

# Lexical and grammatical meaning: attributive adjectives in French

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# Outline

1. **Data** – pre-nominal and post-nominal adjectives
2. **Previous analyses** – too restrictive (heterogeneous data)
3. **Our analysis**
4. **Some complications** – nothing's ever that simple with language ...
5. **Conclusion**

# Post-nominal position

- The canonical position for intersective attributive adjectives in French is post-nominal:
  - (1) Le ballon rouge est lourd.  
*the ball red is heavy*
- All adjectives that can be used predicatively can also appear post-nominally with their predicative meaning:
  - (2) Le ballon est rouge.  
*the ball is red*

# Post-nominal position

- This is the default, and where newly coined/borrowed intersective adjectives appear:

(3) du contenu **tweetable**

*some content tweetable*

(<https://bloginfos.com/creer-un-lien-tweetable/>)

(4) des produits **high tech**

*some products high tech*

(<http://www.lhommemoderne.fr/13-high-tech-culture>)

# Pre-nominal position

- However, certain adjectives appear pre-nominally, often with a non-restrictive meaning. *Satané* in (5) appears in pre-nominal position and has an ‘expressive’ meaning (Potts, 2005):

(5) Le *satané* chien était sur le canapé  
*the EXPRESSIVE dog was on the sofa*  
‘The damn dog was on the sofa’

# Variable position

- A number of adjectives can appear both post- and pre-nominally, but with different meanings in the different positions:

(6) a. La Bible est sacrée.  
*the bible is sacred*

b. La Bible sacrée est lue pendant la messe.  
*the bible sacred is read during the mass*

c. La sacrée Bible est si difficile à lire!  
*the EXPRESSIVE bible is so difficult to read*  
‘The bloody Bible is so difficult to read!’

# Expressivity and pre-nominal position

- (7) a. Tes bottes sales laissent des traces partout.  
*your boots dirty leave some traces everywhere*  
'Your dirty boots are leaving marks everywhere.'
- b. Sale mec!  
*EXPRESSIVE* guy  
'≈Bastard!'

# Expressivity and pre-nominal position

- This phenomenon can be more or less subtle. Consider the different uses of *célèbre* ‘famous’ in (8) below (adapted from Jones 1996: 321):

- (8) a. Les acteurs célèbres gagnent beaucoup d’ argent  
*the actors famous earn lots of money*  
‘Famous actors make lots of money.’
- b. Les célèbres acteurs gagnent beaucoup d’ argent  
*the famous actors earn lots of money*  
‘≈Actors, who are famous, make lots of money.’



# Pre-nominal position

- We have seen that adjectives can have expressive meanings when they occur pre-nominally.
- Adjectives can also have intensional and ‘specificational’ meanings in this position.

# Intensional adjectives

- Do not describe the properties of a noun's denotation, but rather modify the meaning of the noun in some way.

(9) a. Le président est ancien  
*the president is old*

b. Le président ancien  
*the president old*

c. L' ancien président  
*the former president*

# Intensional adjectives

- *X est un président ancien*  $\Rightarrow$  *X est un président*
- *X est un président ancien*  $\Rightarrow$  *X est ancien*
  
- *X est un ancien président*  $\not\Rightarrow$  *X est un président*
- *X est un ancien président*  $\not\Rightarrow$  *X est ancien*

# Intensional adjectives

(10) a. un fumeur gros  
a *smoker fat*

b. un gros fumeur  
a *heavy smoker*

- (10b) is actually ambiguous between the intersective meaning ('fat') and the intensional one ('does X a lot') – cf. the exact same ambiguity in English *heavy smoker*.

# Specificational adjectives

- “help to identify which member of the class described by the noun is being referred to” (Jones 1996: 314):

(11) a. Le mouchoir est propre.  
*the handkerchief is clean*

b. le mouchoir propre  
*the handkerchief clean*

c. mon propre mouchoir  
*my SPECIFICATIONAL handkerchief*  
‘My own handkerchief’

# Descriptive generalisations

- Traditional grammarians of French (e.g. Milner 1978; Jones 1996) have noted the following contrast:

(A) The post-nominal position is associated with restrictive/predicative meanings.

I.e. meanings of the form **Adj**( $x$ )  $\wedge$  **Noun**( $x$ )

(B) The pre-nominal position is associated with non-restrictive meanings: those which do not simply restrict the denotation of the head noun, but modify it in some way.

I.e. meanings of the form **Adj**(**Noun**( $x$ ))

# Our proposal

- Post-nominal position is associated with a particular meaning.
  - We associate that syntactic position with a meaning constructor which takes predicative adjectives and turns them into intersective attributive ones.
- Pre-nominal position is not associated with any grammatically-provided meaning.
  - Pre-nominal position is freer; allows for a range of (lexically-specified) non-intersective meanings.

# Previous work

- Waugh (1977) and Bouchard (1998) both present semantic-based analyses.
- Crucial difference from our proposal: they claim *both* positions are associated with a specific manner of combination.
  - The ‘mobile’ adjectives can then be assigned a single lexical meaning.
- Bouchard: pre-N adjectives “modify components internal to N”, whereas post-N modifies “the components of the N as a whole”.



# Bouchard (1998)

- A minimal pair:

(12) un mensonge parfait

*a lie perfect*

‘a perfect lie (perfectly constructed; without flaws)’

(13) un parfait mensonge

*a perfect lie*

‘a perfect/total/complete lie’ (“It’s all lies!”)

# Problems

- Too categorical!
- There are times when order makes no difference to interpretation (Thuilier 2013: ¶29):

(14) un jeune homme charmant ~ un charmant jeune homme  
*a young man charming*

# Problems

- Some pairs of Adj+N do not show the same semantics (Thuilier 2013: ¶30):
  - (15) un gros fumeur  
*a fat/big smoker*
  - (16) un gros coiffeur  
*a fat/big hairdresser*
- Only (16) can have the ‘intensifying’ meaning (“a heavy smoker”).
- (16) is also ambiguous: it need not have the intensifying meaning.

# Problems

- Attempts to provide a uniform semantics lead to odd/very underspecified meanings.
- Even for e.g. *ancien*, not clear what a constant model-theoretic interpretation would be.
- What is the uniform meaning of *faux* in *de faux pianos* vs. *des pianos faux*?
- Perhaps there is some intuitive link, but formally ...?

# Problems

- Expressives don't fit this characterisation at all.

(17) ce sacré chien  
*this EXPR dog*

- Not obviously modifying something noun-internal.
- Instead, adding an additional proposition (Potts 2005):

(18)  $\langle \mathbf{dog}(x), \ominus (speaker, x) \rangle$

# Summary

- The identification of the post-N position with intersective adjectives is relatively clear.
- But identifying a particular meaning associated with the pre-N position is not such an easy task.
- We conclude therefore that the post-N position is associated grammatically with the intersective meaning, but that the pre-N position is free with respect to meaning type.

# Our analysis

- We borrow the syntactic analysis of Arnold & Sadler (2013): pre-N adjectives are non-projecting; post-N adjectives project full phrases.
- We take the predicative rather than attributive use of adjectives to be basic (cf. Börjars & Payne 2018).
- The NP-modifying AdjP position is associated with a meaning constructor which lifts adjectives from the predicative to the attributive type.
- Thus, all post-N adjectives must be compatible with this meaning, but pre-N, all meanings are lexically provided (and so are much freer).

# Syntax

- Syntactically, it has often been noted that pre-N adjectives in a variety of languages are more restricted.
- We follow this tradition, specifically borrowing the proposals of Arnold & Sadler (2013) for English.
- Pre-N adjectives are  $\hat{A}dj$ , and so adjoin to N.  
(19)  $N \rightarrow \hat{A}dj N$
- Post-N adjectives are  $Adj$ , project a full  $AdjP$ , and so adjoin to NP.  
(20)  $NP \rightarrow NP AdjP$



# Syntax

- This accounts for some of the ‘closeness’ phenomena observed:
- Pre-N adjectives cannot have complements:

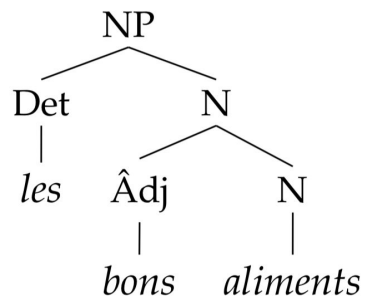
(21) a. les bons aliments  
*the good foods*

b. \*les bons pour la santé aliments  
*the good for the health foods*

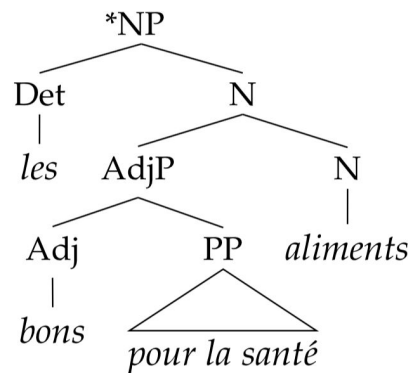
c. les aliments bons pour la santé

# Syntax

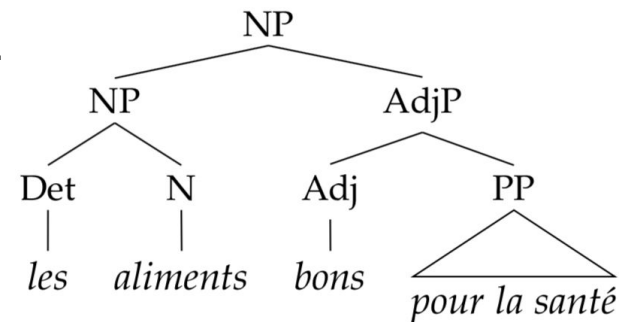
(22) a.



b.



c.



# Syntax

- We also follow Arnold & Sadler (2013) in assuming that rules like (23) are also permitted, accounting for the possibility of some limited modification of pre-N adjectives:

(23)  $\hat{A}dj \rightarrow \hat{A}dv \hat{A}dj$

(24) un très grand homme  
*a very tall man*

# Liaison

- It may also go some way to accounting for the facts of liaison.
- *Liaison*: French sandhi phenomenon whereby certain consonants are inserted between vowels at word boundaries:

(25) les chats [leʃa]

but

(26) les hommes [lezɔm]

# Liaison

- Liaison is sometimes obligatory, sometimes optional, sometimes forbidden.
- Another case where pre-N adjective is ‘closer’ to N than post-N adjective:
  - Between pre-N adjectives and the noun, liaison is (all but) obligatory:

(27) un mauvais ami [œ̃movɛzami] NOT [œ̃movɛami]

- Between post-N adjectives and the noun it is more often not realised:

(28) des amis anglais [dezamiãglɛ] NOT [dezamizãglɛ]

# Semantics

- We assume that adjectives in French always take subjects (Zweigenbaum 1988), and that the basic meaning constructors of predicative adjectives therefore look like those for intransitive verbs:

(29) *rouge*    Adj     $\lambda x.\mathbf{red}(x) : [(\uparrow \text{SUBJ})_{\sigma} \multimap \uparrow_{\sigma}]$

- Crucially, the MC is type  $\langle e, t \rangle$  – the wrong type to be used attributively.
- For attributive adjectives, we need type  $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$ .

# Semantics

- The job of ‘lifting’ the predicative to the attributive type is accomplished by a meaning constructor like (30):

$$(30) \lambda P \lambda Q \lambda x. P(x) \wedge Q(x) : adj \multimap noun \multimap adj\text{-}noun$$

- In Dalrymple’s (2001: 266) analysis of English, this meaning constructor is lexically encoded on the adjective. We instead associate it with a phrase-structure position.

# Grammatically-encoded meaning

(31) INTERSECT :=  
 $\lambda P \lambda Q \lambda x. Q(x) \wedge P(x) :$   
 $[(\uparrow \text{SUBJ})_\sigma \multimap \uparrow_\sigma] \multimap$   
 $[[((\text{ADJ} \in \uparrow)_\sigma \text{VAR}) \multimap ((\text{ADJ} \in \uparrow)_\sigma \text{RESTR})] \multimap$   
 $[[((\text{ADJ} \in \uparrow)_\sigma \text{VAR}) \multimap ((\text{ADJ} \in \uparrow)_\sigma \text{RESTR})]]$

(32) NP  $\rightarrow$  NP      AdjP  
 $\uparrow = \downarrow$      $\downarrow \in (\uparrow \text{ADJ})$   
 @INTERSECT

- Because the call of INTERSECT is not optional, any adjective appearing here must contribute a lexical meaning constructor of a compatible type (i.e.  $\langle e, t \rangle$ ).



# Consequence 1

- All post-N adjectives must have an intersective meaning.
- We therefore follow Dalrymple (2001: 263) in claiming that subsecutive adjectives like *habile* ‘skillful’, and *bon* ‘good’, are intersective in the sense that their mode of composition involves conjunction.
- They just have some additional standard-of-comparison argument:

(33) *bon* Adj  $\lambda\mathcal{S}\lambda x.\mathbf{good}(x, \mathcal{S}) : (\uparrow_\sigma \text{ STD}) \multimap (\uparrow \text{ SUBJ})_\sigma \multimap \uparrow_\sigma$

(34) *couteau bon*  $\lambda\mathcal{S}\lambda x.\mathbf{knife}(x) \wedge \mathbf{good}(\mathcal{S}, x) : (\uparrow \text{ SUBJ})_\sigma \multimap \uparrow_\sigma$

## Consequence 2

- All predicative adjectives can appear post-N (and vice versa).  
(corollary: there are no predicative only adjectives in French)
- This seems to be borne out (there are no equivalents of the English *a*-adjectives in French).

# Consequence 3

- Pre-N adjectives must have their meanings fully lexically specified, including their mode of composition.
- This means we expect a heterogeneous group of meaning types here, as we observe.
- It also means that e.g. intensional or expressive adjectives cannot appear post-nominally or predicatively, since there is a type mismatch.
- Corollary: this means we are forced to claim that the positional variants of *ancien*, *simple*, *sacré*, etc. are different lexical entries.

# Ambiguity

- This seems warranted, however, since these alternations are not systematic.
- For instance, near synonyms of *ancien*, such as *vieux* ‘old’ or *âgé* ‘aged’, do not receive the same intensional interpretation pre-N.

(35) un vieux ami = an old friend (who is still my friend)

(36) \*un âgé ami

(37) un ancien ami = former friend (who is not any more)

# Flexible adjectives

- Along with these adjectives that have clearly distinct meanings pre-N and post-N, there are also several which can appear in both positions but with only slight differences in meaning.

(38) a. un bon linguiste

*a good linguist* [= good as a linguist]

b. un linguiste bon

- In (38a), the standard-of-comparison argument is linked to the noun; in (38b) it is not (necessarily).

# Flexible adjectives

- The  $\hat{\text{Adj}}$  version of these adjectives has some more specified meaning:

(39) *bon*     Adj      $\lambda\mathcal{S}\lambda x.\mathbf{good}(x, \mathcal{S}) : (\uparrow_\sigma \text{ STD}) \multimap (\uparrow \text{ SUBJ})_\sigma \multimap \uparrow_\sigma$

(40) *bon*      $\hat{\text{Adj}}$       $\lambda\mathcal{S}\lambda x.\mathbf{good}(x, \mathcal{S}) : (\uparrow_\sigma \text{ STD}) \multimap (\uparrow \text{ SUBJ})_\sigma \multimap \uparrow_\sigma$

$$\lambda P\lambda Q\lambda x.P(Q)(x) \wedge Q(x) :$$

$$[(\uparrow_\sigma \text{ STD}) \multimap (\uparrow \text{ SUBJ})_\sigma \multimap \uparrow_\sigma] \multimap$$

$$[[((\text{ADJ} \in \uparrow)_\sigma \text{ VAR}) \multimap ((\text{ADJ} \in \uparrow)_\sigma \text{ RESTR})] \multimap$$

$$[((\text{ADJ} \in \uparrow)_\sigma \text{ VAR}) \multimap ((\text{ADJ} \in \uparrow)_\sigma \text{ RESTR})]]$$

- Includes a specialised version of the **INTERSECT** meaning constructor which passes the noun in as the standard-of-comparison argument.

# Flexible adjectives

- *Un bon linguiste* then has the following meaning:

$$(41) \lambda x.\mathbf{good}(x, \mathbf{linguist}) \wedge \mathbf{linguist}(x)$$

# Assessment of the analysis

- In some respects we make only a weak prediction, namely that all post-nominal adjectives are intersective.
- (And not, crucially, that all intersective adjectives are post-nominal.)
- Pre-nominally, all bets are off.
- We feel that this is all that is justified, however, given the heterogeneous state of pre-N adjectives.



# Assessment of the analysis

- What would be most damning for our analysis, therefore, are post-N adjectives which are not intersective.
- Two putative counterexamples, which we can explain.
- Some lingering problematic examples, which we cannot.

# Event-denoting nouns

(42) le bombardement américain  
*the bombardment American*

- Two solutions:
  - This is *semantically* intersective, with the further specified meaning coming from pragmatics.
  - There is a more complex compositional situation here.
- Either is possible. In the latter case, we require some variant of INTERSECT which can apply the meaning of the adjective to one of the arguments of the noun, rather than the noun itself.

# Chinese chefs

- A reviewer asks about the status of NPs like (43):

(43) un chef chinois

*a chef Chinese*

[intended: a chef who cooks Chinese food]

- It seems that such readings are not available: *un chef chinois* comes from China, and may cook Italian food.

# Real problems

- Thuilier (2013: ¶27) provides the following examples:
  - (44) L'émergence du mot « folie » correspond à l'inquiétude d'un poète qui cherche encore les moyens de restaurer l'**unité ancienne**.
  - (45) Peut-on dire que le sarkozysme est le **produit le plus pur** de la Ve République ?
  - (46) Le personnage de John C. Reilly, un type **brave et mou** qui se métamorphose au milieu de la scène en gros con macho.

# Real problems

- To the extent that they are acceptable, these are genuine counterexamples.
- However, they are rare, and definitely marked. Somewhat literary feel?
- Possibly relates to the interaction of syntax-semantics with considerations of euphony or balance ...

# Complexities

- Thuilier (2013) discusses a number of factors which bear on the statistical distribution of adjectives pre- or post-nominally – especially of those which can appear in both positions with (approximately) the same meaning.
- E.g. frequency, morphological complexity.
- Insofar as these are questions of usage (performance), not grammar (competence), they fall outside our scope.
- There is one case where our claims are challenged, however.

# Coordination

- Coordinated adjectives possible in both positions, but (slightly) preferred post-N.
  - Is this just the common ‘short before long’ tendency in SVO languages?
- Troubling for us: it appears strictly pre-N adjectives like *ancien* or *faux* can appear post-N when coordinated (Abeillé & Godard 1999):

(47) les sénateurs anciens ou actuels  
*the senators former or current*  
‘the former or current senators’

(48) des coupables vrais ou faux  
*some guilty.ones true or false*  
‘≈rightly or wrongly accused people’

# Coordination

- A false generalisation?

(49) #mon amie ancienne et/mais gentille  
*my friend former and/but kind*

(50) #un Renoir faux mais toujours cher  
*a Renoir fake but still expensive*

(51) #un chien sacré et méchant  
*a dog EXPR and mean*



# Coordination

- Something special about *vrais ou faux, anciens ou actuels*: they are in some sense totalising.
  - a particular N must be either real or fake
  - there are only current and former Ns in existence (assuming we aren't clairvoyant and so can't pick out future instances of N)
- Telling that real-life examples often look like this:

(52) le peuple qui veut toujours des coupables vrais ou faux **peu importe**  
'people who always want someone to blame, **regardless** of whether  
they're guilty or not.

<https://ducotedetourliac.blogspot.com/2016/03/a-propos-de-passion-ou-de-moment.html>

# Coordination

- Has the feeling of an appositive, an after-thought, a clarification.  

(53) ... tous désirent la même chose : retrouver leur argent perdu, ou, à défaut, avoir la peau des coupables, vrais ou faux.  
‘... all desiring the same thing: finding their lost money, or, failing that, finding someone to punish, whether guilty or not.’

<http://www.cinefemme.be/spip.php?film1534>
- If they're not actually in the post-N adjectival position, these are not counterexamples.

# Conclusion

- The predicative use of adjectives is the basic one: attributive uses of predicative adjectives are mostly via the grammatically-provided type-lifting meaning constructor `INTERSECT`.
- Some adjectives cannot appear predicatively or post-nominally; they have lexically-specified higher types.
- Some adjectives can appear in both positions with the same core meaning, although usually with some additional restriction or more complex meaning pre-nominally.

# Conclusion

- This gives us three kinds of adjectives in French:
  1. Adj-only (e.g. concrete properties such as colour, nationality, shape or classificatory adjectives).
  2.  $\hat{A}$ Adj-only (e.g. intensional or expressive adjectives).
  3. Flexible Adj/ $\hat{A}$ Adj (e.g. *bon*, *petit*, *beau*, ...)
    - Lexically encoded preference for one position or the other; the marked position then comes with some additional meaning

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