

The CP Periphery and the Syntax of Questions, Clefts and Relative Clauses in Bantu

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Introduction

There is a relationship between content questions (especially subject *wh*- questions), relative clauses and clefts, as illustrated in (1). Namely, (a) *la-* is prefixed to the verb and, (b) the constituent preceding *la-* is linked to the domain following *la-* via agreement (in this case subject agreement). In addition, note that *la-* and the underlined constituents in (1) are capable of long-distance movement, as illustrated in (2).

1. a. Bo-bani *la*-ba-to-natsa *tjwala*
 1.pl-who DET-1.pl.SM-FUT-drink 8.alcohol
 ‘Who will drink alcohol?’

 b. Bafana *la*-ba-to-na-tsa *tjwala*.
 1.pl-boys DET-1.pl.SM-FUT-drink 8.alcohol
 ‘Boys who will drink alcohol’

 c. Nge-bafana *la*-ba-to-natsa *tjwala*.
 Cop-1.pl-boys DET-1.pl.SM-FUT-drink 8.alcohol
2. a. Bo-bani [IP *emaphoyisa* *l*-a-ts-e [IP *ba*-to-natsa *tjwala*].
 1.pl-who 3.pl.police DET-3.sg.SM-say-PT 1.pl.SM-FUT-drink 8.alcohol
 ‘Who did the police say drank alcohol?’

 b. Bafana, *emaphoyisa* *l*-a-tse *ba*-to-natsa *tjwala*.
 1.pl-boys 3.pl.police DET-3.sg.SM-say-PT 1.pl.SM-FUT-drink 8.alcohol
 ‘Boys, the police said will drink alcohol’

 c. Nge-bafana *emaphoyisa* *l*-a-ts-e *ba*-to-natsa *tjwala*.
 COP-1.pl-boys 3.pl.police DET-3.sg.SM-say-PT 1.pl.SM-FUT-drink 8.alcohol
 ‘It is the boys whom the police said drank alcohol.’

Despite this striking similarity, a unified analysis has been elusive. By exploiting the functional projections in the CP area proposed in Rizzi (1997), the paper proposes a unified analysis of (1) and (2). I also extend the analysis to Yes/No questions. The paper argues that the structure of the CP field is as in (3).

3. Force Interrogative VP_{FOC} Focus Topic QP Topic* IP

Theoretically, the paper supports of the decomposed CP field hypothesis. Also, it shows that heavy pied piping (Nkemji (1995), Koopman (2000)) plays a critical role in syntax.

Basic assumptions

The invariance of syntactic structure: I assume that there is evidence for the CP field in Bantu. The basis of this assumption twofold. First, there is an established GB premise that syntactic structure is invariant across all languages. This view is expressed strongly in Kayne (1995) as well as in Sportiche (1998). So, differences among languages reduce to overt/covert properties of the actual syntactic projections. It follows that if there is a decomposed CP field in Romance, we expect to find the same phenomenon in other languages. Second, there is language-internal evidence in Nguni languages to support the decomposed CP field outlined in appendix 1.

X-bar: For simple descriptive purposes, I also assume that there is a fully articulated X-bar, making available the full array of positions such as the specifier and a head for each syntactic projection.

Licensing relations: There are three licensing relations, namely, (i) between a head and a specifier, (ii) a between a head-complement, and (iii) a chain relation between the criterial position and the xxx position

Adjunction: There is no XP adjunction. Head adjunction (head movement) remains a licit operation but is highly constrained. Namely, a head can only adjoin to the left of an immediately preceding head.

Levels of representation: There are only two levels of representation, namely, LF and PF. I therefore do not rely on d-structure and s-structure to account for syntax.

Positional evidence in the CP field

If the CP field is structured as in (3) what evidence can be presented to support this conclusion? In the following, I built the case for each position by reviewing evidence from SiSwati, a Bantu languages that in Spoken in Swaziland and South Africa.

Positional evidence for TOPIC

We have evidence for two distinct topic positions. There is one immediately above IP and there is another one above what I will call QP for lack of a better label. Let us assume that the CP field is partially structured as follows, ignoring FINITE for now since we have no evidence that it is active in SiSwati.

4. Force Topic QP Topic IP

The two positions are illustrated by the following examples, where in (5a) the subject and object are topicalized, resulting in an SOV structure, whereas in (5b) the NP tjwala is the head noun of a relative clause.

5. a. Ba-fana, tjwala ba-bu-natsile.
 1.pl.boy 7.alcohol 1.pl.SM-7OM-drink-ile
 ‘Boys, alcohol, they drank it.’
- b. Tjwala bafana la-ba-bu-nats-ile
 7.alcohol 1.pl.boy ?-1.pl.SM-7OM-drink-PRF
 ‘Alcohol that the boys drank’

In (5a) notice that the subject and the object are topics, related to the verb via agreement (subject and object agreement). Both SO provide old information whereas the verb provides the new information. It follows straightforwardly that the topic positions occupied by these NPs are accessible with little difficulty. Let us analyze (5a) as (6). The simple assumption is that S and O are merged in the Topic position with SM and OM simply identifying them.

6. [Top Bafaba_i [Top tjwala_j [IP ba_i-bu_j-nats-ile]

Let us now consider (5b), a relative clause. There is a prefix la- on the verb. This is a clausal affix which attaches to any clause which is the landing site of a wh-moved constituent. So, in (7) the underlined constituents have been raised from the embedded clause to the matrix clause. As a result, la- is prefixed to the verb of the matrix clause. Note that (7a) is a relative clause whereas (7b) is a question.

7. a. Tjwala ema-phoyisa la-cabanga kutsi bafana ba-bu-nats-ile
 7.alcohol 3.pl-police ?-think COMP 1.pl.boy 1.pl.SM-7OM-drink-PRF
 ‘Alcohol which the police think the boys drank it.’
- b. Yini emaphoyisa la-cabanga kutsi bafana ba-bu-nats-ile
 what 3.pl-police ?-think COMP 1.pl.boy 1.pl.SM-7OM-drink-PRF
 ‘What do the police think that the boys drank ?
 Lit: What is it that the police think that the boys drank it?’

Let us say that la- is a constituent within the CP field. In fact, it the escape hatch out of an IP which was always associated with the CP projection in the Principles and Parameters framework (Chomsky ()). That is, in order to get out of IP under A-bar movement, a constituent has to activate la-. Formally, we will handle this by proposing that there is a QP projection ordered above the topic positions as in (8). And that there is a constituent within IP which moves into the specifier of QP. Further, this movement invariably triggers agreement with its head, manifested as la-.

8. [QP XP_i [Q la- [Top* [IP e_i]

The key idea is that topicalization (as in dislocation of arguments) does not activate the escape hatch. So, elements within IP can be merged in the low topic position freely as long as they meet other licensing requirements, as in (6) where the subject and the object are topicalized.

Clefts, wh-phrases and the heads of a relative clauses, however, cannot merge in the topic position below QP. Rather, they always involve movement to Spec,QP. This triggers *la-* on the head of QP. Henceforth, I will assume that this is the case. Let us show how this works for each construction.

Relative clauses

Relative clauses fit into what Rizzi's (1997) calls topic-comment structures. Simply stated, this means that the TOPIC is background/old information while the COMMENT is new information. Specifically, the head noun/XP represents the TOPIC whereas the rest of the relative clause represents the COMMENT or new information. This is the case in all headed relative clauses (restrictive and non-restrictive), as illustrated in Table 1. Note that free relative clause are unique in that they do not project the topic. They project the comment part only.

Restrictive	(a) [_{Topic} Bafana [_{Comment} <i>la-ba-to-tse</i> nga imoto]] [VP <i>se-bafikile</i>] (b) [_{Topic} Imoto [_{Comment} bafana labatoyitsenga]] [VP <i>se-yi-vuliwe</i>].
Non-restrictive	(a) [_{Topic} Bafana [_{Comment} labo <i>la-ba-to-tse</i> nga imoto]] [VP <i>se-bafikile</i>] (b) [_{Topic} Imoto [_{Comment} lena bafana labatoyitsenga]] [VP <i>se-yi-vuliwe</i>].
Headless/ Free	(a) [_{Topic} [_{Comment} (laba) <i>la-ba-to-tse</i> nga imoto]] [VP <i>se-bafikile</i>] (b) [_{Topic} [_{Comment} lena bafana labatoyitsenga]] [VP <i>se-yi-vuliwe</i>]. (c) [_{Topic} [_{Comment} lena labatoyitsenga bafana]] [VP <i>se-yi-vuliwe</i>].

This suggests that there is another Topic projection above QP. This means that (8) has to be modified to (9). The claim is that the head noun is merged in the specifier of TOPIC.

$$9. \quad [{}_{\text{TOPP}} \text{Head Noun} \quad [{}_{\text{TOPP}} \text{Subject} \quad [{}_{\text{QP}} \text{XP} \quad [{}_{\text{Q}} \text{la-} [{}_{\text{TOP}^*} \quad [{}_{\text{IP}} \quad \text{e}]]]]]]$$

The actual derivation a relative clause is as follows:

- The Head Noun/XP is merged in the highest topic position
- There is an XP which raises to the specifier of QP, triggering *la-* agreement in the process.
- The Head noun/XP is co-indexed with the specifier of QP. In short, the head noun functions as the antecedent for the XP in Spec,QP.

Is there any evidence that there is such an XP an projection other than the head noun which undergoes movement in relative clauses? Yes. In (10) we see that an overt demonstrative pronoun (underlined) can occur in the position in non-restrictive relative clauses. The agreement relationship between the demonstrative pronoun and *la-* is in fact easier to see now. The two share the *la-* prefix. My claim, therefore, is the following. In

restrictive relative clauses (and *wh*- questions and clefts), the specifier of QP is occupied by a covert demonstrative pronoun akin to the demonstrative pronoun in (10). The covert pronoun obligatorily restricts the reference of the head noun.

10. a. Tjwala lobu emaphoyisa la-cabanga kutsi bafana ba-bu-nats-ile
 8.alcohol la-8 3.pl-police DET-think COMP 1.pl.boy 1.pl.SM-8OM-drink-PRF
 LIT‘Alcohol, that which the police think that the boys drank it
 ‘The alcohol, the one which the police think the boys drank’
- b. Yini lena emaphoyisa la-cabanga kutsi bafana ba-yi-nats-ile?
 What that 3.pl-police DET-think COMP 1.pl.boy 1.pl.SM-OM-drink-PRF
 LIT‘What is that which the police think that the boys drank it?’
- c. Tjwala, lobu, bafana la-ba-bu-nats-ile
 8.alcohol la-8 1.pl.boy DET-1.pl.SM-8OM-drink-PRF
 ‘It is alcohol that which the boys drank.’

Clefts

Although clefts are partially similar to relative clauses in that both occur with *la-*, the two constructions are different. Semantically, clefts are FOCUS – PRESSUPPOSITION structures, where FOCUS encodes the new information and the PRESSUPPOSITION encodes the background information. It is the predicate cleft which encodes new information and the rest of the cleft encodes the presupposition. (1c) is therefore analyzed as follows:

[_{Focus} Nge-bafana [_{Presupposition} *la-ba-to-natsa* tjwala.
 Cop-1.pl-boys DET-1.pl.SM-FUT-drink 8.alcohol

This suggests that the cleft occurs in a focus position within CP. This rules out the occurrence of the cleft in the TOPIC position above QP.

The analysis I propose is the following. The same process that derives *la-* in relatives applies to clefts. Namely, a covert quantifier raises to the specifier of Spec, QP. The derivation of *la-* is therefore accounted for. Note that clefts differ from relatives in another way. Namely, the focus part of a cleft is actually a complete proposition which can stand on its own, with the impoverished structure: COP + NP. To account for this, I propose the merging of two focus positions to TOPIC. The lower focus position has an NP specifier, and the higher focus position is headed by a copula.

The structure in (43) emerges, ignoring projections that are not relevant.

11. [_{FocP} [_{Foc} COP [_{FocP} NP [_{Foc} [_{TopP} [_{QP} [_{IP}]]]]]]

The intuition expressed here is that the cleft comes with its own verb and NP. Both of them are in the focus position. The copula serves the function of inherently case-marking the NP in this position. (12) shows the syntactic representation of an object cleft.

12. [FocP [Foc Cop [FOCP tjwala [FOC [TopP bafana [QP [Q la [IP ba-to-bunatsa]]]]]
alcohol boys DET SM-FUT-drink

The analysis of clefts proposed here is simple and straightforward. That is, a cleft is nothing more than the merging of two projections focus projections, as in (12). The insertion of a copula in the higher focus position is a case marking phenomenon. There is an antecedent relationship between the NP and the operator in Spec, QP. Since clefts can be formed without the presupposition part, the relationship between the operator and the NP is formed if and only if there is a presupposition. There is no movement relationship which links the cleft to the presupposition.

Questions

Subject wh- questions. There is a well-known asymmetry between object wh- questions and subject wh-questions in Southern Bantu. Namely, whereas the object wh-phrase appears to be in-situ, the subject wh-phrase always seems to undergo movement. It appears impossible for subject wh- questions to be in-situ. One indication of this is that subject wh- questions trigger la- whereas object wh- questions do not. The simple analysis of this is as follows.

- a) Assume the cleft structure as proposed in (11)
- b) The specifier of VP is a wh-phrase in-situ
- c) Interrogative is merged above FOCUS

The resulting structure is (13), where the wh-phrase is in-situ

13. [IntP [FocP [Foc COP [FOCP WhP [FOC [TopP [QP [IP]]]]]]]

The scope properties of the wh- phrase are not accounted for in (43). There are two possibilities of accounting for them. One could be to move the wh-phrase to the specifier of IntP at LF or move the entire FocP to the specifier of IntP in overt syntax.

14. a. [IntP Wh-P_i [Int [FocP [Foc Cop [FOCP e_i [v e [QP [IP]]]]]]]
b. [IntP [FocP [Foc Cop [FOCP Wh-P [FOC [QP [IP]]]]]_i [Int e_i]

I opt for (14b) for two reasons. If we can eliminate LF movement, I believe that the theory of syntax can be much stronger and streamlined. So conceptually, it is better to reduce as much as possible operations that are not visible. There is also some evidence in the language that indeed this is the better analysis. We see this in (15). Namely, in Nguni languages in general, a wh- question can co-occur with a unique particle na, which has a rising tone. I analyze this particle as Force, marking questions of all types in Nguni (re: content and yes/no questions). If na is indeed clause-typing and occurring as the Head of ForceP, as I suggest, it makes sense then to analyze all the structures in (15) as having undergone movement to a higher projection, resulting in the na particle occurring sentence-finally. This is heavy pied-piping.

15. a. Bo-bani la-banatsa tjwala na?
 1.pl-who DET-drink-PT 8.alcohol
 ‘Who drank alcohol?’
- b. Bo-bani emaphoyisa l-a-cabanga kutsi ba-natse tjwala na?
 1.pl-who 3.pl.police DET-3.plSM-think COP 1.pl.SM-drink-PT 8.alcohol Q
 ‘Who do the police think drank alcohol?’
- c. Bafana ba-nats-e tjwala na?
 1.pl.boy 1.pl.SM-drink-PT 8.alcohol Q
 ‘Did the boys drink alcohol?’
- d. Emaphoyisa a-cabanga kutsi bafana ba-nats-e tjwala na?
 3.pl.police 3.pl.SM-think COP 1.pl.boy 1.pl.SM-drink-PT 8.alcohol Q
 ‘Do the police think the boys drank alcohol?’

If heavy pied-piping is allowed, as (15) suggests, it seems that (14b) is vindicated. So, I am claiming that FocP is raised to Spec,IntP for two reasons. Namely. to check the wh-features of the wh-phrase as well as to license the scope features of the wh- phrase. This happens for all questions, including the object wh-questions which deceptively appear to be in-situ. The evidence from the na particle suggests that there is even further heavy pied-piping to Spec,ForceP. To see how this applies consider (16). (16a) is a Yes/No question with the wh-phrase yini and the question particle na. (16b) is a content question with an object wh-phrase -ni and the question particle na.

16. a. Bafana ba-nats-e tjwala yini na?
 1.pl.boy 1.pl.SM-drink-PT 8.alcohol Q-word Q
 ‘Did the boys drink alcohol?’
- b. Bafana ba-nats-e-ni na?
 1.pl.boy 1.pl.SM-drink-PT-what Q
 ‘What did the boys drink?’

I would like to propose that these questions are derived straightforwardly in the analysis proposed here. Leaving irrelevant details aside, the claim is that we start with yini and na occurring high in the tree, as in (17a). And that IP, pied-pipes to the specifier of IntP, as in (17b). The next operation is to move IntP to the specifier of ForceP, as in (17c). This derives all the data in (16) in a similar way.

17. a. [_{ForceP} [_{Force} na [_{IntP} [_{Int} yini/-ni [*IP Bafana banatse ...*]]]]
 b. [_{ForceP} [_{Force} na [_{IntP} [*IP Bafana banatse ...*]]_i [_{Int} yini/-ni e_i]]
 c. [_{ForceP} [_{IntP} [*IP Bafana banatse ...*]]_I [_{Int} yini/-ni]_j [_{Force} na [e_j [e_i]]]

I would like to propose that these questions are derived straightforwardly in the analysis proposed here. Leaving irrelevant details, the claim is that we start with yini and na occurring high in the tree, as in (47a). And that IP, pied-pipes to the specifier of IntP, as

in (47b). The next operation is to move IntP to the specifier of ForceP, as in (47c). This derives all the data in (46) in a similar way.

In summary, we have shown that relatives, clefts, questions can all be analysed straightforwardly by exploiting the functional projections in the CP domain. We have argued for a highly structured CP domains which can be sketched as in (18).

18. Force Interrogative Focus VP_{FOC} Topic QP Topic* IP

We have seen that FORCE is headed by complementizers as well as particle na, which clause-types questions. The specifier of FORCE is used to as a landing site in heavy pied-piping as shown in (17) where na occurs sentence finally. Whereas in Nguni languages (Zulu, Swati) all the question words both na and yini are always clause-final in Yes/No questions, in the Sotho languages it does not have to be, as illustrated in (19). This shows that languages differ in whether heavy piping is obligatory.

19. a. A ba-simane ba-j-ile dijo
 Q 1.pl-boy 1.pl.SM-eat-PT food
 ‘Have the boys eaten food?’
- b. A ke-ba-semane ba-bone-ng diaparo na?
 Q Cop-1.pl-boy 1.pl.SM-see-PT-REL clothes Q
 ‘Is it the boys who saw clothese?’
- c. A na ke-ba-semane ba-bone-ng diaparo
 Q Q Cop-1.pl-boy 1.pl.SM-see-PT-REL clothes Q
 ‘Is is the boys who saw the clothes?’

We noted that INTERROGATIVE is headed by the question word yini only, as in Yes/No questions. The licensing of other Wh-phrases always involves raising to the specifier. Crucially, this makes use of heavy pied-piping.

The FOCUS position is used to license clefts. I would like to propose that VP is really an extension of FOCUS. VP serves the purpose of merging a predicate and its subject into the structure. This enables us to maintain that there is no movement operation which links the FOCUS area with the IP area. The subject in the specifier of VP remains there throughout the derivation. What does happen is that the subject is co-indexed with the specifier of QP.

We argued that there are two TOPIC positions in the CP domain. The TOPIC position above QP is used to derive the position of the head noun in relative clauses. The TOPIC position below QP is used for dislocated subjects and objects. We noted that whereas dislocated arguments do not trigger la-, the head of a relative clause does. We posited that la- is triggered when QP is activated. We proposed that activation means that there is a covert pronominal element in the specifier of QP which triggers la- agreement. The

function of this null operator is to meet the conditions of the ECP. It is the local antecedent for agreement within IP. But it also ensures that there is a proper chain from IP to the head of the chain, viz. the head noun, the cleft or the wh-phrase.

In this research no evidence was unearthed to support the overt marking of FINITE. This however does not mean that there is no such projection. This is a topic for future research. It is also worth noting that there are some puzzling data that have not been included in this study because they were not central to the focus of this study. But, in an overall analysis of the CP field, these data would be interesting. I would invite anyone interested in this area to read the appendix and give me comments.

References

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