(Dis)obeying the Head-Final-Filter

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Greenberg's (1963) Universal 21

- If some or all adverbs follow the adjective they modify, then the language is one in which the qualifying adjective follows the noun and the verb precedes the object as its dominant order.

[N [Adv Adj]]	5
[N [Adj Adv]]	8
[[Adv Adj] N]	11
[[Adj Adv] N]	0

a [smoothly running] meeting
*a [running smoothly] meeting   (Sadler and Arnold 1994)

Williams' (1982) Head-Final Filter

- Universal 21 gets later extended as Williams' (1982) Head-Final Filter (HFF), which bans post-adjectival modifiers as well as complements (cf. also Emonds' (1976) Surface Recursion Restriction).

- Williams (1982): English (and German) have a constraint barring post-head material in prenominal modifiers.

the [proud] man   *the [proud of his son] man
*the man [proud]   the man [proud of his son]   (Abney 1987)

Further cases and exceptions

- HFF seems not to be restricted to AP modifiers of nouns (although in this talk we concentrate on APs):
  - *a [PP near Boston] residential area
  - *a [CP which I published in 1991] book   (Escribano 2004)

- However, the ban on non-head-final modifiers has been observed to be lifted in some cases (which have been attributed to lexical processes):
  - a hard-to-pronounce name
  - an up-to-date bibliography   (Escribano 2004)

Our data collection

- Languages whose APs are not strictly head-final and which are known to be sensitive to the HFF include:
  - Dutch, English, German, Swedish
  - French, Italian, Portuguese, Romanian, Spanish
  - Czech, Serbo-Croatian, Slovak, Slovene, Sorbian
  - Finnish, Hungarian   (cf. Sheehan 2017)

- In addition, we have collected data for the following languages:
  - Afrikaans, Armenian, Basque, Estonian, Georgian, Greek, Mandarin, Polish, Romanian, Russian

Alternative strategies

Instead of A-PP-N, languages sensitive to the HFF employ one or several of the following word orders:

- N-A-PP (e.g. English)
- PP-A-N (e.g. Dutch, Serbo-Croatian)
- A-N-PP (conditionally available e.g. in English, Serbo-Croatian)

Some existing analyses

- Abney (1987): adjective as a head in the EP of the noun

- Escribano (2004): LCA + labelling
- Sheehan (2017): LCA + head parameter

Our claim

In this paper, we argue that what underlies these facts cannot be a matter of head-finality for two different reasons:

1. There are languages in which the HFF cannot apply, but PPs still cannot intervene between A and N.

2. Various languages allow the A-PP-N order, thus violating the HFF.

Example for 1: Basque

- Basque adjectives, which are postnominal, cannot have a complement placed between A and N, although they take their complements to their left when used predicatively. Clearly, such constructions are not ruled out by the HFF.

Jon   bere   gurasoetaz   burujabe-a   da.
Jon   his   parents.INSTR   independent-ART   is
'John is independent of his parents.'

*Jon   ume   bere   gurasoetaz   burujabe   bat   da.
 Jon   child   his   parents.INSTR independent   a   is
Intended: 'John is a child who is independent of his parents.'

Examples for 2

- Various languages allow attributive adjectives and their modified nouns to be intervened by the adjective's complements/adjuncts, which should be ruled out by the HFF.

- Such languages include:
  - Modern Greek
  - Bulgarian, Polish, Russian, Ukrainian
  - Latin, Romanian (?)

Greek

Afto to **simantiko gia tis arxes** **zitima** tha paramini ipo sizitisi.
this the important for the authorities issue will remain under discussion

'This important issue for the authorities will remain under discussion.'

(Source: http://web-corpora.net/GreekCorpus/search/)

Russian

Zavisimye **ot** **eksporta** **nefti** **i** **gaza** **strany** razrabatyvajut različnye
dependent from export oil and gas countries develop various

programmy dejstvij.
programs actions

'Countries that are dependent on oil and gas export develop various programs of actions.'

(Source: http://www.ruscorpora.ru/en/)

Latin

in praestantibus in re publica gubernanda viris

in excellent.ABL.PL in thing.ABL.SG public.ABL.SG to-be-governed.ABL.SG men.ABL.PL

'in men who excel in the government of the republic'

(Cic. Fam. 1.9)

Question

- Why is it the case that in many but not all languages attributive adjectives must appear adjacent to the nouns they modify?

- This paper: what descriptively speaking looks like an adjacency requirement in fact comes about as a result of the interplay between intervention effects and constraints on linearization of inflectional morphology.

- In what follows, we spell out our analysis first for HFF-disobeying languages and then for HFF-obeying ones.

Adjectival intervention

- Case/φ-feature bundles present inside the extended projection of an NP need to be present on its highest functional head (which for convenience we take to be D) in order for them to be able to establish agreement relations outside the DP.

- Adjectives intervene in an agree relation between the noun and the D-head (or any other functional head F, where F could be the head of NumP or ClassP) in a DP, as adjectives also contain a nominal feature.

- The feature values of the noun that need to agree with D must therefore also be visible on the adjective itself.

Adjectival intervention

$D_{[]}$ ... $F_{[]}$ ... $A_{[N:\_]}$ $N_{[N:\_]}$

$D_{[]}$ ... $F_{[]}$ ... $A_{[N:\_]}$ $N_{[N:\_]}$

HFF-disobeying languages

- In certain languages this is already the case. In these languages both the predicative and the attributive form of the adjective are marked for case, gender and number.

- That means that A, already in is predicative form, can share the features with the noun that D needs to Agree with.

- In such languages, e.g. Greek, Russian, Romanian, etc., A-PP-N constructions are correctly predicted to be fine.

HFF-obeying languages: attr-pred asymmetry

- In other languages, this is not the case , e.g. in German or Hungarian:

Die Stadt ist schön

The city is beautiful

Die schön-e Stadt

The beautiful-F.SG.NOM city

János és Mária független(-ek)

John and Mary independent(-PL)

(a) független(*-ek) fiú-k

(the) independent(*-PL) boy-PL

HFF-obeying languages: attr-pred asymmetry

- If this bare form modified a noun, it would partially or fully block valuation of D by N, as not all relevant features are present on the adjective.

- To prevent this, first an agreement morpheme (dubbed Attr) needs to attach to the adjective. This Attr-head should then host the features that D can agree with, instead of with N's features.

HFF-obeying languages: attr-pred asymmetry

$D_{[]}$ ... $F_{[]}$ ... $A\text{-}Attr_{[N:\_]}$ $N_{[N:\_]}$

HFF-obeying languages: attr-pred asymmetry

- If the additional attributive morpheme that contains the nominal features that need to agree with D is affixal, the attributive morpheme therefore needs to be attached to the head of the AP.

- It has also to be the adjective itself and therefore be string-adjacent to it (cf. the Input Correspondence principle in Ackema and Neeleman 2000).

- Consequently, no additional material may intervene between this affix and the adjective.

HFF-obeying languages: attr-pred asymmetry

- This already gives us *D-A-PP-Attr-N.

- But this does not explain yet why D-A-Attr-PP-N is out.

- Under the assumption that theta-roles can only be assigned within the maximal projection of a lexical head, it follows that Attr cannot take a PP complement / specifier. The PP should be selected by the argument of A, not of Attr.

- That also gives us: D-A-Attr-PP-N.

Prediction

- If in a particular language the Attr-morpheme is morpho-phonologically independent (either as a free morpheme or a clitic), PPs should be allowed to intervene between the attributive adjective and the noun it modifies.

- Mandarin indeed confirms this:

yi-ge   duli-yu   fumu   DE   qingshaonian

one-CL independent-from   parents   Attr   teenager

'a teenager (which is) independent of his parents'

HFF-obeying languages: attr-pred symmetry

- The question remains open how this applies to languages that do not show any over Attr-morpheme.

- However, the Attr-morpheme can be realised as a zero-element, e.g. in Dutch:

Een mooi-e auto

A beautiful car.COM

Een mooi-$\varnothing$ boek

A beautiful boek.NEUT

HFF-obeying languages: attr-pred symmetry

- For HFF-obeying languages without special Attr-morphology, we assume that the Attr-morpheme is covertly present.

- Note that in such languages not every φ/Case-feature is overtly realized, providing evidence for the zero-status of instances of inflectional morphology in these languages. Even though these features do not appear to be present on attributive adjectives, they must be present on D.

- The zero-status of the affix can be thought of as the result of deflection; older stages of such languages did exhibit special Attr-morphology.

HFF-obeying languages: attr-pred symmetry

The car is red   (English)

The red-$\varnothing$ car

La macchina è ross-a$_\varphi$ (Italian)

La ross-a$_\varphi$-$\varnothing_{case}$ macchina

Conclusion

- The proposed analysis accounts for (un)grammaticality of PPs intervening between the attributive adjective and the noun it modifies as a result of an interplay of two factors:

1. Intervention effects triggered by attributive adjectives lacking Case and/or φ-features;
2. The difference in the morpho-phonological requirements between affixes and free morphemes/clitics with the respect to hosts they can modify.