MORPHOSYNTAX OF MOVEMENT DEPENDENCIES IN HAITIAN CREOLE

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In Haitian Creole (HC), the lexical item *ki* shows up when a subject, but not an object undergoes operator movement in wh-questions, cleft and relative clauses. We argue that *ki* is a phonological reflex of agreement between a complementizer and a wh-phrase. More specifically, the complementizer is spelled out as *ki* if all its features are checked off by a single goal. We show that this is accomplished only when the operator is a subject. Our claim is that the subject-object asymmetry in the distribution of *ki* is results from the locality constraint on Agree.

1. DISTRIBUTION OF FACTS

(1) a. Kilès *ki* te wè Mari?
   who *KI ANT see Mari
   Matrix question
   subject extraction

   b. *Kilès te wè Mari?
   who ANT see Mari
   ‘Who saw Mari?’

(2) a. Kilès Mari te wè?
   who Mari ANT see
   Matrix question
   object extraction

   b. *Kilès *ki* Mari te wè?
   who *KI Mari ANT see
   ‘Who did Mari see?’

(3) a. Jan ap mande kilès *ki* renmen Mari.
   Jan ASP wonder who *KI like Mari
   Embedded question
   subject extraction

   b. *Jan ap mande kilès renmen Mari.
   Jan ASP wonder who like Mari
   ‘Jan is wondering who likes Mari.’

(4) a. Jan ap mande kisa Michel te achte.
   Jan ASP wonder what Michel ANT buy
   Embedded question
   object extraction

   b. *Jan ap mande kisa *ki* Michel te achte.
   Jan ASP wonder what *KI Michel ANT buy
   ‘Jan is wondering what Michel bought.’

1 Abbreviations used in glosses are as follows: ANT = anterior, ASP = aspect, PL = plural, REFL = reflexive, SG = singular.
(5) a. Kilès Mari panse ki renmen Jan?  
   who Mari think like Jan  
   ‘Who does Mari think loves Jan?’  
   Long-distance question  
   subject extraction  
b. *Kilès Mari panse renmen Jan?  
   who Mari think like Jan  
c. *Kilès ki Mari panse renmen Jan?  
   who ki Mari think like Jan  
d. *Kilès ki Mari panse ki renmen Jan?  
   who ki Mari think ki like Jan  
   ‘Who does Mari think loves Jan?’  

(6) a. Kilès Mari panse Jan renmen?  
   who Mari think Jan like  
   Long-distance question  
   object extraction  
b. *Kilès Mari panse ki Jan renmen?  
   who Mari think ki Jan like  
c. *Kilès ki Mari panse Jan renmen?  
   who ki Mari think Jan like  
d. *Kilès ki Mari panse ki Jan renmen?  
   who ki Mari think ki Jan like  
   ‘Who does Mari think Jan loves?’  

(7) Kilès (*ki) Michel panse (*ki) Mari kwè ki rich?  
   who ki Michel think ki Mari believe ki rich  
   ‘Who does Michel think Mari believes is rich?’  
   Long-distance question  
   subject extraction  

(8) DESCRIPTIVE GENERALIZATION  
   When the subject is extracted by wh-movement, ki appears only in the minimal  
   clause from which it is extracted.  

(9) GENERAL CLAIMS  

   1. Ki is a phonological reflex of agreement between C⁰ and a wh-phrase.  
   2. More specifically, C⁰ is spelled out as ki only if both an uninterpretable  
      wh-feature (uvw) and uninterpretable φ-features (uφ) of C⁰ are checked off  
      by a single goal.
2. THE PLOT

2.1 The Crucial Components of the Analysis

I. The existence of uninterpretable $\phi$-features on $C^0$

(Carstens 2003, and Craenenbroeck and van Koppen 2002)

(10) $[CP \; WH_1 \; C^0[\varphi, \varphi wh] \; [TP \; t_1 \; \ldots]]$

Complementizer agreement in West Germanic languages – evidence for $\varphi$ on $C^0$:

(11) a. … datte we komme
        that-PL we come-PL
        (South Hollandic)

b. … of-s toe koms
        whether-2SG you come-2SG
        (Groningen)

        (Zwart 1997:138)

(12) $[CP \; C^0[\varphi] \; [TP \; we[\varphi] \; come]]$

II. The spell-out of $ki$ in the position of the complementizer $C^0$

(Koopman 1982)

(13) $[CP \; WH_{subj} \; C^0 \; [TP \; t_{subj} \; \ldots]]$

$ki$

$ki$ never co-occurs with the declarative complementizer $ke$ – evidence for $ki$ being spelled out in $C^0$.

(14) a. *Kilès Mari panse $ke \; ki$ te achte machin nan?
        who Mari think that KI ANT buy car the

b. *Kilès Mari panse $ki \; ke$ te achte machin nan?
        who Mari think KI that ANT buy car the

‘Who does Mary think bought the car?’

2 Contrary to claims of Koopman (1982) and Law (1995), who claim that the declarative complementizer in Haitian Creole is not realized overtly, our informants allow the declarative complementizer $ke$ ‘that’ to introduce an embedded finite clause, with only a slight preference for its omission.
2.1 The Proposal

(15) a. Kilès ki te wè Mari?
    who KI ANT see Mari
    ‘Who saw Mari?’

\[
\begin{array}{c}
\text{ki} \leftarrow \text{C}^0 \left[\text{uwh, EPP}\right] \\
\text{TP} \\
\text{DP} \\
\quad \text{kilès}_1 \left[\text{wh}\right] \\
\quad \left[\varphi\right] \\
\text{T'} \\
\quad \text{vP} \\
\text{t}_1 \text{ wè Mari}
\end{array}
\]

(16) a. Kilès Mari te wè?\(^3\)
    who Mari KI ANT see
    ‘Who did Mari see?’

\[
\begin{array}{c}
\text{*ki} \leftarrow \text{C}^0 \left[\text{uwh, EPP}\right] \\
\text{CP} \\
\text{TP} \\
\text{DP} \\
\quad \text{Mari}_1 \left[\varphi\right] \\
\text{T'} \\
\quad \text{vP} \\
\quad \text{DP} \\
\quad \text{kilès}_2 \left[\text{wh}\right] \\
\quad \left[\varphi\right] \\
\text{t}_1 \text{ wè t}_2
\end{array}
\]

\(\text{We assume that the EPP property is a subfeature of the uwh and a phrase that checks uwh undergoes movement to the specifier position of the head with the EPP property (see Pesetsky and Torrego 2001 for relevant discussion).}\)
(17) a. Kilès (*ki) Michel panse (*ki) Mari kwè ki rich?
   who KI Michel think KI Mari believe KI rich
   ‘Who does Michel think Mari believes is rich?’

b. 

3. EVIDENCE FOR THE COMPONENTS OF THE ANALYSIS

3.1 Evidence for the Presence of φ-features: Intervention Effect

In Hellendoorn, if an adverb intervenes between the subject and the complementizer, the Agree in φ-features is preempted:

(18) da/ dan zunder op den warmste dag van’t jaar tegen (Hellendoorn)
   that that-3PL they on the hottest day of the year against
   ander wil gewerkt en.
   their will worked have
   ‘that on the hottest day of the year, we have worked against our will.’

   (Ackema and Neeleman 2004)
In HC, if an adverb intervenes between the subject and the complementizer in the subject extraction environment, the sentence is ungrammatical, as shown in (20)b:

(20) a. ?M ap mande kilès vè ki achte yon machin.  
    I ASP wonder who yesterday buy a car
b. *M ap mande kilès ki vè achte yon machin.  
    I ASP wonder who KI yesterday buy a car
   ‘I am wondering who bought a car yesterday.’

The adverb in HC can only appear higher than the subject:

(21) a. Yè Jan te wè Mari.  
    yesterday Jan ANT see Mari
b. *Jan yè te wè Mari.
c. *Jan te yè wè Mari.
d. *Jan te wè yè Mari.
   ‘Jan saw Mari yesterday.’

The derivation in (20)b is ruled out on the basis of the intervention effect:

(22) … [CP C^0[wh, wφ] [TP Yè kilès[wh, φ] achte yon machin]]

In the object extraction case, the adverb can appear between the wh-phrase and the subject:

(23) Michel ap mande kisa vè Jan te achte.  
    Michel ASP wonder what yesterday Jan ANT buy
   ‘Michel is wondering what Jan bought yesterday.’

Our suggestion is that in the grammatical sentences in (20)a and (23), the adverb adjoins to a C’ position, and thus does not intervene between the subject and the complementizer:
(24) a. \[ [\text{CP} \ YÈ C^0[wh, \ u\varphi] \ [TP \ kilès[wh, \ varphi] \ achte \ yon \ machin]] \]

b. \[ [\text{CP} \ YÈ C^0[wh, \ u\varphi] \ [TP \ Jan[\varphi] \ te \ [vP \ kisa_1[wh, \ varphi] \ [vP \ achte \ t_1]]]] \]

Intervention effect in HC is the indication that \(\varphi\)-feature agreement is at work between the complementizer and the subject.

### 3.2 Evidence for \textit{ki} as a Spell-out of \(C^0\)

#### 3.2.1 The Causative Construction

The anterior marker \textit{te} cannot appear in the complement clause in the causative construction:

(25) Ou \textit{te} fè Tijan (*\textit{te}) vini.

\hspace{1em} you ANT make Tijan \hspace{1em} ANT come

‘You made Tijan come.’

\hspace{1em} (Degraff 1993:80)

Likewise, the declarative complementizer \textit{ke} is banned from the same environment:

(26) *Michel \textit{te} fè ke Mari (te) vini nan fèt la.

\hspace{1em} Michel \hspace{1em} ANT make that Mari \hspace{1em} ANT come to \hspace{1em} party the

‘Michel made Mari to come to the party.’

The data indicate that the complement clause in the causative construction does not involve more than the \(vP\) layer in (25), and therefore does not include the CP layer in (26).

If the subject is extracted from the complement clause in the causative construction, the appearance of \textit{ki} is prohibited:

(27) Kimoun_1 ou te fè (*ki) t_1 vini?

\hspace{1em} who \hspace{1em} you \hspace{1em} ANT make \hspace{1em} KI \hspace{1em} come

‘Who did you make come?’

\hspace{1em} (Degraff 1993:80)

The projection of the CP layer is a prerequisite for the appearance of \textit{ki}, because \textit{ki} is the spell out of the C node.
3.2.2 The Idiolectal/Dialectal Variation

For some speakers, the appearance of *ki* is optional in the long distance subject extraction cases:

(28) Kimoun ou kwè *(ki)* pral vini?
    who you believe KI will come
    ‘Who do you believe will come?’

(Degraff 1993:80)

In matrix subject *wh*-questions and embedded subject *wh*-questions, however, *ki* is obligatory:

(29) Kilès *(ki)* renmen Jan?
    who KI like Jan
    ‘Who likes Jan?’

(30) Jan ap mande kilès *(ki)* renmen Mari.
    Jan ASP wonder who KI like Mari
    ‘Jan is wondering who likes Mari.’

We propose that those speakers for whom *ki* is optional in long distance subject questions do not require the full CP structure in the embedded declarative clause:

(31) \[
    [CP kimoun\_1 C^0 [TP ou kwè [TP t\_1 pral vini]]]
\]

In matrix and embedded *wh*-questions, however, CP layer is obligatory, and so is the appearance of *ki*. We take this to be evidence for the *ki* being the spell-out of C.

4. CONSEQUENCES: SALVATION BY SPELL-OUT OF φ-FEATURES

*Wh*-island is active in HC. Extraction out of it requires the appearance of a resumptive pronoun:

(32) Kilès\_1 Jan ap mande têt li si *(li\_1) achte machin nan?
    who Jan ASP wonder REFL him if he buy car the
    ‘Who\_1 is Jan wondering whether he\_1 bought the car?’

*Wh*-island violation is also saved if the complementizer is spelled-out as *ki*:

(33) Q: Kilès Jan ap mande têt li *ki* achte machin nan?
    who Jan ASP wonder REFL him *ki* buy car the
    ‘Who is Jan wondering whether he bought the car?’

A: *Yes/No.
A’: Michel.
However, *ki* cannot co-occur with the interrogative complementizer *si* ...

(34)  *Kilès Jan ap mande tèt li *si* *ki* achte machin nan?
who Jan ASP wonder REFL him if KI buy car the
‘Who is Jan wondering whether he bought the car?’

... nor can it co-occur with the resumptive pronoun:

(35)  *Kilès₁ Jan ap mande tèt li *ki* *li₁* achte machin nan?
who Jan ASP wonder REFL him KI he buy car the
‘Who₁ is Jan wondering whether he₁ bought a car?’

In cases where an object is extracted, *wh*-island violation is not saved even if the complementizer is spelled-out as *ki*:

(36)  *Kisa Jan ap mande tèt li *ki* Michel achte (li)?
what Jan ASP wonder REFL him KI Michel buy it
‘What is Jan wondering whether Michel bought it?’

Violations of grammatical principles are salvaged by spelling out φ-features of the element that partakes in the illegitimate dependency.

Raising constructions provide the same argument. Subject raising out of a tensed clause also constitutes an island violation in HC (Deprez 1992 for raising constructions):

(37)  Jan sanble *(ke) *(li) te vini nan fèt la.
Jan seem that he ANT come to party the
‘Jan seemed to come to the party.’

(38)  Kimoun ki sanble *(ke) *li te vini nan fèt la?
who KI seem that he ANT come to party the
‘Who seemed to come to the party?’

(39)  Kimoun ki sanble *ki* te vini nan fèt la?
who KI seem KI ANT come to party the
‘Who seemed to come to the party?’

(40)  *Kimoun ki sanble *ke* *ki* te vini nan fèt la?
who KI seem that KI ANT come to party the
‘Who seemed to come to the party?’
(41) *Kilès ki sanble ki li te vini?
    who KI seem KI he ANT come
    ‘Who seemed to come?’

5. SUMMARY AND CONCLUSION

Our analysis of the distribution of *ki in HC treats *ki as a consequence of agreement between the complementizer and the subject. More precisely, we argue that *C₀ is spelled-out as *ki if all its features (uwh, uφ) are checked off by a single goal.

We brought forth evidence from intervention effect to show that *C₀ does possess uφ. We argued that it is *C₀ is spelled out as *ki on the basis of two pieces of evidence:

a. Causative constructions, where *ki, as well as the tense markers and *C₀, are prohibited to appear.
   
b. Optional appearance of *ki in long distance questions, but not embedded or matrix questions.

The data from wh-island and raising constructions provide evidence that *ki can save island violations, which in our analysis, equals spelling out of the φ-features of the element taking part in the illegitimate dependency.

6. TOPICS FOR FUTURE RESEARCH: OTHER SUBJECT-OBJECT ASYMMETRIES

The subject-object asymmetry in the distribution of *ki in HC is strongly reminiscent of the que/qui alternation in French:

(42) a. L’homme que tu crois que viendra nous render visite …  Subject extraction
   the man that you believe that will us come pay a visit
   b. *(L’homme que tu crois que) viendra nous render visite …
   the man that you believe that will us come pay a visit
   (Pesetsky 1982:308)

(43) a. L’homme que tu crois que j’aime …  Object extraction
   the man that you believe that I like
   b. *(L’homme que tu crois qui j’aime …
   the man that you believe that I like
   (Pesetsky 1982:308)
It has been discussed that the *that*-trace effect in English is the phenomenon closely related to the *que/qui* alternation in French (Pesetsky 1982, Rizzi 1990, among others).

(44)  a. Who do you think bought the book? \(Subject\ \text{extraction}\)
     b. *Who do you think that bought the book? \(\text{Object extraction}\)

(45)  a. What do you think John bought?
     b. What do you think that John bought?

Detailed examination of these phenomena within the proposed framework awaits another occasion.

7. APPENDIX: Additional Evidence for the Position of ki: Adverbial Adjuncts

In HC multiple questions, the second *wh*-phrase is required to remain *in situ*:¹

(46) Kilès ki wè kisa?
    who \(k\) see what
    ‘Who saw what?’

(47) Kîmoun ki kwè Jan achte kisa?
    who \(k\) believe Jan buy what
    ‘Who believes that Jan bought what?’

(48) *Kîmoun ki kwè kisa Jan achte?
    who \(k\) believe what Jan buy
    ‘Who believes that Jan bought what?’

However, when both *wh*-phrases are subjects, it seems that both move, each within its own clause:

(49) Kîmoun ki kwè kilès *(ki)* rich?
    who \(k\) believe who \(k\) rich
    ‘Who believes who is rich?’

This is unexpected, given (48), which indicates that the second *wh*-phrase must remain *in situ*. Furthermore, the predicate *kwè* ‘believe’ does not take an interrogative complement clause:

(50) *Michel kwè si Jan renmen Mari.
    Michel believe if Jan like Mari
    ‘Michel believes whether Jan likes Mari.’

¹ Multiple questions have been argued not to be possible in HC (Koopman 1982). However, our informants accept them, if the appropriate contexts are set up.
The embedded wh-phrase in (49) seems to be moving into a position where it does not take scope. We claim that this is a phenomenon observed in other languages too: that is, a subject wh-phrase must move, even when in situ strategy is applicable to an object wh-phrase. Vata is such a language (extraction of the subject requires a resumptive pronoun):

(51) a. àlò *(ð) lè sa'ká la?’
    who he eat rice WH
    ‘Who is eating rice?’

b. àlò nì gùgù nā *(ð) yi la?’
   who you think that he arrive WH
   ‘Who do you think arrived?’

(Koopman 1982-3:367-8)

An object wh-phrase in Vata can remain in situ, as illustrated in (52).

(52) nì lè yi la?’
    you eat what WH
    ‘What do you eat?’

(Koopman 1982-3:369)

However, the resumptive pronoun is obligatory in the subject extraction case:

(53) a. *àlò yì la?’
    who came WH
    ‘Who came?’

b. *nì gùgù nā àlò yì la?’
   you think that who came WH
   ‘Who do you think arrived?’

(Koopman 1982-3:370)

(54) DESCRIPTIVE GENERALIZATION

The subject wh-phrase cannot remain in situ.

In adjunct clauses, headed by the adverbial C (‘after’), ki cannot appear even when the subject is extracted ((55)a vs. (55)b).

(55) a. *Kimoun ki te kontan apre kilès ki te vini nan fèt la?
   who KI ANT happy after who KI ANT come to party the

b. ?Kimoun ki te kontan apre kilès te vini nan fèt la?
   who KI ANT happy after who ANT come to party the
   ‘Who was happy after who came to the party?’
The adverbial complementizer *apre* ‘after’, possesses lexically specified semantic contents. We argue that this semantic property prevents it from being spelled out as *ki* even though other structural conditions necessary for the appearance of *ki* are met. We assume a CP-recursion structure in order to obtain the observed surface order.

\[(56) \quad [\text{CP} \quad C_0^{\text{SEM, wh, \phi}} \quad [\text{CP} \quad \text{kilès}_1 \quad t_0^{\text{TP}} \quad t_1 \quad \text{te vini nan fèt la}]]] \]

\[\downarrow \]

\[\text{apre} \quad \text{*ki} \]

**REFERENCES**


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