# AP-Adjacency and Ambiguity in the Noun Phrase

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#### Introduction

An asymmetry exists between head-final and head-initial languages in terms of the ordering of adjectival and prepositional modifiers of nouns. Head-final languages allow adjectives to precede prepositional phrases and vice versa, but head-initial languages only allow the order in which the adjective is adjacent to the noun. I propose a linear, rather than a structural, analysis of this observation; this analysis accounts for observed ambiguities in the relevant phrases.

### English

The English phrase *the fake picture from the 15<sup>th</sup> century* is ambiguous:

- [fake picture] from the 15<sup>th</sup> century
- fake [picture from the 15<sup>th</sup> century]

This ambiguity is due to the underlying structure of the sentence.

- [[NAP]PP]
- [N[APPP]]

In English, the adjectival and prepositional modifiers appear on opposite sides of the noun. In languages like Spanish, Welsh, Arabic and Hebrew, both modifiers occur after the noun, whilst in Japanese, Turkish, Finnish and Hungarian they occur before it. This observation leads to several questions, such as:

- Is the order of the modifiers fixed in head-initial and head-final languages?
- If so, does the same ambiguity arise as in English?

# Examples

#### Japanese:

- a. Hanako-kara-no akai hanataba *Hanako-from-LNK red bunch.of.flowers*
- b. akai Hanako-kara-no hanataba red Hanako-from-LNK bunch.of.flowers

"The red bunch of flowers from Hanako"

#### Welsh:

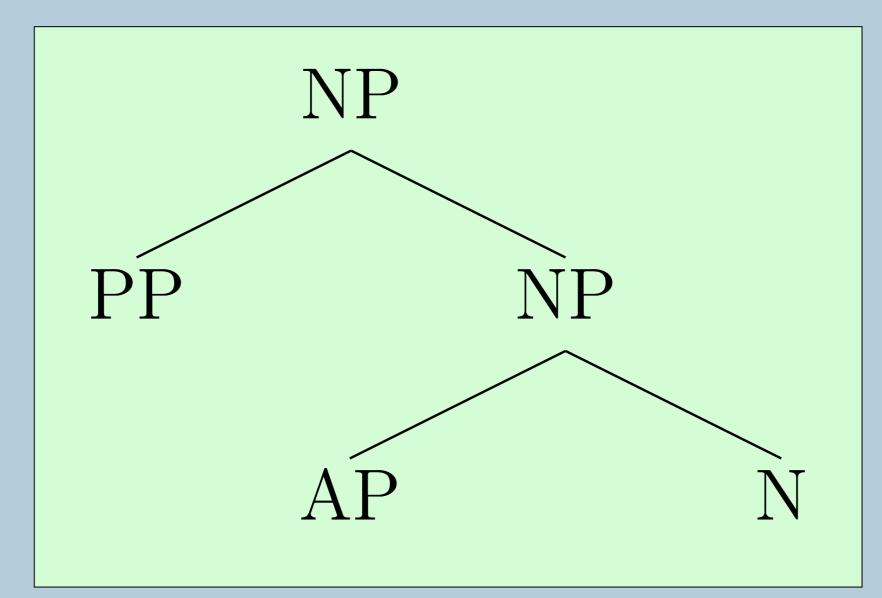
- a. Y llun ffug o'r 15fed ganrif

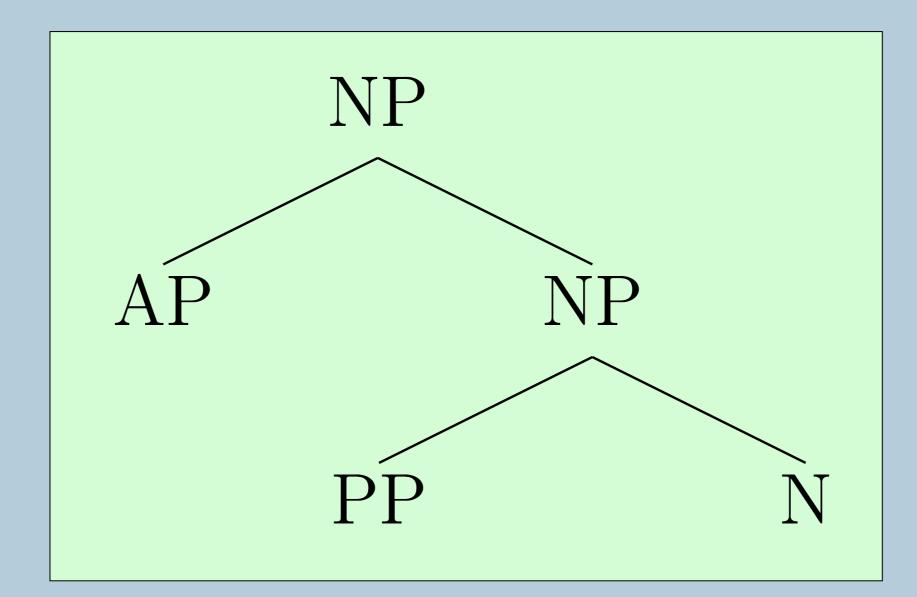
  The picture fake from-the 15<sup>th</sup> century
- b. \*Y llun o'r 15fed ganrif ffug

  The picture from-the 15th century fake

"The fake picture from the 15th century"

# Head-Final Languages





## Results

In head-final languages, **both orders are allowed** (contra Adger<sup>a</sup>).

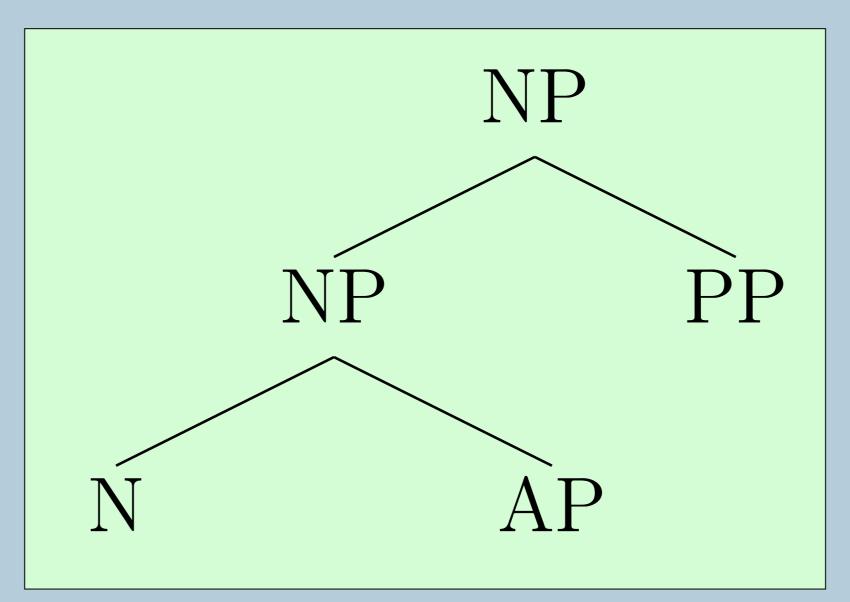
- Each order is unambiguous
- Scope follows c-command patterns.

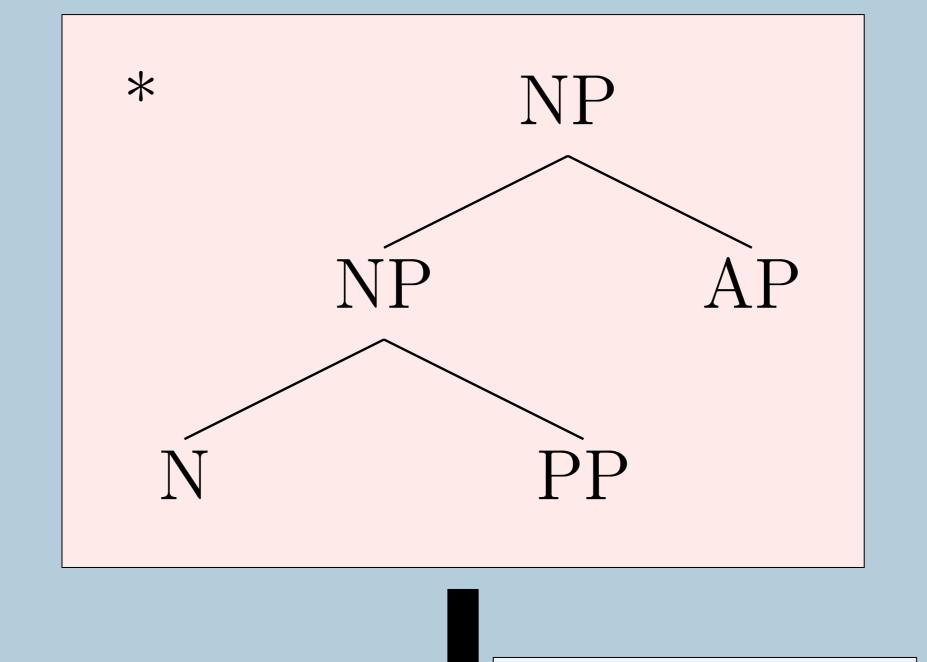
In head-initial languages, only the **AP-adjacent order is** allowed.

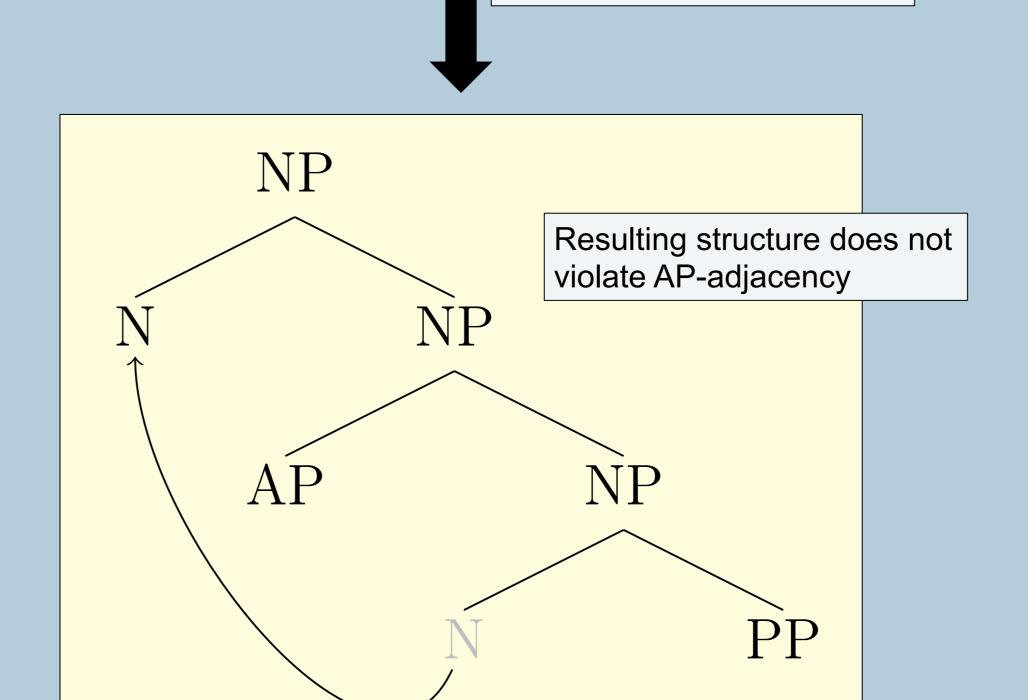
- The order in which the PP intervenes between the noun and the adjective is ungrammatical.
- The AP-adjacent order is ambiguous.

The ambiguity arises because the same linear string, N-AP-PP, is associated with two different underlying structures (the first and third trees in the next column). The two trees have different c-command relations, resulting in two different scopal relations associated with the same string. Therefore the string is ambiguous.

# Head-Initial Languages







**Movement** due to violation

of **AP-adjacency** 

### Why a Linear Condition?

An alternative to the proposed linear condition is a structural analysis of the phenomenon. This type of analysis relies on the adjective and noun first forming a constituent (to the exclusion of the PP), so that the PP cannot intervene. Such an approach successfully rules out the illicit N-PP-AP order, but does not allow for the ambiguity observed in the N-AP-PP order of head-initial languages.

A structural account cannot explain why, even in English, the noun and PP sometimes form a constituent to the exclusion of the AP:

- a. The [fake picture]<sub>i</sub> from the 15<sup>th</sup> century and the one<sub>i</sub> from the 18<sup>th</sup> century.
- b. The fake [picture from the 15<sup>th</sup> century]<sub>i</sub> and the real one<sub>i</sub>.

The linear condition avoids both of these problems.

## AP-Adjacency

The concord domain of a phi-feature set S consists of those APs that are marked for S and any XP intervening between a carrier of S and the noun.

No category lacking S can precede a category marked for S in S's concord domain.

- $\checkmark$  XP<sub> $\phi$ 1</sub> XP<sub> $\phi$ 1</sub> N<sub> $\phi$ 1</sub>  $\checkmark$  XP<sub> $\phi$ 2</sub> XP<sub> $\phi$ 1</sub> N<sub> $\phi$ 1</sub>
- $V N_{\phi 1} XP_{\phi 1} XP_{\phi 1}$
- $\mathbf{X} \quad N_{\phi 1} \times P_{\phi 2} \times P_{\phi 1}$

A structure that violates AP-adjacency may be saved through movement, as long as the resulting structure obeys the constraint.

This constraint mirrors Janke and Neeleman's<sup>b</sup> case adjacency constraint.<sup>c</sup>

#### References

- <sup>a</sup> Adger, D. (2012). A Syntax of Substance.
- <sup>b</sup> Janke, V. and A. Neeleman (2012). Ascending and descending VPs in English. *Linguistic Inquiry* 43 (2), 151–190.
- <sup>c</sup> Ackema, P. and A. Neeleman (2003). Context-sensitive spell-out. *Natural Language & Linguistic Theory* 21, 681–735.