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

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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) *[βP ... [αP ... α γP] β ... ]

- 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: ^
  - ^ can be introduced only by lexical heads, but can optionally be inherited by functional heads

2 Amahuaca clausal syntax and FOFC

- Amahuaca is an endangered Panoan language spoken in Peru and Brazil

- It is mostly head final, but it has a head-initial AspP and CP

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1 All data come from my elicitation with 11 native speakers over the course of 3 field trips to Sepahua, Peru, in 2015–2017.
(3) \[ \text{CP} \ldots \text{C} \left[ \text{MoodP} \ldots \text{TP} \ldots \text{AspP} \left[ v \text{P} \ldots \text{DP} \text{V} \right] v \right] \text{T} \] \text{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 size

(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

[nihi 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

(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

\[ \text{CP} ... \text{C} \left[ \text{MoodP} \ldots \text{TP} \ldots \text{AspP} \left[ v \text{P} \ldots \text{DP} \text{V} \right] v \right] \text{T} \] \text{Mood} \]

\[ \text{CP} \]

\[ \text{C} \]

\[ \text{MoodP} \]

\[ \text{TP} \]

\[ \text{Mood} \]

\[ \text{AspP} \]

\[ \text{T} \]

\[ \text{Asp} \]

\[ v \text{P} \]

\[ \text{VP} \]

\[ v \]

\[ \text{DP} \]

\[ \text{V} \]
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.

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 $\beta$ is never a movement target for $\alpha$

(11) $\beta P$
    $\alpha P$
    $\beta$
    $\alpha$
    $\gamma P$
   - 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