

Disharmony and the Final-Over-Final Condition in Amahuaca *

Emily Clem
 University of California, Berkeley
 eclem@berkeley.edu
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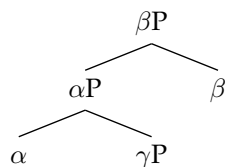
The Puzzle

Amahuaca violates the Final-Over-Final Condition (FOFC) in its verbal extended projection: head-final TP immediately dominates head-initial AspP. This violation is unexpected on LCA-based accounts of FOFC, even though the heads involved are particles.

1 FOFC and the LCA

- FOFC is a ban on disharmonic structures where a head-final projection immediately dominates a head-initial projection

(1) $*[\beta P \dots [\alpha P \dots \alpha \gamma P] \beta \dots]$ (Biberauer et al., 2014)

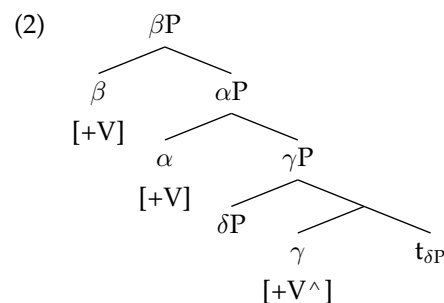


- Accounts of FOFC which take it to be a universal consequence of constraints on syntactic structure and linearization often rely on some version of the LCA
- Biberauer et al. (2014) argue that FOFC arises due to the nature of roll-up movement
 - Comp-to-Spec movement, needed to form head-final structures, is triggered by a movement diacritic: \wedge
 - \wedge can be introduced only by lexical heads, but can optionally be inherited by functional heads

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- Once \wedge is not inherited by a functional head, no higher head in the extended projection will be able to inherit the feature and trigger roll-up movement of its complement
- No head-initial projection will be dominated by a head-final projection in the same extended projection

- Under Biberauer et al.'s (2014) account, the structure in (1) cannot be derived in (2) because β cannot inherit \wedge to trigger roll-up movement of its complement

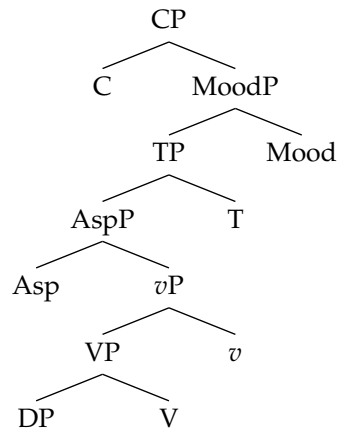


2 Amahuaca clausal syntax and FOFC

- Amahuaca is an endangered Panoan language spoken in Peru and Brazil¹
- It is mostly head final, but it has a head-initial AspP and CP

¹All data come from my elicitation with 11 native speakers over the course of 3 field trips to Sepahua, Peru, in 2015–2017.

(3) [CP ... C [MoodP ... [TP ... [AspP ... Asp [_vP ... [VP ... DP V] v]] T] Mood]]



- C is FOFC-compliant and is filled by the second position clitic =*mun* in declaratives
- =*mun* displays syntactic second position effects: it must be preceded by exactly one XP, regardless of that XP's size²

(4) a. *Initial DP*

[xano=n hino]=**mun** jiri=hi=ki=nu
 woman=GEN dog=C eat=IPFV=3.PRES=DECL
 'The woman's dog is eating.'

b. *Initial PP*

[nihu muran]=**mun** joni=n jiriti vuna=xo=nu
 forest inside=C man=ERG food look.for=3.PST=DECL
 'The man looked for food in the woods.'

c. *Initial embedded clause*

[hino koshi ka=kun]=**mun** Juan=nun Maria yohi=xo=nu
 dog quickly go=DS=C Juan=ERG Maria say=3.PST=DECL
 'Juan told Maria that the dog had run.'

- These second position effects suggest that the constituent preceding =*mun* is in Spec,CP

- T is head-final and appears at the right edge of the clause along with a sentence-final Mood clitic
- The morphemes in T encode a present/past distinction and show subject agreement

(5) a. hiya=x=mun hun rakuu=**ku**=nu
 1.SG=NOM=C 1.SG be.afraid=1.PST=DECL
 'I was afraid.'

b. vaku=x=mun rakuu=**xo**=nu
 child=NOM=C be.afraid=3.PST=DECL
 'The child was afraid.'

- Head-initial AspP is dominated by head-final TP, which results in a FOFC violation
- Asp is filled with markers that indicate imperfective (=hi), perfect (=hax), and habitual (=nox)

(6) a. kuntii=mun choka=**hi** xano=ki=nu
 pot=C wash=IPFV woman=3.PRES=DECL
 'The woman is washing a pot.'

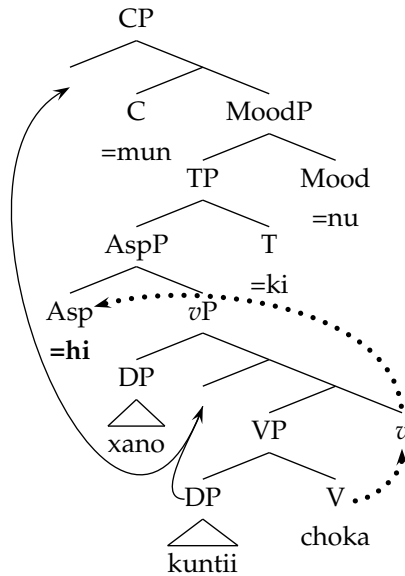
b. kuntii=mun choka=**nox** xano=ki=nu
 pot=C wash=HAB woman=3.PRES=DECL
 'The woman washes pots.'

- When aspect is not marked, sentences receive a perfective interpretation
- The verb undergoes head-movement through *v* to Asp, where it appears before the aspect marker
- In-situ subjects (those that are unmarked for case, Clem 2017) and objects appear to the right of Asp

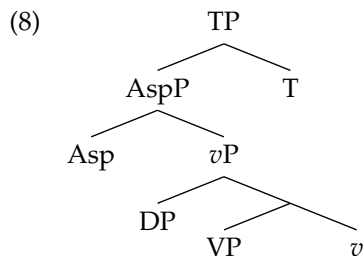
²The following abbreviations are used in glossing: 1 = first person, 3 = third person, C = complementizer, DECL = declarative, DS = different subject, ERG = ergative, GEN = genitive, HAB = habitual, IPFV = imperfective, NOM = nominative, PRES = present, PST = past, SG = singular

- (7) [CP kuntii=**mun** [TP[AspP choka=**hi** [_vP xano t_O t_V t_v]]=**ki**]=**nu**]
 pot=C wash=IPFV woman =3.PRES=DECL

'The woman is washing a pot.'



- The fact that *v*P-internal material, such as the subject, can appear to the right of Asp indicates that the complement of Asp does not move to Spec,AspP
- In contrast, all clause-internal material except for the sentence-final Mood clitic appears to the left of head-final T
- The disharmonic heads Asp and T therefore instantiate a FOFC-violating structure



The Argument

- The configuration of Asp and T in Amahuaca is a genuine FOFC violation and cannot be explained in terms of the exceptional behavior of particles
- Accounts which derive FOFC as a universal based on the LCA and the distribution of roll-up movement diacritics face an undergeneration problem
- In contrast, an account that derives FOFC as a tendency based on a ban on rightward movement predicts the type of exception seen in Amahuaca

3 The “exceptionality” of particles

- It has been noted that many seeming exceptions to FOFC involve particles
- Biberauer (2017) argues that purportedly FOFC-violating particles are typically actually FOFC-compliant due to specific properties of their underlying syntax
- However, none of these potential avenues of avoiding a FOFC violation can account for the FOFC-violating Amahuaca structure in (8)

FOFC-compliant ways of deriving Head-Complement...Particle order:

1. *The particle is an adverb, not a head (as is true for some non-inflecting TAM elements)*
- Amahuaca T inflects for subject person and is not doubled by another tense auxiliary

- (9) a. koshi=**mun** ka=**hi** hun=**ka**=**nu**
 quickly=C go=IPFV 1SG=**1.PRES**=DECL
 'I am running.'
- b. koshi=**mun** ka=**hi** jan=**ki**=**nu**
 quickly=C go=IPFV 3SG=**3.PRES**=DECL
 'He is running.'

2. *The head initial projection is not the complement of the particle*

- There is no evidence for intervening functional structure between Amahuaca T and Asp, nor is there evidence that Asp is structurally higher than T (which would violate Cinque's (1999) hierarchies)

3. *The particle is not part of the same extended projection by virtue of having a distinct categorial feature or lacking a categorial feature altogether*

- Amahuaca T consistently appears in the same position and selects a [+V] complement
 - In non-verbal predication where there is no [+V] element, T is absent

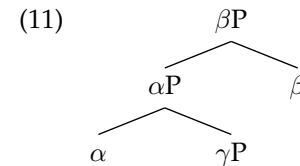
- (10) a. vakoma=mun hitziz=nu
 water=C hot=DECL
 'The water is hot.'
- b. vakoma=mun hitziz ja=xo=nu
 water=C hot be=3.PST=DECL
 'The water was hot.'

4. *The particle is a PF reflex of agreement (as is true for some negative concord elements)*

- Amahuaca T realizes subject agreement, but also encodes a present/past distinction which is not encoded by another element in the clause

4 FOFC and rightward movement

- Zeijlstra (2016) offers an alternative account of FOFC which does not rely on the LCA
- FOFC arises due to a ban on rightward movement (Abels and Neeleman, 2012)
 - Rightward head movement must not cross dependents of the head (Ackema and Neeleman, 2002)
- The structure in (11) is only permissible if β is never a movement target for α



- This means that FOFC will only be a strong tendency, not a universal
- Zeijlstra's account predicts that the type of clausal structure found in Amahuaca should be attested: there is no evidence that T is ever a movement target for Asp in Amahuaca
- No illicit rightward movement is needed to account for the Amahuaca patterns
 - Rightward head movement of V to v is possible since V and v are adjacent
 - Head movement of V+ v to Asp is leftward
 - Rightward extraposition of DPs can be derived via successive leftward movements

Conclusions

- Amahuaca head-final TP immediately dominates head-initial AspP, yielding a FOFC violation within the verbal extended projection
- This violation cannot be explained on accounts that predict FOFC to be a universal based on the LCA and constraints on roll-up movement
- Instead, under an account where FOFC is a strong tendency based on a ban on rightward movement, the structure found in Amahuaca where T is never a movement target for Asp is exactly the type of FOFC violation we expect to find

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