

# On Adverb Placement and Adjunction Sites

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April 18, 1999

“Exsequamur coeptum propositi ordinem.”  
— Phaedrus, *Fables*.

## -1 Historical Background

There have historically been two types of approaches to “movement,” one typified by GB, in which movement was always possible (“move- $\alpha$ ”) unless prohibited (filters, ECP, etc.); and the other typified by Minimalism, in which movement is possible only when motivated (feature checking, Greed, etc.).

Traditionally, there have been two types of languages, “configurational,” in which GB and Minimalism accord well with observed word order, and “non-configurational,” in which neither theory accords well with observed word order.

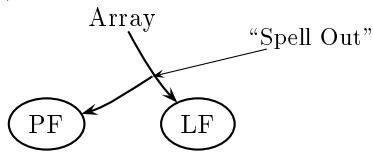
But configurationality doesn’t always match-up with “freer word order,” (Hale 1989), and in any case, a theory that bifurcates languages seems undesirable.

And in fact, it seems that all languages exhibit two types of word-order variation: syntactic (or “Movement”) and paratactic.

Adverb placement seems to demonstrate paratactic word order variation.

## 0 Theoretical Background

### (1) General Architecture



The PF level interfaces with phonology, and the LF level with “interpretation,” whatever that might turn out to mean.

### (2) Word order:

- (a) Overt movement of X to Y occurs only if X and Y enter into a checking relation, that is, checking “strong” features. (Chomsky 1995)<sup>1</sup> (“Greed” and “Procrastinate.”)
- (b) More economic movement prohibits less economic movement.
- (c) Asymmetric C-command among constituents orders those constituents (Kayne 1993).
- (d) Every element must be ordered (Kayne).

I reject (d).

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<sup>1</sup>Chomsky leaves open the possibility that, when X moves to Y via Z, the movement to Z need not be motivated by strong features, even though the final movement to Y must be. Though the details differ in various implementations, the end result is that by and large a unique feature combination is responsible for each unique word order.

# 1 Data

(3) English:

- (a) Often John has kissed Mary.
- (b) John often has kissed Mary.
- (c) John has often kissed Mary.
- (d) \*John has kissed often Mary.
- (e) John has kissed Mary often.

(4) French:

- (a) Souvent Jean a embrassé Marie  
often Jean has kissed Marie
- (b) \*Jean souvent a embrassé Marie  
Jean often has kissed Marie
- (c) Jean a souvent embrassé Marie  
Jean has often kissed Marie
- (d) Jean a embrassé souvent Marie  
Jean has kissed often Marie
- (e) Jean a embrassé Marie souvent  
Jean has kissed Marie often

(5) C'est Jean qui souvent a embrassé Marie  
It's Jean who often has kissed Marie

Examples (3–5) demonstrate **a-scrambling**, and (6–8) demonstrate **m-scrambling**.

(6) Russian:

- (a) John videl svoju mašinu  
John saw self's car  
'John saw his (own) car.'
- (b) videl svoju mašinu John  
saw self's car John

- (c) svoju videl John mašinu  
self's saw John car
- (d) svoju mašinu videl John  
self's car saw John
- (e) John svoju mašinu videl  
John self's car saw
- (f) John svoju videl mašinu  
John self's saw car
- (g) mašinu videl John svoju  
car saw John self's
- (h) mašinu videl svoju John  
car saw self's John

*etc.*

(7) Latin (Horace, *Odes* 1.22):

- (a) Namque mē silvā lupus in Sabīnā dum meam cantō  
Lalagēn et ultrā terminum cūrīs vagor expeditīs fūgit  
inermem.
- (b) For me-Acc forest-Abl wolf-Nom in Sabine-Abl while  
my-Acc I-was-serenading Lalage-Acc and beyond [the]  
border cares-Abl I-was-wandering set-free-Abl avoids  
unarmed-Acc
- (c) For the wolf in the Sabine forest avoids me [in my state  
of being] unarmed [or “an unarmed me”] while I was  
serenading my Lalage and wandering beyond the border  
care-free [lit: cares set-free]
- (d) For me<sub>i</sub> [forest<sub>l</sub> wolf in t<sub>l</sub> Sabine] [[while my<sub>k</sub> I-was-  
serenading [t<sub>k</sub> Lalage]] and [beyond the border cares<sub>j</sub>  
I-was-wandering [t<sub>j</sub> set-free]]]m avoids t<sub>i</sub> unarmed t<sub>m</sub>.

(8) More Russian:

- (a) ja svojevo dumaju što ty videla brata  
I self's-ACC think that you saw brother  
'I think that you saw your/\*my (own) brother'
- (b) ja svojevo videl brata  
I self's-ACC saw brother  
'I saw my (own) brother.'

## 2 A-scrambling

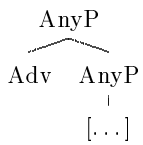
### 2.1 Theory

A-scrambling (“adjunct” scrambling) obtains when two phrases fail to enter into an asymmetric c-command (ac-command) relation.

- (9) If  $\alpha$  and  $\beta$  do not enter into an ac-command relation, they are sent to PF unordered.
- (10) An element  $\alpha$  of tree  $T$  may appear anywhere in  $T$  provided that it does not violate ordering constraints and that it does not violate adjacency constraints.
- (11) Elements  $\alpha$  and  $\beta$  must be adjacent if they enter into a strong-feature-checking relation.
- (12) If  $\alpha$  or a phrase containing  $\alpha$  ac-commands  $\beta$  or a phrase containing  $\beta$ , then  $\alpha$  must appear linearly before  $\beta$  at PF.

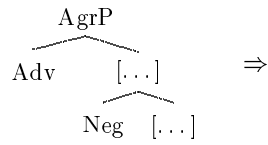
### 2.2 Results

(13)



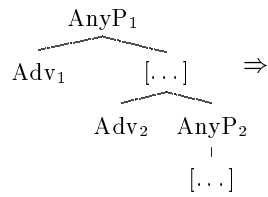
The adverb can appear anywhere inside of AnyP. No matter where the adverb appears, it is interpreted as having scope over anything in AnyP.

(14)



The adverb has scope over Neg, even though it can appear anywhere inside AgrP, including after Neg.

(15)



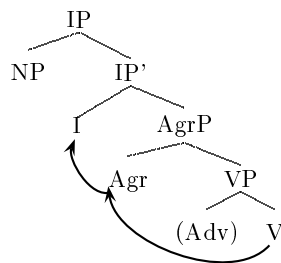
Adverb<sub>1</sub> can appear anywhere inside of AnyP<sub>1</sub>. Adverb<sub>2</sub> can appear anywhere inside of AnyP<sub>2</sub>. Adverb<sub>1</sub> modifies AnyP<sub>1</sub>. Adverb<sub>2</sub> modifies AnyP<sub>2</sub>.

NB: Adverb<sub>1</sub> can appear before or after Adverb<sub>2</sub>.

### 2.3 Adverb Placement

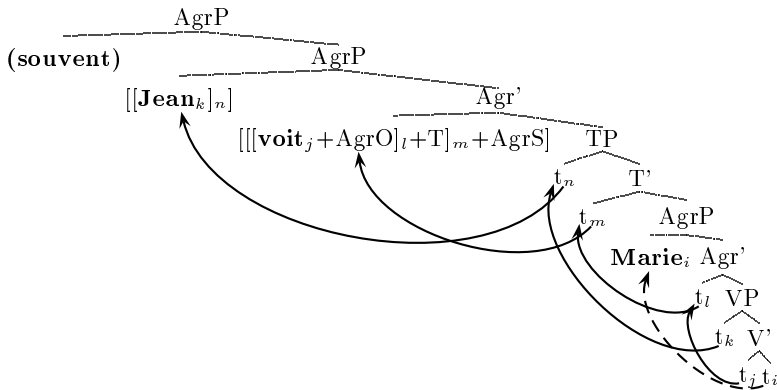
French (Pollock 1989):

(16)



French (Chomsky (1995)-ish):

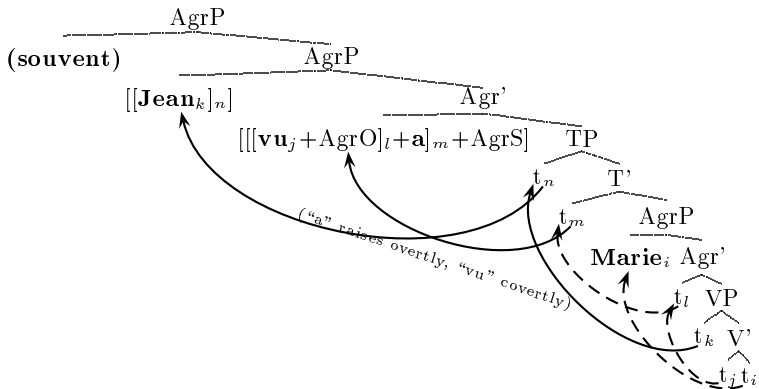
(17)



(18) (souvent) Jean (\*souvent) voit (souvent) Marie (souvent)

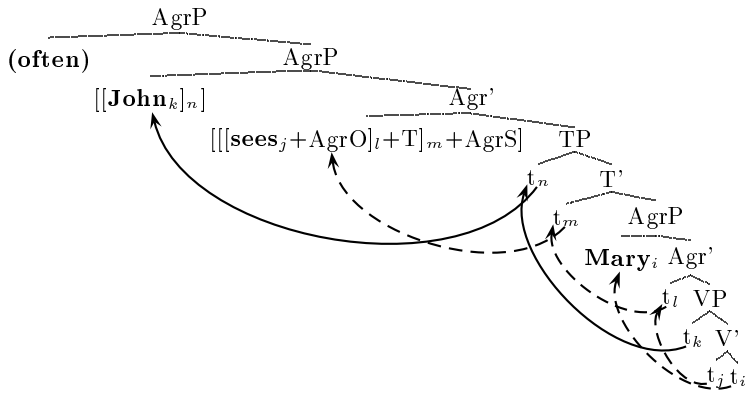
French:

(19)



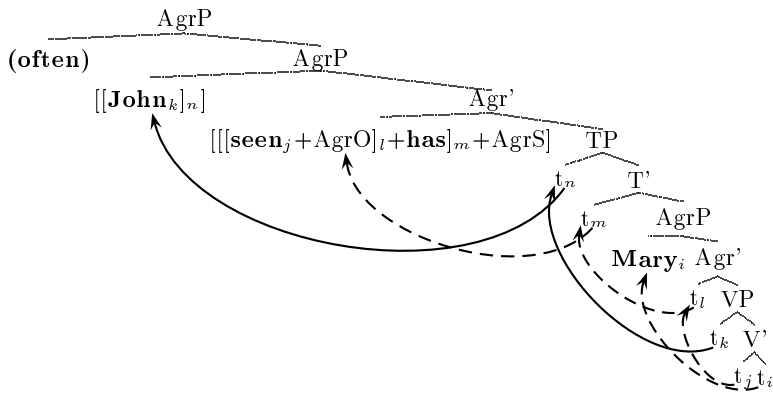
(20) (souvent) Jean (\*souvent) a (souvent) vu (souvent) Marie (souvent)

(21)



(22) (Often) John (often) sees (\*often) Mary (often)

(23)



(24) (Often) John (often) has (often) seen (\*often) Mary (often)

## 2.4 Adverb Interpretation

The actual attachment site, rather than the location at PF, determines interpretation:

(25) (a) Happily Mary saw John.



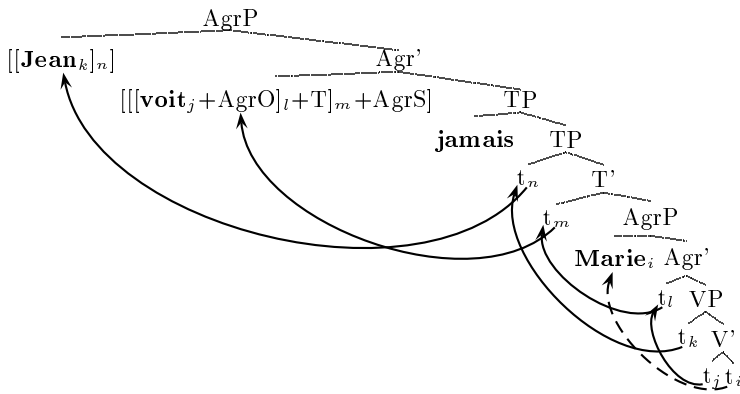
- (b) Mary happily saw John. (ambiguous)
  - (c) \*Mary saw happily John.
  - (d) Mary saw John happily. (ambiguous)
- (26) (heureusement) Marie (\*heureusement) a (heureusement) vu  
 (heureusement) Jean (heureusement).

## 2.5 Negation — another solution

Perhaps negation adjoins to TP?

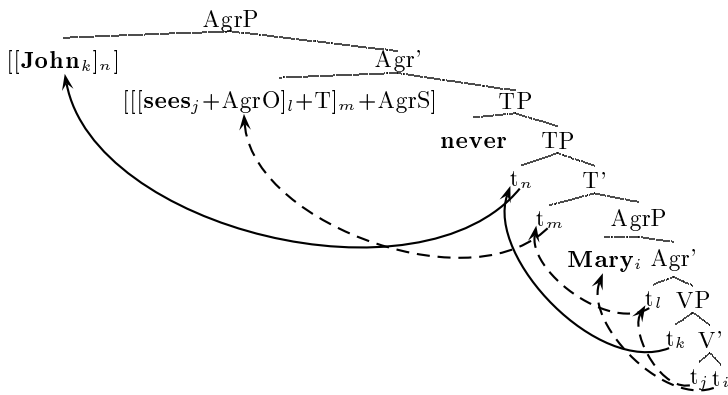
French:

(27)



English:

(28)



## 2.6 More adjuncts

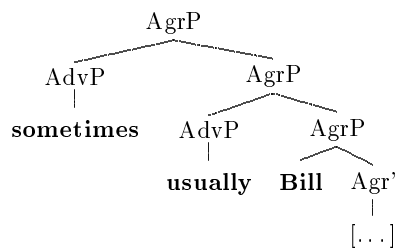
- (29) Bill didn't go outside because it was raining.
- (30) (a) The reason Bill didn't go outside was that it was raining.  
(b) That Bill went outside because it was raining is not true.
- (31) Because it was raining Bill didn't go outside.
- (32) We expect ambiguity in (29) but not in (31).
- (33) The farmer didn't grow crops often. (Ambiguous.)
- (34) (a) Not all items available in all stores.  
(b) Not all items available in some stores.

## 2.7 Scope among adjuncts

- (35) (a) Bill sometimes usually buys semi-sweet chocolate.  
(b) Bill usually sometimes buys semi-sweet chocolate.
- (36) (a) It is sometimes the case that Bill usually buys semi-sweet chocolate.  
(b) It is usually the case that Bill sometimes buys semi-sweet chocolate.

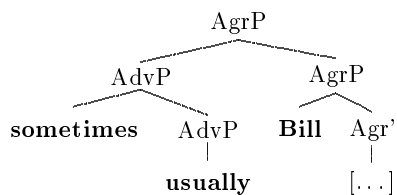
Impossible structure:

(37)



Correct structure:

(38)



- (39) (a) ??Bill has bought semi-sweet chocolate usually sometimes.  
 (b) ??Bill has bought semi-sweet chocolate sometimes usually.  
 (c) Bill has usually bought semi-sweet chocolate sometimes.  
 (d) Bill has sometimes bought semi-sweet chocolate usually.

- (40) (a) Bill has usually often bought semi-sweet chocolate.  
 (b) Bill has often usually bought semi-sweet chocolate.

(41) Processing problems?

## 2.8 More order among adjectives

(42) E.g., (Cinque 1998): généralement > pas > déjà > plus > toujours > complètement (generally > not > already > more > always > completely)

(43) (Cinque 1998) p. 7 (21):

- (a) C'est lui qui a généralement toujours raison  
 It's him who has generally always right  
 'He's the one who's generally always right.'
- (b) \*C'est lui qui a toujours généralement raison  
 It's him who has always generally right  
 'He's the one who's always generally right.'

but:

- (44) (a) Sa montre est généralement toujours exacte, mais la mi-  
 enne est toujours généralement exacte.

- (b) (His watch is generally always right, but mine is always generally right.)

(45) (Cinque 1998) p. 5 (2):

- (a) A deux heures Gianni n'a généralement pas mangé, encore
- (b) By 2:00 John has generally not eaten yet.
- (c) A deux heures Gianni n'a pas généralement mangé, encore
- (d) By 2:00 John has not generally eaten yet.

Cf. also:

(46) (Cinque 1998) p. 168.

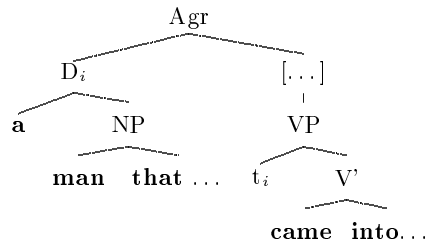
— Tu fumes?

- (a) — généralement pas
- (b) — pas généralement

## 2.9 Extraposition

“A man that no one knew came into the room.”

(47)



Using the notation  $\text{acc}(\alpha, \beta)$  to indicate that  $\alpha$  ac-commands  $\beta$ , we find that  $\text{acc}(a, \text{man})$ ,  $\text{acc}(a, \text{that...})$ ,  $\text{acc}(\text{man}, \text{that...})$ ,  $\text{acc}(\text{man}, \text{came})$ ,  $\text{acc}(\text{came}, \text{into})$ . So  $a$  must precede  $\text{man}$ , which must precede  $\text{came}$ , which in turn precedes  $\text{into}$ , yielding, “A man came into.” However, the phrase “that...” is not ordered w.r.t. “came into...”

- (48) (a) A man that no one knew came into the room.  
(b) A man came into the room that no one knew.

(This is contra Culicover & Rochemont (1990), who argue for a movement approach to extraposition.)

### 3 Summary

Even in “configurational” languages, adverb placement seems to be of the “anywhere except where prohibited” variety, suggesting it is paratactic in nature.

Adverbial scope seems not (always) to be determined by adverb placement, which further suggests that adverb placement is paratactic in nature.

A-scrambling accounts for:

1. Adverbial placement
2. Adverbial interpretation, including:
3. Adverbial scope

A-scrambling relies on:

1. Strong features — the details of which have largely been worked out: Hoffman (1996).
2. Information theoretic concerns — some details of which have been worked out: Hoffman (1996) and references therein.
3. Processing considerations — the details of which remain vague.

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