

Ā-FRONTING IN DINKA (TWIC EAST): EVIDENCE FOR A LEFT-PERIPHERAL DOMAIN BELOW CP*

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1. Introduction

This paper examines and ties together three seemingly independent properties of the Twic East dialect of Dinka:

- (i) Verbs exhibit ϕ -feature agreement with a preverbal element, whether this element be a subject or a (non-subject) topic.
- (ii) Multiple Ā-fronted arguments do not create islands for each other in long-distance extraction.
- (iii) Dinka exhibits what Van Urk & Richards (2013) refer to as ‘*ke*-stranding’ in the extraction of plural arguments, whereby a plural morpheme *ke* is stranded in various intermediate landing sites in the course of successive-cyclic movement. In Dinka Twic East, these sites are Spec-vP, a phase edge, and a second landing site below the CP phase edge, but not Spec-CP.

I argue that these properties may be accounted for under a single analysis which takes the left periphery of the clause in Dinka Twic East to be within the IP-domain, lower than C. I moreover compare Dinka Twic East with another dialect of Dinka, Dinka Nyarweng, and demonstrate that they differ with respect to their Ā-extraction landing sites; while Ā-extracted elements move to Spec-CP in Dinka Nyarweng, as analyzed by Van Urk & Richards (2013), they move into the IP domain in Dinka Twic East.

Thus, while Van Urk & Richards take both the left peripheral phase edge and Ā-position of Dinka Nyarweng to be Spec-CP, I argue that, Dinka Twic East, these constitute two separate landing sites, Spec-CP and Spec-IP, and cannot be conflated.

Under this view, the make-up and locus of the left periphery varies across languages, even across dialects, contrary to Cartographic work on the left periphery (e.g. Rizzi 1997, 2001, 2004; Benincà & Poletto 2004; Frascarelli & Hinterhölzl 2007).

* Dinka is a Nilo-Saharan language spoken primarily in South Sudan. All uncited data in this paper is from the Twic East dialect of Dinka. I would like to express my thanks and gratitude to my consultant, Chol Marol Deng Atem, for sharing his knowledge of Dinka Twic East with me. Also thanks to Elizabeth Cowper, Alana Johns, Coppe van Urk, and audiences at the University of Toronto Syntax Group and the 2013 Canadian Linguistics Association Annual Meeting for helpful feedback and comments. All errors are my own.

2. Overview of Dinka Syntax

Dinka is a fairly understudied language, with most previous work on its syntax having been conducted by Andersen (e.g. 1991, 2002, 2007, 2012) on Dinka Agar and by Van Urk & Richards (2013) on Dinka Nyarweng. As far as I know, there is no previous literature on Dinka Twic East. Although the basic syntactic properties of Dinka are similar enough across dialects, the data in this section, especially that of \bar{A} -fronting, should be taken to reflect Dinka Twic East only.

Dinka is a V2 language, its most neutral word order being SVO. This is shown in (1) below.^{1,2}

- (1) a. moc a-cam tuɔŋ (SVO)
 man 3SG-eat egg
 ‘The man is eating an egg.’
- b. tuɔŋ a-cɛm moc (OVS)
 egg 3SG-eat man
 ‘The egg, the man is eating it.’
- c. * tuɔŋ moc a-cɛm (*OSV)

Comparing (1a) and (1b), we see that the verb is in second position in both examples. In (1a), the verb is preceded by the subject while the object remains in its base-generated position; (1b) exhibits the opposite word order with the topicalized object preceding the verb and the subject remaining in situ. These examples, along with the ungrammaticality of (1c), illustrate that the verb may be preceded by only one element; the rest remain in situ, thus preserving the V2 word order. Note also that the verb is inflected for person and number; this will be discussed in greater detail throughout this paper.

(2) demonstrates that the V2 word order is maintained in embedded clauses in addition to in matrix clauses.

- (2) Abul a-ye gam [man Deŋ cam tuɔŋ]
 Abul 3SG-HAB believe [COMP Deng eat egg]
 ‘Abul believes that Deng is eating an egg.’

In contrast to a language such as German, in which the presence of the complementizer blocks verb movement to C (see Section 3), the Dinka Twic East embedded clause in (2) above exhibits V2 word order despite the presence of the complementizer *man*.

Finally, as noted earlier, the \bar{A} -extraction (e.g. topicalization) of a non-subject to a pre-verbal position causes the subject to remain in situ, so that the subject follows the verb. This paper concentrates on topicalization (3a) and wh-movement (3b) in particular, as well as interactions between the two.

¹ **Abbreviations:** 2SG = 2nd person singular; 3PL = 3rd person plural; 3SG = 3rd person singular; COMP = complementizer; HAB = habitual; NCA = non-core argument; NEG = negation; PL = plural; PRF = perfective

² The Dinka Twic East data is transcribed in standard Dinka orthography. Although Dinka is tonal, its tones are not reflected in its orthography.

- (3) a. jö a-cī Deng γɔɔc
 dog 3SG-PRF Deng bought
 ‘The dog, Deng has bought it.’
- b. yeŋö cī Deng γɔɔc
 what PRF Deng bought
 ‘What has Deng bought?’

As shown in (3), the \bar{A} -position in Dinka Twic East is preverbal, in the left periphery of the clause. (4) demonstrates that the \bar{A} -fronting of non-subjects also occurs in embedded clauses in addition to matrix clauses. In such cases, the \bar{A} -fronted argument follows the complementizer if one is present.

- (4) a. Deng a-ŋii [ke tuɔŋ cɛm Abul]
 Deng 3SG-know [COMP egg eat Abul]
 ‘Deng knows that, the egg, Abul is eating it.’
- b. Deng a-ŋii [yeŋö cī Abul γɔɔc]
 Deng 3SG-know [what PRF Abul bought]
 ‘Deng knows what Abul has bought.’

3. V-to-I Movement

As discussed in the previous section, Dinka is a V2 language. I assume that V2 phenomena arise via head movement of the verb from its Merge position to some higher position in the syntax (e.g. Tomaselli 1990; Brandner 2004; Zwart 2005). V2 languages such as German are standardly analyzed as being derived via verb movement to C in particular, beginning with den Besten (1983); evidence for this comes from the fact that the presence of an overt complementizer in C prevents verb movement in embedded clauses. However, in languages such as Yiddish, V2 word order is maintained in both matrix and embedded clauses. German and Yiddish are compared below in (5) and (6):

- (5) *German:*
- a. Waltraud hat wahrscheinlich das Buch gekauft
 Waltraud has probably the book bought
 ‘Waltraud has probably bought the book.’
- b. Sigrid glaubt [dass Waltraud wahrscheinlich
 Sigrid believes [that Waltraud probably
 das Buch gekauft hat]
 the book bought have]
 ‘Sigrid believes that Waltraud has probably bought the book.’
- (6) *Yiddish:*
- a. Max shikt avek dos bukh.
 Max sends away the book
 ‘Max sends away the book.’

- b. Avrom gloybt [az Max shikt avek dos bukh]
 Avrom believes [that Max sends away the book]
 ‘Avrom believes that Max sends away the book.’ (Diesing 1990)

Diesing (1990) argues that Yiddish differs from German in that verb movement in Yiddish is to I rather than to C, since the presence of a complementizer in C does not affect verb movement. Diesing moreover suggests that Spec-IP is both an A- and \bar{A} -position in Yiddish, hosting both subjects and topics/wh-words.

In Dinka Twic East, like in Yiddish, the complementizer does not impede verb movement, as shown in (2), repeated below as (7).

- (7) Abul a-ye gam [man Deṅ cam tuṅ]
 Abul 3SG-HAB believe [COMP Deng eat egg]
 ‘Abul believes that Deng is eating an egg.’

As mentioned in Section 2, in Dinka Twic East, the first verbal element in a given (declarative, matrix) clause is inflected for person and number (though this paper shows only 3rd person for simplicity). This is seen in (7) above, in which the habitual morpheme *ye* is marked third person singular. (8a) and (8b) further demonstrate that various elements such as negation and aspectual markers, typically assumed to be found within the IP domain (e.g. Pollock 1989) are also inflected for ϕ -feature agreement. Finally, (8c) shows that ϕ -feature agreement is found on lexical verbs as well.

- (8) a. Deṅ a-cī cam tuṅ
 Deng 3SG-NEG eat egg
 ‘Deng is not eating the egg.’
- b. Deṅ a-cē cam tuṅ
 Deng 3SG-PRF eat egg
 ‘Deng has eaten the egg.’
- c. Deṅ a-cam tuṅ
 Deng 3SG-eat egg
 ‘Deng is eating the egg.’

The fact that the lexical verb in (8c) and the IP-level elements in (8a) and (8b) are uniformly inflected for ϕ -features is evidence that the lexical verb moves to I. This view assumes that ϕ -features are found in I/T (Chomsky 1995, et seq.), as well as takes verb raising to correlate with the presence of synthetic ϕ -features on the verb (e.g. Vikner 1995; Schwartz & Vikner 1996). The idea that verb raising to I occurs in Dinka Twic East is consistent with both assumptions.

I further conjecture that Spec-IP is the landing site for both subjects and \bar{A} -fronted elements such as topics and wh-words, along the lines of Diesing (1990); that is, Spec-IP is both an A- and \bar{A} -position in Dinka Twic East. This will be expanded upon in Section 4.

A question that arises here is why the verb does not move to C, whether it moves to C directly or to I and then subsequently to C. According to Chomsky (2008), uninterpretable features originate on phase heads C and *v*, and then lower to their complements T/I and V via Feature Inheritance. Theoretically, it is thus equally plausible that verbal elements move directly to C, and that the ϕ -

feature agreement on the verbal elements is due to the features being in C. Conversely, we could maintain that verbs undergo V-to-I movement and then I-to-C movement. Both possibilities would allow for the V2 word order in Dinka Twic East to be maintained via \bar{A} -movement to Spec-CP.

Although I had shown earlier in (7) that the presence of a complementizer in C does not impede verb movement in Dinka Twic East and cited this as evidence for verb raising below C, a V-to-C (or V-to-I-to-C) treatment of Dinka Twic East is nonetheless viable if we consider Rizzi's (1997) split CP hypothesis, in which the CP is split into four ordered projections, as follows:³

- (9)
- | | |
|----------------|---------------------------------------|
| ForceP: | Hosts finite complementizers |
| TopP: | Hosts topics |
| FocP: | Hosts foci (and wh-words) |
| FinP: | Hosts most non-finite complementizers |

Going back to (7) above, one could argue that the complementizer *man* 'that' occupies Force, the subject *Dej* is \bar{A} -fronted to Spec-TopP, and the verb *cam* 'eat' is in some lower head within the articulated CP (e.g. Fin). In fact, Van Urk & Richards (2013) briefly mention something along such lines in their analysis of Dinka Nyarweng, though they do not elaborate further.

At this point of the paper, all three possibilities noted above are equally plausible. They are synthesized in (10) below:

- (10)
- | | | |
|----|----------------------|--|
| a. | Hypothesis A: | Verb moves to I; Spec-IP is both an A- and \bar{A} -position |
| b. | Hypothesis B: | Verb moves directly to C; Spec-CP is \bar{A} -position |
| c. | Hypothesis C: | Verb moves to I and then C; Spec-CP is \bar{A} -position |

Throughout the rest of this paper, however, I argue in favour of **Hypothesis A** and eliminate **Hypotheses B** and **C**. That is, I demonstrate that there is in fact converging and independent evidence that, when considered together, demonstrates that the \bar{A} -fronted argument in Dinka Twic East is not in any specifier of the split CP, but is in a lower projection (Spec-IP). It follows, given the word order of Dinka Twic East, that the verb cannot be in C, but must occupy I, be below the CP domain.

4. Three Properties of \bar{A} -movement in Dinka Twic East

4.1 Topic Agreement

I showed in Section 3 that, in Dinka Twic East, the verb is inflected with ϕ -features such as person and number. It is standardly assumed (e.g. Chomsky 1995) that the ϕ -features on a verb are valued by those on some nominal in the syntax; this nominal should be the closest to the ϕ -probe under c-command. This

³ Subsequent work by Rizzi (e.g. 2001, 2004) further splits the CP. For simplicity, I discuss only Rizzi (1997), as his later revisions do not affect the proposal argued for in this paper. See Section 5, however, for some discussion of Rizzi (2001, 2004).

nominal is thus typically the subject, which is base-generated in Spec-vP under Minimalist assumptions.

In Dinka Twic East, however, the verb does not necessarily agree with the subject, but rather agrees with whatever is topicalized into the \bar{A} -position if a topic is present. (11) below demonstrates that the features on a verb may be valued by (a) the subject, (b) a topicalized object, or (c) even topicalized coordinated adverbs.⁴

- (11) a. Deŋ ku Abul **aa-cam** tuoŋ
 Deng and Abul **3PL-eat** egg
 ‘Deng and Abul are eating the egg.’
- b. toŋ **aa-ye** Abul ke gil nē cām
 eggs **3PL-HAB** Abul PL always eat
 ‘Eggs, Abul has always eaten them.’
- c. ye köölë ku wään **aa-cīī** Deŋ ke tuoŋ cam
 today and yesterday **3PL-PRF** Deng PL egg eat
 ‘Today and yesterday, Deng has eaten an egg.’

In all three examples above, the verb is 3rd person plural in agreement with the plural element preceding it. We can conclude from this that ϕ -feature agreement in Dinka Twic East is associated with whatever moves to the specifier of the head containing the ϕ -probe, whether that be a subject or a (non-subject) topic.⁵ This, in turn, is evidence that the \bar{A} -position and verb landing site are within the same projection, occupying the specifier and the head respectively. This poses a problem for an analysis in which the verb moves to I and then to C while the \bar{A} -position is Spec-CP, since this cannot explain how the ϕ -probe in I is able to be valued by a topic in Spec-CP.

The facts presented above are consistent with an account in which the verb moves to I and topics and subjects move to Spec-IP. They are also consistent with the competing account in which verb movement and \bar{A} -movement target the CP domain rather than IP. A key difference between these two treatments, however, pertains to the nature of subject movement. The latter necessarily entails that subjects are topics, since they move into Spec-CP (more specifically Spec-TopP as per Rizzi (1997)), an \bar{A} -position. On the other hand, the former distinguishes between subject and topic movement as A- and \bar{A} -movement respectively.

This divide between A and \bar{A} -movement is supported by (12):

- (12) a. moc **a-cam** tuoŋ
 man 3SG-eat egg
 ‘The man is eating an egg.’

⁴ Note that verbs in wh-questions and embedded clauses do not exhibit agreement at all. I set this fact aside in this paper, and presume that the absence of agreement in such contexts are due to independent reasons (e.g. clause typing).

⁵ Carstens (2005) notes a similar phenomenon in Kilega, a Bantu language.

- b. tuŋ a-**cɛm** moc
 egg 3SG-eat man
 ‘The egg, the man is eating it.’
- c. ne ye köölë a-**cɛm-e** Deŋ tuŋ
 today 3SG-eat-NCA Deng egg
 ‘Today, Deng is eating an egg.’

(12) demonstrates that the verb form exhibits an alternation depending on whether the preverbal element is a subject or non-subject; this verb alternation may be realized in a number of ways, including vowel apophony, vowel lengthening, and final consonant mutation. This alternation is readily explained if we take it to be conditioned by A- vs. \bar{A} -raising, which follows from the view that both subjects and (non-subject) topics move to Spec-IP. Conversely, taking all preverbal elements to occur as a result of \bar{A} -movement to Spec-CP does not capture this alternation. The data in (12) thus provide support for the central claim of this paper, i.e. that the left peripheral domain in Dinka Twic East is IP rather than CP.

4.2 Multiple \bar{A} -fronting and Long Distance Extraction

Dinka Twic East allows multiple \bar{A} -fronting, meaning that topics and wh-words may co-occur in a given clause. As far as I am aware, multiple \bar{A} -fronting involving both topicalization and wh-movement is not found in other dialects of Dinka, including Dinka Nyarweng (p.c. Coppe Van Urk). As shown in (13), multiple \bar{A} -fronting in Dinka Twic East is exhibited in both matrix and embedded clauses.

- (13) a. Deŋ yeŋö cɛm
 Deng what eat
 ‘Deng, what is he eating?’
- b. Deŋ a-ŋii [moc yeŋö cɛm]
 Deng 3SG-know [man what eat]
Lit: ‘Deng knows, the man_i, what he_i is eating.’

(14) further demonstrates that topics must precede wh-words; the opposite word order is ungrammatical.

- (14) a. * yeŋö Deŋ cɛm
 b. * Deŋ a-ŋii [yeŋö moc cɛm]

While this appears to be in support of Rizzi’s (1997) split CP (since we can say that topics and wh-words are found in Spec-TopP and Spec-FocP/IntP respectively), the situation is not as straightforward as it appears. First, recall that verbs exhibit topic agreement, as shown in 4.1 above; this seems to be fairly robust evidence that the topic moves into the specifier of the XP hosting the verb (i.e. the topic and verb co-occur in the same projection). Recall also that the verb alternation data in (12) above demonstrate that there is a distinction between subjects and non-subject topics, which is not readily captured in a CP-V2 analysis of Dinka Twic East.

Given that this paper argues for an IP-level left periphery in Dinka Twic East as well as verb movement to I, the fact that topics precede wh-words in Dinka Twic East would entail that both topics and wh-words occupy Spec-IP. This, in turn, suggests that Dinka Twic East allows multiple specifiers, in which case I may have multiple probes which attract topics and wh-words separately.

There is in fact evidence for such a conclusion, from constructions involving both multiple \bar{A} -fronting and long-distance extraction. As shown in (15), embedded \bar{A} -fronted arguments do not create islands for each other for long-distance extraction into the matrix clause. That is, Dinka Twic East allows both a matrix wh-word/embedded topic and a matrix topic/embedded wh-word combination; crucially, in both cases, both \bar{A} -fronted arguments are base-generated in the embedded clause before one moves into the matrix clause.

- (15) a. **Matrix wh-word; embedded topic:**
 yeŋa ŋii Abul [ke jö cē yɔɔc]
 who know Abul [COMP dog PRF bought]
Lit: ‘Who_i does Abul know that, the dog, he/she_i bought it?’
- b. **Matrix topic; embedded wh-word:**
 Abul a-ŋii Deŋ [yeŋö cem]
 Abul 3SG-know Deng [what eat]
Lit: ‘Abul_i, Deng knows what she_i is eating.’

Essentially, in (15), we observe superiority, in that topics must always precede wh-words, yet *no intervention effects*. The lack of intervention effects or islandhood is consistent with a multiple-specifiers approach, if these positions are taken to be equidistant from a higher landing site, as per Ura (1994), though contra e.g. Richards (2001). Assuming the Phase Impenetrability Condition (Chomsky 2000, et seq.), long-distance extracted items must stop at each phase edge before reaching their final landing site. Thus, both topics and wh-words originating in the embedded clause must be able to be successfully probed by the edge feature on the embedded C, a phase head, to undergo further extraction into the matrix clause. The fact that we do see that the extraction of either is possible suggests that the features in C can indeed probe either one, and that the two are equidistant.

4.3 *Ke*-stranding

A final topic of discussion in this paper is what Van Urk & Richards (2013) call *ke*-stranding. Van Urk & Richards point out that Dinka Nyarweng is remarkably transparent with respect to movement operations. Though both Spec-*v*P and Spec-CP are phase edges that an \bar{A} -extracted element must stop at in its movement trajectory (in accordance with the PIC), the \bar{A} -extraction of plural arguments leaves behind a plural *ke* morpheme only in Spec-*v*P but never in Spec-CP.

- (16) **Dinka Nyarweng:**
 Yeyiŋa yē ke taak, [___ cii Bol ke tiŋ]
 Who.PL IMPF.2SG PL think PRF Bol PL see
 ‘Who all do you think Bol saw?’ (van Urk & Richards 2013)

Dinka Twic East too exhibits *ke*-stranding, as shown in (17). According to the consultant, the second *ke* is a complementizer, while the other (homophonous) *ke* morphemes are plural markers. The stranded plural *ke*'s are bolded in (17) for clarity.

- (17) a. yee kǎŋö ɲii Abul **ke** [ke **ke** cii moc **ke**
 what.PL know Abul **PL** [COMP **PL** PRF man **PL**
 γɔɔc]
 bought]
 ‘What (things) does Abul know that the man has bought?’
- b. ton aa-ɲii Deŋ **ke** [ke **ke** cii Abul **ke**
 eggs 3PL-know Deng **PL** [COMP **PL** PRF Abul **PL**
 cam]
 eat]
 ‘The eggs, Deng knows that Abul has eaten them.’

(17) demonstrates that Dinka Twic East parallels Dinka Nyarweng in that *ke*-stranding is found in Spec-*v*P but not Spec-CP. However, Dinka Twic East differs from Dinka Nyarweng in one respect, also shown in (17): *ke* may also be stranded in an intermediate position between Spec-CP and Spec-*v*P. The third *ke* in (17) (second bolded *ke*) is sandwiched between the complementizer and the perfective aspect marker – exactly where the landing site for \bar{A} -movement was earlier determined to be.

I argue that the fact that we see *ke*-stranding in the \bar{A} -position, but not at the Spec-CP phase edge, is a sign that this position is below CP. Suppose we were to adopt the split CP hypothesis and thus the idea that the left periphery in Dinka Twic East is in the CP domain – the CP edge, or outermost CP projection, would presumably be ForceP, while the \bar{A} -position would be Spec-FocP/IntP or Spec-TopP for (17a) and (17b) respectively. We would be forced to postulate \bar{A} -movement within a single articulated projection in accordance with the PIC; i.e. movement from the \bar{A} -position (Spec-FocP/TopP) to the phase edge (Spec-ForceP). This movement, however, should violate Anti-Locality constraints (e.g. Grohmann 2003, 2011), which prevent movement from being too short. On the other hand, if we were to adopt the idea that the left periphery in Dinka Twic East is in the IP domain, we could account for the presence of the plural *ke* in the \bar{A} -position; movement from a lower specifier (Spec-IP) to the phase edge (Spec-CP) is perfectly licit.

Finally, *ke*-stranding in Spec-*v*P demonstrates that *v*P too can have multiple specifiers without any intervention effects on long-distance extraction. This is parallel to the findings for Spec-IP detailed in 4.2. Again, the stranded plural *ke*'s are bolded for clarity.

- (18) yee kǎŋö ɲii Abul **ke** [ke **ke** cii ɲa **ke** γɔɔc]
 what.PL know Abul **PL** [COMP **PL** PRF what **PL** bought]
 ‘What (things) does Deng know that who bought?’

In (18), an in situ wh-subject occupies Spec-*v*P, and so does a stranded plural *ke* (illustrated with a box). Thus, although the surface word order of (18) is such that *ke* seems to occupy the lower specifier of *v*P, plural arguments can nevertheless be extracted from a lower specifier position (we know this because

ke-stranding is a sign of extraction in the first place). The presence of the *wh*-word in the higher specifier of *vP* does not block the long-distance extraction of the other *wh*-word, demonstrating that the two are equidistant, despite the surface word order.

5. Summary and Discussion

In summary, I have shown the following properties of Dinka Twic East:

- (i) Dinka Twic East may exhibit ϕ -feature agreement with a subject or a topic, depending on what is fronted. Though subjects and topics move into the same position, subjects themselves are not topics.
- (ii) Multiple \bar{A} -fronting in embedded clauses in Dinka Twic East is fixed in that topics invariably precede *wh*-words. Yet, embedded multiple \bar{A} -fronting does not create islands for long-distance extraction into the matrix clause.
- (iii) Both Dinka Nyarweng and Dinka Twic East strand a plural morpheme *ke* in Spec-*vP* (though not Spec-CP) during successive cyclic movement⁷ Dinka Twic East moreover strands *ke* in its \bar{A} -position. Stranded *ke* morphemes in Spec-*vP* may furthermore directly follow an in situ *wh*-subject.

To account for these facts, I argued a number of interacting points. The verb moves to I, and no further. Spec-IP is both an A- and an \bar{A} -position, meaning that it may host subjects and \bar{A} -fronted elements such as topics and *wh*-words. The topic > *wh*-word order in Dinka Twic East suggests that topics occupy the higher Spec-IP, while *wh*-words occupy the lower specifier. Multiple specifiers are equidistant (shown for both Spec-IP and Spec-*vP*) and arguments occupying either specifier may be successfully probed.

The analysis developed here contends that the left periphery in Dinka Twic East is below C, though it may be defined as the CP domain for Dinka Nyarweng. There is no independent motivation or evidence for verb movement to C in Dinka Twic East, and there is evidence against subject/topic movement into Spec-CP. Conversely, there is also evidence for V-to-I movement, as well as for a dual A-/ \bar{A} -function of Spec-IP.

There are, however, areas of this analysis that are problematic or at the very least underdeveloped thus far. I left unexplained the fact that topics *must* precede *wh*-words, although this was discussed at face value at various points in this paper. This strict ordering appears to support the order of projections postulated in Rizzi (1997). However, later work by Rizzi (2001, 2004) suggests that Top projections may actually iterate throughout the split CP, meaning that topics could, under a Cartographic treatment, precede or follow *wh*-words. The fixed topic > *wh*-word order in Dinka Twic East is thus not necessarily attributable to – nor predicted by – a universal ordering of projections.

I also set aside the issue of how exactly the agreement patterns exhibited in Dinka Twic East should be accounted for, i.e. how many probes are found on I in a given structure and what exactly these probes search for. As a direction for future research, however, I provide here some speculative discussion on the nature of movement-driving agreement in Dinka Twic East. Carstens (2005) observes that Bantu languages may exhibit verb agreement with *wh*-words, and argues that the uninterpretable ϕ -features in T are additionally equipped with an EPP feature which draws operators such as *wh*-words to Spec-TP, thus resulting

in operator-agreement. The wh-word then moves to Spec-CP, the \bar{A} -position in Bantu. The Dinka Twic East data presented in this paper paints a somewhat similar picture, though I demonstrate that Spec-IP is the \bar{A} -position rather than Spec-CP. The findings in this paper suggest that, as per Carstens' (2005) treatment of Bantu, agreement in Dinka Twic East is EPP-driven (cf also Alexiadou & Anagnostopoulou 1999). However, I moreover contend that the operator features motivating \bar{A} -movement represent an additional facet of the agreement patterns of Dinka Twic East. A next step would thus be to determine how exactly ϕ -, EPP, and operator features interact in agreement operations in Dinka Twic East, as well as what implications this may have for our theory of Agree.

6. Conclusion

Dinka Twic East exhibits some unusual properties pertaining to \bar{A} -fronting. The verb may agree with topics in addition to subjects, multiple \bar{A} -fronting from embedded clauses does not create islandhood for long-distance extraction, and a plural morpheme *ke* is stranded at two different points on the path of long-distance \bar{A} -extraction. Together, these properties as well as other observations about the language suggest that the left-peripheral domain in Dinka Twic East is below C, within IP. If this is correct, then this holds ramifications for the nature of the left periphery on a broader level. Contrary to Rizzi's (1997) split CP, and also contrary to the Cartographic enterprise as a whole, what we observe in Dinka Twic East (especially when compared to Dinka Nyarweng) is evidence for cross-linguistic variation, and not cross-linguistic uniformity, with respect to the locus and nature of the left-peripheral domain.

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