

vP as a phase – evidence from Dagbani¹

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1. Introduction

- Phase theory (Chomsky 2000, 2001, 2008) establishes CP and vP as phases.
- There is a lot of evidence for cross-linguistic phasehood of CP. At the same time, evidence for vP as a phase (i) is less easy to find, (ii) appears to be language dependent.
- evidence for the cyclic nature of vP (e.g. Citko 2014, Gallego 2010, but see Keine & Zeijlstra 2022)

- intermediate pronunciation, e.g. *ke* stranding in Dinka (van Urk & Richards 2015: 128)

- (1) [CPYe ŋa₁ ye [vP ke₁ taak [CP cii Bol [vP ke₁ [VP ___₁ tiŋ]]]]]
is who HAB.SG PL think PRF.NS Bol.GEN PL see
'Who_{PL} do you think Bol saw?'

- intermediate interpretation, e.g. intermediate reconstruction to vP edge (Fox 1999:174)

- (2) [Which of the papers that he_i asked Ms. Brown_j for] did every student_i [vP ✓_i get her_i to grade *]
grade *]

- intermediate licensing, e.g. Dinka, where preverbal position must be occupied (van Urk & Richards 2015: 122)

- (3) a. yêɛn ce. [vP kítáp [VP yiɛ̃n Ayén]]
I PRF book give Ayen
'I gave Ayen a book.'
b. Yeŋa₁ cíj m̄ɔc [vP ___₁ [VP ___₁ yiɛ̃n kítáp]]
who PRF.NS man.GEN give book
'Who did the man give the book to?'

- evidence for a left periphery of the vP: topic phrases in Tagalog (Mursell 2021, Mursell & Tan 2019)

Aims of the talk: establish vP as a phase in Dagbani by (i) arguing for low focus phrases, hence a vP periphery; (ii) adding an argument of intermediate licensing at vP.

- Dagbani
 - Mabia language from the Niger Congo language family
 - spoken in Northern Ghana, 3.160.000 speakers (Wikipedia)

¹ I thank the DFG for grant HA2343/1 supporting the research on the vP-periphery in the Mabia languages. For more information, see <http://mabia-vp.com/tiki-index.php?page=Welcome!>

2. Focus marking at the phasal peripheries

2.1 High focus projections

- Rizzi (1997): topic-focus system in the left periphery of the clause

- (4) a. Your book, you should give to Paul. *topic*
b. YOUR BOOK, you should give to Paul. *focus*

(5) *Italian*

Credo que a Gianni, QUESTO, domani gli dovremmo dire.
I.believe that to Gianni this tomorrow him should say
,I believe that to Gianni, THIS, tomorrow we should say.'

- (6) [_{ForceP} [_{TopP} [_{FocP} [_{TopP} [_{FinP}

- Aboh (1998): evidence from Gungbe for overt heads of focus projections, in support of Rizzi (1997)

(7) *Gungbe*

a. Séná xiá wémà ló.
S. read.PFV book DEF
'Sena read the book.'

b. SÉNÁ wɛ̀ xiá wémà ló.
Sena FOC read.PFV book DEF
'SENA read the book.'

c. Wémà ló wɛ̀ Séná xiá.
book DEF FOC Sena read.PFV
'Sena read THE BOOK.'

- Aboh's observation initiated a lot of research on similar phenomena, especially in African languages; cf. Hartmann & Zimmermann (2007) on Hausa, Schwarz (2007) on Kikuyu, Frascarelli & Puglielli (2007) on Somali, Abels & Muriungi (2008) on Kĩĩtharaka, Hartmann & Zimmermann (2012) on Bura, Amaechi & Georgi (2019) on Igbo, Hartmann (2013) on South Marghi etc.

- (8) [_{ForceP} [_{TopP} [_{FocP} **FOC** [_{TopP} [_{FinP}

2.2 Unmarked in situ focus

- Apart from ex situ focus, focus may be also be realized in situ.
- This insight is not very spectacular for intonation languages like German or English, where in situ focus is the norm.
- In intonation languages, situ focus is marked by the nuclear pitch accent, which may project (Selkirk 1995, Schwarzschild 1992).

(9) John is watering his GARDen.

- a. John is watering [_{DP} his GARDen]_{FOC}
b. John is [_{VP} watering his GARDen]_{FOC}

- In many African languages, non-subject focus in questions and answers may also be expressed in situ, as shown by the following question-answer pair from Akan (Kwa), see Saah (1994).

(10) *Akan*

- a. Q: **Hena** na wo-huu no? A: **Adwoa** na me huu no. *ex situ*
 who FOC you-saw 3SG/ANIM Adwoa FOC I saw her
- b. Q: Wo huu **hena**? A: Me hu **Adwoa**. *in situ*
 you saw who I saw Adwoa
 ‘Who did you see?’ ‘I saw ADWOA.’

- In situ focus shows canonical word order and often no further indications of focus (morphology, stress etc.), see (11) from Hausa (Jaggar 2001, Hartmann & Zimmermann 2007):

(11) *Hausa*

- A: **Naiɾàa àshìrìn** zaa kà biyaa in yaa yi makà. (HB 3.03)
 naira twenty FUT 2SG pay if 3SG do for.you
 ‘It is TWENTY NAIRA that you will pay if he makes it for you.’
- B: A’a, zân biyaa **shâ biyaɾ** nèe.
 no FUT.1SG pay fifteen PRT
 ‘No, I will pay FIFTEEN.’

- Similar typological patterns are widespread across the languages of West Africa (e.g. Ameka 2010, Hartmann & Zimmermann 2007, 2012, Zimmermann & Onea 2011, Issah 2020, Bickel & Sonaiya 2000), and beyond.
- Unmarked focus represents a challenge to most focus theories due to the lack of a marked focus exponent.

2.3 The low IP-area: Belletti (2004)

- vP is a phase with an articulated left periphery:

(12) [_{ForceP} [_{TopP} [_{FocP} [_{TopP} [_{FinP} [_{IP} ... Rizzi (1997)

(13) ... [_{TopP} [_{FocusP} [_{TopP} [_{vP} ... Belletti (2004, Mursell 2021)

- Postverbal subjects express new information focus in Italian:

(14) *Italian*

- Q: Chi ha parlato? A1: Ha parlato Gianni.
 who has spoken A2: #Gianni ha parlato.

- Postverbal subjects are below certain adverbs:

- (15) a. ?Spiegherà completamente **Maria** al direttore.
 explain.FUT completely M. to.the director
 ‘Maria will explain (it) completely to the director.’
- b. *Spiegherà Maria completamente al direttore.

(16) [_{IP} pro [_I spiegherà [_{FocP} completamente [_{FocP} **Maria** [_{vP} ~~Maria~~ spiegherà [_{PP} al direttore]]]]]]

- No overt movement to the vP periphery in Hausa:

(17) *Hausa*

Sun sayoo wà Muusaa wàndoo. (Newman 2000: 276)
 they.PFV buy for Musa trousers
 ‘They bought trousers for Musa.’

(18) a. Q: Who did they buy trousers for? (elicited data)

A1: Sun sayoo [_{vP} wà Muusaa wàndoo].

b. Q: What did they buy for Musaa?

A1: Sun sayoo [_{vP} wà Muusaa wàndoo].

A2: *Sun sayoo [_{vP} wàndoo wà Muusaa].

- Analysis of (emphatic) ex situ focus (19A):

(19) *Hausa*

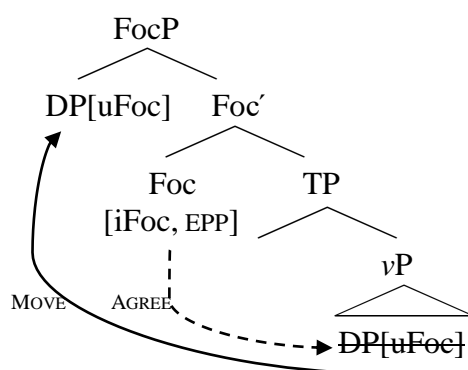
A: **Naiřaa àshìřin** zaa kà biyaa in yaa yi makà. (HB 3.03)
 naira twenty FUT 2SG pay if 3SG do for.you
 ‘It is TWENTY NAIRA that you will pay if he makes it for you.’

B: A’a, zân biyaa **shâ biyař** nèe.
 no FUT.1SG pay fifteen PRT
 ‘No, I will pay FIFTEEN.’

(20) a. [[(19A)^f]] = λP.∃x ∈ ALT(20 naira) & P = you will pay x

b. conversational implicature: 20 naira is a candidate that is unlikely to satisfy P (subjective speaker evaluation of alternatives)

(21) ex situ focus syntax



- Analysis of in situ focus

(i) New information focus (e.g. after an unmarked wh-question)

(22) *Hausa*

Q: How much will you pay? A: Zân biyaa **shâ biyař**.
 FUT.1SG pay fifteen
 ‘I will pay FIFTEEN.’

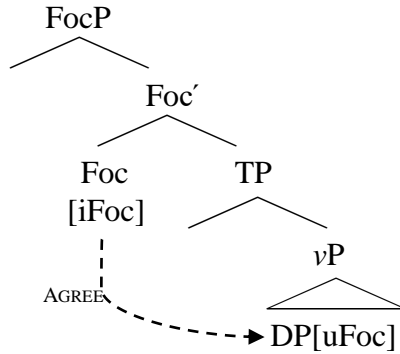
(23) $[[[(22A)^f]]] = \lambda P. \exists x \in \text{ALT}(15 \text{ naira}) \ \& \ P = \text{I will pay } x \text{ (open set interpretation)}$

(ii) Contrastive focus in the context of (19A):

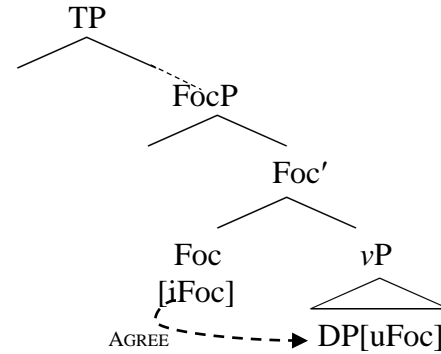
(24) $[[[(19B)^f]]] = \lambda P. \exists x \in \text{ALT}(15 \text{ naira}) \ \& \ P = [\text{I will pay } x] \ \& \ P \neq [\text{I will pay exactly 20 N}]$
(contrastive interpretation)

(25) in situ focus syntax (e.g. Mursell 2021)

a. high agreement



b. low agreement



2.4 Marked in situ focus in Dagbani

- Mabia languages (Niger Congo, Northern Ghana and bordering regions) provide evidence for overt low focus markers.
- Dagbani has ex situ and in situ focus strategies.
- Ex situ wh / focus is marked by the subject focus marker *n* or the non-subject focus marker *ka*, both heading the high FocP.

(26) Q: **Dùní** n̄ tú-rí má?
who FOC insult-IPFV me
'Who is insulting me?'

A: **Bání** n̄ tú-rí má.
3PL FOC insult-IPFV me
'THEY are insulting me.'

(27) Q: **Dùní** ká bé tú-rá?
who FOC 3PL insult-IPFV
'Who are they insulting?'

A: **Mání** ká bé tú-rá.
1SG FOC 3PL insult-IPFV
'They are insulting ME.'

- In situ wh / focus is marked by the marker *lá*.

(28) *object focus* (Issah 2020: 115)

Q: Napari dá lá bò?
Napari buy.PFV FOC what
'What did Napari buy?'

A: Napari dá lá búá.
Napari buy.PFV FOC goat
'Napari bought A GOAT.'

(29) *adverbial focus* (Issah 2020: 181)

Q: Ò chán **yà**?
3SG go.PFV where
'Where has s/he gone?'

A: Ò chán là daa.
3SG go.PFV FOC market.
'S/he has gone TO THE MARKET.'

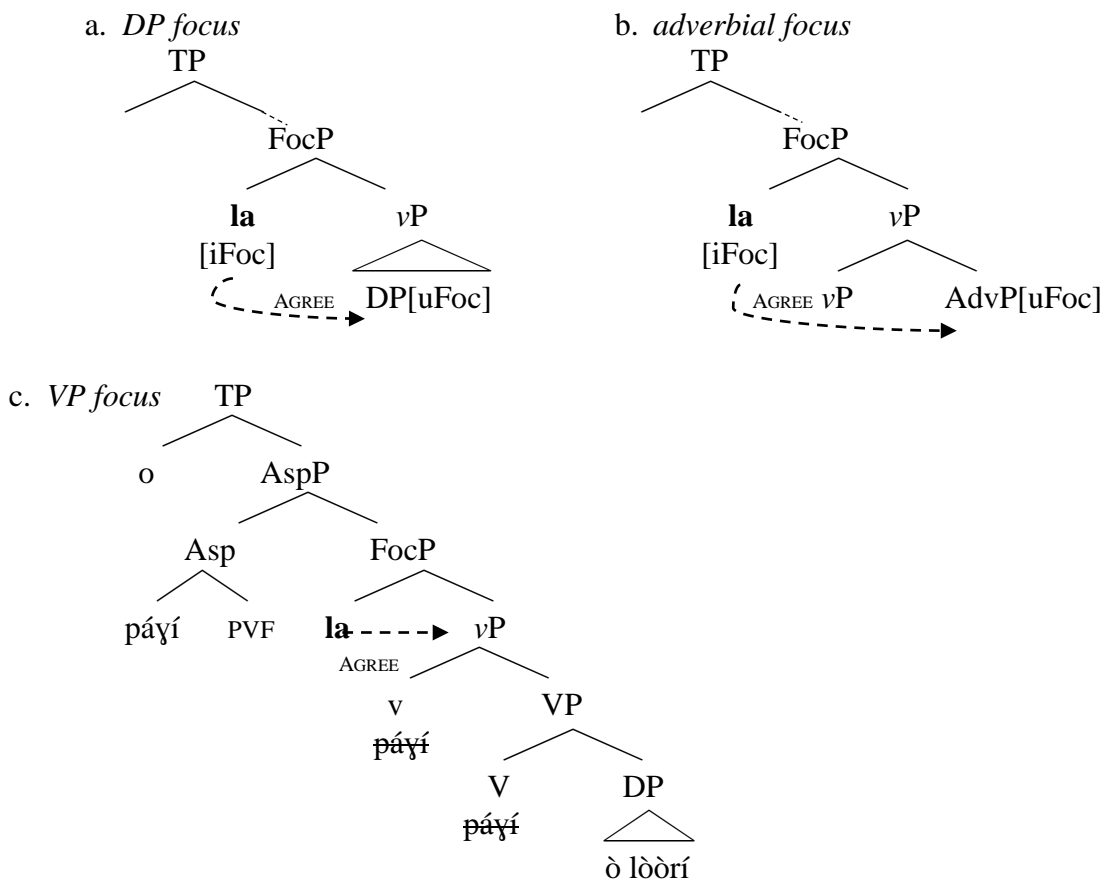
(30) *VP focus* (elicited data)

Q: Ò níŋ **bò**?
3SG do.PFV what
'What did he do?'

A: Ò **páyí** lá ò lòòrí.
3SG wash.PFV FOC 3SG car
'He WASHED HIS CAR.'

- *la* is a low focus marker agreeing with the in situ focus

(31) in situ focus: low agreement



- Subjects can only be focused ex situ since the default position of subjects is SpecTP.

Interim summary:

- Apart from ex situ focus marking, Dagbani marks focus also in situ (choice is pragmatically driven).
- In situ focus is marked by the particle *la* in FocP.
- This is evidence for a structured left periphery of *vP*, indicating its phasehood.

3. Dagbani verbal morphology

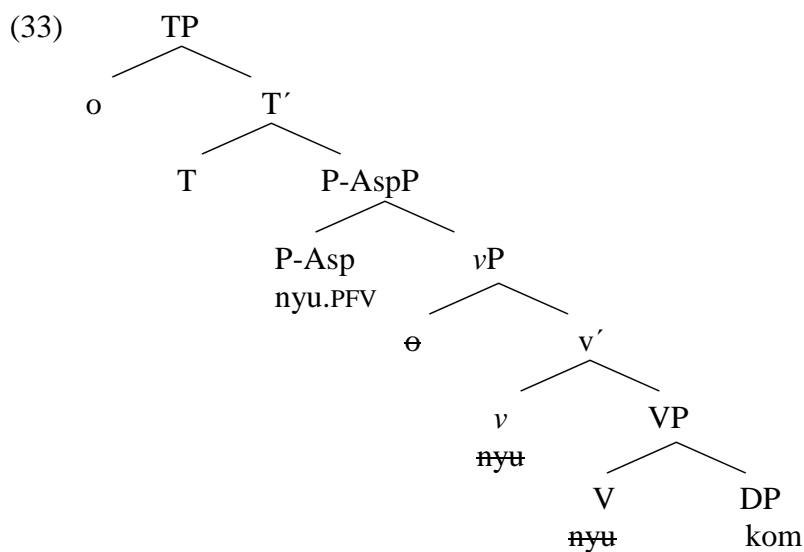
3.1 Perfective aspect

- transitive verbs

(32) O nyu kom.
 3SG drink.PFV water
 ‘He drank water.’

Assumptions:

- The perfective aspect is morphologically unexpressed.
- The verb moves to the head of the perfective AspP for perfective interpretation.



- intransitive verbs

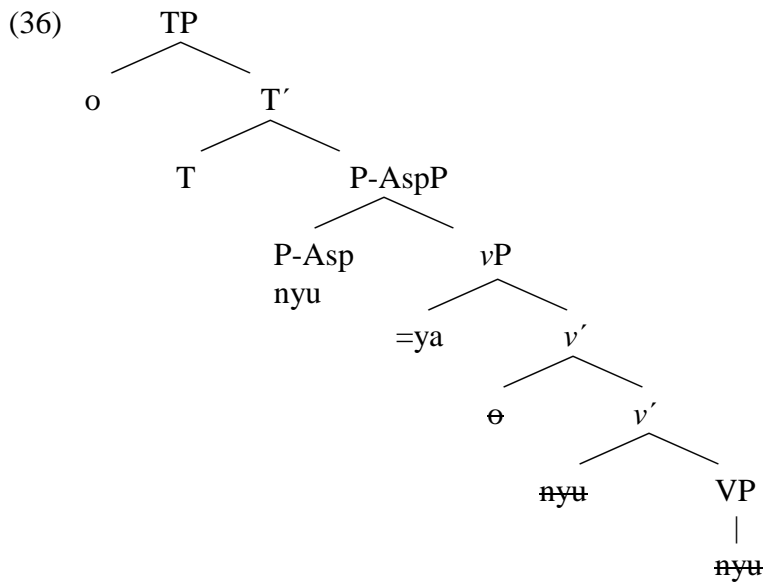
(34) O nyu=**ya**.
 3SG drink.PFV=**A**
 ‘He drank.’

- Presence of =*ya* is reminiscent of conjoint / disjoint marking systems, better known from Bantu languages (Hyman & van der Wal 2017), e.g. Kirundi (Nshemezimana & Bostoen 2017).

(35) Ehe ntaa co turiiyé, turanyóoye gusa.
 ehe ntaa ki-ó tu-rí-ye^H tu-∅-ra-nyó-ye gusa
 so NEG.COP 7-REF 1PL.SM-eat-PFV.REL 1PL.SM-PRS-DJ-drink-PFV only
 ‘So, there is nothing that we eat, we DRINK ONLY.’

Assumptions:

- The verb-adjacent phrase, vP in (34) must contain phonetically overt material (cf. Buell 2005, 2006 on Zulu)
- If vP is empty, merge =*a* in the outer specifier of vP (=ya after vowels and the labial and velar nasals)



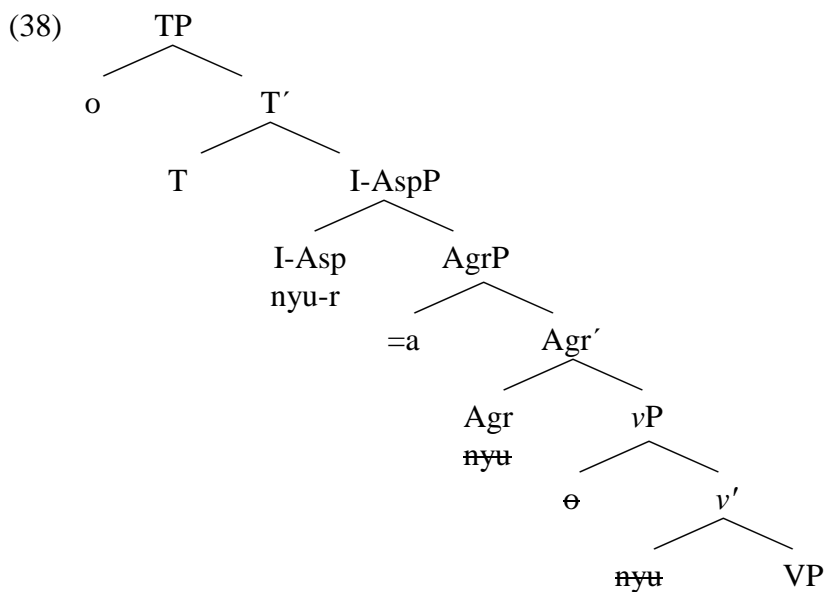
3.2 Imperfective aspect

- intransitive verbs

(37) O nyu-r=a.
 3SG drink-IPFV=A
 'He is drinking.'

Assumptions:

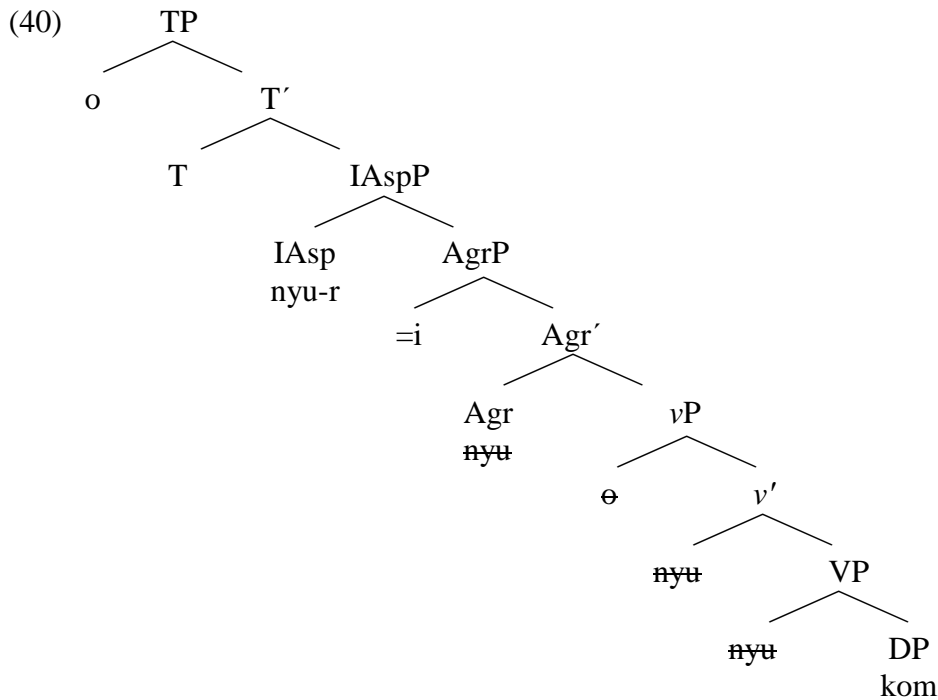
- The imperfective aspect is overtly marked by *r* (or allomorphs *t*, *d*, *n*)
- The imperfective is more complex than the perfective in that it embeds an AgrP (cf. Aboh 2004, 2009).
- The specifier of AgrP must be overt.
- Given that the sister constituent to I-Asp, AgrP, does not have overt content in (37), the specifier is occupied by =*a*.
- If the conditions for merging =*a* are not met, merge =*i*.



- transitive verbs

(39) O nyu-r=i kom.
 3SG drink-IPFV=I water
 ‘He is drinking water.’

- Since the licensing conditions for =a are not met in (39), the marker =i is merged in SpecAgrP.



- =i and =(y)a do not mark transitivity

- adverbials trigger =i

(41) Páyí-bá dèm-d=í / *dèm-d-á kpè.
 woman-PL play-IPFV=I / play-IPFV=A here
 ‘The women played here.’

- intransitive verb focus is marked by the particle *mi* (instead of *la*), which triggers =i in SpecAgrP

(42) Q: Bò kà á níŋ-d=í sáhá ŋò? Á kárín-d=í mí bée
 what FOC 2SG do- IPFV=I time DEM? 2SG read-IPFV=I FOC or
 á dí-r-í mí?
 2SG eat-IPFV=I FOC
 ‘What are you doing right now? Are you reading or are you eating?’
 A: N dí-r-í mí.
 1SG eat-IPFV=I FOC
 ‘I am eating.’

3.3 Adverbials

3.3.1 Adverb positions in German (Frey 1993, Frey & Pittner 1998, Pittner 2004)

- directional (43) and locative (44) adverbials appear low in the clause:

(43) a. Sie ist nicht [PP nach München] gegangen.
she is NEG to Munich gone
'She hasn't gone to Munich.'

b. *Sie ist nach München nicht gegangen.

(44) Er hat das Auto [PP in der GaRAge] abgestellt.
he has the car in the garage parked
'He parked the car in the garage.'

- temporal adverbs are higher in the German clause

(45) Hans hat [PP am Montag] in seiner Wohnung den FUßboden geschrubbt.
John has on Monday in his apartment the floor cleaned
'On Monday, Hans cleaned the floor in his apartment.'

3.3.2 Adverb positions in Dagbani

- all adverbials in Dagbani appear in right-adjoined position
- locative adverbials: verb=*a* excluded in both aspects

(46) a. Páyí-bá dèm-d=í / *dèm-d=á kpè.
woman-PL play-IPFV=I / play-IPFV=A here
'The women are playing here.'

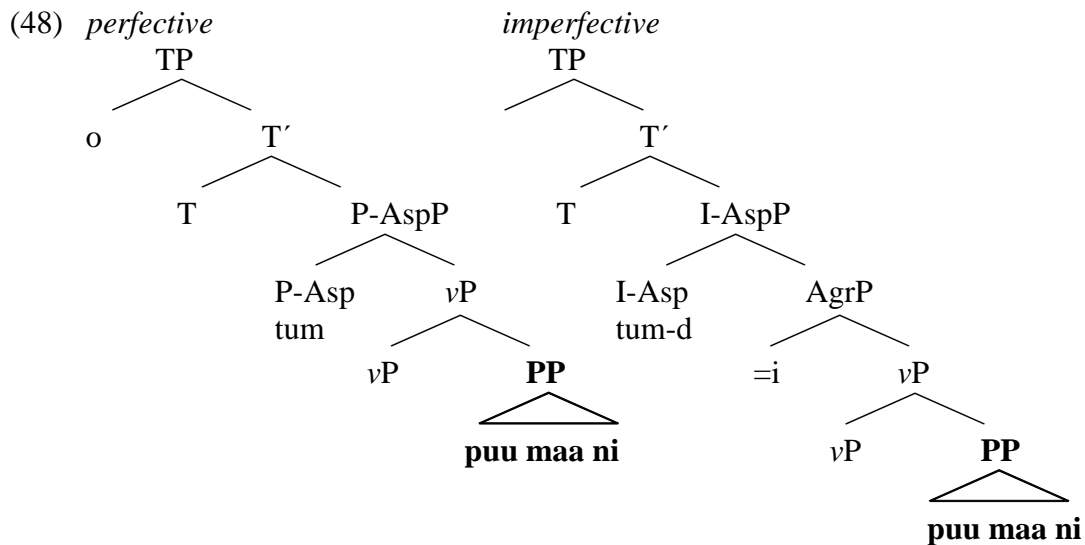
b. Páyí-bá dèm / *dèm=yá kpè.
woman-PL play.PFV / play.PFV-A here
'The women played here.'

(47) a. O tum-d=i / *tum-d=a puu maa ni.
3SG work-IPFV=I work-IPFV=A farm DEF at
'He works at the farm.'

b. O tum / *tum=ya puu maa ni.
3SG work.PFV work.PFV=A farm DEF at
'He worked at the farm.'

Assumption:

- locative & directional adverbs right adjoin to *vP* and are in the scope of the verb.



- With manner and temporal adverbs, the distribution of =i and =a depends on aspect: imperfective aspect triggers =i, perfective aspect triggers =a.

- *perfective manner & temporal adverbs*

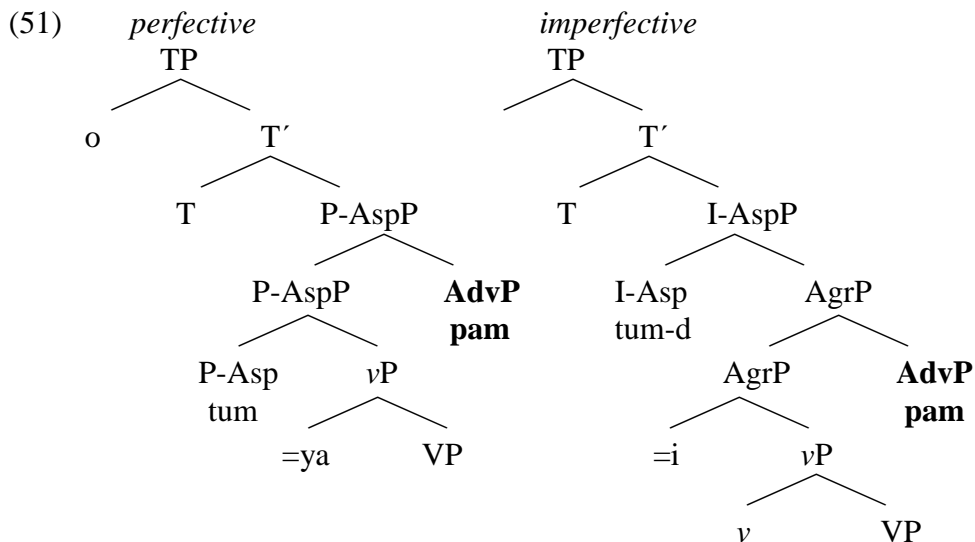
- (49) a. O *tum / tum=ya pam.
 3SG work.PFV / work-PFV=A hard
 'He worked hard.'
- b. O *tum / tum=ya zuṅɔ zaa.
 3SG work.PFV / work=A day all
 'He worked all day.'

- *imperfective manner & temporal adverbs*

- (50) a. O tum-d=i / * tum-d=a pam.
 3SG work-IPFV=I / work-IPFV=A hard
 'He works hard.'
- b. O tum-d=i / * tum-d=a zuṅɔ zaa.
 3SG work-IPFV=I / work-IPFV=A day all
 'He works all day.'

Assumptions:

- Manner & temporal adverbials adjoin higher in the Dagbani clause, to the first node above the vP-phase.
- In the perfective, this is P-AspP; in the imperfective, this is AgrP.
- They are in the scope of the verb in I-Asp, but out of the scope of the verb in P-Asp.



Interim summary:

- Dagbani has an asymmetric aspect system: the imperfective is more complex than the perfective. The complexity of the imperfective consists of an additional AgrP selected by I-Asp.
- The Dagbani verb needs an overt element in its scope. In the absence of such elements, the clitic =a is inserted in the specifier of phrase immediately selected by the verb.
- AgrP hosts the clitic =i to indicate overt elements in the verbal scope.
- The analysis is supported by the distribution of the clitics with different types of adverbs.

4. Successive cyclic movement

Assumption:

- Ex situ wh/focus movement proceeds through vP-edge, the outer SpecvP.

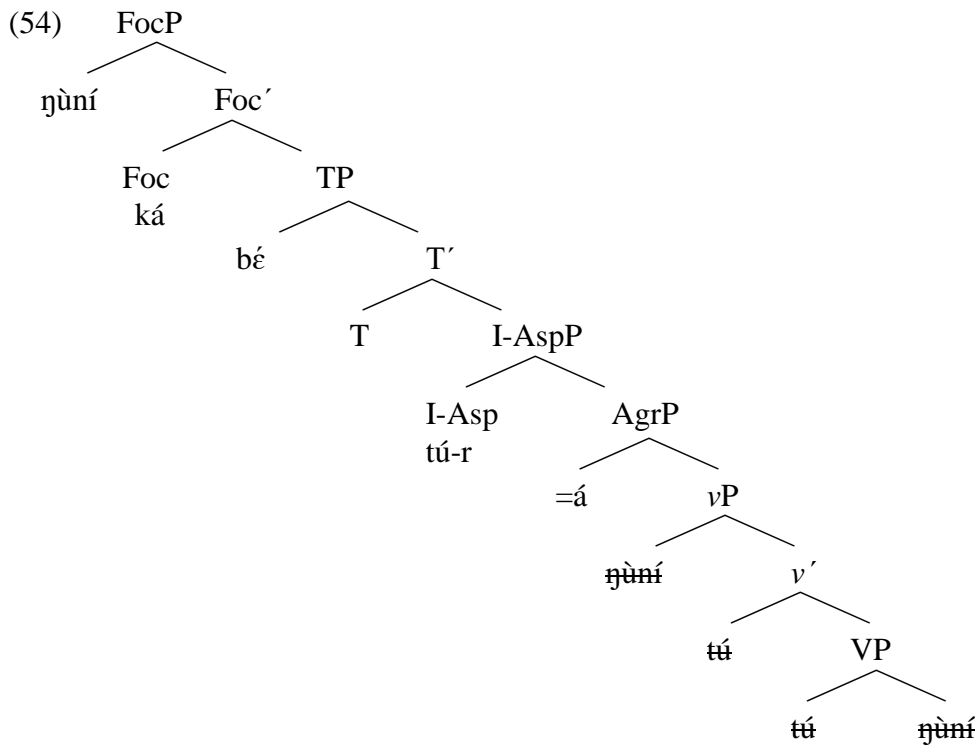
- The imperfective morphology is not affected.

(52) Q: **Dùní** ká bé tú-r=á?
 who FOC 3PL insult-IPFV=A
 ‘Who are they insulting?’

A: **Mání** ká bé tú-r=á.
 1SG FOC 3PL insult-IPFV=A
 ‘They are insulting ME.’

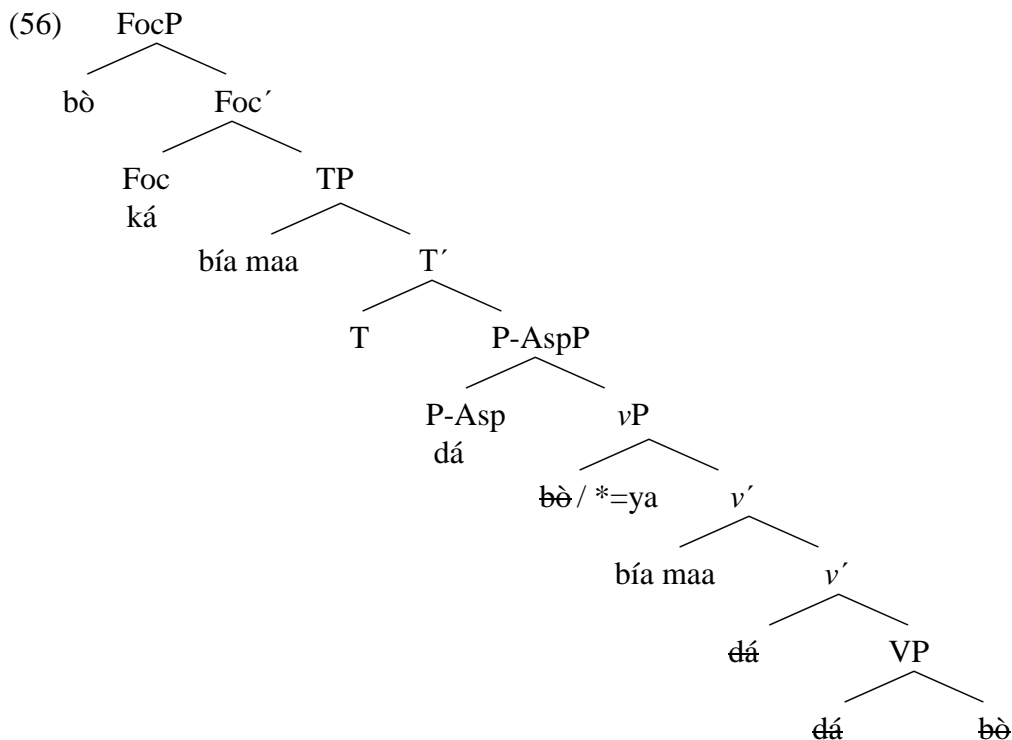
(53) Q: **Bò** ká bíhí máa dá-r=í kpè?
 what FOC children DEF buy-IPFV=I here
 ‘What are the children buying here?’

A: **Bú-hí** máa ká bé dá-r=í kpè.
 goat-PL DEF FOC 3PL buy-IPFV=I here
 ‘The children are buying the GOATS here.’



- The perfective aspect IS affected.
- Movement through the outer SpecvP blocks =a in this position.

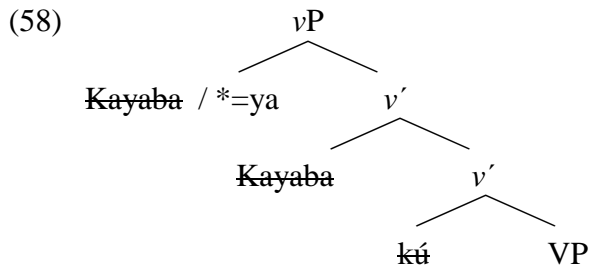
(55) Q: **Bò** ká bí-á máa dá / *dá=yá.
 what FOC child-SG DEF buy.PFV / *buy.PFV=A
 ‘What did the child buy?’
 A: **Yílí** ká bí-á máa dá / *dá=yá.
 house FOC child-SG DEF buy.PFV / *buy.PFV=A
 ‘The child bought a HOUSE.’



- Subject focus in the perfective shows this blocking effect as well.

(57) Q: D̀uní ń kú / *kú=yá?
 who FOC kill.PFV / *kill.PFV=A
 ‘Who killed?’
 A: Kayaba ń kú / *kú=yá.
 Kayaba FOC kill.PFV / *kill.PFV=A
 ‘KAYABA killed.’

- Assumption for the left vP-periphery: multiple specifiers



5. Summary

- In situ focus in Dagbani is marked by the focus marker *la*, providing evidence for a structured vP-periphery in this language (= **evidence I for vP-phase in Dagbani**).
- In situ focus does not move to SpecFoc, differing from ex situ focus, but agrees with the focus feature on *la*.
- Verbal aspect in Dagbani differs in complexity. The imperfective aspect is more complex and requires an additional AgrP with an overtly realized specifier.
- The verb in P/I-Asp needs an overt element in its scope. In the absence of overt elements, the clitic =*a* is inserted in the next lower specifier.
- If =*a* is not licensed in SpecAgrP, =*i* realizes this specifier.
- Movement proceed through the outer SpecvP and blocks =*a* insertion in the perfective (= **evidence II for vP-phase in Dagbani**).

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