questions. Then, we emphasize the cartography and derivation.

Matrix Wh-Questions

Questions markers

Musey language is made up of the following questions markers:

(1)

Arguments: *nge, kege* (who); *me, mege* (what)

Referential adjuncts: *saba, sabage* (when); *aige, aya* (where)

Non-referential adjuncts: *an me, an mege, ana* (how); *kai mege, kai me* (why).

Questions with arguments

Let us consider this basic structure:

(2)

Gelemu ka hal Ayàmbi.

Gelemu prog. Seek + pres. Ayambi

“Gelemu seeks Ayambi” / “Gelemu is seeking Ayambi”

This structure is made up of the subject *Gelemu*, the progressive aspect *ka*, the verb *hal* (seeks) and the direct object *Ayàmbi*. Both subject and direct object can be questioned:

(3)

a. *Hal Ayàmbi ni nge?*

Seek + pres. Ayambi foc who

“who does seek Ayambi?”

b. *Nge hal Ayàmbi (ge)?*

who seek + pres. Ayambi QM

“who does seek Ayambi?”

c. *Gelemu hal ni nge (ke)?*

Gelemu seek + pres. foc who QM

“who Gelemu does seek?”

d. *Ni nge Gelemu hal nge?*

Foc who Gelemu seek + pres. who

“Who Gelemu does seek?”

In (3a), the subject *Gelemu* is questioned. The argument *nge* is naturally focused *à la clause final comp.* This focusing strategy was previously observed in Musey language by Brahim (2021). In the second structure (3b), the argument *nge* questions the subject position; it is not preceded by the focus marker. The optional and emphatic question marker *ge* ends the sentence. This particle stresses question marker *nge* (who). Moreover, we notice that a marker that questions a subject cannot be focused *à la clause initial comp.*

In the third structure (3c), the direct object *Ayàmbi* is questioned. The argument *nge* is naturally focused *à la clause final comp.* It is followed by the optional and emphatic particle *ke* that is another version of the question marker *ge* mentioned above. In the fourth construction (3d), the argument *nge* occurs twice. The first is focused *à la clause initial comp.* This focusing strategy is also identified by Brahim (2021) in Musey language. The second occupies the initial position of *Ayàmbi*.

Let us consider this basic structure:

(4)

Gelemu ka hal zi.

Gelemu prog. seek + pres. house

“Gelemu seeks a house” / “Gelemu is seeking a house”

This structure is made up of the subject *Gelemu*, the progressive aspect *ka*, the verb *hal* (seeks) and the direct object *zi* (house). Direct object can be questioned:

- (5)
- a. *Gelemu hal ni mege?*
Gelemu seek + pres. foc. what
“What Gelemu does seek?”
- b. *Ni mege Gelemu hal mege?*
Foc what Gelemu seek + pres. what
“What Gelemu does seek?”

In the first structure (5a), the argument *mege* (what) is focused *à la clause final comp.* In the second sentence (5b), it co-occurs: the first is focused *à la clause initial comp.*; the other ends the construction.

Questions with referential adjuncts

Let us consider the following basic structure:

- (6)
- Kewna i vini.*
Kewna go + pres. tomorrow
“Kewna will go tomorrow.”

This structure has the subject *Kewna*, the verb *i* (go + pres.) and the circumstantial complement of time *vini* (tomorrow). The adverb *vini* (tomorrow) can be questioned:

- (7)
- a. *Kewna i ni saba?*
Kewna go + pres. foc when
“When will Kewna go ?”
- b. *(Ni) saba kewna i ge?*
foc when tomorrow go + pres. QM
“When will Kewna go ?”

In the first structure (7a), we note that the referential adjunct *saba* (when) is focused *à la clause final comp.* In the second question structure (7b), *saba* (when) is focused *à la clause initial comp.* The focus marker *ni* is optional in this case and the structure is scarcely concluded by *ge*.

Let us consider the following basic structure:

- (8)
- Amina kagi ha Game.*
Amina live + pres. in Game
“Amina lives in Game.”

This structure has the subject *Amina*, the verb *kagi* (go + pres.) and the circumstantial complement of location *Gami*. This can be questioned:

- (9)
- a. *Amina kagi ni aige.*
Amina live + pres. Foc where
“Where does Amina live.”
- b. **Ni aige Amina kagi?*
Foc where Amina live + pres.
“Where does Amina live.”

In the first structure (9a), the referential adjunct *aige* (where) is focused *à la clause final comp.* The second structure is not acceptable because of focalizing *aige* (where) *à la clause initial comp.*

Questions with non-referential adjuncts

Let us consider the following basic structure:

- (10)
Kalbasu lu juviya.
 Kalbasu dance + pres. well
 “Kalbasu dances well.”

This structure has the subject *Kalbasu*, the verb *lu* (dance + pres.) and the adverb of manner *juviya* (well). The adverb *juviya* (well) can be questioned:

- (11)
 a. *Kalbasu lu ni an mègè ?*
 Kalbasu dance + pres. Foc how
 “How does Kalbasu dance?”
 b. **Ni an mègè Kalbasu lu ?*
 Foc how Kalbasu dance + pres.
 “How does Kalbasu dance?”

In the first structure (11a), *an mègè* (how) is focused *à la clause final comp.* The second structure (11b) is not acceptable when the no-referential adjunct is focused *à la clause initial comp.*

Let us consider the following basic structure:

- (12)
Tipma liy ko yo Lona
 Tipma run away + pres. because of water God
 “Tipma runs away because of rain.”

This structure has the subject *Tipma*, the verb *liy* (run away + pres.), the preposition *ko* (because of) and the noun phrase *yo lona* (rain). The Preposition Phrase *ko yo lona* (because of rain) can be questioned:

- (13)
 a. *Tipma liy ni kai mè (gè) ?*
 Tipma run away + pres. foc why QM
 “Why Tipma runs away?”
 b. *(Ni) kai me Tipma liy (ge) ?*
 Foc why Tipma run away + pres. QM
 “Why Tipma runs away?”

In the first structure (13a), the no-referential adjunct is focused *à la clause final comp.* It can be concluded by the optional and emphatic question marker *gè*. In the second structure (13b), the no-referential adjunct *kai me* (why) is focused *à la clause initial comp.* The structure can be ended by the optional particle *ge*.

Yes-no questions

Let us observe the following structures:

- (14)
 a. *Hanam dùm Fikondi.*
 Hanam get married + P. Fikondi
 “Hanam got married Fikondi.”
 b. *Hanam dùm Fikondi sú?*
 Hanam P. Fikondi QM
 “Did Hanam get married Fikondi?”

(15)

- a. John zùm sene mamma.
 John cultivate + P. farm his
 “John cultivated his farm.”
- b. John zùm sene mamma sù?
 John cultivate + P. farm his QM
 “Did John cultivate his farm?”

The first structure (14a) is the basic one. It has the subject *Hanam*, the verb *dùm* (got married) and object *Fikondi*. In (14b), it is questioned by using intonation and the final polar question marker *sù* suited to yes/no questions.

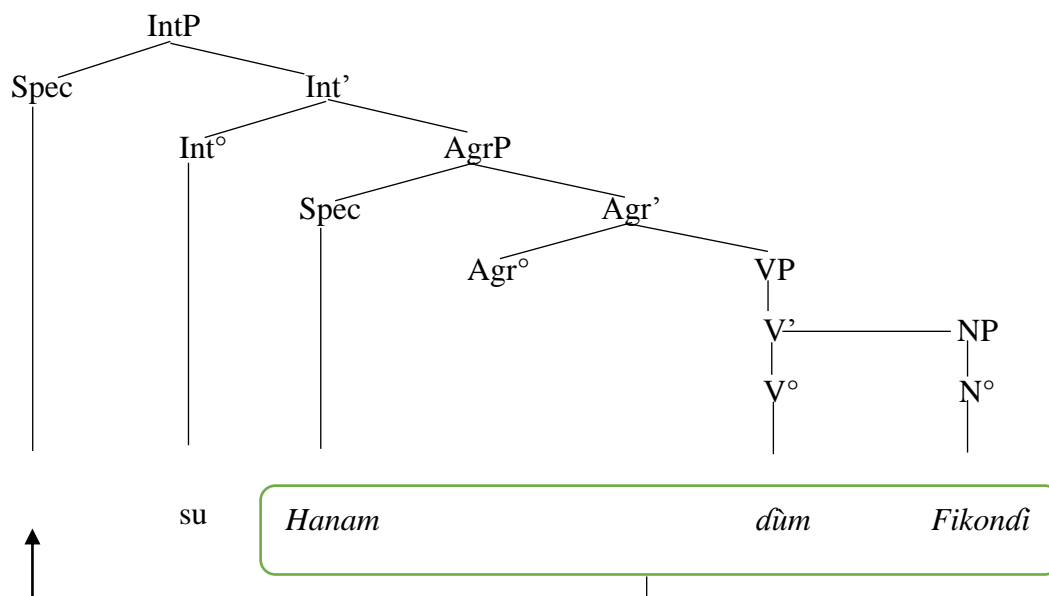
In (15a), we have another basic structure. It has the subject *John*, the verb *zùm* (cultivated), the object *sene* (farm) and the possessive determiner *mamma* (his). In (15b), it is also questioned by using intonation and the question marker *sù*.

The polar question marker *sù* always occurs in clause final position and changes a statement into a question. It has been mentioned by Lopez Villaseñor (2021: 122). A similar question marker is uncovered by Biloa (to appear) in Masa (another neighbouring chadic language spoken in Chad and Cameroon):

- (16)
- Golo ká mà sū
 Golo PROG. come.IMPERF QM
 “Is Golo is coming?”

The Musey particle *sù* is assumed to be hosted by Int° of IntP if Rizzi’s (2001b) theory of phrase structure is adopted. IntP is higher than AgrP (the clause). *Sù* is generated in Int°. To derive the word order attested at Phonetic Form (PF), the clause is pied-piped into the Spec-IntP position that dominates and precedes AgrP. It is a typical case of what is known in the literature as heavy pied-piping (see Nkemnji 1995). Let us observe the diagram of (14b):

(17)



The pied-piping of AgrP into Spec-IntP is accounted for by Chomsky’s (1993) Extension Condition: when a head is merged, movement into its specifier is obligatory. Raising of AgrP into Spec-IntP is also accounted for by Kayne’s (1994) Linear Correspondence Axiom: a head must be preceded by its specifier and followed by its complement.

Embedding

The lexical complementizer

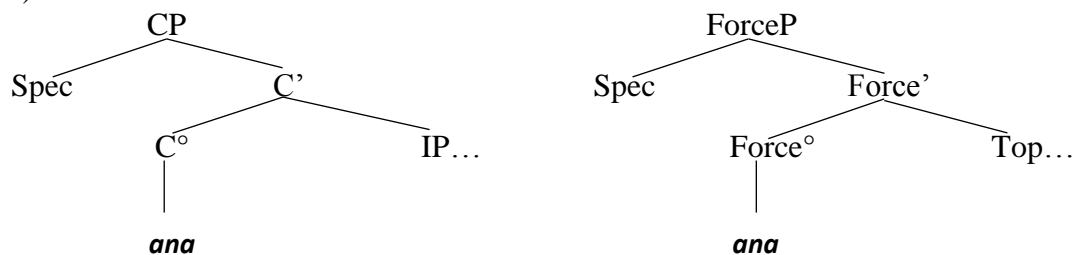
Musey language is endowed with a lexical complementizer that is syntactically similar to the English language “that”:

(18)

- a. *Nam faaga ana an mba i□.*
 3sg think + pres. that 1sg fut. go
 “He thinks that I will go.”
- b. *Nam faaga ana mulna mba holoŋ aya.*
 3sg believe + pres. that king fut. be back + pres. (centripetal)
 “He believes that the king will be back.”

Ana (that) is the head of Complementizer Phrase (CP) (Chomsky 1986) or the head of Force Phrase (ForceP) (Rizzi 1997):

(19)



Indirect questions

Let us observe the following structures:

(20)

- a. *John min a hum ana Hanam min Fikondî sù.*
 John want + pres. SubjM know that Hanam love + pres. Fikondi QM
 “John wants to know if Hanam loves Fikondi.”
- b. *Nam min hum ana aŋ hot ai ni saba (ge).*
 3sg want + pres. know that 2sg come back foc. when QM.
 “He wants to know when you will be back.”
- c. *Peter min a hum ana ài kot doyna ni an mege.*
 Peter want + pres. SubjM know that one make + pres. canary foc. how
 “Peter wants to know how one makes a canary.”

The first structure (20a) is a yes/no question. It has main (*John min a hum*) and embedded (*ana Hanam min Fikondî sù*) clauses. It is ended by the question marker *sù*. We note that the embedded clause is introduced by *ana* (that).

The second structure (20b) has main (*nam min hum*) and embedded (*ana aŋ hot ai ni saba ge*) clauses. The referential adjunct *saba* (when) is focused *à la clause final comp* and is concluded by an optional and emphatic element *ge*.

The third structure (20c) has main (*Peter min a hum*) and embedded (*ana ai kot doyna ni an mege*) clauses. The non-referential adjunct *an mege* (how) is focused *à la clause final comp*.

In this case, we note that the particle *ana* (that) is a lexical complementizer that introduces indirect questions. It cannot be analyzed as (Int)errogative head. In the first structure (20a), for instance, the interrogative head is rather occupied by the particle *su*.

Cartography And Derivation

Focalization

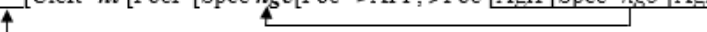
We uncovered two focusing strategies (*à la clause final comp* and *clause initial comp*) when we analyzed previously Musey language (Brahim 2021). In the focalization *à la clause final comp*, we observe two movements. The first moves the focused constituent from its initial position to the Specifier of the Focus Phrase. The second brings the rest of the clause to the Specifier of the Cleft Phrase. As regards the focalization *à la clause initial comp*, we observe one movement which goes from the initial position of focused constituent to the Specifier of the Focus Phrase. These facts are also suited to questions in Musey language. Can focused arguments and adjuncts be hosted by the Specifier of Focus Phrase?

For example, let us re-observe the following structures:

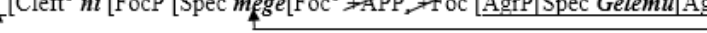
- (3)'
- a. *Hal Ayàmbi ni nge?*
 Seek + pres. Ayambi foc who
 "who does seek Ayambi?"
- b. *Gelemu hal ni mege?*
 Gelemu seek + pres. foc. what
 "What Gelemu does seek?"

Remind us of Rizzi's (1997, 2001b, 2004) Split-CP analysis. Rizzi 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). He proposes 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).

In the first structure (3a)', *nge* (who) is focused *à la clause final comp*. The structure can be represented as follows:

- (21)
- [CleftP [Spec [Cleft° *ni* [FocP [Spec *nge*[Foc° \rightarrow APP, \rightarrow Foc [AgrP[Spec '*nge*'[Agr° [VP *hal* [NP *Ayàmbi*]]]]]]]]]]]]
- 

In the second structure (3b)', *mege* (what) is focused *à la clause final comp*. The structure can be represented as follows:

- (22)
- [CleftP [Spec [Cleft° *ni* [FocP [Spec *mege*[Foc° \rightarrow APP, \rightarrow Foc [AgrP[Spec *Gelemu*[Agr° [VP *hal* [NP '*mege*']]]]]]]]]]]]
- 

We notice that in both representations (21) and (22), *nge* (who) and *mege* (what) are hosted by Spec-FocP. The focus marker occupies CleftP-Cleft° seeing that it precedes the focused constituents. This maximal projection is what Koopman (2000) calls YP. She argues 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. In this case, the maximal projection is CleftP.

We wonder why questions markers are focalized. Literature shows that questions markers are naturally focused in human languages (Myers, 1971; Heny, 1971; Schachter, 1971; Takizala, 1972; Horvarth, 1986; Rochement, 1986; Rochemont & Culicover, 1990; Biloa,

1995 & 2013). In order to know why questions markers are focalized, some answers were previously stated. They were based on semantic aspect. The literature gave us a clear idea in going by the implicit presupposition of questions formation and focalization. Takizala (1972), for example, stated that a question (with argument or adjunct) and focalization are made up with the same presupposed structure. Let us compare the following sentences:

(23)
It was/wasn't Kipese that bought a chair =
Presupposition: "someone bought a chair"
Assertion: "that person is Kipese". (Takizala, 1972 :79)

(24)
Who bought a chair? =
Presupposition: "someone bought a chair"
Question: "that person is who?".(Takizala, 1972 :80)

The semantic structure seems to be the same in both structures whereas the implied performative act is different. We note the assertion for the focus and the question for the interrogative phrase. When we are interested in semantic resemblance, we will understand this structure as follows:

(25)
 a. *Gelemu hal ni nge ?*
 Gelemu seek + pres. foc who
 "who Gelemu does seek?"
Presupposition: *Gelemu hal ni sa'a.*
 Gelemu seek + pres. Foc someone
 "Gelemu seeks someone."
Interrogation: *Ni nge?*
 Foc who
 "Who is it?"

This interrogative structure is similar to the following other with focus:

(26)
Gelemu hal ni Ayàmbi.
 Gelemu chercher + pres. Foc Ayàmbi
 "It is Ayàmbi that Gelemu seeks."
Presupposition: *Gelemu hal ni sa'a.*
 Gelemu seek + pres. Foc someone
 "Gelemu seeks someone."
Assertion: *Ni Ayàmbi.*
 Foc Ayàmbi
 "It is Ayambi."

We notice that a question in Musey can be considered to be a focalization.

DOUBLE WH AND PARTICLEGE

We observed that when arguments are focused *à la clause initial comp*, they are repeated at the end of the sentences. Let us re-observe the following constructions:

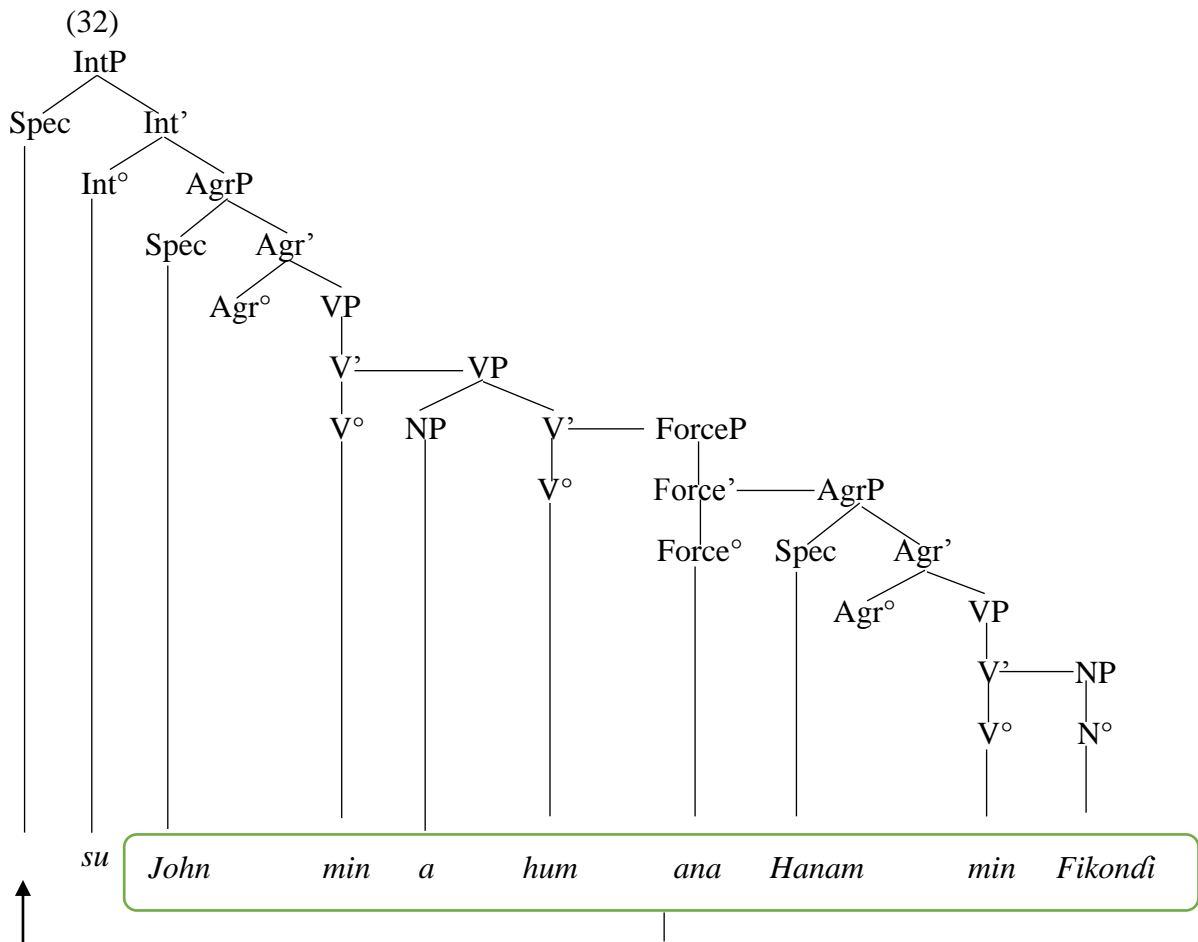
(3d)
Ni nge Gelemu hal nge?
 Foc who Gelemu seek + pres. who
 "Who Gelemu does seek?"

(5b)
Ni mege Gelemu hal mege?

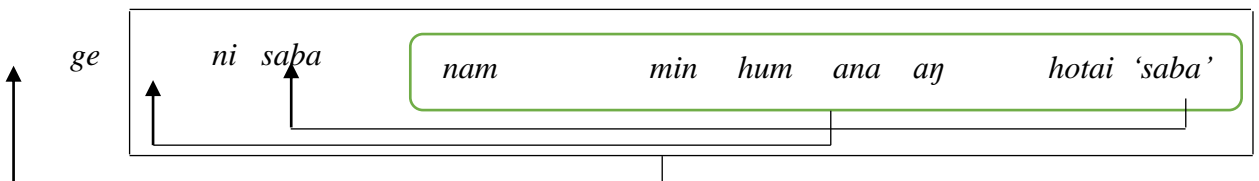
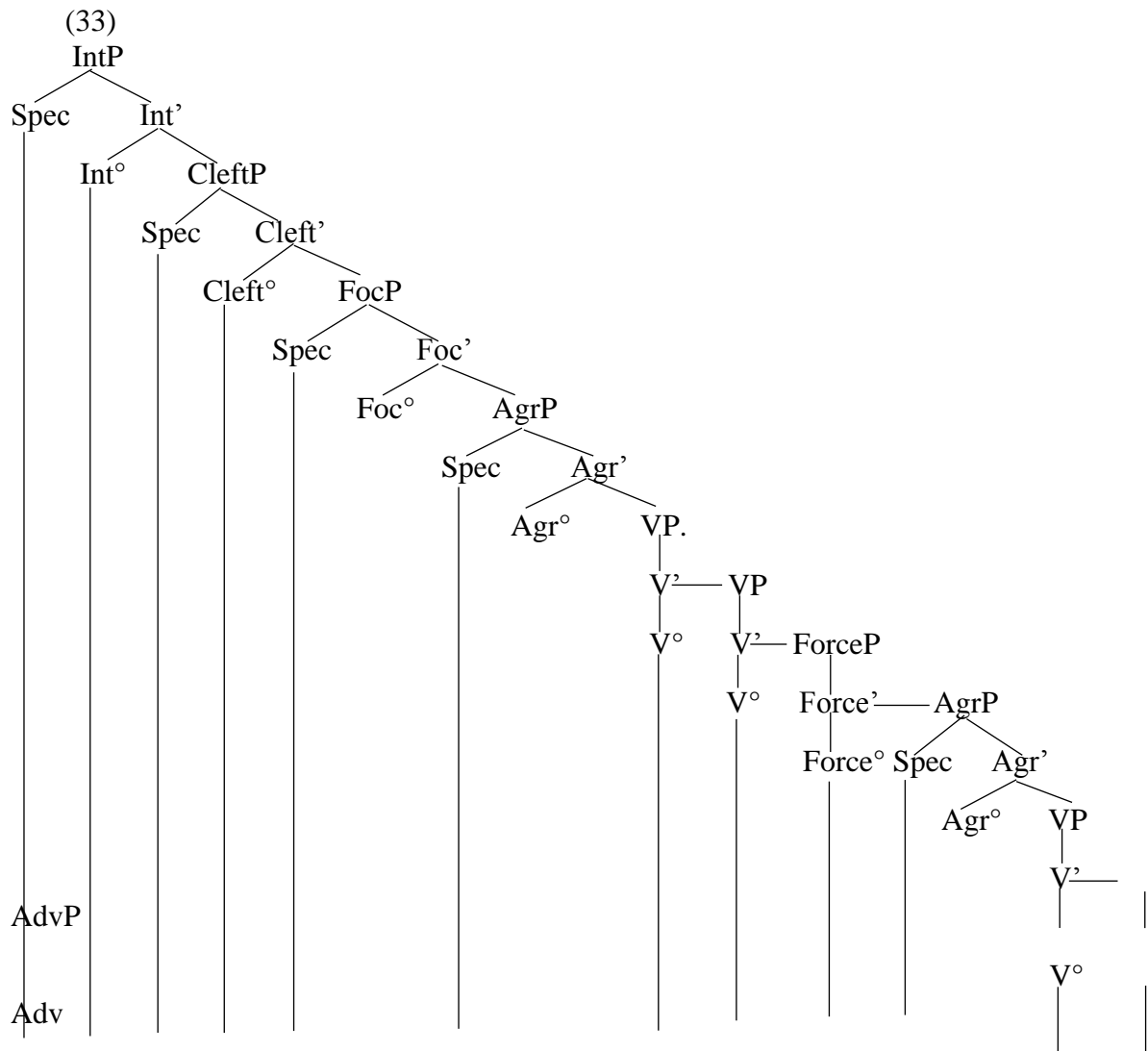
This hierarchy can accommodate Rizzi's (1997) left periphery order? In order to answer this question, let us consider again the following embedded clauses:

- (31)
- a. *John min a hum ana Hanam min Fikondi sú.*
 John want + pres. SubjM know that Hanam love + pres. Fikondi QM
 "John wants to know if Hanam loves Fikondi."
- b. *Nam min hum ana aη hot ai ni saba (ge).*
 3sg want + pres. know that 2sg come back foc. when QM.
 "He wants to know when you will be back."

The first structure (31a) is yes/no question concluded by the particle *sú*. This particle is assumed to be hosted by Int° of IntP if Rizzi's (2001b) theory of phrase structure is adopted. We have *ana* (that) that is the head of Complementizer Phrase (CP) (Chomsky 1986) or the head of Force Phrase (ForceP) (Rizzi 1997). In phonetic form, *ana* (that) seems to be higher than *sú*. But in implicit form, the question marker *sú* is higher. Let us observe the following representation:



In (31b), the adjunct *saba* (when) is focused à la *clause final comp* and is concluded by the optional and emphatic particle *ge*. *ana* (that) that is the head of Complementizer Phrase (CP) (Chomsky 1986) or the head of Force Phrase (ForceP) (Rizzi 1997). In subjacent form, IntP and FocP are higher than ForceP. Let us observe the following representation:



We observe three movements. *Saba* (when) raises to Spec-FocP. Then, the clause is pied-piped to Spec-CleftP. The clause is pied-piped again to Spec-IntP. This mechanism account for the derivation of (31b). As from this representation (33), we notice the following projections hierarchy:

- (34)
 Int > Cleft > Foc > Force > Agr.

The arguments and adjuncts are focalized *à la clause final comp* and *à la clause initial comp*. They are hosted by Spec-FocP. Since the specifier precedes the focused constituent, it is hosted by a maximal projection: CleftP-Cleft°. When arguments are focalized *à la clause initial comp*, they are repeated. The one that concludes the sentence is rather hosted by Int°. When adjuncts are focalized *à la clause initial comp*, the sentences are ended by the interrogative particle *ge*. This one is generated in Int°. Polar yes/no question particle *su* is

also generated in Int^o. The lexical complementizer *ana* (that) introduces embedded clauses. It is hosted by ForceP-Force^o. All these facts lead to the previous projections hierarchy in (34). This order is opposite to Rizzi's (1997) left periphery of the clause.

CONCLUSION

In order to form questions, Musey language uses arguments (*nge, kege* (who); *me, mege* (what)), referential adjuncts (*saba, sabage* (when); *aige, aya* (where)), non-referential adjuncts: *an me, an mege, ana* (how); *kai mege, kai me* (why). They are focalized *à la clause final comp* and *à la clause initial comp*. They are hosted by FocP-Foc^o. Since the focus marker *ni* precedes focused arguments and adjuncts, they are hosted by Spec-FocP. When arguments are focused *à la clause initial comp*, they are repeated at the end of the sentences. Those that end the sentences are rather hosted by Int^o. When adjuncts are focalized *à la clause initial comp*, the sentences are ended by the interrogative particle *ge*. This one is generated in Int^o. In yes/no questions, the particle *su* ends the structures and is hosted by IntP. In embedded questions, the lexical complementizer *ana* (that) is hosted by ForceP. We get the following projections hierarchy: Int > Cleft > Foc > Force > Agr.

We note that all movements raise constituents to the left periphery of clause, confirming Kayne's (1994) left condition: all movement must be leftward. The Interrogative Phrase is not hosted by Force Phrase. It is higher than this. This fact questions Rizzi's (1997, 2001b) following left periphery order: Force > Top* > Foc > Top* > Fin. Musey data show us the variety of questions formation. They incite us to analyze others Chadic languages in order to discover their aspects.

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