Kru as V→T rather than Verb-Second

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1 Introduction

- **Proposals**

  a. Describe basic word order patters of Guébie, an Eastern Kru language (Niger-Congo) [Côte d'Ivoire]

  b. Demonstrate that Kru languages have basic SOV word order, not SVO as is currently stated in the literature and in typological databases

  c. Argue contra Koopman (1984) that:

    * Guébie and other Kru languages are **not verb-second in the Germanic sense**.
    * Rather, they are **mixed-headed SOV languages** that undergo **V→T movement**.
    * Verb movement in Kru is **morphophonologically motivated**.

2 Background

- Kru is a branch of Niger-Congo spoken in Liberia and Côte d'Ivoire.
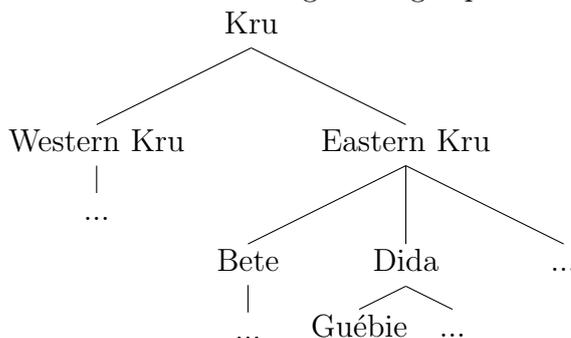
- Guébie is spoken in a series of seven villages south of Gagnoa in southwest Côte d'Ivoire[1].

- All data, unless specified, comes from personal elicitation with a native speaker.[2]

3   Basic Guébie Word Order

- In recent past perfective and present tense clauses, Guébie exhibits SVO order.

(1)   **Present tense word order: S V O**

    a. o^3 li^2 $\mathrm{dʒa}^{31}$
         3.SG eat.IMPF coconuts

         'He eats coconuts'

    b. o^3 li^3 $\mathrm{dʒa}^{31}$
         3.SG eat.PERF coconuts

         'He ate coconuts (recently)'

    c. o^3 wa^1 $\mathrm{touri}^{1.1.3}$
         3.SG like.IMPF touri(masculine name)

         'He likes Touri'

- In clauses of all other tenses and aspects, Guébie has S AUX O V word order.

- When multiple verbal elements are present, the auxiliary surfaces after the subject and all other verbal elements surface clause finally.

(2)   **Word order in clauses of all other tenses: S AUX O V**

    a. o^3 ji^3 $\mathrm{dʒa}^{31}$ li^2
         3.SG will.IMPF coconuts eat

         'He will eat coconuts'

    b. e^4 ji^3 $\mathrm{dʒa}^{31}$ $\mathrm{lilije}^{2.2.1}$ $\mathrm{kotʃi}^{42.3}$
         I   will coconuts eat.PROG start

         'I will start eating coconuts (regularly)'

4   Two possible analyses

- Based on the surface facts in basic clauses like (1,2), Kru looks a lot like verb-second languages (i.e. German and Dutch (**??????**), Danish (Mikkelsen, 2013, and citations therein), Dinka (**??**).

- In German and Dutch, V is said to move (through T and) up to C, where it requires a specifier, thus surfacing in second position. The element in spec-C can vary.

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[1]Guébie is doubly classified in **?**, once as a dialect of Bete-Gagnoa, and once as an alternative name for Dida-Lakota. I disagree with both classifications though I argue that it is in the Dida branch of Eastern Kru.
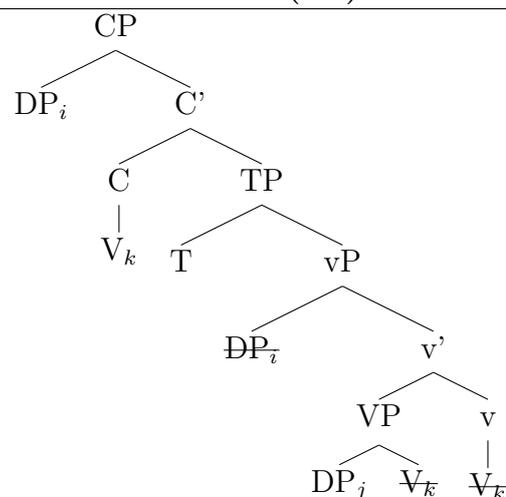
[2]Tone is marked with a number system, where number 4 represents the highest tone and 1 represents the lowest. Dots represent syllable boundaries, and two numbers within two dots represent contour tones.

– Among other arguments, evidence that V has moved to C comes from the fact that V2 cannot occur in clauses where there is an overt C.
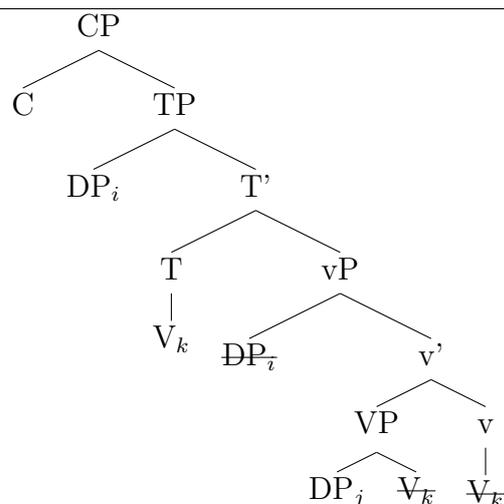
- **?** posits a unified account of the word order facts for Kru, German, and Dutch.

- The tree in (3a) shows the canonical verb-second account.

- Here I pursue the question: Are Kru languages really verb-second? An alternative analysis is shown in (3b).

(3) **Two alternative analyses**
   a. V moves to C (V2)   **b. V moves to T**

- In the following sections I demonstrate with evidence from subject/verb order, embedded clauses, negation, information structure, and passives that the V→T movement analysis in B is the right one for Kru.

4.1   Subject/verb order

- In Germanic languages a number of different elements can surface in first position, such as subject, object, adverbs or adverbial clauses, etc.

- In Kru, the verb always follows the subject (the nominative argument), and OVS word order is completely ungrammatical.

(4) **No OVS word order in Kru**

   a. *dʒa³¹   li²   ju⁴
       coconuts eat.PERF boy

       Intended meaning: 'A boy ate coconuts'

- No matter the pragmatic context, OVS order is ungrammatical, as above.

- The subject always occurs before the inflected verb, supporting the analysis in (3b).

4.2 Embedded clause word order

- V2 order in (most) embedded clauses is blocked by an overt C in German and Dutch. Verbal elements remain clause final.

- In Kru, word order in embedded clauses is identical to main clauses: SVO or S AUX OV.

  (5) **Embedded clause data: S V O or S AUX O V**

    a. e^4 dʒereme$^{3.3.3}$ gba^1 dʒɔk^{w}i-jə$^{3.2.2}$ buru$^{2.2}$
        I read.PERF   that bird-PL   fly

        'I read that birds fly.'

    b. e^4 jira$^{2.3}$ gba^2 e^4 ka^3 lawɪɔ$^{3.2.1}$ lelo-wa$^{1.1.1}$ jokuni$^{2.3.3}$
        I want that I   IRR vistor   new-DEF   see

        'I want to see the new visitor.'

- These data are potentially problematic for the canonical verb-second analysis, since an overt C leaves nowhere for V to move.

- The data in (5) are unproblematic for the V→T analysis in (3b). The verb moves to T and the complementizer is in C.

4.3 Negation

- Negation in most tenses is marked with a particle that replaces the tense/aspect auxiliary.

(6) **Negation in auxiliary position: S AUX O V**

  a. dʒatʃi$^{2.2}$ la^3 touri$^{1.1.3}$ jokuni$^{2.3.3}$
      Djatchi.NAME neg.PERF Touri.NAME visit

      'Djatchi has not visited Touri.'

- In the present tense, negation is marked with a rising tone on the final syllable of the subject.

- In these cases, no verbal element surfaces in the AUX position between S and O.

(7) **Present tense negation: S O V**

  a. dʒatʃi$^{2.13}$ touri$^{1.1.3}$ jokuni$^{2.3.3}$
      Djatchi.NAME.NEG.PRES TouriNAME visit

      'Djatchi does not visit Touri (habitually).' or 'Djatchi is not visiting Touri.'

- I posit that verb movement to T in sentences like (7) is blocked by negation. Since there is nowhere else to dock, the tonal TAM/Neg marker docks on the subject.

- Negation blocking head-movement of V is transparent in the structure in (3b).

4.4 Information structure

- Verbs in canonical verb-second languages remain in second position when information-structurally salient elements move to the left periphery.

- In Kru, Wh-words, focused elements, and topics surface in the left periphery; however, they do not affect the order of the subject relative to the verb.

(8) **Wh-words as clause initial**

    a. ɲɔkpa$^{3.3}$ touri$^{1.1.3}$ ji^3 lɛtrɪ$^{3.2}$ kɔpa$^{3.23}$ na^3
       who   Touri.NAME will letter send   Q

      'To whom will Touri send a letter?'

    b. bɛba$^{2.2}$ touri$^{1.1.3}$ ji^3 dʒatʃi$^{2.2}$ kɔpa$^{3.23}$ na^3
       what   Touri.NAME will Djatchi.NAME send   Q

      'What will Touri send to Djatchi?'

(9) **Focus as clause initial**

    a. bag$^\text{w}$ɛ$^{3.1}$ ɔ^3 ji^3 kɔpɔ$^{3.232}$
       book   he$_i$ will send.him$_j$

      'It's a BOOK he will send him (as opposed to a letter).'

(10) **Topic as clause initial**

    a. ŋudi-ja$^{3.1.3}$ ɔ^3 wa^2 jɛrɛ-lili$^{3.2.2.2}$
       man-DEF   he like spice-food

      'As for the man, he likes spicy food.'

    b. (k)uɓə^{31} kɔgʊlɲɔ$^{4.2.2.2}$ (ɔ^3) pi^3 saka$^{3.3}$
       yesterday farmer   (3.SG) cook.PERF rice

      'Yesterday the farmer cooked rice'

- In these cases the verb surfaces not in second position, but in third or even fourth.

- In the structure in (3b), where the landing site of V is T, there is an open space in C for WH-words, focused elements, and topics to move.

- No such open position exists in the tree in (3a), since the verb is in C and the subject in spec-C.

4.5 Passives in Guébie

- Subject movement to spec-C would be Ā-movement; the subject position in Guébie seems to be a canonical A-position.

    – It is the landing site of promoted patients in passives.

(11) **Passives in Guébie**

    a. mobii-jə$^{1.2.1.1}$ ji^3 wejir-o$^{3.2.21}$
       car-DEF   will steal-PASS

      'The car will be stolen.'

b. bagʷɛ³·² ji³ mari²·³ kɔɲ-ɔ²·²¹
   books   will Mary give-PASS
   'Books will be given to Mary.'

- This is evidence that the subject is in an A-position, namely spec-T, as oppose to an Ā-position like spec-C.

4.6 Summary

- When there is no overt auxiliary, V moves to T in Kru, as evidenced by:

  - The subject MUST immediately precede the inflected verbal element: *OVS

  - In both main and embedded clauses, an inflected verb immediately follows the subject in Kru languages: S AUX O V or SVO.

  - In negative present tense clauses there is no overt auxiliary, but V movement is blocked by the presence of a negative head.

  - Focus, topic, and WH-elements surface before the subject when they are present. In these cases, the verb is still post-subject: FOC/TOP/WH S AUX O V or FOC/TOP/WH S V O.

  - The subject position has properties of an A-position like spec-T, not an Ā-position like spec-C.

- Based on the data shown here, I posit that V moves to T in Guébie and other Kru languages, as in the tree in (3b).

- Contra Koopman (1984), the tree in (3b) assumes mixed-headedness; T (and C) is head-initial in Guébie, while everything T dominates is head-final.

- With this structure, but not the structure in (3a), Kru word order facts are accounted for.

5 Motivation for movement

- We have seen that V moves to T, not C in Guébie.

- Why not call Kru verb-second where V is in T? (cf. Mikkelsen's (2013) analysis of Danish subject-initial clauses)?

- Other than the difference in landing site of V, another reason for distinguishing V-movement in Kru from verb-second is the motivation for verb movement.

- What motivates verb-second order?

  - **Three analyses of movement motivation:**

    1. **Force: ?** says that verb movement to C marks the Force specification of a clause: verb-second declarative clauses versus verb-initial polar questions.[3]

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[3]Alternatively, **?** say that verb movement is motivated by a need to lexicalize C. That is, there must be an overt element in C.

2. **Case: ?** says that V moves in Kru, German, and Dutch in order to satisfy the case filter, which requires a verb to be immediately adjacent to the noun to which it assigns (nominative) case.

3. **Affixation:** Much like do-support in English or V→T movement in Romance, TAM affixes require an appropriate verbal host.

- **Brandner's (2004) Force analysis** cannot account for the Guébie data, since word order in polar questions is the same as in declarative clauses.

  - Polar questions in Guébie and other Kru languages retain strict ordering of subject before inflected verb. Declaratives and polar questions are determined by intonation and/or context.

  (12) **Polar question data: S AUX O V or S V O**

  dʒatʃi$^{2.2}$ wa^2 touri$^{1.1.3}$
  Djatchi.NAME see.IMPERF Touri.NAME
  'Does Djatchi like Touri?'

- **Koopman's (1984) Case analysis** cannot account for Guébie, since the verb is not always adjacent to the nominal argument.

  - Koopman's analysis requires the verb to be immediately adjacent to the noun it assigns nominative case.

  - This does not reflect Guébie word order in negative present tense clauses which have S O V order (recall the data in (7)).

  - I assume nominative case is assigned to the specifier of T by the T head in Guébie, not by the verb itself.

- The Affixation analysis is the best fit for the Guébie data.

  - I argue that verb movement in Guébie and Kru in general in motivated by the need for a TAM/NEG affix to be realized on a verbal element.

  - **?** and **?** analyze the difference between V-to-T movement in Romance and do-support (**??**) as distinguished by a V-to-T parameter setting.

  - Both V-to-T movement and do-support are repairs that result in TAM markers being realized on a verbal host.

  - In Guébie and other Kru languages, TAM markers in must also be realized on a verbal host. When no auxiliary particle is present and TAM/Neg is a tonal morpheme, V moves to T to host TAM/Neg.

  (13) **Word order summary**

Construction	Word order	Overt auxiliary?
a. Non-present positive	S AUX O V	Yes
b. Present positive	S V O	No
c. Non-present negative	S AUX.NEG O V	Yes
d. Present negative	S.NEG O V	No

- The language prefers for a verbal element to host TAM, and tonal TAM/Neg on the subject in (7, 13d) is a last resort mechanism because NEG blocks V to T movement.

- The motivation of verb movement in Kru is morphophonological, distinct from the motivation of verb movement in true verb-second languages and more like V-to-T movement in Romance.

(14) **Further evidence from Vata (?)**
    a. li^2 ɔ^3 li^2 saka$^{3.4}$
       eat he eat rice
       'He ATE rice.'
    b. *li^2 ɔ^3 l̶i̶^{2} saka$^{3.4}$

6 Conclusion

- **SOV order and V→T**

  - Kru languages have surface SVO structure in some tenses, though they have properties of head-final languages (Dryer 2007, and others): postpositions, post-nominal determiners, genitive-noun, etc.) (cf. **?**).
  - I posit that Guébie and other Kru languages are SOV, despite the fact that in clauses with certain tense/aspect combinations they surface as SVO.
  - Despite its many head-final properties, T and C in Guébie must be head initial due to surface position of subject and inflected verb, WH-words, topics and focused elements.

- **Arguments:**

  - Kru languages are SOV, mixed-headed where T and C are head-initial, and they undergo V→T movement when there is no overt auxiliary particle.
  - Verb movement is morphophonologically motivated (Affixation).
  - **For future research:** Is all V2 movement motivated by Force specification? And is all V→T movement motivated by Affixation?

- **Final points:**

  - I present the first syntactic description of Guébie, an Eastern Kru language.
  - This study shows that Kru is not V2 in the Germanic sense.
  - Kru languages as a family are understudied and little understood. Theoreticians, typologists, and speakers alike would benefit from further documentation, description, and analysis of Kru and other underdescribed languages.