Successive cyclicity, word order and the double-V2 rule in Dinka and Mòcheno[*]

Abstract

The parallels in the distribution of OV/VO word orders, extraction and cyclic movement between the two fully unrelated languages Dinka (Nilo-Sarahan, South Sudan) and Mòcheno (Germanic, Northern Italy) are shown to follow from the presence of an EPP feature on both C° and V° which forces one XP to form a Spec/head configuration with the verb in both phases (double V2 rule). The asymmetries between them derive from the fact that the same syntactic structure is associated with different semantics in the two languages, and that low V2 always involves the *non-finite* verb form in Mòcheno, and both *finite* and *non-finite* verb forms in Dinka.

Keywords: Universal grammar, phase theory, intermediate movement, extraction.

1. Introduction

The aims of this article are to demonstrate that Dinka, a Nilo-Saharan language spoken in South Sudan (Andersen 1991, 2002, 2007, 2012, van Urk/Richards *to appear*) and Mòcheno, a German dialect spoken in Trentino (Northern Italy, Togni 1990, Rowley 2003, Cognola 2013a)[1], share the same syntactic behaviour in the distribution of OV/VO word orders, extraction and cyclic movement, and that this follows from a single property of their grammars: the double-V2 rule. This rule forces the creation of a Spec/head configuration between one XP and the verb, not only in CP (as in standard V2 languages, cf. den Besten 1983, Tomaselli 1991, Holmberg forthcoming, among others), but also in the lower phase. Moreover, the double-V2 rule interacts in interesting ways with both OV/VO word orders, and with all movements involving the edge of the lower phase.

The starting point for the empirical description of the syntax of Dinka and Mòcheno is van Urk/Richards' (henceforth: vU&R) (*to appear*) and Cognola's (2008, 2013a,b) work. These authors independently propose that the two languages are characterised by a V2 rule in both higher and lower phases. Using their work, and providing new data on Mòcheno, I draw a parallel between the two languages and demonstrate that V° is associated with an EPP feature in them both, forcing one XP to form a Spec/head configuration with the non-finite verb. This EPP feature, which is responsible for the V2 mechanism in the lower phase, can be satisfied *in situ*, thus leading to OV word order,

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1 Mòcheno is a non-standard language spoken in three villages: Palù/Palai, Fierozzo/Vlarutz and Roveda/Oachlait by around 600 people (cf. Alber 2010). The variety considered here is that of Palù/Palai spoken by middle-aged speakers. For a description of the sociolinguistic situation of Mòcheno, with a special focus on its syntax, cf. Cognola (2013a).

or in passing by extracted XPs, thus blocking OV syntax. Therefore, in both Dinka and Mòcheno, extraction needs empty Spec,VP, which is the position occupied by the extracted XP in OV sentences. In both languages, the high EPP feature can be satisfied by all fronted XPs, whereas the low EPP feature can be satisfied by a subset of XPs: nominal (i.e. direct or indirect objects) constituents in Dinka, and foci in Mòcheno. This means that only nominals (Dinka) and foci (Mòcheno) can appear in Spec,VP, leading to OV word order, or block OV syntax when extracted. Other constituents do not enter this pattern, i.e. non-nominal XPs and topics never appear in OV syntax and never block OV when extracted.

Despite the fact that non-nominal constituents in Dinka and topics in Mòcheno never count for low V2, i.e. they never appear in Spec,VP, they are shown to move cyclically through both the edge of the lower phase and through CP, as nominals and foci do. The diagnostics showing that extracted non-nominal XPs (Dinka) and topics move cyclically through CP and the edge of the lower phase are the distribution of embedded topicalization, *ke* stranding in Dinka, and past participle movement in Mòcheno. Therefore, low V2 and extraction through the edge are not the same phenomenon, i.e. the impossibility of having OV syntax only with extracted nominals and foci in both languages does not imply that only these XPs are extracted through the edge, but rather that nominals and foci have an EPP feature to check in Spec,VP before being extracted. I take this conclusion, which is in line with the Phase Impenetrability Condition (cf. Chomsky 2001) and is already present in vU&R (*to appear*), to indicate that extraction is not triggered by the same feature responsible for OV, but, instead, by a discourse feature. Unlike vU&R (*to appear*), who propose this feature to be in vP, I suggest that it

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is encoded in a dedicated FP found above vP, in the so-called vP periphery (Jayaseelan 2001, Belletti 2004). This FP, not vP, must be considered the actual edge of the lower phase. In the account proposed here, in which the syntax of the subject is considered for both Dinka (unlike vU&R *to appear*) and Mòcheno, Spec,vP is not available for intermediate A' movement, since this is where the semantic subject is first merged (cf. Koopman/Sportiche 1991, Kratzer 1996).

Although Dinka and Mòcheno pattern in the same way as far as the EPP feature on V° and the properties of the edge are concerned, I show that the *v*P edge (FP) is a case-assigning position in the former, but not in the latter. This means that in Dinka all extracted XPs have to change their case and take the absolutive (corresponding to the nominative in languages with a nominative-accusative case system, cf. Andersen 1991) via number agreement with the finite verb. In Mòcheno, a language with a nominative-accusative case system, on the contrary, the nominative is assigned by v° to the XP in its Spec. This implies that the nominative is assigned before one XP is extracted through the edge in Mòcheno, whereas, in Dinka, the absolutive is automatically assigned to the XP to be extracted and not to the XP in Spec,vP (the semantic subject). In the latter language, the semantic subject agrees with the finite verb only when it is fronted to CP, and when agreement is not possible, as in inversion contexts, the subject takes the genitive (cf. Andersen 1991). Therefore, the pragmatic subject (i.e. the XP in CP) is also the syntactic subject (i.e. the XP agreeing with the finite verb) in Dinka. Case-assignment to the fronted XP is shown to take place in the edge of the lower phase through a Spec/head relation with the *finite* verb. This I analyse as a V2-like effect in the edge of the lower phase, triggered only by rules regarding case in Dinka. In

Mòcheno, on the other hand, the non-finite verb form can appear in the edge of the

lower phase simply as a signature of successive cyclicity, not interfering with case-

assignment to the fronted XP, since non-finite verb forms cannot assign the nominative

case.

The article is structured as follows. In section 2, I compare the syntax of main

declarative clauses in Dinka and Mòcheno, focusing on the distribution of OV/VO word

orders in these languages. In section 3, I discuss short and long extraction in the two

languages, showing that they pattern alike. In section 4, I propose a common analysis

for Dinka and Mòcheno.

2. V2: A comparison between Dinka and Mòcheno

In this section, I compare Dinka and Mòcheno, and show that they are V2 languages not

only at CP (cf. Andersen 1991, 2002, 2007, 2012, vU&R *to appear*, Rowley 2003,

Cognola 2013a,b), but also at vP level[2].

2.1 V2 in Dinka

Dinka is a V2 language at CP level in both main and embedded clauses (generalised

embedded V2). This means that finite and auxiliary verbs must appear in C° preceded

by one XP in Spec,CP[3]. Any XP can be fronted, and if the fronted XP is not the subject,

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2 For space limitations, the focus of the present discussion is on V2 at *v*P level. I therefore assume that

both Dinka and Mòcheno are V2 language at CP level, and refer the reader to the above-mentioned

literature for data supporting this analysis. For the presence of V2-like effects at the vP level, cf. also

Poletto (2006) on Old Italian.

3 VU&R (to appear:4,fn1) say that there are "systematic exceptions" with adjuncts to strict V2 in Dinka,

which means that V3 structures are possible. Cognola (2013a) shows the same for Mòcheno. As

discussed by both authors, this does not imply that either language is not V2, but simply that the

obligatory movement of the finite verb to CP coexists with a split periphery (cf. Rizzi 1997). That finite

it must immediately follow the finite verb, as is typical of V2 languages (cf. Holmberg forthcoming, den Besten 1983)[4].

VU&R *to appear*:12ff) suggest that Dinka is not only a V2 language at the CP level, but that it is also characterised by the presence of V2-like effects in the *v*P. The data supporting this analysis are given in (1, from vU&R *to appear*:12)[5]. In (1a) it can be seen that perfective auxiliary *ci* appears in the V2 position, and the position before the lexical verb *t̤í̤ŋ* is occupied by the direct object. As shown in (1b) the direct object must precede the lexical verb[6].

(1)   a. [$_{\text{Spec CP}}$ ɣɛ̀n   cí   [m̤îir]   t̤í̤ŋ

              I   PRF   giraffe   see

        b.*[$_{\text{Spec CP}}$ ɣɛ̀n cí   _____   t̤í̤ŋ   m̤îir

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verb movement to CP can take place in a split-CP is a typical characteristic of a subtype of V2 languages, instantiated by languages such as Kasmiri (Bhatt 1999), Old Romance (Benincà 2006) and Rhetoromance languages (Poletto 2002).

4 For the case of Dinka, by "subject" I mean the semantic subject, i.e. the XP first merged in Spec,*v*P. For other V2 languages, among which Mòcheno is found, "subject" identifies the syntactic subject. Cf. section 4.

5 As discussed by Andersen (1991, 2002, 2012) and vU&R (*to appear*), Dinka is a language characterised by a complex phonological system which interacts with morphology and syntax. Both the Agar dialect studied by Andersen and the Nyarweng (Bor) dialect studied by vU&R (*to appear*) are characterised by three tones (high: á, low: à, falling: â) and two voice qualities (breathy: a̤, creaky: a̠ or a̠ in Andersen). Unless otherwise indicated, I reproduce the glosses used in the literature.

6 For the sake of clarity, I do not yet committ myself to identify precisely which position is involved in the low V2 mechanism. VU&R (*to appear*) suggest this position to be *v°;* in section 4, I put forward the hypothesis that the phenomena discussed in this section for Dinka, and in the following one for Mòcheno, are caused by the presence of a low EPP feature associated with V°.

	I	PRF		Susee	giraffe

'I saw a giraffe.'

The same distribution of objects is found when the double-object construction is considered. As shown in (2, from vU&R *to appear*:12f), either a direct or an indirect object must precede the lexical verb - the crucial condition being that the preverbal position is filled by *one* of the objects (cf. 2c,d). Neither object can precede the lexical verb (cf. vU&R *to appear*:13,fn10).

(2)   a. [Spec CP ɣɛ̀n cí   [Ayén]   yi̋ɛ̰́n   kità̰p

            I   PRF.   Ayen   give   book

      b. [Spec CP ɣɛ̀n cí   [kità̰p]   yi̋ɛ̰́n   Ayén

            I   PRF.   book   give   Ayen

      c.* [Spec CP ɣɛ̀n cí   _____   yi̋ɛ̰́n   kità̰p   Ayén

            I   PRF.   give   book   Ayen

      d.* [Spec CP ɣɛ̀n cí   _____   yi̋ɛ̰́n   Ayén kità̰p

            I   PRF.   give   Ayen book

'I gave a book to Ayen.'

In Dinka, therefore, the position before the lexical verb i) cannot be left empty, and ii) can host a single XP. Both are properties of C° in Dinka (cf. vU&R *to appear*), and in V2 languages in general. However, high and low V2 positions differ in one important respect in Dinka: any XP can appear in Spec,CP, whereas only a subset of constituents enter the pattern exemplified in (1) and (2). According to vU&R (*to appear*), the distinction to be drawn is between nominal (i.e. direct and indirect object) and non-nominal constituents (i.e. XPs that receive case by morphology, as locatives, or by a

preposition, as instrumental arguments, and semantic subjects, cf. section 4)[7]. The former, as shown above, instantiate what appears to be a V2-like effect in the lower phase, whereas the latter never do so. This is show in (3, from vU&R (*to appear:*21), where we see that an adjunct bearing locative case must follow the lexical verb, and cannot precede it.

(3)   a. [$_{Spec\ CP}$ Wɔ̀ cí   _____   kɛ̀t   dòm-íc

            we   PRF   sing   garden-in

      b.* [$_{Spec\ CP}$ Wɔ̀ cí   [dòm-íc]   kɛ̀t

            we   PRF   garden-in   sing

      'We sang in the garden'

As shown in (4, from vU&R *to appear:*21), a locative PP cannot precede the lexical verb, even when it is an obligatory argument selected by the verb.

(4)   a. Bò̰l a-cí   Dɛ̀ŋ   tuɔ̀ɔc wṳ́ṳt

          Bol 3SG-PRF   Deng   sent   cattle.camp.LOC

      b.*Bò̰l a-cí   wṳ́ṳt   tuɔ̀ɔc Dɛ̀ŋ

          Bol 3SG-PRF   cattle.camp.LOC   sent   Deng

      'Bob sent Deng to the cattle camp.'

Therefore, Dinka seems to instantiate a double-V2 rule in both higher and lower phase. However, the V2 effect differs in important respects in the higher and in the lower phase, since any XP can be fronted to Spec,CP, whereas only *one* object (i.e. one nominal) can precede the lexical verb. Moreover, Spec,CP cannot be left empty (cf. vU&R *to appear*), whereas the position before the non-finite verb can.

2.2 V2 in Mòcheno

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7 By semantic subjects I mean XPs first merged in Spec,*v*P, cf. section 4.

Mòcheno has also been shown to be a V2 language, i.e. a language in which the finite verb must always appear in C° preceded by one XP in Spec,CP (cf. Cognola 2013a). Unlike Dinka, V2 is principally a root phenomenon in Mòcheno. In embedded clauses, in fact, the finite verb cannot raise to C°, and has to remain in a lower head[8]. The only exceptions to this are found with a subset of bridge verbs (cf. section 3.2.2 below)[9].

By examining the distribution of OV/VO word orders, Cognola (2008, 2010, 2013b) proposes that Mòcheno is characterised by V2-like effects not only at CP level, but also at *v*P level. According to Cognola's analysis, higher and lower V2 differ in that all fronted XPs can satisfy the EPP feature on C°, whereas only a subset of constituents "count" for V2 in the *v*P phase. For Mòcheno, the distinction is between topics and operators (foci, wh-elements): both types of XPs can satisfy the EPP feature on C°, whereas only operators (and not topics) count for V2 in the lower phase.

Let us consider the data supporting this claim. As shown in (5), when the direct object is a new-information focus (introduced by a wh- interrogative clause, cf. Belletti 2001, 2004, Cruschina 2006), it must precede the past participle[10]. Note, that unlike standard German, Mòcheno lacks case morphology on nouns (5b,c, cf. Rowley 2003).

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8 This lower head is generally v° in Mòcheno (especially in the dialect spoken in the village of Palù, cf. Cognola/Bidese 2013). In the Fierozzo and Roveda dialects the finite verb can also raise to T°, but crucially not to C°. This is evidenced by the fact that embedded topicalization is ruled out, cf. Cognola (2013a).

9 Cf. Vikner 1995, Heycock 2006 for an overview of the phenomenon in the Germanic languages.

10 As discussed in Cognola (2013b), new-information foci can optionally follow the past participle when they are made heavy by a modification such as a relative clause. In the account proposed in this paper, this must be captured through the assumption that the non-finite verb form can raise to the edge of the lower phase in the presence of a heavy focus, cf. section 4. Such an analysis is not valid for Dinka, where the edge of the lower phase *always* hosts the XP to be fronted and the finite verb. Cf. section 4.

(5) a. Bos hòs=o   kaft   en de boteig?

     what has=SUBJ-CL.2.SG   bought in the shop

     'What did you buy in the shop?'

     b. [Spec CP I   hòn   [a puach]   kaft

          I   have   a book   bought

     c.# [Spec CP I   hòn   _____   kaft   a puach

          I   have   bought   a book

     'I bought a book'

In OV syntax the focussed direct object appears in the lower portion of the clause, i.e.
below negation and sentential adverbs, cf. (6)[11].

(6) a. Bos hòs=o   òllbe/schua   kaft   en de boteig?

     what has=SUBJ-CL.2.SG   always/already bought in the shop

     'What have you always/aready bought in the shop?'

     b. [Spec CP I   hòn   òllbe / schua   [s mel]   kaft

          I   have   always / already   the four   bought

     c. #[Spec CP I   hòn   [s mel]   òllbe / schua   kaft

          I   have   the flour   always / already   bought

     'I have always/just bought the flour.'

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11 As discussed by Cognola (2013c), Mòcheno lacks scrambling of the type found in German and Dutch

(cf. Bayer and Kornfilt 1994, Frey 2001, Grewendorf 2005 Hinterhölzl 2006, Neeleman/van de Koot

2007 among others). When one XP scrambles above sentential adverbs in Mòcheno, this triggers a

verum-focus reading on the truth value of the whole sentence (cf. Höhle 1992, Krifka 2007, Féry 2007

among others). Therefore, (7c) is felicitous with the *verum-focus* reading, but not as an answers to a wh-

interrogative.

That VO syntax is ruled out for an object when it is a new-information focus is a particularly significant piece of data for a language such as Mòcheno, which is characterised by mixed OV/VO syntax (cf. Rowley 2003, Cognola 2008, 2013b). This indicates that OV/VO word orders are not in free distribution, but have specialised for the realisation of different semantic / discourse features. This conclusion is reinforced by the examples in (7), where I consider the case in which the direct object is a discourse topic, introduced by the interrogative clause in (7a), and the indirect object is the new-information focus. In this configuration we see that the direct object (topic) must appear in Spec,CP and the indirect object (focus) must precede the past participle. All other options involving OV for the direct object are ruled out.

(7)   a. En bem   hòs=o   kaft   a puach?

          to whom   has=SUBJ-CL.2.SG   bought   a book

       'Whom did you buy a book?'

       b. [Spec CP A puach]   hòn=e   [en de mama] kaft

          a book   have=SUBJ-CL.1.SG   to the mum   bought

       c.#En de mama   hòn=e   [a puach]   kaft

          to the mum   have=SUBJ-CL.1.SG   a book   bought

       d.#I   hòn   [a puach]   kaft   en de mama

          I   have   a book   bought   to the mum

       'I bought mum a book.'

The same distribution of the direct object illustrated in (6) and (7) above is shared by all constituents. In (8), I consider a sentence in which the obligatory locative argument selected by the verb is a new-information focus. As shown in (8b), this locative

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argument appears in OV syntax. Both Spec,CP (8c) and VO syntax (8d) are ruled out when the locative is a new-information focus[12].

(8)   a. Bo hos=o galek de mai ociai?

     where have= SUBJ-CL.2.SG put the my glasses

‘Where did you put my glasses?’

    b. I hòn=sa   [avn tisch]   galekt

     I have=OBJ-CL.3.PL   on the table   put

    c. #Avn tisch   hone   de dai ociai   galek

     on the table   have=SUBJ-CL.1.SG   the your glasses   put

    d. #I hòn=sa   galek   avn tisch

     I have=OBJ-CL.3.PL put   on the table

‘I put them on the table.’

In (9), I consider a case in which the obligatory locative argument is a topic and the direct object is a new-information focus. As shown in (9b), in this configuration the locative PP has to appear in Spec,CP. It cannot precede (9c) or follow (9d) the past participle.

(9)   a. Bos hòs=o   galek avn tisch?

     what have=SUBJ-CL.2.SG   put   on-the table

‘What did you put on the table?’

    b. Avn tisch   hòn=e   de mai ociai   galek

     on-the table have=SUBJ-CL.1.SG   the my glasses put

    c.#I hòn   avn tisch   galek de mai ociai

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12 Cognola (2013b) shows that the same distribution of locative arguments is shared by focussed and topicalised adverbials.

       I have   on-the table   put   the my glasses

    d.#I hòn   de mai ociai   galek avn tisch

       I have   the my glasses put   on-the table

    'I put my glasses on the table.'

In Mòcheno, DP subjects also enter the pattern of alternation just described, i.e. subjects must always appear before the past participle when they are new-information foci, and are fronted when they are topics. In (10), I give examples of subjects in inversion contexts (which are therefore focussed).

(10)   a. Ber hòt   òllbe   kaft   s mel?

       who has   always bought   the flour

    'Who has always bought the flour?'

    b. S mel   hòt   òllbe   [de mama] kaft

       the flour   has   always the mum bought

    c.#De mama   hòt   òllbe   kaft   s mel

       the mum   has   always bought   the flour

    d.#S mel   hòt   (de mama)   òllbe   kaft   (de mama)

       the flour   has   the mum   always   bought   the mum

    'The mum has always bought the flour.'

Below, I show that DP subjects always precede the finite verb when they are topics.

(11)   a. Bos   hòt=se$_j$ kaft   de mama$_j$?

       what   has= SUBJ-CL.2.SG   bought the mum

    'What did the mum buy?'

    b. De mama   hòt   a puach   kaft

the mum	has	a book	bought

c.#S   hòt   de mama a puach kaft

    <small>EXPL</small>   has   the mum a book bought

'The mum has bought a book.'

In Mòcheno it is generally possible to have more than one XP before the past participle, the only condition being that they are all *new-information foci*. This is illustrated in (12), where I consider a broad-focus context.

(12)   Context: I arrive home, and I see wrapping paper on the table. I ask my sister what happened. She replies:

    a. Der Mario hòt   a puach   en de mama   kaft

      the Mario has   a book   to the mum   bought

      ont de   hòn   net   obegalek

      and they have <small>NEG</small> cleaned

    b.#Der Mario hòt   kaft   a puach   en de mama

      the Mario has   bought a book   to the mum

      ont de   hòn   net   obegalek

      and they have <small>NEG</small> cleaned

    c.#Der Mario hòt   (kaft) a puach   (kaft)   en de mama

      the Mario has   bought a book   bought   to the mum

      ont de   hòn   net   obegalek

      and they have <small>NEG</small> cleaned

    'Mario bought a book for the mum, and they have not cleaned.'

Therefore, Mòcheno seems to instantiate a double-V2 rule in both higher and lower

phases, and, like Dinka, any XP (operator or topic) satisfies the EPP feature on C°, whereas only foci can satisfy the low EPP feature. Moreover, Spec,CP cannot be left empty, whereas the positions before the lexical verb can. Multiple foci are possible.

2.3 Partial conclusions

In this section, we have seen that Dinka and Mòcheno have both, independently, been identified as languages with a double-V2 rule involving both C° and v°. An EPP feature associated with each head in both phases is therefore common to both languages[13]. Interestingly, another commonality is that the low EPP feature can only be satisfied by a subset of constituents, whereas all constituents can satisfy the higher one. In Dinka, the distinction is between nominal and non-nominal XPs, whereas Mòcheno distinguishes between operators and foci: this is a first asymmetry between the two languages. The syntax of subjects is also different. In Dinka, subjects behave as non-nominal XPs, i.e. they never count for low V2, whereas in Mòcheno they do count for V2 as long as they are focused. Finally, Dinka only allows one object to precede the lexical verb, whereas multiple foci are possible in OV syntax in Mòcheno.

In the following section, I consider extraction in the two languages.

3. Successive cyclicity in Dinka and Mòcheno

One of the most convincing pieces of evidence for the presence of an EPP feature on $v°$ in both Dinka and Mòcheno comes from extraction, which shows striking similarities, but also crucial differences, between the two languages.

3.1 Extraction in Dinka

3.1.1 Short extraction

In section 2.1 we saw that all nominals (i.e. direct and indirect objects) have to satisfy

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13 I will give further detail in section 4.

the low EPP feature in *v*P in Dinka. VU&R (*to appear*) demonstrate that direct and indirect objects must also satisfy the low EPP feature when they are extracted. As shown in (13), when direct or indirect objects are extracted, OV word order is ruled out[14].

(13)   a. [_{Spec CP} Yeŋà cíi   mòc   [~~Yeŋà~~]   yiɛ̬́n   kitàp?

           who   PRF.NS man   give   book

     b.* [_{Spec CP} Yeŋà cíi   mòc   [kitàp]   yiɛ̬́n?

           who   PRF.NS man   book   give

     'Who did the man give the book to?'

     c. [_{Spec CP} Yeŋɔ̬́ cíi   mòc   [~~Yeŋɔ̬́~~]   yiɛ́n   Ayén?

           what   PRF.NS man   give   Ayen

     d.*[_{Spec CP} Yeŋɔ̬́ cíi   mòc   [Ayén]   yiɛ̬́n?

           what   PRF.NS man   Ayen   give

     'What did the man give Ayen?'

Extracted non-nominal constituents, on the other hand, do not satisfy the low EPP feature, i.e. even when extracted, they do not count for low V2. This is shown in (14 sfrom vU&R (*to appear*:22, 14b,d) pers. comm. of Coppe van Urk) which demonstrate that the direct object must appear in OV syntax irrespective of the extracted (non-nominal) wh-element.

(14)   a. [_{Spec CP} Yétenô   cíi   yín   [thɔ̬̀k]   ɣòoc?

           where   PRF.NS   you   goat   buy.tr

     b.*[_{Spec CP} Yétenô   cíi   yín   _____   ɣòoc   thɔ̬̀k?

           where   PRF.NS you   buy.tr   goat

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14 The examples given here involve wh-extraction, but this effect is found with all A' dependencies, cf. vU&R *to appear*:14) and Andersen (1991:277).

'Where did you buy a goat?'

c. [Spec CP Yeŋɔ̤́ cíi   yín   [kò̤or]   nɔ̤̀k?

     what   PRF.NS you   lion   kill

d.*[Spec CP Yeŋɔ̤́ cíi   yín   _____   nɔ̤̀k   kò̤or?

     what   PRF.NS you   kill   lion

'What did you kill a lion with?'

The above data show that higher and lower portions of the clause are connected, and that if a constituent can satisfy the EPP feature in the lower phase, it must also do so when it is extracted. This indicates that movement proceeds cyclically in the clause. As discussed by vU&R (*to appear*:18ff), and Andersen (1991:276f), successive cyclicity effects surface in another way in Dinka: through a phenomenon that vU&R call "*ke* stranding". When a plural constituent is extracted, it strands *ke* in Spec,*v*P (cf. McCloskey's (2000) and Willis (2011) on a similar effect in Ulster English and Welsh, respectively)[15]. As shown in (15a vU&R (*to appear*:19), *ke* stranding is obligatory[16].

(15)   Yèyîŋà   cíi   Bô̤l   *(ké)   ṳ̀íŋ?

        who.PL   PRF.NS   Bol.GEN   them   see

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15 Andersen (1991:276) writes that *ke* is the third person plural object pronoun, whereas vU&R (*to appear:* 24, fn17) analyse it as a clitic appearing in a Spec position, and gloss it as a plural morpheme (PL). I consider vU&R's (*to appear*) treatment of *ke* misleading, since i) clitics appear in head, and not in Spec positions (cf. Cardinaletti/Starke 1999), and ii) plural morphology generally appears on verbs, i.e. on XPs hosted in head, not in Spec, positions. Therefore, in this article I gloss *ke* with "they", without analysing it. In section 4, I suggest that *ke* is hosted in a Spec position, and must be considered a weak (not a clitic) pronoun.

16 For the Agar dialet, Andersen (1991) claims that *ke* stranding is optional.

'Who did all Bo see?'

When a non-nominal constituent is fronted, *ke* co-occurs with the object in the preverbal position (16, from vU&R *to appear*:22f). Note that *ke* appears after the semantic subject *the sister* and before the direct object *my brother*, which is assumed to satisfy the low EPP feature that cannot be satisfied by the extracted non-nominal XP.

(16)   [Ye bɛ̰̀ɛ̰i   kó]ⱼ   cénné   nyankái [keⱼ [Spec vP wanmá̰th tṵɔ̀ɔ̰c]?

        Q   villages which PRF.OBL   sister   them brother   send

        'Which villages did my sister send my brother to?'

3.1.2 Long extraction

The same transparency observed in short extraction, and the same asymmetries between nominal and non-nominal constituents are also found when long extraction is considered. As shown in (17, from vU&R *to appear:*16), all (nominal and non-nominal) extracted constituents move cyclically through all intervening Spec,CP positions. This is evidenced by the fact that embedded V2, which is always available in Dinka (cf. section 2.1 above), is blocked when one constituent is long extracted.

(17)   a. [Spec CP Yétenô cúkkú   luéel [Spec CP ~~yétenô~~   cíi   wɔɔk [kità̰p] ɣòoc]

            where   PRF.1PL say   PRF.NS we.gen book   buy. tr

        b.*[Spec CP Yétenô cúkkú   luéel [Spec CP kità̰p cíi   wɔɔk   ~~kitap~~   ɣòoc]?

            where   PRF.1PL say   book PRF.NS we.gen book   buy. tr

        'Where did we say that we bought a book?'

        c. Yeŋà yé   Yậa̰r t̰àak [ké _____ cíi   Bó̰l   luéel   [yé _____

            who IMPF Yaar think c   PRF.NS Bol.GEN   say   C

            cúkkú   t̰ḭ́ŋ]]?

18

PRF.1PL   see

d.*Yeŋà yé   Yâa̯r <u>tàak</u> [ké Bôl (a-)cíi   luéel [yé _____

who IMPF Yaar think c   Bol 3SG.PRF   say   C

cúkkú   tḭ́ŋ]]?

PRF.1PL   see

e.*Yeŋà yé   Yâa̯r <u>tàak</u> [ké ____ cíi   Bôl   luéel [yé wɔ̀

who IMPF Yaar think c   PRF.NS Bol.GEN   say C we

cúkkú   tḭ́ŋ]]?

PRF   see

'Who does Yaar think that Bol said that we saw?'

VU&R (*to appear*) show that long-extracted constituents do not only move cyclically
through all intervening Spec,CP positions, but *also* through all intervening Spec,*v*P
positions. In this case, the familiar asymmetry between nominal and non-nominal
constituents pops up again. As shown in (18, from vU&R *to appear*:26f), long-extracted
objects need empty Spec,*v*P in both matrix and embedded clauses (18a,b), whereas
long-extracted non-nominal XPs only need empty Spec,CP (18c). Therefore, VO syntax
is obligatory in both matrix and embedded clauses.

(18)   a. Yeŋà cíi   Yâa̯r   _____ lɛ́k Dɛ̀ŋ [yè _____ cíi   Bôl   _____

who PRF.NS Yaar.GEN   tell Deng C   PRF.NS Bol.GEN

<u>tu̯ɔ̀ɔc</u>   wúu̯t?

send   cattle.camp.LOC

b.*Yeŋà cíi   Yâa̯r   Dɛ̀ŋ lɛ́k [yè _____ cíi   Bôl   _____

who PRF.NS Yaar.GEN   Deng tell C   PRF.NS Bol.GEN

19

tuɔ̀ɔc	wúṳt?
send	cattle.camp.LOC

'Who did Yaar tell deng that Bol sent to the cattle camp?'

c. Yậar a-cí   [Dɛ̀ŋ] lɛ́k [yè Bòl a-cí   [Ayén] tuɔ̀ɔc   wúṳt

Yaar 3SG.PRF Deng tell C Bol 3SG.PRF Ayen send cattle.camp.LOC

'Yaar told Deng that Bol sent Ayen to the cattle camp?'

Ke stranding is also a signature of successive cyclicity in long extraction in Dinka. As shown in (19), *ke* is obligatorily stranded in *all* Spec,*v*P positions along the path of movement of the extracted constituent (cf.vU&R *to appear*:19f). *Ke* stranding only involves the lower phase, and not CP.

(19) a. [Spec CP Yèyíŋàⱼ yḛ́   kéⱼ   tà̤ak [Spec CP y̶è̶y̶í̶ŋ̶à̶ⱼ̶-cíi   Bôl   kéⱼ   tḭ́ŋ]]?

who-PL IMPF PL   think C   PRF.NS Bol   them   see

b.*[Spec CP Yèyíŋàⱼ yḛ́   _____   tà̤ak [Spec CP y̶è̶y̶í̶ŋ̶à̶ⱼ̶-cíi   Bôl _____   tḭ́ŋ]]?

who-PL IMPF   think C   PRF.NS Bol   see

c.*[Spec CP Yèyíŋàⱼ yḛ́   _____   tà̤ak [Spec CP y̶è̶y̶í̶ŋ̶à̶ⱼ̶-cíi   Bôl   keⱼ   tḭ́ŋ]]?

who-PL IMP   think C   PRF.NS Bol   them   see

d.*[Spec CP Yèyíŋàⱼ yḛ́   keⱼ   tà̤ak [Spec CP y̶è̶y̶í̶ŋ̶à̶ⱼ̶-cíi Bôl   tḭ́ŋ]]?

who-PL IMPF them think C   PRF.NS Bol   see

'Who all do you think Bol saw?'

To sum up, extraction in Dinka is remarkably transparent, and the cyclic movement of XPs manifests in different ways depending on whether they are nominals or non-nominals. Extraction of nominals requires empty Spec,CP and empty Spec,*v*P along the whole path of movement, whereas extraction of non-nominals requires empty Spec,CP,

but not empty Spec,*v*P, along the whole path of movement. All (nominal and non-nominal) plural fronted constituents strand the morpheme *ke* through all Spec,*v*P positions along the path of movement.

3.2 Extraction in Mòcheno

3.2.1 Short Extraction

We saw in section 2.2 that foci must always satisfy the low EPP feature in Mòcheno, i.e. they have to appear before the past participle. Topics, on the contrary, can never show up before (or after) the past participle and have their dedicated position in Spec,CP. Operators also satisfy the low EPP when they are extracted: as shown in (20), OV word order is impossible with an extracted wh-element[17].

(20)   a. [~Spec CP~ Ber   hòt   [~~ber~~]   kaft   s puach?

               who   has   bought the book

       b.*[~Spec CP~ Ber   hòt   [s puach]   kaft?

               who   has   the book   bought

       'Who bought the book?'

       c. [~Spec CP~ En bem   hòt=se   [en bem] kaft de zaitung?

               to whom   has=SUBJ-CL.3.SG.F   bought the newspaper

       d.* [~Spec CP~ En bem   hòt=se   [de zaitung]   kaft?

               to whom   has=SUBJ-CL.3.SG.F   the newspaper   bought

       'Whom did she bought the newspaper?'

As shown in (21), extracted (argumental or adjunct) PPs also satisfy the low EPP feature, thus blocking the possibility of having OV syntax.

(21)   a. Bo   hòt=er   [~~bo~~]   galekt de ociai?

17 The same is found when the extracted constituent is a contrastive focus, cf. Cognola (2013b).

| where | has=SUBJ-CL.3.SG.M | | put | the glasses |

b.*Bo   hòt=er   [de ociai]   galek?

| where | has=SUBJ-CL.3.SG.M | the glasses | put |

'Where did he put the glasses?'

c. Benn   hòt=er   [~~benn~~]   kaft s puach?

| when | has=SUBJ-CL.3.SG.M | | bought the book |

d.*Benn   hòt=er   [s puach]   kaft?

| when | has=SUBJ-CL.3.SG.M | the book | bought |

'When did he buy the book?'

As expected, only extracted operators, and not extracted topics, satisfy the low EPP feature. As discussed in section 2.2, in fact, when a topic is extracted, the new-information focus must precede the past participle, thus leading to OV syntax. Below, I repeat some examples.

(22)   a. [Spec CP Spuach]   hòn=e   [en de mama]   kaft

the book+top   have=SUBJ-CL.1.SG   to the mum+foc   bought

b.*[Spec CP S puach]   hòn=e   [~~s puach~~] kaft   en de mama

the book+top   have=SUBJ-CL.1.SG   bought   to the mum

'The book I bought for the mum.'

3.2.2 Long extraction in Mòcheno

In 3.1.2, we saw that long extraction requires empty Spec,CP in Dinka. In this section, I show that this is also the case in Mòcheno. To demonstrate this, I first consider embedded topicalization in Mòcheno. As discussed in 2.2, Mòcheno (unlike Dinka) does not allow for generalised embedded V2. However, one XP and the finite verb can

move to C° in embedded clauses selected by a bridge verb like *moen* (to think), or *sogn* (to say). This is illustrated in (23)[18].

(23) I hòn gamuat [as [Spec CP der dai kamarot [c⁰ bart=er=en   vourstelln

I have thought that   the your friend   AUX-FUT=SUBJ.CL.3SG.M

vourstelln   en de Maria

introduce   to the Mary

'I thought I would introduce your friend to Mary.'

The verbs with which embedded topicalization is possible are also the verbs with which long extraction is grammatical. This means that we have a reliable test to check whether or not extracted XPs need Spec,CP. The prediction is that if they do, embedded topicalization is blocked.

As shown in (24), the prediction is borne out for operators. Long-extracted operators block embedded topicalization, which, as shown in (23) above, is always possible in the absence of extraction[19].

(24) En bem   muas=o   [as [Spec CP _____   der Mario

to whom   think=SUBJ-CL.2.SG   that   the Mario

kaft hòt   s puach?

bought has   the book

b. *En bem   muas=o   [as [Spec CP s puach [c⁰ hòt=er   kaft?

to whom   think=SUBJ-CL.2.SG   that   the book has=SUBJ-CL.3.SG.M   bought

18 As discussed in fn 3 above, it has to be assumed that CP contains at least two FPs in Mòcheno.
19 Mòcheno has been shown (Cognola 2013a, 2014b) to be an asymmetric pro-drop language, i.e. a language in which null subjects can only be licensed in Spec,TP in main clauses (cf. Benincà 1984, Adams 1987, contributions in Hulk/van Kemenade 1991 among others). Therefore, in the examples in (24), the DP subject appears in Spec,TP.

'Who do you think that he bought the book to?'

c. Ber muas=o   [as   [Spec CP_____ kaft   hòt   s puach?

   who think=SUBJ-CL.2.SG   that   bought has   the book?

d.*Ber muas=o   [as   [Spec CP s puach [C⁰   hot   kaft?

   who think=SUBJ-CL.2.SG   that   the book   has   bought

'Who do you think bought the book?'

As shown in (25), embedded topicalization is also blocked when the extracted XP is a
topic.

(25)   a. En de sai mama muan=e   [as _____ er s puach kaft   hòt

        to the his mother think=SUBJ-CL.1.SG that he   the book bought   has

        b.*En de sai mama muan=e   [as [Spec CP s puach [C⁰ hòt=er   kaft

        to the his mother think=SUBJ-CL.1.SG that   the book has=SUBJ-CL.3.SG.M bought

        'To his mum, I think, he bought the book.'

        c. Der Mario   muan=e   as   _____   s puach   kaft hòt

        the Mario   think=SUBJ-CL.1.SG that   the book   bought has

        d.*Der Mario muan=e   [as [Spec CP s puach   [C⁰ hòt kaft

        the Mario   think=SUBJ-CL.1.SG that   the book   has bought

        'Mario, I think, bought the book.'

As shown in (26), the same facts are also found when a locative PP is A'-moved to CP.

(26)   a. Bo muas=o   as   _____   er   galek   hòt de dai ociai?

        where think=SUBJ-CL.2.SG   that   he   put   has the glasses

        b.*Bo   muas=o   as [Spec CP de dai ociai [C⁰ hòt=er   galek?

        where think=SUBJ-CL.2.SG   that the glasses   has=SUBJ-CL.3.SG.M   pu

24

'Where do you think he put the glasses?'

c. Avn tisch   muan=e   as _____   er   de ociai   galek hòt

   on-the table think   that   he   the glasses has put

d. *Avn tisch muan=e   as   [$_{Spec CP}$ de ociai [$_C^0$ hòt=er   galek

   on-the table think   that   the glasses   has=SUBJ-CL.3.SG.M   put

'I think that he put his glasses on the table.'

Let us address the issue of whether long-extracted constituents also need empty Spec,*v*P. The diagnostic to test this is the distribution of OV/VO word orders: if long-extracted constituents need empty Spec,vP, OV should be blocked.

Focusing first on OV in the embedded clause, in (27) I show that OV is ruled out when a wh-element is long extracted. Therefore, VO is obligatory in this construction[20].

(27)   a. En bem   muas=o   as   der Mario _____kaft hòt   s puach?

        to whom   think=SUBJ-CL.2.SG that the Mario   bought has the book

        b.*En bem   muas=o   as   er [s puach]   kaft   [s puach] hòt?

         to whom   think=SUBJ-CL.2.SG   that he the book   bought the book has

        c. *En bem muas=o   as   er hòt   [s puach]   kaft?

         to whom think=SUBJ-CL.2.SG that he has   the book   bought

        'Who do you think that he bought the book to?'

As expected, when the long-extracted XP is a topic, OV word order is not blocked, i.e. Spec,*v*P does not need to be empty with a long-extracted topic[21].

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20 Note, that in (28) the non-finite verb form must precede the finite verb form. As discussed in section 4, this follows from the fact that the non-finite verb must always raise to the edge of the lower phase when a focus is extracted.

21 Within the theory proposed in section 4, the relative word order of non-finite and finite verb forms in

(28) En de sai mama   muan=e   as der Mario a puach kaft   hòt

to the his mother   think=SUBJ-CL.1.SG that the Mario   a book   bought has

'To his mother, I think, Mario has bought a book'

As shown in (29), long-extracted locative arguments display the same distribution as other arguments, depending on whether they are operators (29a,b) or topics (29c,d).

(29) a. Bo   muas=o   as   er   _____ galekt hòt de ociai?

where think=SUBJ-CL.2.SG that   he   put   has the glasses

b.*Bo   muas=o   as er   de ociai   galek hòt?

where think=SUBJ-CL.2.SG that he   the glasses   put has

'Who do you think he put the glasses?'

c. Avn tisch   muan=e   as   er   de ociai galek hòt

on-the table   think=SUBJ-CL.1.SG that   he   the glasses put has

'I think he put the glasses on the table.'

The last thing that we have to look at is whether an extracted focus needs empty Spec,*v*P in the matrix clause, too. As shown in (30), this is the case. OV syntax is, in fact, ruled out in the matrix clause when long extraction has taken place.

(30) a. Bos hòs=o _____   zok en de Maria, as   de mama kaft hòt?

what have=SUBJ-CL.2.SG   said to the Mary that the mum bought has

b.*Bos hòs=o   en de Maria zok, as   de mama kaft hòt?

what have=SUBJ-CL.2.SG   to the Mary said that the mum bought has

---

(27) must be accounted for by assuming that the whole VP moves to the edge of the lower phase, along the lines of Haegeman (2000). Such movement does not take place with an extracted topic, as the examples in (28) show. For reasons of space, I cannot examine the derivation of embedded clauses in any detail here.

'What did you tell Mary that mum bought?'

In (31), I show that Spec,vP of the matrix clause does not need to be empty when the long-extracted constituent is a topic, thus OV syntax is possible in the matrix clause (as it is in the embedded clause).

(31) En de mama hòn=e   gester   zòk, as   er s puach kaft hòt

to the mum   have=SUBJ-CL.1.SG yesterday said that he the book bought has

'I told mum yesterday that he has bought the book.'

To sum up, extraction in Mòcheno is remarkably transparent, and the cyclic movement of XPs manifests in different ways depending on whether they are foci or topics. Extraction of wh-elements requires empty Spec,CP and Spec,vP along the whole path of movement to the final landing site (i.e. in both matrix and embedded clauses). Extraction of topics requires empty Spec,CP, but not empty Spec,vP, along the whole path of movement (i.e. in both matrix and embedded clause).

3.3 Partial conclusions

As summarised in Table 1, Dinka nominals and Mòcheno operators "count" for V2 in both higher and lower phases, i.e. they can precede the finite and the non-finite verb forms in all sentences. When they are extracted, they need empty Spec,vP and empty Spec,CP through their whole path of movement (i.e. in both main and embedded clauses). Dinka non-nominal XPs and Mòcheno topics, in contrast, can appear in Spec,CP, but not in Spec,vP. When they are extracted they need empty Spec,CP through their whole path of movement, but not empty Spec,vP. In Dinka, all fronted XPs strand *ke* in Spec,vP.

TABLE 1 GOES HERE

In the following section, I propose a common account for Dinka and Mòcheno, which captures both the symmetries between the two languages, and the differences. These are i) the already mentioned asymmetry between nominal and non-nominal XPs in Dinka and operators and topics in Mòcheno; ii) the possibility of having multiple foci in the lower phase in Mòcheno and the impossibility of having two objects before the lexical verb in Dinka; iii) the syntax of subjects, which pattern with non-nominal XPs in Dinka, but behave as operators or topics in Mòcheno.

4. Proposed analysis

After discussing vU&R's (*to appear*) theory in 4.1 and some of its predictions in 4.2, I propose an account for Dinka (4.3) which integrates some empirical facts not discussed by vU&R (*to appear*) and which will be shown in 4.4 to account for the Mòcheno facts, too. Central to the hypothesis are the ideas that Dinka and Mòcheno share the same clause structure in which all verb arguments and all adverbial PPs are generated in the complement position of V (VO, cf. Kayne 1994), and in which the edge of the lower phase is an A' position in the vP periphery (cf. Jayaseelan 2001, Belletti 2001)[22]. For

_____

22 That all verb arguments, adverbial DPs and PPs are generated in the complement position of V is evidenced for Dinka by the data discussed in sections 2.1 and 3.1 above, where it can be seen that all constituents, except for non-nominal XPs (direct and indirect objects), have to follow the non-finite verb form. For Mòcheno, a language with mixed OV/VO word order with all constituents, this claim is less obvious, but I suggest that it is supported by the data on extraction. All fronted focussed XPs, in fact, block OV syntax in Mòcheno (cf. 3.2 and Cognola 2008, 2010, 2013b). This, I show, implies that all fronted XPs are moved through Spec,VP (the position associated with focus in Mòcheno), and to do so they must have been generated in the complement position of V°. Another piece of evidence for the fact that OV syntax is derived by moving one XP to Spec,VP in Mòcheno comes from VP fronting. Contrary to German, where VP fronting involves OV word order inside the VP (*[_{VP}Ein Buch gekauft] hat er noch*

both languages, subjects are assumed to be first merged in Spec,vP and to receive case in the lower portion of the clause and not in TP (cf. vU&R's (*to appear*), van Urk (2014), Cognola (2013a)).

4.1. vU&R's (*to appear*) account

VU&R (*to appear*:23ff) capture the syntactic behaviour of Dinka main clauses by assuming the presence of two movement-driving features on $v°$: one associated with case, and one with discourse, as shown in (32, from VU&R (*to appear*:23)[23].

(32)   STRUCTURE 1 GOES HERE

The case features on $v°$ can only be checked by objects in Dinka. These, in fact, are the only constituents that do not receive case by a preposition or by morphology. In sentences in which the fronted XP is not one of the objects, vU&R's (*to appear*) hypothesis is, therefore, that the objects appear in the lower portion of the clause: one in Spec,*v*P and the other in the complement position. When extracted, however, one of the objects must check both features on $v°$, thus making it impossible for the other object to check the case feature in one of the Spec of *v*P. Non-nominal XPs (i.e. XPs that receive case by P or through special morphology) are assumed to check only one of the two

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nie, "He has never bought a book"), VP fronting always involves VO word order in Mòcheno (**[vP De saina kamarotn] pakemmp hòt-er net*; *[vP Pakemmpt de saina kamarotn] hòt-er net*, "He has not met his friends"). I suggest that this follows from the fact that OV is a derived word order in this language, contrary to German.

I would like to thank an anonymous reviewer for suggesting to considerate VP fronting in Mòcheno.

23 Since the facts described for Dinka by vU&R (to appear) are valid for all A'-dependencies (cf. fn 14 above), it has to be assumed that +topic features are also present in Spec,vP. In their theoretical account, vU&R (to appear:23) omitt the subject "for the ease of exposition". Note that vU&R (to appear) have to assume that the order of multiple Specs is fixed, i.e. discourse features are checked after case features.

features associated with $v°$, i.e. the discourse feature, before moving to Spec,CP. This accounts for the fact that extraction of a non-nominal XP does not block the possibility that one of the objects appears before the lexical verb (OV). Moreover, it also makes sense of the distribution of *ke* stranding, which occurs with all extracted constituents, and must therefore be considered a signature of movement through the higher Spec of *v*P. This is why *ke* can co-occur with an argument in OV syntax when a plural non-nominal XP is moved to CP.

VU&R's (*to appear*) theory nicely captures a series of complex facts by distinguishing between two features involved in extraction. This allows them to reconcile the empirical facts of Dinka with our theoretical understanding of movement, in particular with the Phase Impenetrability Condition (cf. Chomsky 2001). All XPs are extracted through the edge in Dinka (as predicted by the Phase Impenetrability Condition), and the failure to satisfy *v*'s EPP feature by non-nominal constituents is not due to their lack of movement through the edge, but with their failure to check a case feature before being extracted.

4.2 Problems with vU&R's (*to appear*) analysis

The most important prediction of vU&R's (*to appear*) theory is that fronted non-nominal constituents appear in Spec,CP either with their morphological case or the case-assigning preposition, since it is precisely because of their case that they do not need to check the case feature on $v°$. This prediction does not hold. All constituents appearing in Spec,CP in Dinka, in fact, have to lose their case in favour of the absolutive (cf. Andersen 1991:273ff). This is exemplified in (33, from Andersen 1991:279,281). In (33a,c) we see that when the instrumental and the locative adjuncts appear in the lower portion of the clause, the former receives case from a preposition and the latter has

locative case morphology. When they are fronted (33b,d), the instrumental adjunct appears *without* the case-assigning preposition, and the locative adjunct *without* the locative case morphology, and both bear the absolute case[24].

(33)   a. Dhɔ̰ɔk   à-cɛ́   wéŋ   mḭ́ḭit   **ḛ̀ yuḛen**

       boy.ABS   D-PR   cow   pull   PREP rope

    b. **Yuḛen**   à-cíi   dhɔ̰ɔk   w̰ɛ́ŋ   mḭ́ḭit

       rope.ABS   D-PRF:NS   boy   cow   pull

    'The boy has pulled the cow with the rope.'

    c. Mɔ̰̀c   à-mṵ̰uc   **roɔ́or**

       man.ABS   D-shoot.AP   forest.LOC

    d. **Rɔ̰̀or_j**   à̰-múuc   mɔ̰̀c   th̰ín_j

       forest.ABS   D-shoot.AP.NS   man   there

    'The man is shooting in the forest.'

As discussed in Andersen (1991:273), the absolutive is the unmarked case in Dinka: it is the case of noun phrases used in isolation (citation form), and corresponds to the nominative in languages with a nominative-accusative case system. In (34a,b, from Andersen 1991:272), we see that, in fact, fronted subjects must bear the absolutive case, and they agree in number with the finite verb / declarative particle (à̰ becomes ɑ́a).

(34)   a. t̰ìik   à̰-bɔ̰́

       woman.ABS   D-come

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24 As discussed in Andersen (1991:277f), the examples in (37) involve active sentences and cannot be analysed as passive constructions. Dinka, in fact, displays a passive construction characterised by i) a special passive morphology on the finite verb, and ii) by the fact that semantic subjects are introduced by a preposition. Cf. also fn 38 below.

'The woman is arriving.'

b. dìa̠ar   **á̠a-**   bɔ̰́

   women.ABS   D:PL-come

'The women are arriving.'

What is special about Dinka, is that not only the fronted subject, but all fronted XPs, receive the absolutive case from the finite verb via number agreement. In (35a,b, from Andersen 1991:272), we see that a fronted object must bear the absolutive, and agrees in number with the finite verb, like a fronted subject.

(35)   a. wé̠ŋ   **à̠-kṳɛ́ɛl**   mô̠c

      cow.ABS   D-steal.NS   man.GEN

     b. ɣɔ̰́k   **á̠a- kṳɛ́ɛl**   mô̠c

      cows.ABS   D-PL-steal.NS   man.GEN

'The man is stealing the cow(s).'

The above data indicate that all fronted constituents receive the absolutive case in Dinka via number agreeement with the finite verb, i.e. all *pragmatic* subjects automatically become *syntactic* subjects, too. This fact is unexpected within vU&R's (*to appear*) theory, especially if we consider the fact that the absolutive is also the case of both direct and indirect objects appearing in the lower phase (cf. Andersen 1991:273, 2012:148, and pers. comm.). Since the empirical data indicate that all fronted XPs and both objects in OV and VO syntax bear the absolutive case, vU&R's (*to appear*) account is revealed to be weak. In particular, it is not clear what case requirement must be fullfilled by objects in the *v*P, since objects and fronted XPs all are given the same case.

32

Before providing an answer to this in the next section, let me discuss one last piece of data concerning the realisation of the semantic subject. When fronted, semantic subjects pattern like all fronted constituents, i.e. they bear the absolutive case, and agree in number with the definite particle. When they appear in inversion, three important things happen. As shown in (40 from Andersen 1991:272), they i) appear in the genitive case; ii) follow the finite verb/auxiliary, which iii) takes a special marked morphology. Andersen (1991) shows that this morphology is marked (i.e. it derives from the unmarked morphology found with fronted semantic subjects), and calls it "non-topical subject" (NS in the glosses), since it has the function of showing that the fronted XP is not the semantic subject. Therefore, in the examples in (36) we find the form *à̰-kṵɛ́ɛl* when the fronted XP is the object, and the form *à̰-kṵà̰l* when the fronted XP is the semantic subject.

(36)   a. wɛ́ŋ   **à̰-kṵɛ́ɛl**   mò̰c

           cow.ABS   D-steal.NS   man.GEN

       b. mò̰c   **à̰-kṵà̰l**   wɛ́ŋ

           man.ABS   D-steal   cow

       'The man is stealing the cow.'

The data discussed in this section have shown that, contrary to vU&R's (*to appear*) hypothesis, all fronted XPs must bear the absolutive case (irrespective of the case that would be assigned in the base position), and that the absolutive is also the case of non-fronted objects. Moreover, all fronted XPs agree in number with the XP in Spec,CP; when semantic subjects are not fronted, they bear the genitive case, and the morphology on the finite verb changes. In the following section, I integrate this information into

33

vU&R's (*to appear*) analysis.

4.3 Proposed analysis for Dinka

In section 4.2 above, we saw that both direct and indirect objects *must* bear the absolutive case when they appear in the lower phase, irrespective of their thematic role and, crucially, of their position in the sentence (before or after the lexical verb). Since case-assignment is a property of the lexical verb, I suggest that V° assigns the absolutive case and thematic role to both direct and indirect objects[25]. I propose that both objects receive thematic role and case in the V° complement position (Kayne 1994) and that OV is derived from the movement of one of the objects to Spec,VP. This movement has to be captured in terms of an EPP feature on V°, and not in terms of case-features checking, since both non-fronted direct and indirect objects bear the absolutive case, irrespective of their position (OV and VO). Since only direct and indirect objects can appear in Spec,VP, I propose that this EPP feature can only be satisfied by XPs that receive both case and thematic role from V°. Non-nominal constituents, which receive their thematic role from V° and case from a preposition or from special morphology, are therefore ruled out from Spec,VP.

This hypothesis is confirmed by the example in (37 from Andersen 1991:268), where we see that when one object receives case from a preposition, it appears in VO syntax, i.e. it cannot satisfy the EPP feature associated with V°[26].

(37)   Dhɔ̤̀ɔk   à̤-cɛ̤́ dɛ́k   ɛ̤̀   mà̤aw

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25 Therefore, I consider object case features to be features of V° and not of *v*°.

26 An alternative analysis would be to assume that Spec,VP is a focus position, as in Mòcheno and other languages (cf. below). This account must be rejected on the basis of the fact that *only* direct and indirect objects can appear before the past participle in Dinka, which contradicts ssour understanding of FocusPs.

boy	D-PF	drink	PREP	beer

'The boy has drunk beer.'

The hypothesis that V° is associated with an EPP feature implies that the movement of one of the objects to Spec,VP is fully independent of case assignment, i.e. objects do not move to receive case, as evidenced by the fact that both non-fronted objects and fronted XPs appear in the absolutive case. However, the EPP feature on V° is dependent on case, since only XPs that receive case and thematic role by V° can satisfy it[27].

In the structure in (38), I summarise what we have seen so far, and I also indicate Spec,*v*P, where I propose that the semantic subject is first merged and where the agent theta role is (typically) assigned (cf. Koopman /Sportiche 1991, Kratzer 1996). I also propose that *v*° hosts the auxiliary verb (cf. Müller 2004 among others).

(38)   STRUCTURE 2

The structure in (38) indicates that extraction cannot take place through Spec,*v*P, since this is the A- position where the semantic subject is first merged. I suggest that all extractions must take place through another FP, which sits above *v*P, in the so-called *v*P periphery (cf. Jayaseelan 2001, Belletti 2004)[28]. This FP is an A' position which encodes

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27 Note, that vU&R (to appear) repropose an idea, put forward to account for diachronic language change, that has proved to be very weak, i.e. that there is a connection between OV word order and case (cf. Meillet 1903, Magni 2000 for Latin, Roberts 1996, 1997 for Old English and for an analysis of OV in terms of leftward case-driven movement, and Weerman 1997, Hroarsdottir 2000 and Polo 2004 for a critical discussion). In the analysis offered here, XPs move for EPP reasons, and not to check case features. Crucially, this EPP feature is sensitive to case (as it is sensitive to discourse / semantics in Mòcheno), but this does not imply that XPs move to get case.

28 The assumption of the presence of an extra FP above *v*P allows us to propose an alternative to the multiple Specifiers analysis offered by vU&R's (to appear), and also to integrate semantic subjects into

discourse (topic, wh, focus) features that must be checked by all extracted XPs, in Dinka, as in all other languages. In Dinka, however, extraction through the edge has a morphological effect, which I understand as a second requirement of the double-V2 imposing that a Spec/head configuration is created also in the edge of the lower phase (FP), not only in VP. This second requirement involves finite verb and pragmatic subject (i.e. the XP to be moved to Spec,CP), which receives the absolutive case from, and agree in number with, the finite verb. I suggest that this happens because the auxiliary verb has to raise to F°, where it assigns the absolutive case through number agreement to the constituent in Spec,FP (the pragmatic subject) instead of assigning it to Spec,vP. Therefore, the fronted XP receives the absolutive case from the finite verb *already* in the lower phase, when they establish a Spec/head configuration in FP.

This hypothesis is supported by the phenomenon of *ke* stranding, which I propose is not only a signature of successive cyclicity, but also a signature of absolutive case-assignment to the fronted XP in FP via number agreement. If we consider the example in (39, from vU&R (*to appear*:5)), we see that the fronted XP agrees in number with the finite verb in CP, and that *ke* appears in the lower phase. Therefore, plural agreement between the fronted XP and the verb is marked twice in Dinka, both in the higher and in the lower phase. Since plural agreement is a signature of absolutive case-assignment (cf. section 4.2), I propose that the presence of *ke* in the lower phase indicates that the absolutive is already assigned in FP, and not in CP.

(39) Aléth$_j$ aa-bíi   Cán   ké$_j$ ɣɔ̀c   Bòl   rɔ̀ɔ̀k
      clothes   3PL-FUT.NS   Can.GEN   them   buy   Bol   town
      'Can will buy Bol clothes at the town.'

---

the theoretical account.

Note that this hypothesis allows us to account for the absence of *ke* stranding in CP.

Since the presence of *ke* is *principally* a signature of number agreement between the

fronted XP and the finite verb in the edge of the lower phase (FP), and therefore of

absolutive case-assignment to the XP to be moved to Spec,CP, and only *secondarily* a

signature of cyclic movement, *ke* is not expected to show up in CP. When the fronted

XP and the finite verb have reached CP, in fact, the absolutive case has already been

assigned to the fronted XP via number agreement[29].

I am now in a position to give the derivation of the lower portion of a Dinka sentence

with an extracted plural object (cf. 39 above). I assume that the direct object appears in

Spec,VP and the lexical verb is in V°. The semantic subject is in Spec,*v*P and the

auxiliary verb is in v°. Since the XP to be moved to Spec,CP is the direct object, I

propose that it moves first to Spec,VP to check the low EPP feature, and then to

Spec,FP, where is checks its discourse feature. The auxiliary verb moves to F° to agree

in number with the XP to be fronted; since the extracted XP is plural, *ke* is stranded in

Spec,FP[30].

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29 Note, that the hypothesis defended in this paper that the fronted constituent receives the absolutive

case in the edge of the lower phase (FP) via number agreement with the finite verb allows us to account

for the asymmetries between *ke* stranding in Dinka and quantifier floating in the varieties of Ulster

English discussed by Mc Closkey (2000). In Ulster English, the quantifier *all* can strand in both VP and

CP, whereas in Dinka only VP is involved in *ke* stranding. This asymmetry is accounted for by the theory

offered here, which treats *ke* as morphological evidence for absolutive case assignment to the fronted XP

and not as a signature of cyclic movement. Since the fronted XP receives case in the edge of the lower

phase (FP), and not in CP, it is expected that *ke* stranding only involves the lower phase in Dinka.

Conversely, extraction in Ulster English does not involve case assignment to the extracted constituent:

therefore, the floating quantifier is simply a signature of cyclic movement, and can mark both CP and VP.

(40)   STRUCTURE 3

If the extracted XP is not one of the objects, nothing changes in the structure in (40),

except for the fact that non-nominal XPs cannot move to and through Spec,VP.

To complete the derivation of (39), we have to bear in mind that when it is not fronted,

the semantic subject appears with the genitive case, and the finite verb appears with a

special morphology (NS, cf. section 4.2). Note that in the sentence in (39), the semantic

subject precedes *ke* (assumed to mark the edge, cf. 4.1 and vU&R (*to appear*)). There

are two possible explanations for this. Either we assume that the semantic subject is

generated above the edge, and does not enter the pattern described above, or that is has

moved out of the lower phase before the XP to be fronted has been moved to Spec,FP. I

suggest that the first hypothesis, i.e. that subjects are generated *above* the edge of the

lower phase, is unteneable. As shown in (40, from vU&R *to appear*:23), in fact, fronted

plural subjects strand *ke* in the lower phase. Since *ke* stranding marks the edge of the

lower phase, i.e. it precedes the object appearing in Spec,VP, and fronted subjects strand

ke, it must be concluded that they are generated below FP (in Spec,*v*P).

(41)   Wɔ̰̀ⱼ   bḭ́nnɛ̰́   kéⱼ   [Spec *v*PYécu]   dhḭɛ̀th

       we   FUT.OBL   them   Jesus   be.born

       'Jesus will be born for us.'

Given the data in (41), it has to be assumed that DP subjects are first merged in Spec,*v*P

and then move out of the lower phase to a position that I suggest is Spec,TP. Semantic

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30 Nominal XPs have already received the absolutive case in the complement position of V°. Therefore, I

propose, they simply agree in number with the finite verb in FP and are not assigned case. Following Mc

Closkey (2000), I propose that *ke* is stranded within a complex DP and appears in a Spec position (it is

therefore a weak, not a clitic, pronoun in the sense of Cardinaletti/Starke 1999).

subjects do not move for case reasons to TP, since T° is not a case-assigning position in Dinka: this is why they bear the genitive case (probably given by a silent preposition, cf. van Urk 2014). Therefore, I suggest that semantic subjects move in order to agree with the finite verb in T°, which, as shown in 4.2, displays a special morphology (glossed as NS) when the semantic subject appears in inversion. I propose that this agreement morphology on the verb is checked in syntax through the movement of the finite verb to T° and of the semantic subject to Spec,TP[31]. After moving tto T°, the finite verb moves further to C°[32]. This is illustrated in the structure in (42).

(42)   STRUCTURE 4

We have seen that the Dinka empirical data can be accounted for if we assume the presence of an EPP feature on V°, which can only be satisfied by XPs that receive case and thematic role by V° (i.e. objects), and that the finite verb assigns the absolutive to the XP to be extracted in the edge of the lower phase (FP). In Dinka, therefore, we observe that the double V2 mechanism actually involves two heads: V° and F°, both associated with an EPP feature. The EPP feature on V° forces one of the objects to move to the Spec of the position hosting the past participle, whereas the EPP on F° forces the auxiliary verb to raise and to assign the absolutive case to the XP in Spec,FP.

In the following section, I focus on Mòcheno and propose an analysis which captures

31 Subject movement to Spec,TP does not interfere with extraction through the edge of the lower phase (FP) because the subject moves to an A-position, and FP is assumed in this paper to be an A'-position.

32 In Dinka, therefore, V2 involves V-to T-to C. In the theory proposed here, the fact that Dinka has generalised embedded V2 must be captured in terms of an EPP feature on C°, which forces the finite verb to be adjacent to the pragmatic subject (with which it agrees). In the light of the data discussed in the paper, this adjacence cannot be reached in TP, where the semantic subject bearing the genitive case is found, and must, therefore, necessarily involve CP.

both languages.

4.4 Towards a common analysis of Dinka and Mòcheno

4.4.1 On the double V2 rule

I propose that in both languages V° is associated with an EPP feature which is responsible for the movement of one XP to Spec,VP, and for the distribution of OV/VO word orders. The satisfaction of the low EPP feature has a semantic effect in Mòcheno, where XPs in OV syntax are new-information foci, but not in Dinka. This replicates what we find cross-linguistically in V2 languages at the CP level. As discussed by Holmberg (forthcoming), XP fronting has a semantic effect in some V2 languages, but not in all. Therefore, V2 is a purely formal requirement in some languages, and it is connected with semantics / discourse in others. I suggest that the same happens at the *v*P level in Dinka and Mòcheno: the same syntactic structure and the same syntactic requirement (V2) can be associated with different features in the two languages, i.e. with morphological / case features in Dinka, and with semantic / information structural features in Mòcheno (a language lacking morphological case). Therefore, XP movement to Spec,VP has a semantic effect in Mòcheno, but not in Dinka, where it is a formal case-dependent requirement.

The crucial difference between the two languages, I suggest, is found in the properties of the edge (FP). Dinka has been shown to have an EPP feature on F°, which forces the auxiliary verb to move to F° to assign case to the XP in Spec,FP through number agreement with the finite verb. Therefore, in Dinka, FP is both a case-assigning position and the obligatory extraction site for moved XPs. FP will be shown to be the extraction site for all moved XPs, but to lack an EPP feature on F° in Mòcheno. This means that

the XP in Spec,FP does not have to create a Spec/head configuration with the verb in FP, as it does in Dinka. However, I show that the extracted XP must create a Spec/head configuration in all cases in which a focus is extracted, and that this, crucially, involves movement of the non-finite (and not of the finite, as in Dinka) verb form to F°. This means that the V2 mechanism in VP must be replicated in FP when the focus is extracted, and that past participle movement is a signature of successive cyclicity, just like *ke* stranding in Mòcheno[33].

4.4.2 Proposed structure for Mòcheno

Let us see how the hypothesis sketched in 4.4.1 works. The first idea is that the behaviour of Dinka objects is replicated by Mòcheno new-information foci. I assume that V° assigns thematic role and abstract case to its complement position, and that V° has an EPP feature. Unlike Dinka, the satisfaction of the EPP feature on V° is connected to semantics / discourse in Mòcheno, which implies that Spec,VP is a focus position in the latter[34]. This idea allows us to account for the fact that we can have more than one new-information focus preceding the lexical verb in Mòcheno (whereas only one object can appear in Spec,VP in Dinka). I propose that multiple foci are not derived from the feature-driven leftward movement of each XP to be focussed, but from the remnant movement of the complements of V° to Spec,VP[35]. This is evidenced by the order of verb arguments in broad-focus sentences. As shown in (43), the direct object must

33 Crucially, both *ke* stranding and past participle movement only involve the lower phase, i.e. both involve VP and not CP (contrary to quantifier floating, cf fn 29 above).

34 Unlike Cognola (2013b), I do not assume that TopicPs are present in the lower phase. Cf. sections 2.2 and 3.2 for evidence against such a hypothesis.

35 The complements of V° can be assumed to be found in a recursive VP (cf. Larson 1988), or in a PP (cf. Pesetsky 1995, Harley 2000).

always precede the indirect object.

(43) a. Bos ist tschechen?

'What happened?'

b. Der Mario hòt a puach en de mama kaft ont ar hòt net obegalek

   the Mario has a book to the mum bought

c.*Der Mario hòt en de mama a puach kaft ont ar hòt net obegalek

   the Mario has to the mum a book bought

'Mario bought a book for the mum'

Crucially, the direct – indirect object word order cannot even be switched when both

objects follow the past participle, as in a main interrogative clause, where the objects are

assumed to appear in their base positions (cf. 44 below).

(44) a. Ber hòt kaft a puach en de mama?

   who has bought a book to the mum

b.*Ber hot kaft en de mama a puach?

   who has bought to the mum a book

'Who bought a book for the mum?'

In the light of what we know about V3 word orders in CP in Mòcheno (cf. fn 3), where

no Relativised Minimality effects (Rizzi 1990, 2004) are found between direct and

indirect objects with the same discourse feature (cf. Cognola 2013a), it is surprising that

focussed objects cannot change their relative word order in the lower phase[36]. I suggest

that this follows from the fact that foci do not undergo feature-driven leftward

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36 Relativised Minimality effects are found when object and subject are both fronted, cf. Cognola

(2013a).

42

movement to separate FPs, but undergo remnant movement to Spec,VP[37]. The option of

moving more XPs to Spec,VP is obviously not available in Dinka, where the EPP

feature on V° is connected with case (it can only be satisfied by objects), and XP

movement to Spec,VP does not have any semantic effect.

So far we have seen that VP functions in the same way in Dinka and Mòcheno, with the

only exception being that V° is associated with case in the former language and with

semantics in the latter. Let us now consider the syntax of subjects. As proposed for

Dinka, I claim that semantic subjects are first merged in Spec,vP, and are preceded by a

FP which corresponds to the concrete edge of the lower phase, i.e. the FP through which

all pragmatic subjects have to be extracted. I suggest that the finite verb in v° assigns

both theta role and the nominative case via number agreement to the XP in its Spec

position. This implies that in Mòcheno syntactic subjects do not move to TP (or to FP, as

in Dinka) to receive case, but receive both case and thematic role *in situ* (cf. Cognola

2013a)[38]. This is summarised in (45).

(45)   STRUCTURE 5

Remember (cf. section 2.2) that DP subjects can be focussed in the lower portion of the

clause in Mòcheno. There are three hypotheses to account for this. The first is that

focussed subjects move to the Spec position of a FocP above vP and below FP; the

_____

37 The hypothesis that the focussed XPs preceding the past participle have to move as a remnant allows

to account for the fact that it is not possible to find one focus preceding and one following the past

participle in Mòcheno. This is not the case in Dinka, where one of the objects and the other follows the

non-finite verb form. I thank an anonymous reviewer for pointing this out to me.

38 This mechanism of case assignment is only valid for active sentences in Mòcheno. For passive

sentences, it is plausible that a mechanism such as that assumed for Dinka is at work, i.e. fronted XPs

receive the nominative case from the finite verb in FP, and the semantic subject appears in Spec,vP.

second is that they move to Spec,FP, and the third is that they are focussed *in situ* in Spec,*v*P. I show that the third hypothesis is correct. Let us consider a sentence with broad-focussed subject, direct and indirect objects appearing in the lower portion of the clause (below the adverb *garò*, "just"). As shown in (46), the order of the arguments cannot be changed: the subject must precede the direct and indirect objects. Neither the hypothesis of the presence of a FocP above vP, nor the hypothesis that XPs can be focussed in FP, predict this. In both cases the prediction is that any XP (not only semantic subjects) can be moved to Spec,FocP or Spec,FP, since any XP can be focussed in the lower phase (cf. section 2.2) or can be fronted by moving it through the edge (cf. section 3.2)[39].

(46) a. Bos ist tschechen?

'What happened?'

b. S	hòt	garò	de mama a puach	en Mario	kaft
EXPL	has	just	the mum a book	to Mario	bought

c.*S	hòt	garò	a puach (de mama)	en Mario	(de mama)	kaft
EXPL	has	just	a book the mum	to Mario	the mum	bough

'Mum has just bought Mario a book.'

I take the examples in (46) to indicate that focussed subjects are focussed *in situ* in Spec,vP and focussed verb arguments are in Spec,VP. The past participle remains in V°[40].

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39 Another argument against the hypothesis that *in-situ* focalization of subjects involves Spec,FP comes from the fact that extraction of topics is always possible in the presence of new-information foci in OV syntax. Since all extractions are assumed to involve the edge of the lower phase (FP), Spec,FP cannot host the new-information focus, which must, therefore, appear in another position.

I propose that the structure of the lower portion of the clause proposed for (45) is shared by all sentences in which a topic is extracted, and where, as discussed in section 3.2.1, OV is obligatory and involves new-information foci in the lower phase, as repeated in (47).

(47) En de mama   hòt   der tata   a puach   kaft

      to the mum+top   has   the dad+foc   a book+foc   bought

      'Dad has bought mum a book.'

In the example in (47), the subject is in Spec,*v*P and the object is in Spec,VP. V° hosts the past participle. Topics do not interfere with OV, because they do not need to check any feature before being moved to the edge of the lower phase, and, therefore, they move directly to Spec,FP, and then to Spec,CP along with the finite verb. This is shown in (48).

(48) STRUTTURA 6

Let us consider the derivation of sentences with an extracted operator. Remember that when operators are extracted, VO syntax is obligatory.

(49) En bem   hòt=se   kaft   de mama   (*kaft) s puach (*kaft)?

      To whom   has=SBJ.CL.3SG.F   bought the mum   bought the book bought

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'For whom has mum bought the book?'

As shown in (50), I propose that operators are extracted from the complement position of V° (or from Spec,vP if the fronted operator is the semantic subject), and move cyclically through Spec,VP to reach the edge of the lower phase. I further assume that the past participle moves to the highest head of the lower phase (F°) when a focus is extracted, thus leaving behind both the subject and the object[41]. As discussed above, past participle movement is simply a signature of cyclicity in Mòcheno, and is not connected to case. Once the lower phase is concluded, the focus moves to CP along with the auxiliary verb (not in the structure).

(50)   STRUCTURE 7

The structure in (50) makes two strong predictions. The first is that multiple wh- should be ruled out in Mòcheno, since extracted foci saturate all positions associated with focus. The examples in (51) show that this prediction is borne out[42].

(51)   a.*Bos hòs=o   (ver bem) kaft   (ver bem)?

          what have=SBJ.CL.2SG   for whom bought   for whom

        b.*Ver bem   hòs=o   (bos)   kaft   (bos)?

          for whom have=SBJ.CL.2SG   what   bought what

        'What did you buy for whom?'

The second is that OV word order should not be blocked in yes/no questions, since no operator is extracted from the lower portion of the clause, which means that Spec,VP

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41 Note that the subject in (54) is coindexed with a subject clitic. This is something that cannot be dealt with in this article for reasons of space, cf. Cognola (2013a).

42 Multiple operators are possible when the second is part of a separate elliptical sentence introduced by coordination: Bos hòs=o kaft, ont ver bem?

and Spec,vP are available. As shown in (51), this prediction is borne out.

(52)   Hòt schua de mama as puach kaft?

has already the mum the book bought

'Has the mum already bought s book?'

To sum up, I have shown that the asymmetries between Dinka and Mòcheno follow from a single (parametric) difference between them: F° is a case-assigning head and is associated with an EPP feature in the first, but not in the second language. FP is simply the edge of the lower phase in Mòcheno, i.e. the position through which extractions take place. The past participle has to raise to F° when a focus is extracted, which I consider to be a signature of cyclicity and not the effect of the presence of an EPP feature on F° (otherwise the verb would need to move in *all* sentences).

4.5 Long extraction

Now that we have drawn a profile of the clause structure in the two languages and have accounted for extraction in main clauses, we can discuss long extraction. Remember, that in both Dinka and Mòcheno all long-extracted XPs need empty Spec,CP, whereas long-extracted objects in Dinka, and foci in Mòcheno, need empty Spec,vP through their whole path of movement (i.e. in both main and embedded clauses).

The behaviour of nominal constituent (in Dinka) and foci (in Mòcheno) in embedded clauses is fully predicted by the theory sketched in this section. Long-extracted nominal XPs and foci must move cyclically through Spec,VP in both languages – thus forcing VO syntax. The theory offered above also nicely accounts for the fact that Spec,VP needs to be empty in the matrix clause in Mòcheno: foci move cyclically, and therefore block the possibility of having other foci in the same sentence.

47

Less straightforward is the need to have empty Spec,vP in the matrix clause in Dinka.

In Dinka, long-extracted nominals *also* need empty Spec,VP in the matrix clause: this is

unexpected, given that the EPP feature on V° can be satisfied by one of the objects that

receives both case and thematic role from V°. Since the long-extracted XP has received

case and thematic role in the embedded clause, it is not clear why it can satisfy the EPP

on V° in the matrix clause. Following vU&R (*to appear*), I propose that, in fact, it does

not. VU&R (*to appear*) convincingly show that it is not the long-extracted nominal XP

that satisfies the EPP feature on V° in the matrix clause, but the embedded clause itself

– which is actually merged in the complement position of V°. The embedded clause

moves to Spec,VP and then undergoes extraposition (cf.vU&R (*to appear*:31) for a

complete derivation).

5. Conclusions

In this article, I have outlined the profile of the double V2 rule, investigating it in two

fully unrelated languages that share a strikingly similar syntactic behaviour.

The description of Dinka and Mòcheno, and the common analysis offered here have

allowed to refine vU&R's (*to appear*) theory for Dinka, and Cognola's (2013a,b)

analysis of Mòcheno. This analysis is intended as the first step towards the identification

of what I consider to be a syntactic universal. The empirical facts discussed in the article

are a neat showcase for Universal Grammar, which gives the option that C° and V° are

associated with an EPP feature. As discussed in the article, this property may present in

slightly different ways (i.e. V° is associated with case in Dinka, and with semantics /

information structure in Mòcheno, and F° is a case-assigning position in Dinka, but not

in Mòcheno etc). These are simply parametric differences between languages that share

a common property (double V2).

The challenge for future research is to verify whether the double-V2 rule is found cross-linguistically, and, if so, what properties it displays. As discussed by Cognola (2013b), the double-V2 rule might be expected to occur in languages (or language stages, cf. Old English, Old High German etc.) with mixed OV/VO syntax, since the distribution of the two word orders is the most important diagnostic for V2 in the lower portion of the clause.

References

Adams, Marianne. 1987. Old French, Null Subjects and Verb Second Phenomena. PhD
    dissertation, UCLA.

Alber, Birgit. 2010. Past participles in Mòcheno: Allomorphy and alignment. In *Studies
    on German-Language Islands*, ed. Michael T. Putnam , 33–63. Amsterdam: John
    Benjamins.

Andersen, Torben. 1991. Subject and Topic in Dinka. *Studies in Language* 15-2: 265-
    294.

Andersen, Torben. 2002. Case inflection and nominal head marking in Dinka. *Journal
    of African Languages and Linguistics* 23: 1–30.

Andersen, Torben. 2007. Auxiliary verbs in Dinka. *Studies in Language* 31: 89–116.

Andersen, Torben. 2012. Spatial roles and verbal directionality in Dinka. *Journal of
    African Languages and Linguistics* 33: 143–179.

Bayer, Josef; Jaklin, Kornfilt. 1994. Against scrambling as Move-α. In: Norbert,
    Studies on Scrambling, ed. by Corver, and Henk, van Riemsdijk, 1-15. Berlin:
    Mouton de Gruyter.

Belletti, Adriana. 2004. Aspects of the low IP area. In *The Structure of CP and IP. The
    Cartography of Syntactic Structure, Vol. 2,* ed. by Luigi Rizzi, 16–51. Oxford:
    Oxford University Press.

Benincà, Paola. 1984. Un'ipotesi sulla sintassi delle lingue romanze medievali.
    Quaderni Patavini di Linguistica 4: 3–19. Reprinted in Benincà, Paola. 1994. *La
    Variazione Sintattica*, 177–194. Bologna: Il Mulino.

Benincà, Paola. 2006. A detailed map of the left periphery of Medieval Romance. In

Crosslinguistic Research in Syntax and Semantics. Negation, Tense and Clausal Architecture, ed. by Raffaella Zanuttini, Hector Campos, Elena Herburger, and Paul Portner, 53–86. Washington DC: Georgetown University Press.

den Besten, Hans. 1983. 1983. On the interaction of root transformations and lexical delective rules. In *On Formal Syntax of the Westgermania*, ed. by Werner Abraham, 47- 131. Amsterdam: John Benjamins.

Bhatt, Rakesh Mohan. 1999. *Verb Movement and the Syntax of Kashmiri.* Dordrecht: Kluwer.

Cardinaletti, Anna; Michal, Starke. 1999. The typology of structural deficiency: A case study of three classes of pronouns. In *Clitics in the Languages of Europe. Empirical Approaches to Language Typology*, ed. by Henk van Riemsdijk, 145-s233. Berlin: Mouton de Gruyter.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.

Cognola, Federica. 2008. OV/VO word orders in Mocheno main declarative clauses. *Rivista di Grammatica Generativa* 33: 83–97.

Cognola, Federica. 2010. Word order and clause structure in a German dialect of Northern Italy. On the interaction between high and low left periphery. Doctoral Dissertation, University of Padua. Availabile at <paduaresearch.cab.unipd.it>

Cognola, Federica. 2013a. *Syntactic Variation and Verb Second. A German Dialect in Northern Italy.* Amsterdam/Philadelphia: John Benjamins.

Cognola, Federica. 2013b. The mixed OV/VO syntax of Mòcheno main clauses: On the interaction between high and low left periphery. In *Theoretical Approaches to*

Disharmonic Word Orders, ed. by Theresa Biberauer, and Michelle Sheehan, 106-135. Oxford/New York: Oxford University Press.

Cognola, Federica. 2014a. Scrambling in Mòcheno. Unpublished Ms. University of Trento.

Cognola, Federica. 2014b. On the presence of asymmetric pro-drop in a modern German variety. Pinning down the role of contact in the maintanance of a root-embedded asymmetry. *Submitted*.

Cognola, Federica, and Ermenegildo, Bidese. 2013. Standardizzare la variazione sintattica: ordini OV/VO in mòcheno. To appear in *Introduzione alla linguistica del mòcheno*, ed. by Ermenegildo Bidese, and Federica Cognola. Turin: Rosenberg&Sellier, 105-126.

Cruschina, Silvio. 2006. Informational focus and in Sicilian and the left periphery. In *Phases of Interpretation*, ed. by Mara Frascarelli, 363-385. Berlin: Mouton de Gruyter.

Diesing, Molly. 1997. Yiddish VP order and the typology of object movement in Germanic. *Natural Language and Linguistic Theory* 15: 369-427.

Féry, Carole. 2007. Information structural notions and the fallacy of invariant correlates. In: Caroline, Féry, Gisbert Fanselow & Manfred Krifka (eds.), *The Notions of Information Structure*, 161-184. Potsdam: Universitätsverlag.

Frey, Werner. 2001. About the Whereabouts of Indefinites. *Theoretical Linguistics* 27: 137-161.

Grewendorf, Günther. 2005. The discourse configurationality of scrambling. In *The Free Word Order Phenomenon*, ed. by Joachim Sabel & Mamoru Saito (eds.),

75-135. Berlin & New York: Mouton de Gruyter.

Haegeman, Liliane. 2000. Remnant movement and OV order. In *The Derivation of VO and OV*, ed. by Peter Svenonius, 69–96. Amsterdam/Philadelphia: John Benjamins.

Harley, Heidi. 2002. Possession and the double object construction. In *Linguistic Variation Yearbook 2002*, ed. by Pierre Pica and Johan Rooryck, 31-70. Amsterdam: Benjamins.

Heycock, Caroline. 2006. Embedded root phenomena. In *The Blackwell Companion to Syntax*, Vol. II, ed. by Martin Everaert, and Henk van Riemsdijk, 174–209. Malden MA: Blackwell.

Hinterhölzl, Roland. 2006. *Scrambling, Remnant Movement and Restructuring in West Germanic*. Oxford/New York: Oxford University Press.

Hinterhölzl, Roland. 2009. The role of information structure in word order variation and word order change. In *New Approaches to Word Order Variation in Germanic*, ed. by Roland Hinterhölzl, and Svetlana Petrova, 45–66. Berlin: Mouton de Gruyter.

Homberg, Anders. Forthcoming. Verb second. In press for *Syntax. An International Handbook of Contemporary Syntactic Research*, ed. by Tibor Kiss, and Artemis Alexiadou. Berlin: Walter de Gruyter.

Höhle, Tilman. 1992. Über Verum-Fokus im Deutschen. In: J Jacobs (ed.), *Informationsstruktur and Grammatik*, 112-141. Opladen: Westdeutscher Verlag.

Hulk, Aafke, and Ans, van Kemenade (eds). 1991. *Null Subjects in Diachrony*. Special issue of *Lingua* 89: 1/2.

Hroarsdottir, Thorbjorg. 2000. *Word Order Change in Icelandic: From OV to VO.*
Amsterdam/Philadelphia: Benjamins.

Jayaseelan, Karattuparambil. 2001. IP-internal Topic and Focus phrases. *Studia
Linguistica* 55(1): 39–75.

Kayne, Richard S. 1994. *The Antisymmetry of Syntax.* Cambridge MA: MIT Press.

Koopman, Hilda, and Dominique, Sportiche. 1991. The position of subjects. *Lingua* 85,
211-258.

Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In *Phrase
Structure and the Lexicon,* ed.by Johan Rooryck & Laurie Ann Zaring, 109-137.
Dordrecht: Kluwer.

Krifka, Manfred. 2007. Basic notions of information structure. In Caroline, Féry,
Gisbert Fanselow, Manfred Krifka (eds.), *The Notions of Information Structure*,
13-55. Potsdam: Universitätsverlag.

Larson, Richard K. 1988. On the double object construction. *Linguistic Inquiry* 19(3):
335-391.

Magni, Elisabetta. 2000. L'ordine delle parole nel latino pompeiano: sulle tracce di una
deriva. *Archivio Glottologico Italiano*, LXXXV-I, 3-37.

Meillet. 1903. *Introduction à l'étude comparative des langues indoeuropéennes*. Paris:
Hachette [reprint: 1964, Alabama, University of Alabama Press].

McCloskey, James. 2000. Quantifier float and wh-movement in an Irish English.
Linguistic Inquiry 31: 57–84.

Müller, Gereon. 2004. Verb-second as vP-first. Journal of Comparative Germanic
Linguistics 7: 179–234.

Neeleman, Ad, and Hans van de Koot. 2008. Dutch Scrambling and the Nature of
      Discourse Templates. *Journal of Comparative Germanic Linguistics* 11:137-189.

Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge, MA, The
      MIT Press.

Poletto, Cecilia. 2002. The left periphery of a V2-Rhaetoromance dialect: A new
      perspective on V2 and V3. In *Syntactic Microvariation. Proceedings of the*
      Workshop on Syntactic Microvariation, Amsterdam, August 2000, ed. by Sjef
      Barbiers, Leonie Cornips, and Susanne van der Kleij, 214–242. Amsterdam:
      Meertens Institute. <http://www.mertens.knaw.nl/books/synmic/pdf/poletto.pdf>

Poletto, Cecilia. 2006. Parallel phases: A study of the high and low left periphery of Old
      Italian, In *Phases of Interpretation,* ed. by Mara Frascarelli, 261–294. Berlin:
      Mouton de Gruyter.

Polo, Chiara. 2004. *Word Order Between Morphology and Syntax.* Padova: Unipress

Riedel, Kristina. 2009. The Syntax of Object Marking in Sambaa: A comparative Bantu
      perspective LOT Dissertation Series 213.

Rizzi, Luigi. 1990. *Relativized Minimality.* Cambridge MA: The MIT Press.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of Grammar. A*
      Handbook of Generative Syntax, ed. by Liliane Haegeman, 281–337. Dordrecht:
      Kluwer.

Rizzi, Luigi. 2004. Locality and Left Periphery. In *Structures and Beyond. The*
      Cartography of Syntactic Structures. Volume 3., ed. by Adriana Belletti, 223-
      251. Oxford/New York: Oxford University Press.

Roberts, Ian. 1996. Remarks of the Old English C-system and the Diachrony of V2. In

Language Change and Generative Grammar, ed. by Ellen Brandner and Gisella Ferraresi, 154-167, *Linguistische Berichte,* Sonderheft 7.

Roberts, Ian (1997). Directionality and word order change in the history of English. In *Parameters of Morphosyntactic change,*ed. by Ans van Kemenade and Nigel Vincent, 423-460, Cambridge: Cambridge University Press.

Rowley, Anthony. 2003. *Liacht as de sproch: grammatica della lingua mochena*. Palù del Fersina: Pubblicazioni dell'istituto mòcheno di cultura.

Togni, Lucia. 1990. Per un'analisi di alcuni fenomeni linguistici del dialetto della Valle del Fersina: Un confronto con la sintassi tedesca. MA thesis, University of Trento.

Tomaselli, Alessandra. 1990. *La sintassi del verbo nelle lingue germaniche.* Padova: Unipress.

Urk, Coppe van. 2014. On the relation between C and T, A' -movement, and "marked nominative" in Dinka. Abstract for GLOW 37.

Urk, Coppe van, and Norvin, Richards. To appear. Two components of long-distance extraction: Successive cyclicity in Dinka. To appear in *Linguistic Inquiry*.

Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford/New York: Oxford University Press.

Willis, David. 2011. The limits of resumption in Welsh *wh*-dependencies. In *Resumptive pronouns at the interfaces*, ed. by Alain Rouveret, 189-222. Amsterdam/ Philadelphia: John Benjamins.

van der Wal, Jenneke. 2006. The disjoint verb form and an empty immediate after verb position in Makhuwa. ZAS Papers in Linguistics 43:233–256.
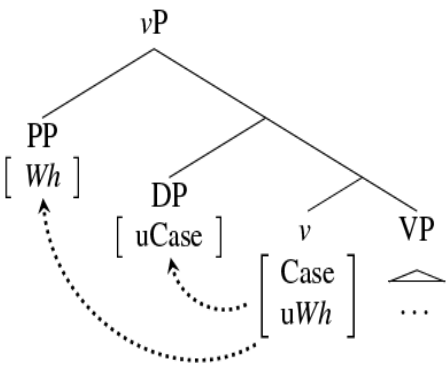
Weerman, Fred. 1997. On the relation between morphological and syntactic case. In

Parameters of Morphosyntactic change, ed. by Ans van Kemenade and Nigel

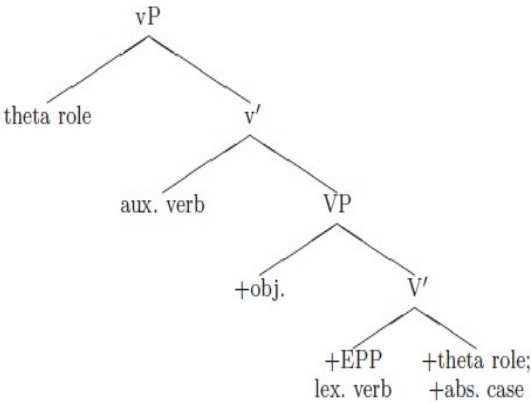Vincent. Cambridge: Cambridge University Press, 427-459.

Table 1

Summary of the properties shared by Dinka and Mòcheno

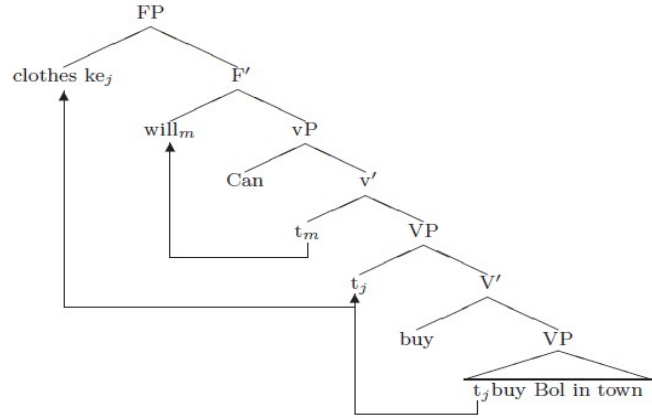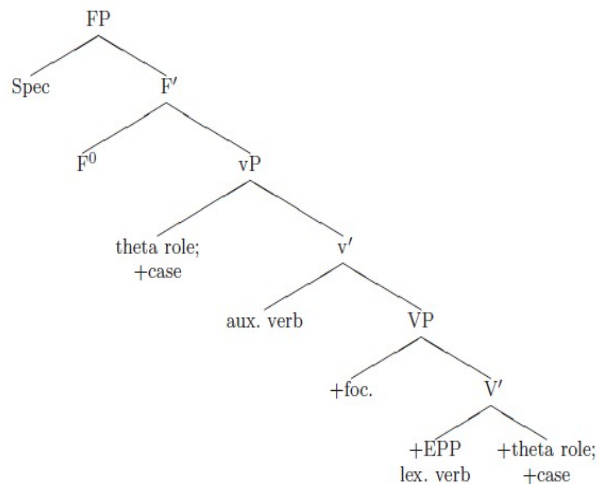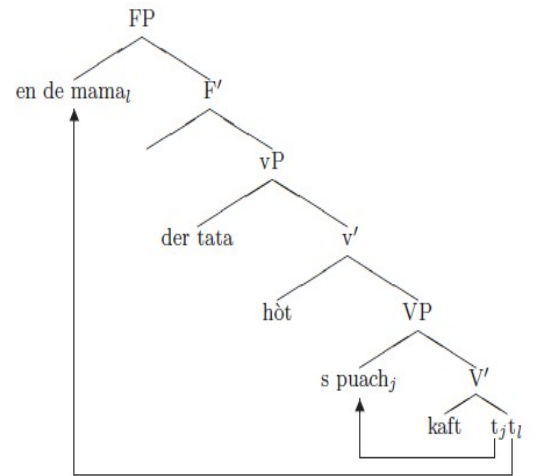|	Dinka nominals	Mòcheno operators	Dinka non-nominals	Mòcheno topics
Be in Spec,CP	√	√	√	√
Be in Spec,vP	√	√	*	*
Need empty Spec,vP	√ [ke]	√	* [ke]	*
Need empty Spec,CP	√	√	√	√

Structure 1

Structure 2

Structure 3

Structure 4

Structure 5

FP
├─ Spec
└─ F′
   ├─ F⁰
   └─ vP
      ├─ theta role; +case
      └─ v′
         ├─ aux. verb
         └─ VP
            ├─ +foc.
            └─ V′
               ├─ +EPP lex. verb
               └─ +theta role; +case

Structure 6

FP
├─ en de mama_l
└─ F′
   └─ vP
      ├─ der tata
      └─ v′
         ├─ hòt
         └─ VP
            ├─ s puach_j
            └─ V′
               ├─ kaft
               └─ t_j t_l

Structure 7

FP
├─ en bem_k
└─ F′
   ├─ kaft_m
   └─ vP
      ├─ de mama
      └─ v′
         ├─ hòt
         └─ VP
            ├─ t_k
            └─ V′
               ├─ t_m
               └─ s puach t_k