The syntactic structure of Yes/No Interrogatives
in Senufo Nafara

1. Introduction

Nafara is a Senufo language of the Niger-Congo language family, spoken in northern regions of Côte d’Ivoire, West Africa. It has approximately 61,000 speakers. Like many Niger-Congo languages, Nafara is under-documented and under-studied. While individual Senufo languages and the overall family have received some attention in the field of linguistics (Carlson, 1991; Carlson, 1994; Garber, 1987; Manessy, 1996a; Manessy, 1996b), the Senufo Nafara language is barely addressed at all in the literature.

This paper focuses on the nature and location of interrogative markers in Senufo-Nafara. In order to provide evidence regarding the syntactic structure of Yes/No interrogative sentences in Senufo-Nafara, I look at various verb categories. I also explore the possible interactions between interrogatives, negation, and tense.

I first consider a hypothesis according to which the interrogative marker is involved in a semantic relation with the element that it directly precedes, which justifies the multiple locations available for the interrogative marker in the surface word order of interrogatives. This hypothesis is then abandoned providing sufficient evidence, in favor of a second hypothesis, considering this time a possible Functional Projection playing a decisive role in the syntactic structure of Yes/No interrogatives in Nafara.

2. General observations
Nafara Yes/No interrogatives are formed with an interrogative marker, henceforth Q, that most commonly follows the main verb in the sentence, as showed in (1) and (2).

(1) wu ʃje 临港 mā
   3SG go.PRS school to
   ‘He goes to school.’

(2) wu ʃje li 临港 mā
   3SG go.PRS Q school to
   ‘Does he go to school?’

2.1. Verb category and location of Q

In order to evaluate the nature and location of Q within the syntactic structure, it is necessary to take into account different types of clauses and the possible and impossible locations for Q within them. Going through these, I will present different hypotheses that will either be refuted or favored.

Although a first look at the possible locations of Q leads to consider semantic relations of Q to different elements as a hypothesis for a potential analysis, this hypothesis must be rejected. I then move on to arguing that there is a type of Functional Projection (FP) that is part of the underlying syntactic structure of Nafara Yes/No interrogatives. Although that location (F) can only be filled by certain specific candidates, its involvement in the structure is confirmed and verified cross-linguistically.

2.2. Intransitive interrogatives

First, interrogatives involving intransitive verbs most commonly have Q directly following the main verb, and it does so regardless of the verb tense, as in (2) and (3). However, Q can also be located after adjuncts such as postpositional phrases, as in (4). Yet, (5) shows that Q may not be inserted within the postpositional phrase.
In interrogative clauses including more than one adjunct, Q can appear either right after the verb as in (3), in final position as in (6), or between adjuncts as in (7).

(3) wu ka le ọkọlu mā
   3SG go.PST Q school to
   ‘Did he go to school?’

(4) wu ka ọkọlu mā le
   3SG go.PST school to Q
   ‘Did he go to school?’

(5) *wu ka ọkọlu le mā
   3SG go.PST school Q to
   ‘Did he go to school?’

As Q seems to fit into a variety of locations within the syntactic structure of interrogatives, my first hypothesis is that Q may be involved in a semantic relation with the element it directly follows. For instance, Q might identify or mark a focused term within the interrogative, which would lead us to see Q appear in a variety of locations in the sentence, depending on the semantic focus of the question, as exemplified in (8).

(8) a. Did he go to school yesterday?
    b. Did he go to school yesterday?
    c. Did he go to school yesterday?
Although this semantic hypothesis seems attractive, (9) and (10) immediately disprove semantics as an explanation for the various locations of Q. When the focus of the question is made clear by the addition of a continuation, the different options are still available.

(9) ✓ wu ka le lɔkɔlu mā tɕeŋa:nā ubjī sa?a mā 3SG go.PST Q school to yesterday or home at ‘Did he go to school yesterday or did he stay home?’

(10) a. ✓ wu ka lɔkɔlu mā le tɕeŋa:nā ubjī sa?a mā
b. ✓ wu ka lɔkɔlu mā tɕeŋa:nā le ubjī sa?a mā

Also, if this hypothesis was confirmed, in the case in which the subject is selected as semantic focus, Q would expectedly be able to directly follow it. Yet, (11) shows that it is not possible. Therefore, the semantic hypothesis seems unmotivated.

(11) *wu le ka lɔkɔlu mā tɕeŋa:nā ubjī mari 3SG Q go.PST school to yesterday or Mary ‘Did he go to school yesterday, or did Mary?’

In order to observe Q more closely, and try another hypothesis, let us turn now to what happens in transitive interrogatives.

2.3. Transitive interrogatives

In a transitive interrogative such as the one in (12), the direct object is necessarily located before the verb. The interrogative marker still directly follows the verb.

(12) ✓ wu be go kaːra ka: le 3SG PST chicken meat eat Q ‘Did he eat chicken?’
As Q can follow both main verbs and adjuncts, I now want to test whether or not it could also follow objects. The test provided in (13) fails, which suggests that either there is no potential position that Q might occupy following the direct object, or else for some independent reason the direct object must remain close to the verb, and cannot be separated from the verb by inserting Q.

(13) *wu be go ka:ra le ka:
    3SG PST chicken meat Q eat
    ‘Did he eat chicken?’

Also, as this sentence includes a temporal auxiliary, it introduces an additional location that can be tested as a location for Q. The ungrammatical utterance in (14) shows that the interrogative marker cannot follow the temporal auxiliary either.

(14) *wu be le go ka:ra ka:
    3SG PST Q chicken meat eat
    ‘Did he eat chicken?’

(15) ✓ wu be go ka:ra ka: tʃɛŋa:nɑ le.
    3SG PST chicken meat eat yesterday Q.
    ‘Did he eat chicken yesterday?’

Summing up, in the case of a transitive interrogative, Q can only follow the main verb or one of the adjuncts, but never come before the verb.

3. A Remnant Movement hypothesis

3.1. Bell 2004

In his dissertation on Bipartite Negation, Bell (2004) addresses some very similar options for the location of a negative marker in Afrikaans. The said marker can appear after the main verb (16a), or after one or two adjuncts (16b). From such observations, Bell proposes that there is a Functional Projection that would allow certain elements of the VP to move out of the VP.
independently in certain conditions. What remains of the VP (the “remnant”) may then raise across it. The hypothesis that adverbial material and PPs optionally move out of the VP before it raises across negation accounts for why such material optionally follows negation, in Bell's view.

(16) a. Hy het dit nie gedoen nie omdat hy betaal is.  
    he have it nie₁ done nie₂ because he paid is.  
    ‘He did not do it because he was paid.’

b. Hy het dit nie gedoen omdat hy betaal is nie.  
    he have it nie₁ done because he paid is nie₂.  
    ‘He did not do it because he was paid (but for another reason).’  
    (Robbers 1997:40)

(17) The second hypothesis involved in this paper consists in applying that analysis to the Nafara interrogative structure. Assuming that Q is located in C, and that PPs and AdvPs can optionally exit the VP as in Bell's analysis of adjunct/Neg interactions in Afrikaans, we can explain how they can wind up on either side of Q.

(Bell 2004: 53-56)
3.2. Transitive clauses with one adjunct

Let us first consider (18) as the underlying structure for the transitive interrogative in (15).

In (15), the surface word order could be derived by raising the entire TP to Spec,CP, leaving Q in final position in the sentence, as demonstrated in (19). Although FP plays no role in this derivation; I include it purely to indicate its location.
Now, considering the other word order option available for the same interrogative in (20), the explanation we propose is for AdvP to move to Bell’s Spec,FP (in (21)), before TP moves up to Spec,CP (in (22)).

(20) ✓ wu be go ka:ra ka: le tʃɛŋa:nã.
    3SG PST chicken meat eat Q yesterday.
    ‘Did he eat chicken yesterday?’

(21)

(22)
Although the reason why PPs and AdvPs are good candidates for this movement, as well as the nature of FP, have yet to be determined, this hypothesis derives the surface word order by means of upward phrasal movements that are cross-linguistically well-attested.

3.3. Ditransitive interrogatives

Ditransitive interrogatives seem to confirm that hypothesis, as Q can never follow the direct object, as proven in (23), but can be located in final position in the sentence, as in (24).

(23) *wu livru le kā ṣodža mā
     3SG book Q give.PST ṣodža to
     ‘Did he give the book to ŋoʤa?’

(24) ✓ wu livru kā ṣodža mā le
     3SG book give.PST ṣodža to Q
     ‘Did he give the book to ŋoʤa?’

Also, in the case of ditransitives, there is a strong contrast between the constituents in terms of relation to the verb. The direct object directly precedes the verb whereas the indirect object is located after it. Moreover, the verb and its indirect object may be separated by Q, as in (25).

(25) ✓ wu livru kā le ṣodža mā
     3SG book give.PST Q ṣodža to
     ‘Did he give the book to ŋoʤa?’

Therefore, our assumption is that the postpositional phrase that constitutes the indirect object may move to Spec,FP the same way as any other PP or AdvP. Its thematic role of goal does not block the movement of PP away from the verb. In other words, movement out of the VP
is not restricted to adjuncts, since the goal argument can apparently do this.\(^1\)

### 3.4. Interrogatives with reporting verbs

With reporting verbs, Q can occur at the very end of the sentence, that is, after the embedded clause, as in (26). We propose (27) as the underlying structure of the sentence. The TP movement that leads to having Q in final position is illustrated in (28).

\(^{(26)}\) \(\text{wu } d\text{ye } \text{(t}\text{f}\text{i}) \text{ } \text{ŋo}d\text{a } \text{ma-ka } \text{lok}\text{olu: } m\text{ā } \text{li} \)  
3SG say.PST (that) ŋodga PST-go school to Q  
‘Did he say that ŋodga went to school?\(^{(27)}\)

\(^{(27)}\)  

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\(^1\) There are no true double object constructions in Nafara; the goal is always realized in a PP.
Yet, in interrogatives including a reporting verb, Q may also precede the PP of the embedded clause, as demonstrated in (29). I assume that PP moves to the spec of FP prior to the bigger TP moving up, which allows PP to remain after Q. (30)

(29) ✓ wu dʒe ŋoðʒa ma-ka li lɔkɔlu: mā
3SG say.PST ŋoðʒa PST-go Q school to
‘Did he say that ŋoðʒa went to school?’

(30)
Q may also occur before the embedded clause is introduced. (31) Therefore, we assume that not only PPs and AdvPs are valid candidates for Spec.FP, but also smaller complements.

(31) ✓ wu dʒe li ŋodʒa ma-ka lɔkɔlu: mā
3SG say.PST Q ŋodʒa PST-go school to
‘Did he say that ŋodʒa went to school?’

(32)

In other words, all and only constituents that surface postverbally can also follow Q.

4. Conclusions

In conclusion, there is potentially a location in the structure of Nafara interrogatives that resembles Bell’s FP. It is necessary to determine what makes a good candidate to fill in that location, as this analysis determines that it may be occupied by AdvPs and PPs, but also by CPs.

Also, the place of the object within the verb phrase remains questionable. Indeed, Obj.DP can come before the verb when Obj.CP remains after the verb. I pose two hypotheses for further
investigation. In (33), I propose that Obj originates on the left side of the verb within VP, and that something requires Obj,CP to move. For instance, heaviness would be something to consider.

(33)

On the other hand, in (34), I consider another option according to which all objects originate on the right-hand side of the verb, but Obj,DP is promoted to a higher position within VP.

(34)

Future research should consider each case as a possible factor in order to explain both the structural relation of Obj to the verb, and also to identify good candidates for moving to Spec,FP and hence following Q.
References

   In E. C. Traugott, B. Heine (eds.), Approaches to grammaticalization, I: Focus on theoretical and methodological issues; II: Focus on types of grammatical markers. 201. Amsterdam: Benjamins.


