On successive cyclicity in Dinka

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1. The issue

(1) *Successive cyclicity*
The idea that movement proceeds in steps (Chomsky 1973, 1986, 2001)

(2) *Local domains*
Currently: **phases** (CP, vP)

(3) Stepwise movement via the **edge** of a phase (Spec,CP and Spec,vP)

(4) *Van Urk & Richards (LI 2015), Van Urk (MIT diss 2015)*
"Clear evidence for stepwise movement in Dinka" (W Nilotic)

2. Dinka

(5) *Affiliation*
Nilo-Saharan > Eastern Sudanic > Nilotic > Western Nilotic
related languages: Nuer, Anuak (Anywa), Luo (Dholuo), Acholi, Lango, Shilluk

(6) *Sources*
Dinka: series of articles by Torben Andersen, fieldwork by Van Urk (emigrant comm.), reference grammar Nebel 1948
related lgs: reference grammars (Nuer: Crazzolara 1933, Anuak: Reh 1996, Luo: Tucker 1994, Acholi: Crazzolara 1955, Lango: Noonan 1992, Shilluk: Kohnen 1933)
W Nilotic: Tucker and Bryant 1966:402-442

(7) *Dinka*
macrolanguage (South Sudan), varieties i.a. Agar (DIB, Andersen), Bor (DKS, Van Urk), Rek (DIK, Nebel) [difference: only Bor has a special adjunct inversion marker]

3. Key properties

(6) *wh-in-situ language*
ŋɔ́r cɛ̱́ ŋɔ̱́ kuɛ̱̀ɛn ? (Dinka, Van Urk & Richards 2015:118)
Ngor PERF what read:INF 'What did Ngor read?'
also Crazzolara 1933:81f on Nuer, Crazzolara 1955:96 on Acoli, Kohnen 1933:71 on Shilluk, Tucker 1994:186 on Luo, Noonan 1992:173 on Lango, Reh 1996:428 on Anuak

(7) *attributive clause (Reh 1996:402)*
a. clause that functions as a modifier
b. modified element: open position
c. modified element/open position must be the most prominent element > inversion
d. inversion marker on the verb indicates the role of the modified element (S,O,adjunct)
e. inverted subject in dependent case (GEN)

(8) *relative clause: modified element in construct state, no relative pronoun*

a. **jo̱ŋ cé̱ mɛ̱̀th cä̱am** (subject relative)
dog:CS PERF child eat:INF
'the dog which has bitten the child'

b. **mä̱nh cɪ̈i jɔ̱̀ŋ cä̱am** (object relative)
child:CS PERF:INV dog:GEN eat:INF
'the child whom the dog has bitten' (Dinka, Andersen 1991:289)

(9) *declarative clause: modified element unmarked, declarative marker*

a. **jo̱ à-cé̱ mɛ̱̀th cä̱am** (subject initial clause)
dog DECL.3SG-PERF child eat:INF
'the dog has bitten the child'

b. **mɛ̱̀th à-cɪ̈i jɔ̱̀ŋ cä̱am** (object initial clause)
child DECL:3SG-PERF:INV dog:GEN eat:INF
'the child, the dog has bitten' (Dinka, Andersen 1991:289)

(10) *cleft interrogative: modified element unmarked, no declarative marker (relative clause)*

a. **ye ŋó̱ cé̱ mɛ̱̀th cä̱am ?** (interrogative subject cleft)
COP what PERF child eat:INF
'who has bitten the child?'

b. **ye ŋó̱ cɪ̈i ŋɔ́r kuɛ̱̀ɛn ?** (interrogative object cleft)
COP what PERF:INV Ngor read:INF
'What did Ngor read?'

(11) *number agreement*

a. modified element > declarative marker (3SG/PL opposition)
jɔ̱̀k áa-cé̱ **mɛ̱̀th cä̱am** (cf. (9a))
dog:PL DECL.3PL-PERF child eat:INF
'the dogs have bitten the child'

b. modified element > finite verb (in nondeclaratives)(number opposition)
ye kɔ̱̀c-kó **é̱-kè-thɛ̱̀t ?**
COP man:PL-Q:PL PAST-PL-cook
'Which people were cooking?' (Dinka, Van Urk 2015:104)

b. modified element = plural nonsubject > ***ké***
miɛ̱̀r áa-càa **ké** **tɪ̈iŋ**
giraffe:PL DECL:3PL-PERF.1SG PL see:INF
'the giraffes, I have seen' (Dinka, Van Urk 2015:103)

3. The argument for successive cyclic movement

(12) *doesn't look promising*

a. wh-in-situ language
b. general modified element—attributive clause organization ('base generation')
c. modified element unmarked (even when adjunct/PP), triggers agreement (A-properties)

(13) *Relation between modified element and position in the attributive clause*

a. modified element is interpreted as having a position in the attributive clause
b. reconstruction effects (reflexive binding, though not variable binding)
c. relation blocked with islands (adjunct clause/relative clause inside attributive clause)

(14) *Complex attributive clause: inversion all the way*

a. **ye ŋǫ́ yụ̀ụkụ̀ luêeel ɛ̀ cí̱i Bôl câam ?**
COP what AUX.PL say:INF C PERF:INV Bol:GEN eat:INF
'What do we say Bol has eaten?'

b. * **ye ŋǫ́ yụ̀ụkụ̀ luêeel ɛ̀ Bòl cɛ̱́ câam ?**
COP what AUX.PL say:inf C Bol PERF eat:INF (Van Urk 2015:133)

(15) *Complex attributive clause: multiple agreement*

wɔ̀ɔk yí̱i Bôl ké luêeel ɛ̀ ɛ̱́-kè-lɛ́ɛt Áyèn ké
we AUX:INV Bol:GEN 3PL say:INF C PAST-PL-INSULT:INV Ayen:GEN 3PL
'Us, Bol said Ayen was insulting.' (Van Urk 2015:135)

(16) The fronted element (modified element) has
a. A-properties (unmarked case, triggers agreement, no reconstruction for variable binding)
b. A'-properties (reconstruction for binding, island effects, perpetuation of A-properties)
> leading Van Urk (2015) to propose that fronting is triggered by a **composite (A/A') probe**

4. About these arguments

(17) It is evident that the modified element 'belongs' in the attributive clause
> does that entail movement?

(18) Dat zijn foto's van **zichzelf** zoals **Jan** ze niet meer maakt
those are pictures of himself like John them not anymore makes
'Those are pictures of himself like John never makes them anymore.' (Koster, p.c.)

(19) *island sensitivity*

* .. foto's van zichzelf zoals ik aankwam nadat Jan ze gemaakt had
pictures of himself like I arrived after John them made

* .. foto's van zichzelf zoals ik vroeg wanneer Jan ze gemaakt had
pictures of himself like I asked when John them made

(20) the locality effects are general dependency effects, not indicative of movement

(21) *complex attributive clauses*
> Reh (1996:402) on multiple attributive clauses in Anuak:
*Modifiers which are preceded by some other modifiers do not specify their own function but **repeat the specification of the first modifier** in the attributional sequence*

(21) Since complex attributive clauses in Dinka show the pattern described by Reh (1996), the consistent inversion and agreement suggests coordination instead of subordination

(22) If so: base generated modified element with one or more attributive clauses
(see Van Urk 2015:197 for an argument against this, based on the distribution of *ké* = partial copy-spellout)

5. Base generation

(23) ditransitives in Dinka show two orderings (Van Urk 2015:148):
a. IO-V-DO b. DO-V-IO

(24) Bound variable binding is always left > right, leading Van Urk (2015:151) to conclude that both orders are base-generated.

(25) *Modified element also binds variables in the attributive clause*

dhụ̀k	**ḛ́bḛ́n**	**à-yḭ́i**	**thɔ̰́k-dè**	**kaâc**
boy	every	DECL:3SG-PERF:INV	goat:CS-SG:3SG	bite:INF

'Every boy, his goat bit.' (Van Urk 2015:110)

(26) If the reasoning is valid for ditransitives, then also for 'fronting' > base-generation

(27) *Long-distance dependency: always inversion marking in the highest clause*

yè	**kɔ̰̀oc-kó**	**ḛ́-kè-yḭ́i**	**Bôl**	**ké**	**luêeel**	**ḛ̀**	**ḛ́-kè-cèk**	**?**
COP	man:PL-Q:PL	PAST-PL-AUX:INV	Bol:GEN	3PL	say:INF	C	PAST-PL-be.short	

'Which people did Bol think were short?'

(28) This suggests that the attributive clause is a direct dependent of the modified noun
"Who are the people, such that Bol thought <of them> that they were short?"
(similar to a prolepsis analysis)

(29) test: long distance adjunct 'extraction' should give object (not adjunct) inversion (correct)

yé	**tenô**	**cḭ́i**	**Yâạ̀ar**	**lḛ̀k**	**Dɛ̀ŋ**	**yè**	**cḭ́i**	**Bôl**	**Ayén**	**tuɔ̀ɔc**	**?**
COP	where	PERF:INV	Yaar:GEN	tell:INF	Deng	C	PERF:INV	Bol	Ayen	send:INF	

'Where did Yaar tell Deng that Bol sent Ayen?'

6. Evidence for successive cyclic movement through Spec,vP

(30) *Explains unexpected word orders under extraction*

1. (some ditransitives) *IO-V-DO but with extraction IO ... V-DO
2. this suggests (GB-style): DO-V-IO > V-DO-IO > IO-V-DO > IO ... *t*-V-DO
3. conclusion: there is V2 in vP
4. trace "satisfies V2"
   - > preverbal position empty with object extraction (= trace) [evident with ditransitives]
   - > also with causative agent in causative constructions (after the verb w. extraction)
   - > not with adjuncts, though (Adj ... DO-V)

(31) *Adjuncts trigger no "vP-V2" locally, but they do in the higher clause*

a.

yé	**tenô**	**cénnḛ̀**	**Bôl**	**Dɛ̀ŋ**	**tuɔ̀ɔc**	**?**
COP	where	PERF:INV.OBL	Bol:GEN	Deng	send:INF	

'Where did Bol send Deng?'

b. *

yé	**tenô**	**cḭ́i**	**Yâạ̀ar**	**Dɛ̀ŋ**	**lḛ̀k**	**yè**	**cḭ́i**	**Bôl**	**Ayén**	**tuɔ̀ɔc**	**?**
COP	where	PERF:INV	Yaar:GEN	D.	tell:INF	C	PERF:INV	Bol	Ayen	send:INF	

'Where did Yaar tell Deng that Bol sent Ayen?' (cf. (29))

(32) Van Urk & Richards (2015): CP is in Spec,vP, but spelled out to the far right
- > internally inconsistent, assuming that V2, too, is a linearization effect at Spell-Out (cf. Van Urk 2015:263)

(33) Alternative: attributive clauses show leftward shift of the lexical verb, but there is no general V2-constraint operative inside vP
- > (31b) shows that the adjunct is treated as a entity that the attributive clause modifies suggestive of the prolepsis approach to long-distance dependency