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8th of May 2007

Elements of Comparative Generative Syntax: A Cartographic Approach
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I. Introduction

Two issues to deal with the structures of CP and DP and the transformations that apply therein

1. Adverb syntax (clause)
2. Adjective syntax (noun phrase)

What can these two lexical classes tell us about the structure of the clause and the noun phrase?

Working hypotheses :

1. Adverbs have fixed positions in the Mittelfeld of the clause
2. Attributive adjectives have fixed positions in the Mittelfeld of the noun phrase

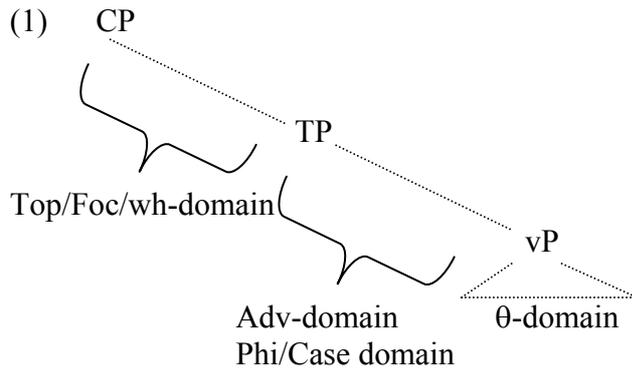> ⇨ Adverbs and adjectives can move only to the left-periphery of CP and DP, respectively

- **Crosslinguistic (comparative study) on 14 languages**

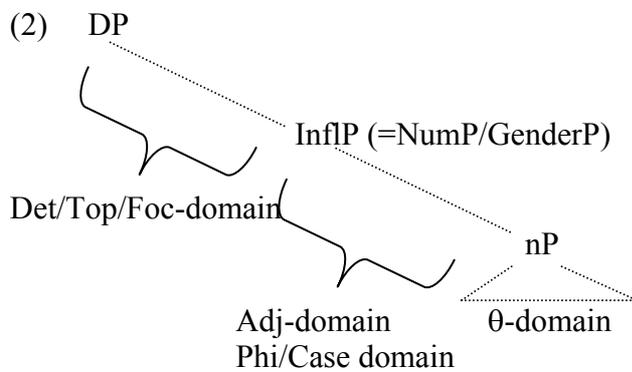# II.   Phrase structure and clausal/nominal structure

- 3 domains (Grohmann 2003)

| Clause	Noun phrase	
(i) vP/VP	nP/NP	= θ-domain (Nachfeld)
(ii) IP/TP	NumP	= ɸ-domain (Mittefeld)
(iii)CP	DP	= ω-domain (Vorfeld)

- Chomsky's (2000) core functional complex for the clause:

(1)   CP
         TP
Top/Foc/wh-domain
                     vP
         Adv-domain   θ-domain
         Phi/Case domain

- For the noun phrase

(2)   DP
         InflP (=NumP/GenderP)
Det/Top/Foc-domain
                     nP
         Adj-domain   θ-domain
         Phi/Case domain

- Kayne's (1994) antisymmetry theory

(3) Spec-head-Compl configuration

              XP
        Spec   X(P)
                 X   Compl
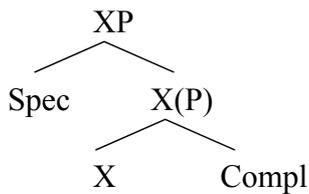
≠ Strong Minimalism (no multiple specifiers, no free/multiple adjunction)

The category that projects is the one that selects. There are two types of selection:

- C-selection => Categorial selection
- S-selection => θ + adjunct selection

LCA : universal Spec-head-Compl order (SVO)

2

III. Typology of adjuncts

- Cinque's (1993, 1999) semantico-functional projections

(4) Adverb hierarchy (see also Alexiadou 1997, Laenzlinger 1998, Ernst 2002)

[*Frankly/Franchement* $\text{Mood}_{\text{speech act}}$ > [*unfortunately/malheureusement* $\text{Mood}_{\text{evaluative}}$ >
[*apparently/apparemment* $\text{Mood}_{\text{evidential}}$ > [*probably/probablement* $\text{Mod}_{\text{epistemic}}$ > [*once/autrefois* T_{past} >
[*then/ensuite* T_{future}> [*maybe/peut-être* $\text{Mod}_{\text{(ir)realisis}}$ > [*necessarily/nécessairement* $\text{Mod}_{\text{necessity}}$ >
[*possibly* $\text{Mod}_{\text{possibility}}$ > [*deliberately/intentionnellement* $\text{Mod}_{\text{volitional}}$ > [*inevitably/inévitablement*
$\text{Mod}_{\text{obligation}}$ > [*cleverly/intelligemment* $\text{Mod}_{\text{ability/permission}}$ > [*usually/habituellement* $\text{Asp}_{\text{habitual}}$ > [*again/de
nouveau* $\text{Asp}_{\text{repetitive}}$ > [*often/souvent* $\text{Asp}_{\text{frequentative}}$ > [*quickly/rapidement* $\text{Asp}_{\text{celerative}}$> [*already/déjà*
$\text{T}_{\text{anterior}}$ > [*no longer/plus* $\text{Asp}_{\text{perfect}}$ > [*still/encore* $\text{Asp}_{\text{continuative}}$ > [*always/toujours* $\text{Asp}_{\text{perfect}}$ > [*just/juste*
$\text{Asp}_{\text{retrospective}}$ > [*soon/bientôt* $\text{Asp}_{\text{proximative}}$ > [*briefly/brièvement* $\text{Asp}_{\text{durative}}$ > [*typically/typiquement*
$\text{Asp}_{\text{generic/progressive}}$ > [*almost/presque* $\text{Asp}_{\text{prospective}}$ > [*completely/complètement* $\text{Asp}_{\text{SgCompletive(I)}}$ >
[*all/tout* $\text{Asp}_{\text{PlCompl}}$ > [*well/bien* Voice > [*fast/vite* $\text{Asp}_{\text{celerative(II)}}$ > [*completely/complètement*
$\text{Asp}_{\text{SgCompletive(II)}}$ > [*again/de nouveau* $\text{Asp}_{\text{repetitive(II)}}$ > [*often/souvent* $\text{Asp}_{\text{frequentative}}$]]]]]]]]]]]]]]]]]]]]]]]]

(5) Adjective hierarchy (see also Scott 1998, Laenzlinger 2005)

(6) Scott (1998 :71)

Ordinal > Cardinal > Subjective Comment > Evidential > Size > Length > Height > Speed >
Depth > Width > Temperature > Wetness > Age > Shape > Color > Nationality/Origin >
Material

IV. Partition of the clause and of the noun phrase

- **Parallel structure**

(7)   a. $[_{DP} \dots [_{DP} \quad [_{FPadj1} \dots [_{FPadj2} \dots [_{nP} \dots [_{NP} ..]]] \quad]]]$

   b. $[_{CP} \dots [_{CP} \quad [_{FPadv1} \dots [_{FPadv2} \dots [_{vP} \dots [_{VP} ..]]] \quad]]]$
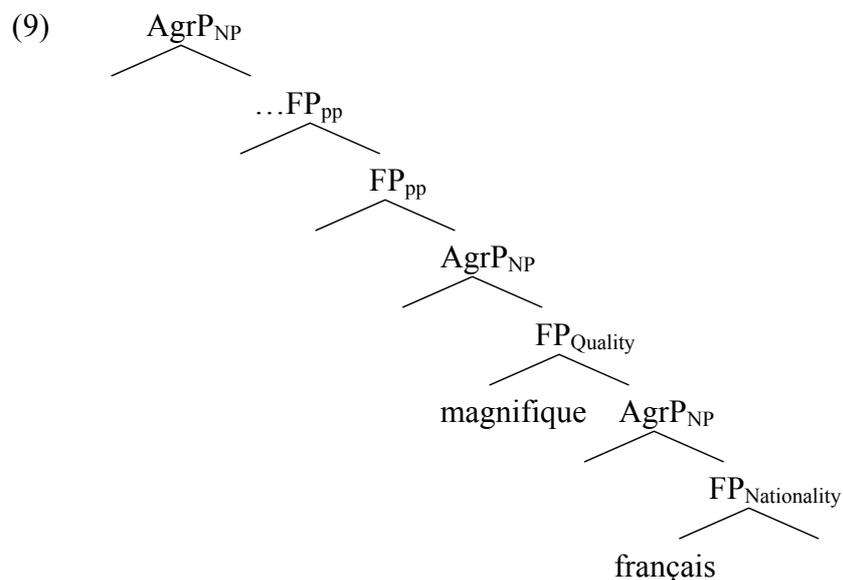
- **The Mittelfeld**

The Mittelfeld of the clause: $Adv_1 > S / V / O > Adv_2 > S / V / O > Adv_3$ (see Cinque 1999)

Hypothesis: there are V/N-related and Case related positions among adjunct-related projections !

(8)
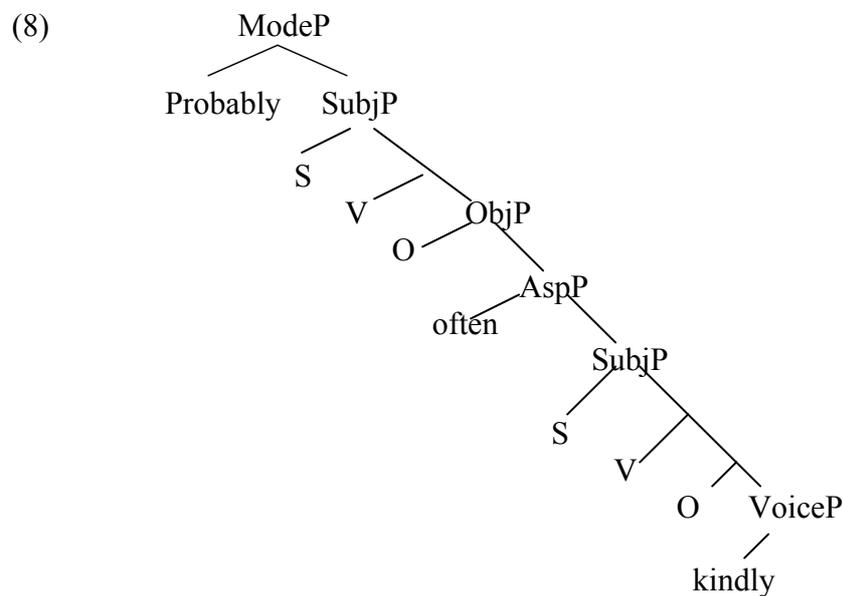
The noun phrase: Case/P-positions > $AgrP_{NP}$ > Adj_1 > $AgrP_{NP}$ > Adj_2

(9)

4

- **The Vorfeld**

Rizzi's (1997) layered CP and Laenzlinger(2005)/Puskas & Ihsane (2001) layered DP

(10)a. ForceP   b.   DP$_{external=deixis}$

        TopP*   QuantP

             FocP   TopP/ModifP

                  TopP*   FocP

                       FinP   DP$_{internal=determination}$
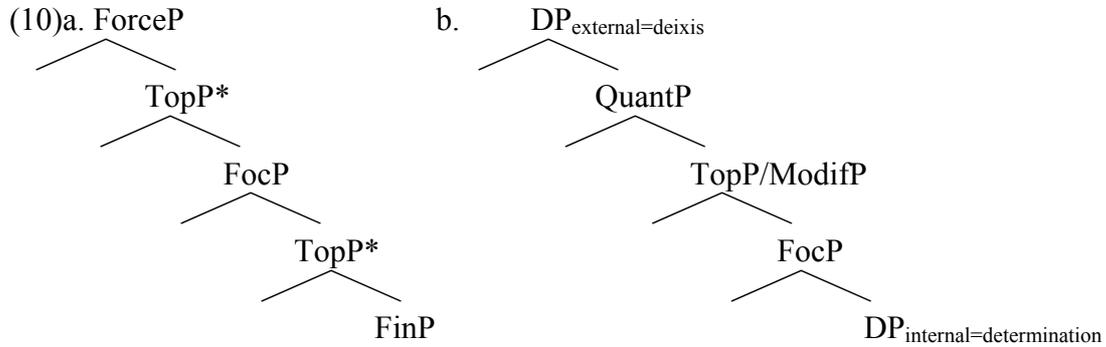
V. Parallel transformation

- Verb raising   Noun raising

  - VP-movement (Majahan 2000,   - NP-movement (Aboh 2004, Laenzlinger
    Koopman & Szabolcsi 2000,   2005, Shlonsky 2005, Cinque 2005)
    Laenzlinger 2004)

- Remnant movement:

(11)   [$_{XP}$ YP X ZP]
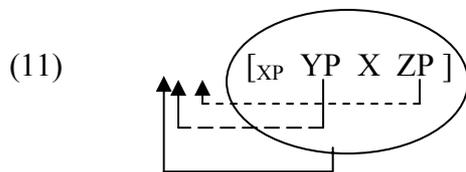
- Generalized raising/scrambling: remnant VP movement entails argument (DP)
  movement (subject raising, object raising, PP-merging (Kayne 2002))

- (Heavy) pied-piping movement[1] (Koopman & Szabolcsi 2000)

(12) $[_{YP} Y_F [_{XP} X_F]]$
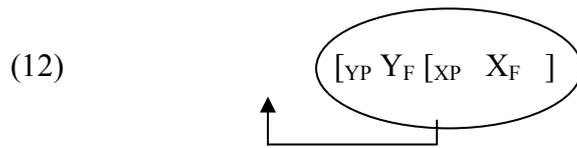
=> the mirror-image order of postnominal adjectives/adverbs (see also Cinque 2005, Shlonsky 2006 for further arguments)

(13) a. une[[[$_{NP}$ **destruction**] [$_{VoiceP}$ **violente**]] [$_{TP}$ récente]]
        vs. a recent violent destruction
   b. une [[[$_{NP}$ **voiture**] [$_{ColorP}$ **rouge**]] [$_{QualP}$ splendide]]
        vs. a splendid red car

(14) Les américains ont [[$_{VP}$ **envahi**] [$_{DP}$ **l'Irak**] [$_{VoiceP}$ **violemment**]] [$_{TP}$ récemment]]
        The American   invaded   Irak   violently   recently'

A.   The clause

Generalized scrambling:

- Subject => Nom/Agr-related position + IS-feature (i.e.focus new info= Spec-SubjP/AgrsP)
- Object => Acc-related position +/-informational feature (Spec-ObjP/AgrOP)

(15) a. …parce que Jean lisait probablement ce livre tranquillement
   b.…because John probably read this book quietly
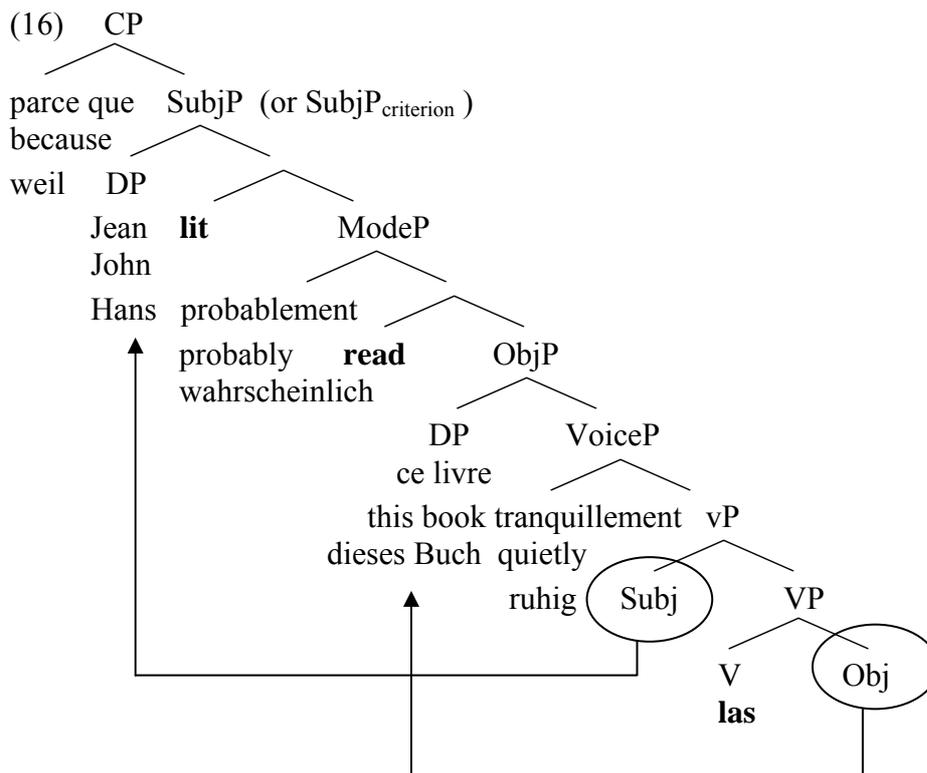   c. …weil Hans wahrscheinlich dieses Buch ruhig las.

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[1]   Feature Inheritance Hypothesis (Pearson 2000:339)
   a. A functional projection FP is *categorically non-distinct* from a lexical head L iff it has a lexical feature from L.
   b. A functional projection FP inherits a feature φ from a lexical L iff:
      (i)   An X°-projection containing φ adjoins to F°, or
   An XP-projection containing φ enters into a Spec-Head configuration with F°.

(16)   CP
          /\
parce que   SubjP (or SubjP_criterion)
because   /\
weil   DP   \
     Jean   **lit**   ModeP
     John   /\
     Hans probablement   \
          probably   **read**   ObjP
          wahrscheinlich   /\
                    DP   VoiceP
                  ce livre   /\
              this book tranquillement vP
              dieses Buch quietly   /\
                    ruhig (Subj)   VP
                             /\
                            V   (Obj)
                          las

- Common properties:
  - SVO
  - Generalized scrambling
  - Adverbs have fixed position (even sentence-finally)
- Distinctive properties:
  - Verbs move high in French, lower in English and does not move in German (except in V2, see (8c))
  - Optional objet scrambling in French and English

(17)a. [_SubjP Jean lisait [_VoiceP tranquillement ce livre]]
    b. [_SubjP John [_VoiceP quietly read this book]]

Adverbs can move, but only to the left periphery:

(18)a. [_TopP/ModifP Tranquillement [_SubjP Jean lisait ce livre]]
    b. [_TopP/ModifP Quietly [_SubjP John read this book]]
    c. [_TopP/ModifP Ruhig las [_SubjP Hans dieses Buch]] (+V2)

Subj / Obj : according to Minimalism case is parasitic on ϕ, but according to Pesetsky & Torrego (2004), Nom is equated with Tense (and Acc with Aspect ? see Travis 1992, Borer 2005)
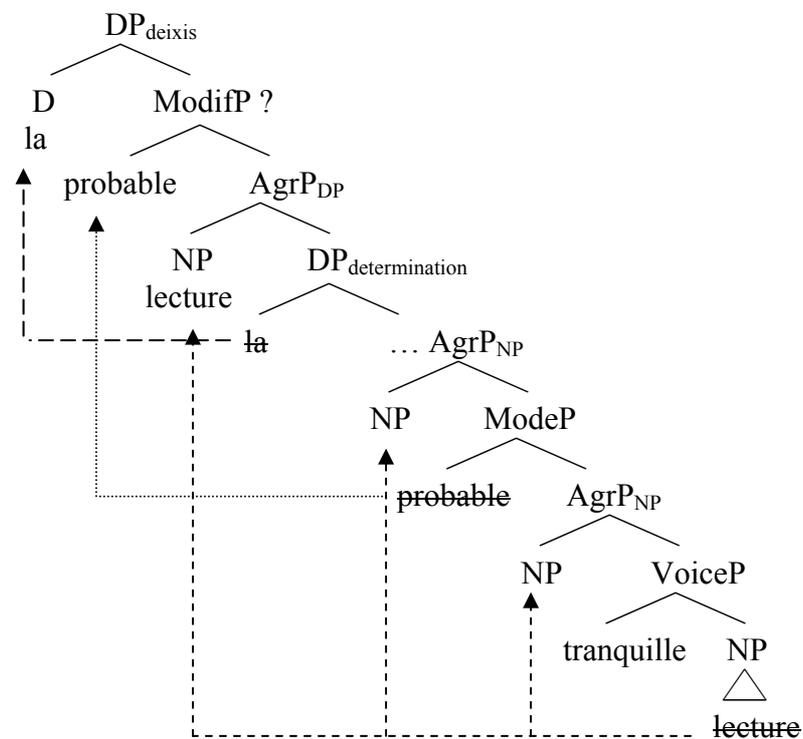
Hypothesis : there is no IS-projection within the Mittelfeld. TopP and FocP occur only in the peripheries (Rizzi 1997, Belletti 2001) contra McNay (2004). But there are IS-features in the Numeration on N_subject/object. These feature enter an Agree relation with peripheral Top/Foc.

B.   The noun phrase

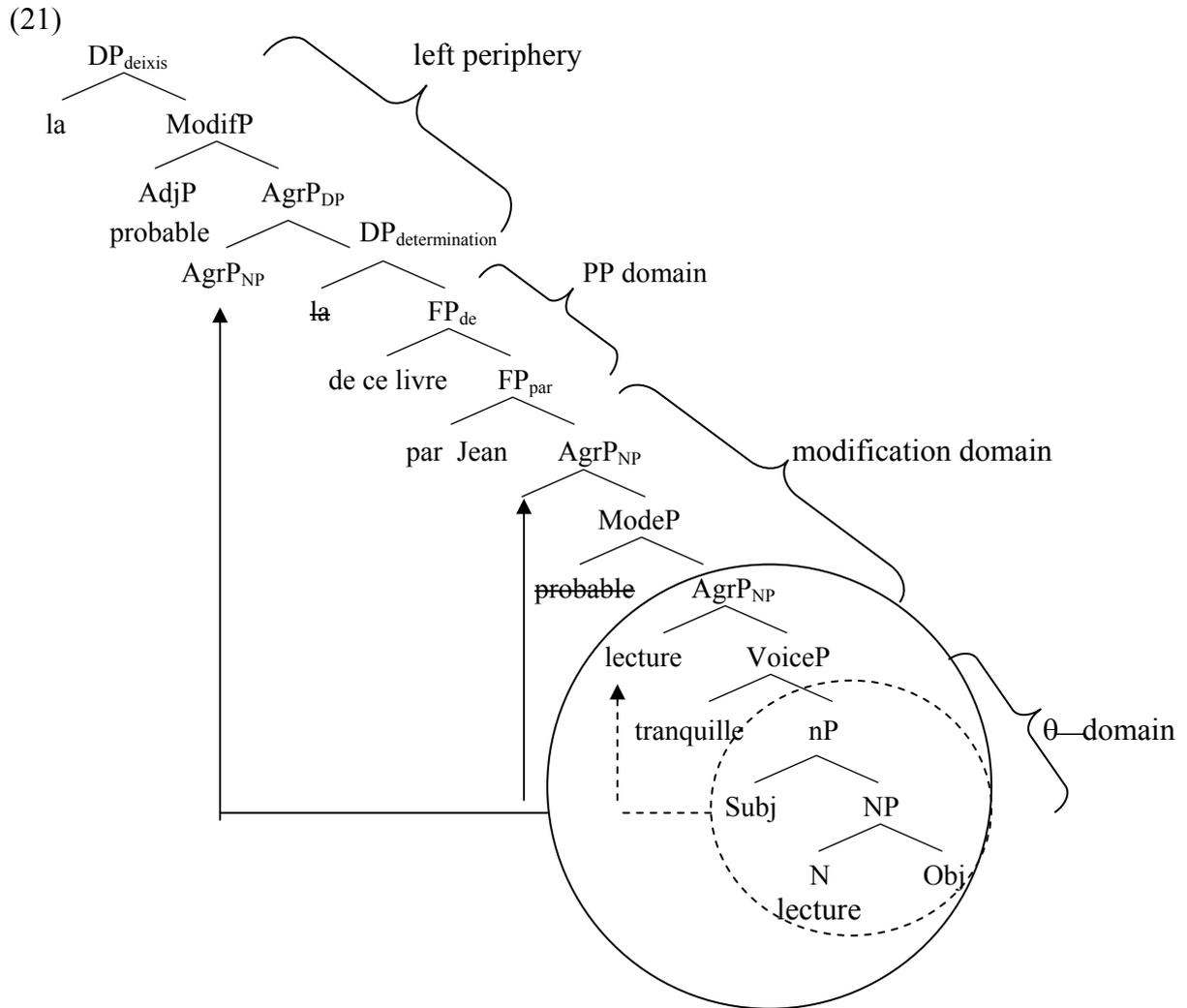- **Split DP-analysis**

- **D to D raising**

- **NP-movement**

(19)a. la probable lecture tranquille de ce livre par Jean
   b. John's probable quiet reading of this book

(20)   French :

DP$_{deixis}$
D — la
ModifP ?
probable
AgrP$_{DP}$
NP — lecture
DP$_{determination}$
la
… AgrP$_{NP}$
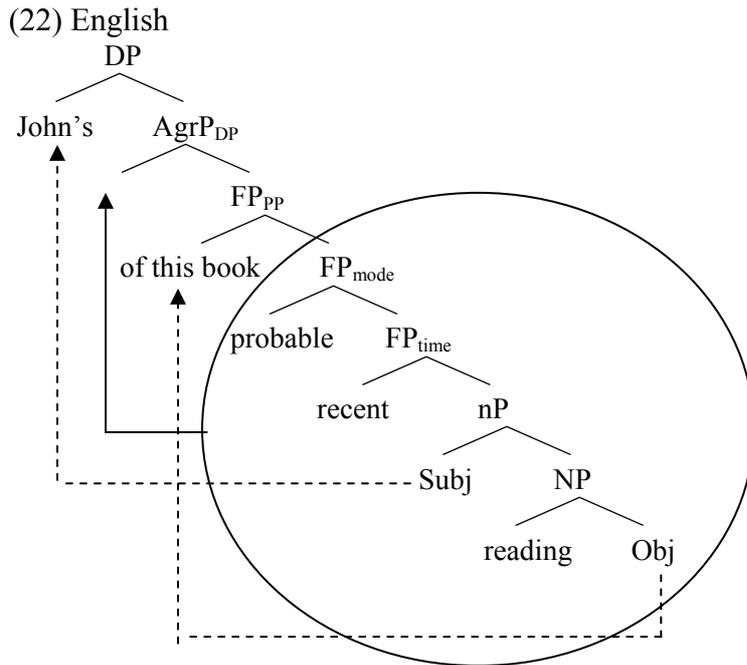NP
ModeP
probable
AgrP$_{NP}$
NP
VoiceP
tranquille   NP
lecture

- **Adjective fronting**

8

- According to Kayne (2002) PPs are built outside the predicate domain (vP/nP) and, presumably, higher than the adjective domain (see head-final languages like Japanese, Turkish)
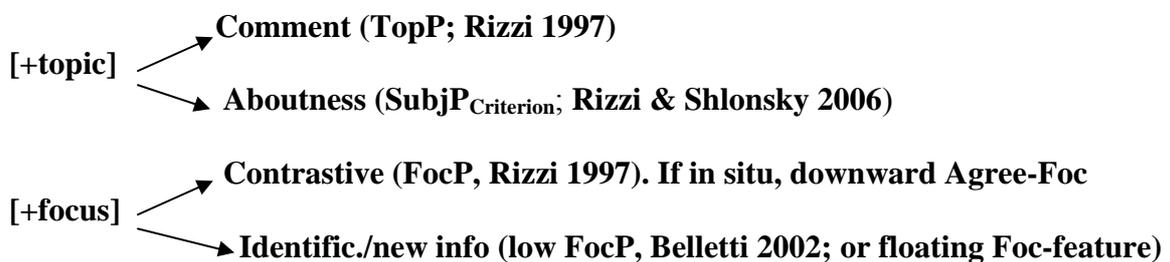
(21)

left periphery

PP domain

modification domain

θ—domain

DP_deixis
la   ModifP
AdjP   AgrP_DP
probable
AgrP_NP
DP_determination
~~la~~   FP_de
de ce livre   FP_par
par Jean   AgrP_NP
ModeP
~~probable~~   AgrP_NP
lecture   VoiceP
tranquille   nP
Subj   NP
N   Obj
lecture

(22) English

⇨ PPs are built in the highest part of the Mittelfeld

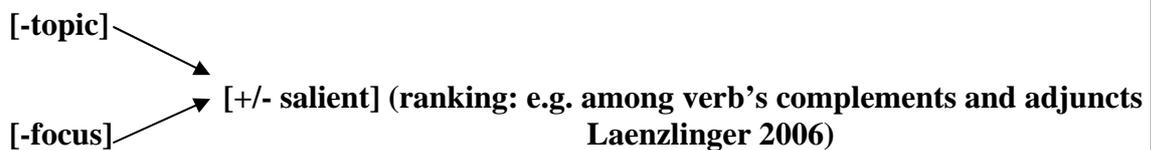## VI. Syntax-Information Structure interface

- **Assumption:** word order variations among adverbs, verb(s) and arguments cannot depend solely on Case/Agreement properties. They also depend on informational properties

  => **Syntax-Information Structure Interface**
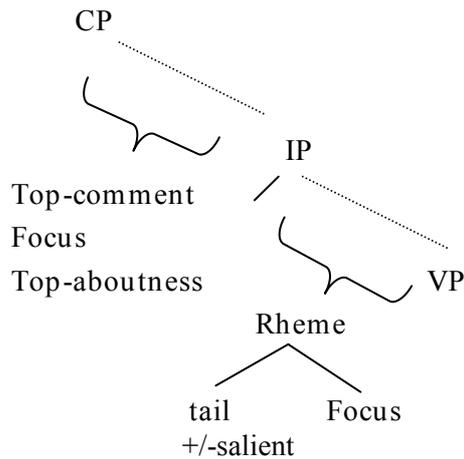 (Vallduví 1992**,** Choi 1999, Lambrecht 1994)

Informational typology:

[+topic] ⟶ **Comment (TopP; Rizzi 1997)**

⟶ **Aboutness (SubjP$_{Criterion}$; Rizzi & Shlonsky 2006)**

[+focus] ⟶ **Contrastive (FocP, Rizzi 1997). If in situ, downward Agree-Foc**

⟶ **Identific./new info (low FocP, Belletti 2002; or floating Foc-feature)**

Tail: (rhematic domain)

[-topic]

[-focus] ⟶ **[+/- salient] (ranking: e.g. among verb's complements and adjuncts Laenzlinger 2006)**

---

(23)

```
                              CP
                             /  ⋰
                         ⎫
                        /      IP
         Top-comment   /      / ⋰
         Focus              ⎫
         Top-aboutness     /     VP
                         Rheme
                        /     \
                     tail      Focus
                   +/-salient
```
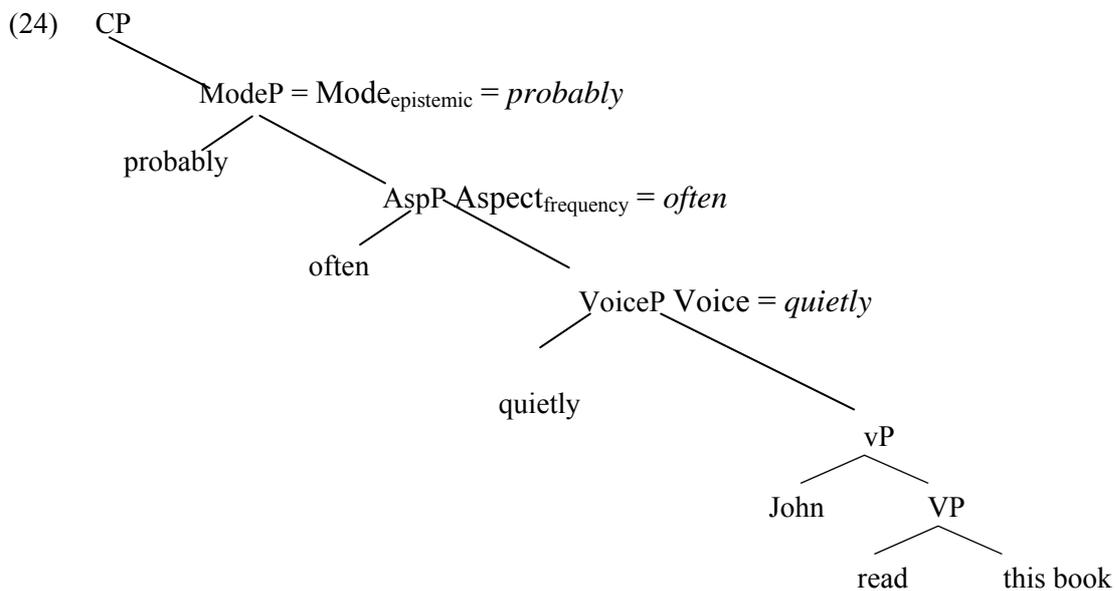
(24) Informational weigth (salience/prominence)

$Foc_{contrastive} > Foc_{new\ info} > Top_{comment} > Top_{aboutness} > Info_{marked} > Info_{unmarked}$

VII. The comparative dimension: word order variations

A. The clause

- SVO languages: English, French, Hebrew, Swedish

- VS(O) languages = inversion languages: Italian, Spanish, Romanian, Greek

- Scrambling languages – SOV: German, Tatar, Japanese

  - SVO: Russian, Serbian
- Hungarian

(24)

```
     CP
    /  \
       ModeP = Mode_epistemic = probably
      /    \
  probably   \
            AspP Aspect_frequency = often
           /    \
        often    \
               VoiceP Voice = quietly
              /    \
          quietly   \
                    vP
                   /  \
                John   VP
                      /   \
                   read    this book
```

11

(i) S V O (O=DP object, V=simple tensed verb)

English:

(Adv₁)	S	(Adv₂)	V	(Adv₃)	O	(Adv₄)
{top, foc}	{foc-new info}	{mode,	{+/-salient}	*	{foc-new info}	{aspect,
	{top-aboutness}	aspect,			{+/-salient}	manner}
	{+/-salient}#	manner}				

= +/- prominent (ranking) w.r.t adverbs

(25)
FocP/TopP/ModifP

```
          SubjP(Criterion) (see Rizzi & Shlonsky 2005, 2006)
                    ObjP
    S    V
    ok   *   O        ModeP
    John     *
             probably         SubjP
                           S          ObjP
                           ok  V
                           John  ok? O       AspP
                           read  ok?
                                 this book often    SubjP
                                                 S         ObjP
                                                 *    V   O
                                                      ok   ok    VoiceP
                                                      read this book
                                                            quietly     SubjP
                                                                     S          ObjP
                                                                     *    V
                                                                          ok   Obj
                                                                          read  ok
                                                                                this book
```
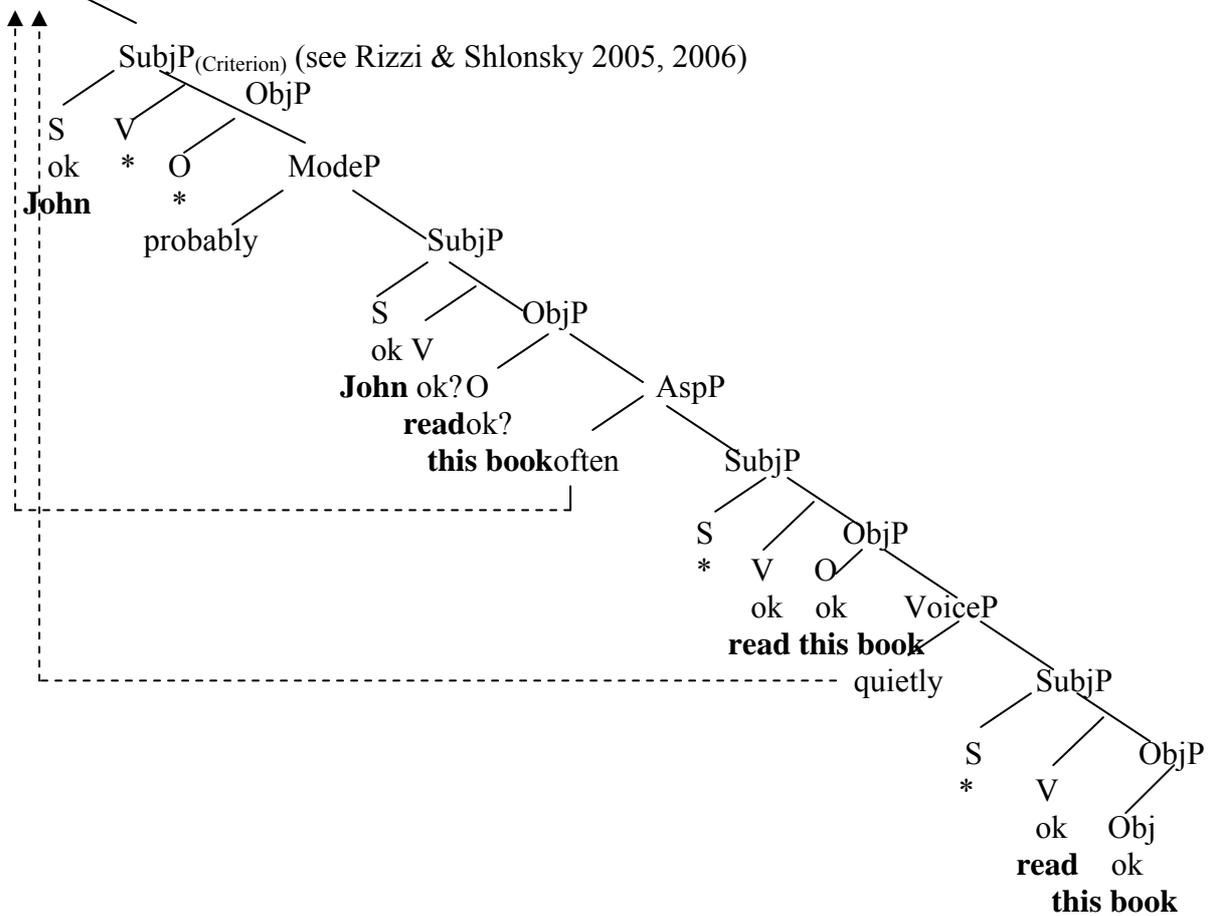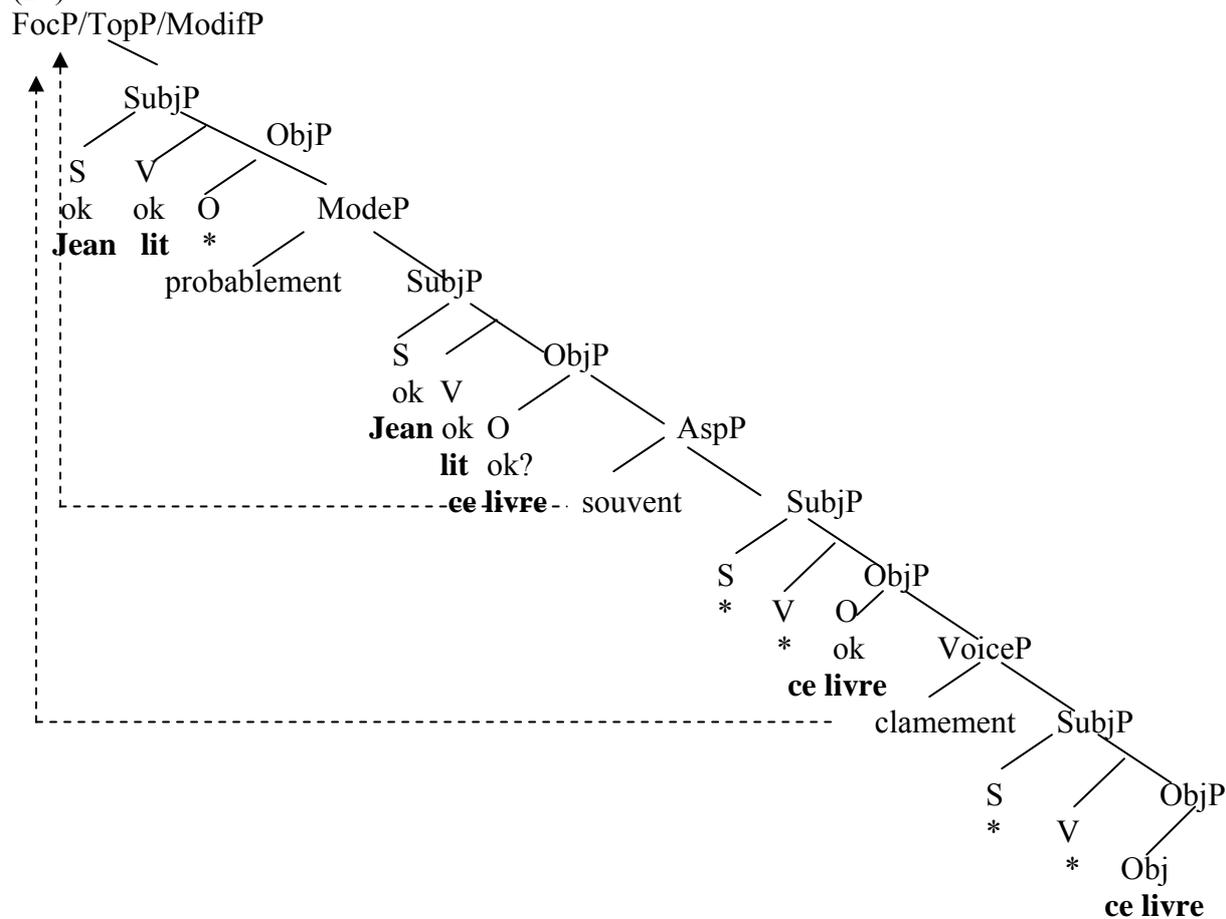
(26) a. Probably/often/quietly John read this book.
    b. John probably/often/quietly read this book.
    c. *John read probably/often/quietly this book.
    d. John read this book *probably/?often/quietly.

French :

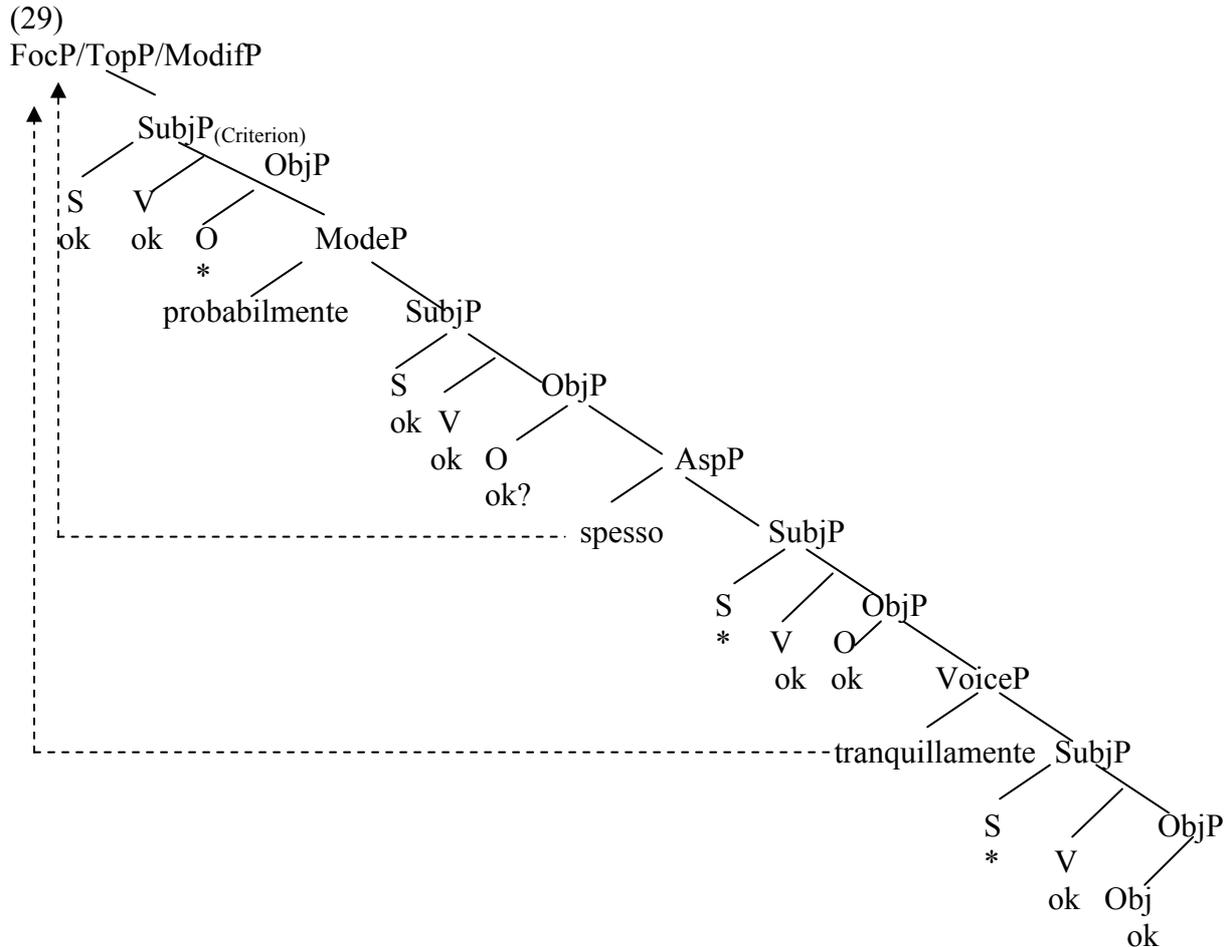| (Adv₁)	S	(Adv₂)	V	(Adv₃)	O	(Adv₄)
{top, foc}	{foc-$_{new\ info}$}	*	{+/- salient}	{mode,	{foc-$_{new\ info}$}	{aspect,
	{top-$_{aboutness}$}			aspect,	{+/- salient}	manner}
	{+/- salient}			manner		

(27)
FocP/TopP/ModifP

(28) a. Probablement/souvent/tranquillement, Jean lit ce livre
    b. *Jean probablement/souvent/tranquillement lit ce livre
    c. Jean lit probablement/souvent/tranquillement ce livre.
    d. Jean lit ce livre *probablement/ ?souvent/tranquillement

Italian, Spanish, Romanian, Greek (inversion languages):

(Adv₁)	S	(Adv₂)	V	(Adv₃)	O	(Adv₄)
{top, foc}	marked {top-aboutness}	{mode, aspect,	{+/- salient}	{mode aspect, manner}	{foc-new info } {+/- salient}	{aspect manner}

(Adv_1)	S	(Adv_2)	V	(Adv_3)	O	(Adv_4)
{top, foc}	marked {top$_{-aboutness}$}	{mode, aspect,	{+/- salient}	{mode aspect, manner}	{foc$_{-new\ info}$ } {+/- salient}	{aspect manner}

(29)
FocP/TopP/ModifP

(30) a. Probabilmente/spesso/tranquillamente Gianni leggeva questo libro.
   b. Gianni probabilmente/spesso/tranquillamente leggeva questo libro.
   c. Gianni leggeva probabilmente/spesso/tranquillamente questo libro.
   d. Gianni leggeva questo libro *probabilmente/ ?spesso/^{ok}tranquillamente.

(31) a. Probabil/adesea/calm Ion citeşte această carte.
   b. Ion probabil/ADESEA/CALM citeşte această carte.
   c. Ion citeşte probabil/adesea/calm această carte.
   d. Ion citeşte această carte *probabil/adesea/calm.

Russian, Serbo-Croatian, Hebrew, Hungarian (SVO languages)

(Adv$_1$)	S	(Adv$_2$)	V	(Adv$_3$)	O	(Adv$_4$)
{top, foc}	{top$_{-aboutness}$}	{mode, {aspect	{+/-salient}	{mode aspect, manner}	{foc$_{new\ info}$} {+/-salient}	{aspect manner}

(32)
FocP/TopP/ModifP

```
FocP/TopP/ModifP
        SubjP
  S     V      ObjP
  ok    ok   O     ModeP
             *
            ozmozhno
                   SubjP
                 S      ObjP
                 ok  V
                     ok  O    AspP
                         ok
                            často
                                 SubjP
                               S       ObjP
                               *   V   O
                                   ok  ok  VoiceP
                                          voodushevlónno  SubjP
                                                        S      ObjP
                                                        *   V
                                                            ok  Obj
                                                                ok
```

(33) a. Ozmozhno/často/voodushevlónno, Boris prepodajot sintaksis.   (Russian)
        Probably   often with enthusiasm   Boris teaches   syntax
    b. Boris ozmozhno/často/voodushevlónno prepodajot sintaksis.
    c. Boris prepodajot ozmozhno/často/voodushevlónno sintaksis.
    d. Boris prepodajot sintaksis *ozmozhno/?(?)často/voodushevlónno.

(34) a. Verovatno/često/mirno Jovan čita tu knjigu.   (Serbo-Croatian)
        Probably   often quietly Jovan read this book
    b. Jovan verovatno/često/mirno čita tu knjigu.
    c. Jovan čita verovatno/često/mirno tu knjigu.
    d. Jovan čita tu knjigu verovatno/često/mirno.
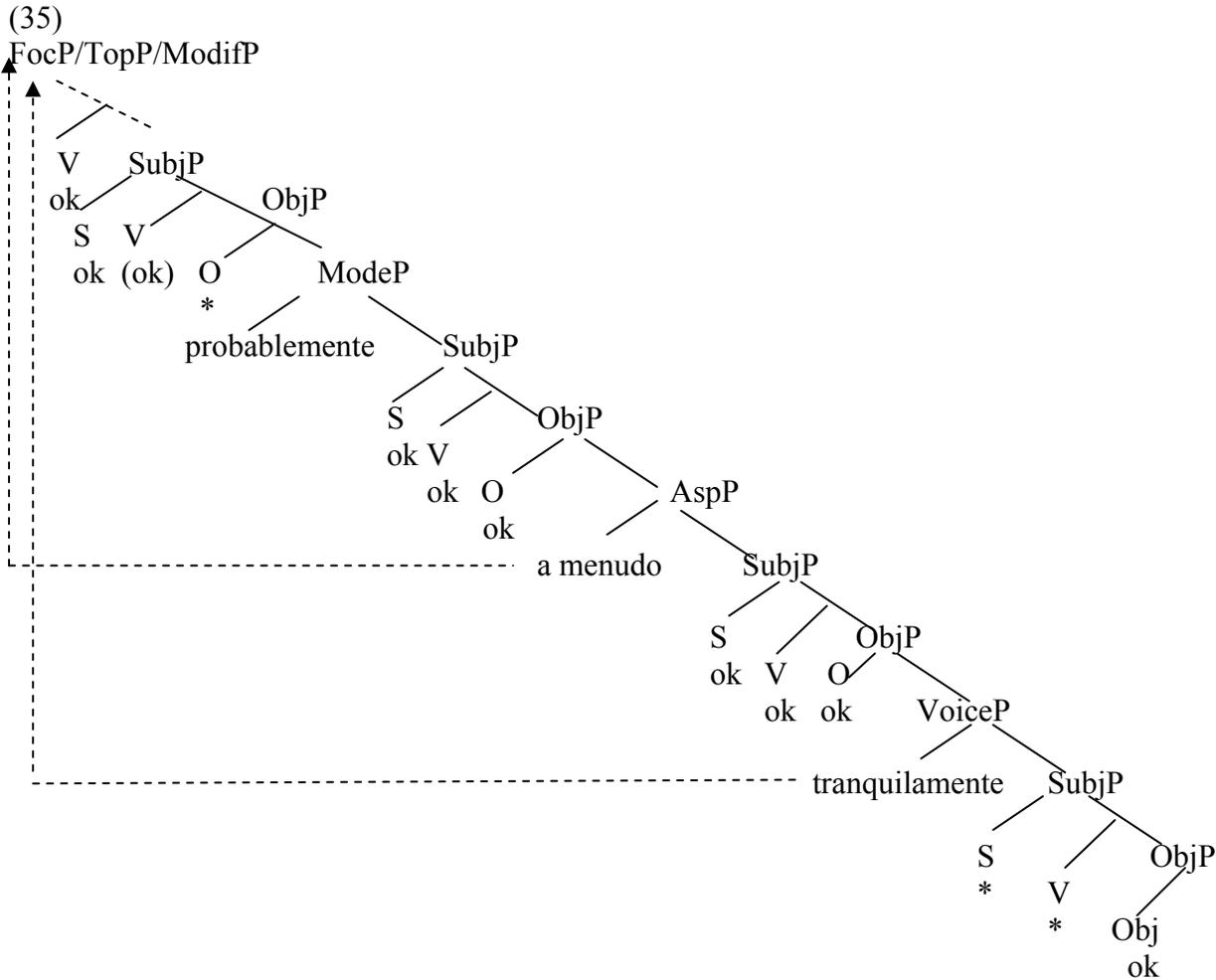   e. ?Jovan čita tu verovatno/često/mirno knjigu.

(ii) V S O

Spanish, Romanian, Greek (neutral)   **Italian : VS**

(Adv1) V (Adv2) S (Adv3) O (Adv4)
{top, foc}　　{mode　neutral　{mode　{foc$_{new\ info}$ } {aspect, 　　　{aspect,　{+/-salient}aspect, {+/-salient}manner} 　　　　　manner}　　　　　　manner}

Adv$_1$ V Adv$_2$ S *Adv$_3$
S = Belletti's low FocP

(35)

(36) a. Probablemente/a menudo/tranquilamente leía Juan este libro.
　　 b. Leía ?probablemente/a menudo/tranquilamente Juan este libro.
　　 c. Leía Juan probablemente/a menudo/tranquilamente este libro.
　　 d. Leía Juan este libro *probablemente/[ok]a menudo/[ok]tranquilamente

(37)a. Probabil/ ADESEA/CALM citeşte Ion această carte.
　　 b. Citeşte probabil/adesea/calm Ion această carte.
　　 c. Citeşte Ion probabil/adesea/calm această carte.
　　 d. Citeşte Ion această carte *probabil/[ok]adesea/[ok]calm.

- The verb must be higher than SubjP and ObjP (a parameter to fix !)

Russian, Serbo-Croatian

(Adv1)	V	(Adv2)	S	(Adv3)	O	(Adv4)
{top}	focus	{mode, {aspect, manner?}	{+/-salient}	{mode aspect, manner}	{+/-salient}	{aspect, manner}

(38)

TopP/ModifP

FocP

VP
ok

SubjP

S
ok

ObjP

O
*

ModeP

verovatno

SubjP

S
ok

ObjP

O
ok

AspP

često

SubjP

S
ok

ObjP

O
ok

VoiceP

mirno

SubjP

S
*

ObjP

Obj
*

VP
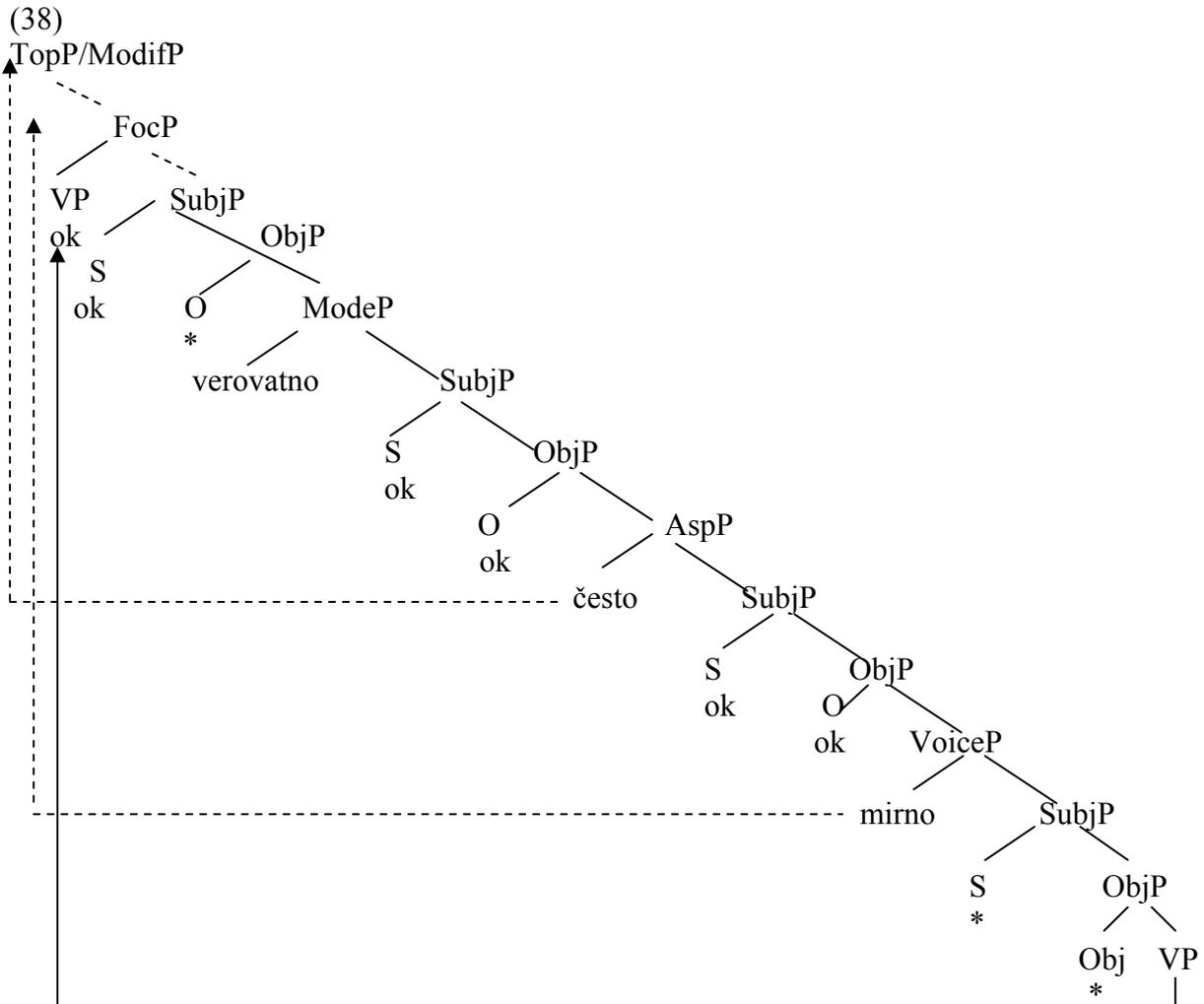
Verb=focus. It moves as a remnant VP to the left-periphery

(39)a. Verovatno/često/mirno čita$_{+focus}$ Jovan ovu knjigu.
     Probably/often/quietly reads Jovan this book
  b. Čita$_{+focus}$ verovatno/često/ mirno Jovan ovu knjigu.
  c. Čita$_{+focus}$ Jovan verovatno/ često/ mirno ovu knjigu.
  d. Čita$_{+focus}$ Jovan ovu knjigu *verovatno/[ok]često/[ok]mirno.

(iii) V O S

Spanish, Romanian, Greek   **Italian**

(Adv1)	V	(Adv2)	O	(Adv3)	S	(Adv4)
{top, foc}		{mode, aspect, manner}	{+/-salient}	{mode, aspect, manner	{foc_{new info}}	{aspect, manner}

V O	S (*Adv)
topic	focus
see Belletti 2001	

(40)
FocP/TopP/ModifP

```
FocP/TopP/ModifP
        SubjP
      S    V    ObjP
      *    ok  O     ModeP
              ok
              probabil    SubjP
                         S     ObjP
                         ok V   O    AspP
                            ok  O
                                ok   adesea SubjP
                                            S     ObjP
                                            ok V   O    VoiceP
                                               ok  ok
                                                   calm  SubjP
                                                         S     ObjP
                                                         ok V   Obj
                                                            *    *
```
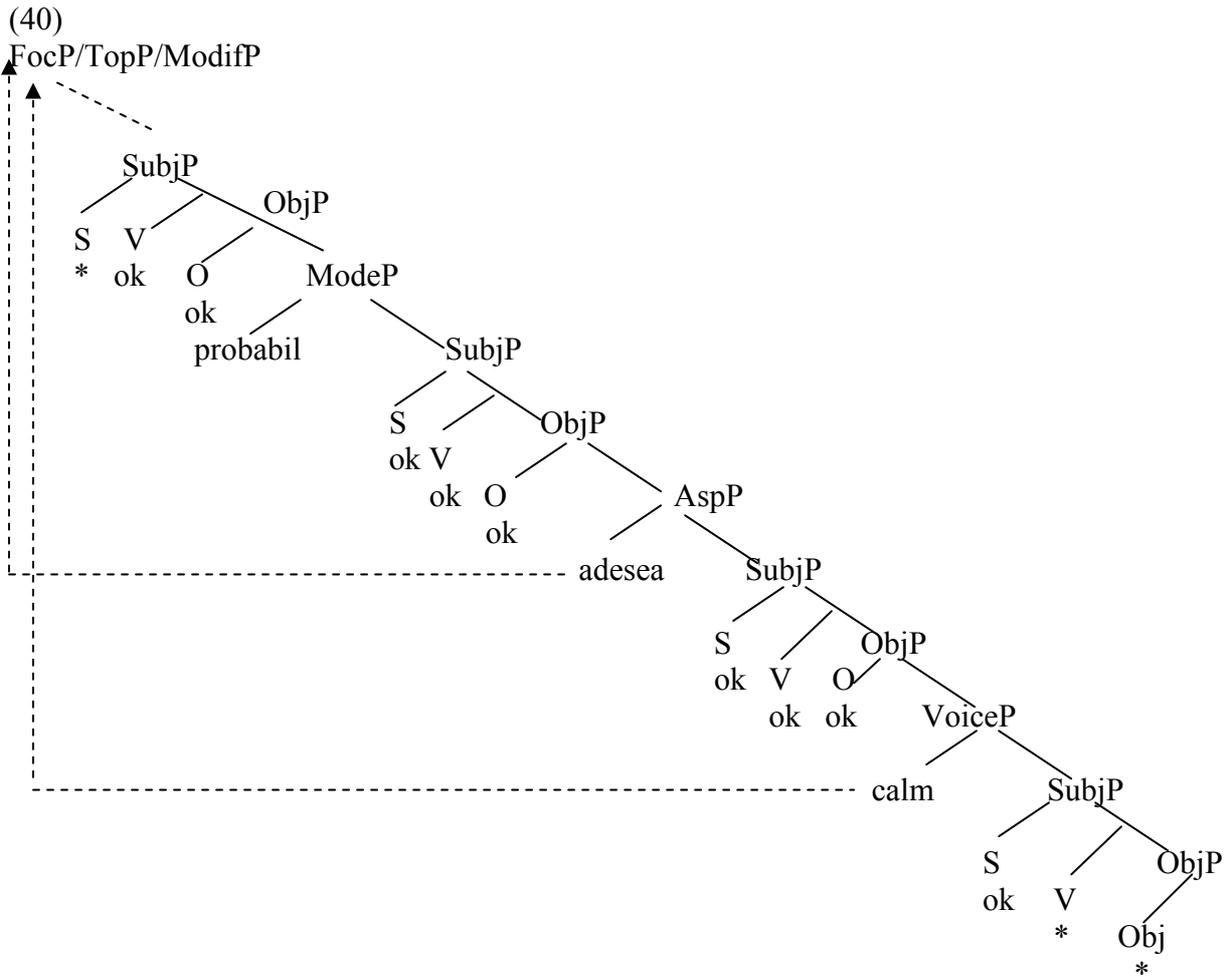
(40) a. Probabil/ ADESEA/ CALM citeşte această carte Ion.
    b. Citeşte probabil/ ADESEA/ CALM această carte Ion.
    c. Citeşte această carte probabil/adesea/calm Ion.
    d. Citeşte această carte Ion *probabil/[ok]adesea/[ok]calm.

18

Russian, Serbo-Croatian

(Adv1)	**V**	**(Adv2)**	**O**	***(Adv3)**	**S**	***(Adv4)**
{top, foc}	topique	{mode?, aspect, manner}	(topique)		focus	

(41)

FocP/TopP/ModifP
- TopP
  - vP
  - SubjP
    - S *
    - ObjP
      - O *
      - ModeP
        - vozmozhno
        - SubjP
          - S *
          - ObjP
            - O *
            - AspP
              - často
              - SubjP
                - S *
                - ObjP
                  - O *
                  - VoiceP
                    - voodushevlónno
                    - TopP
                      - O ok
                      - FocP
                        - S ok
                        - vP
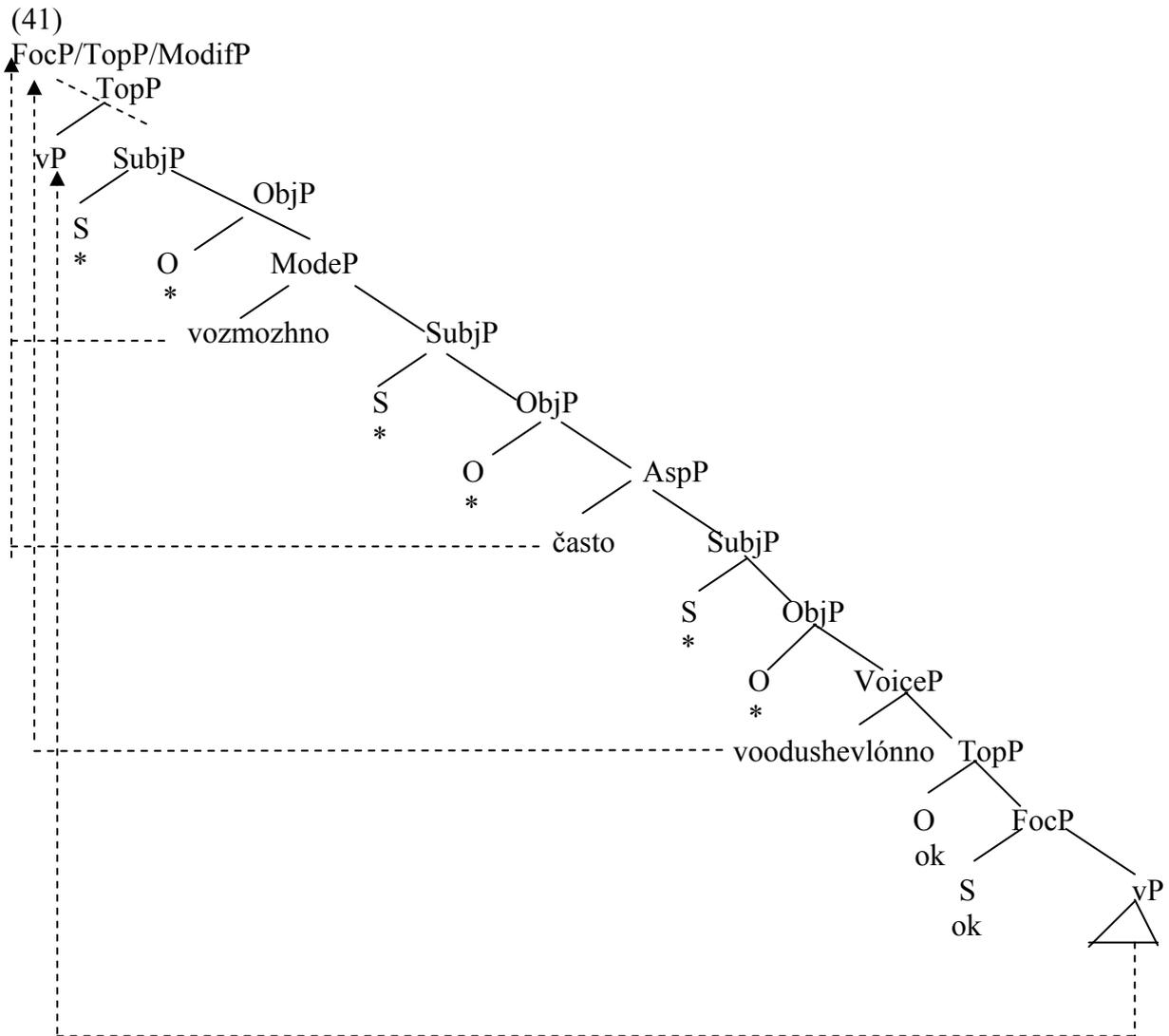
Russian

(41) a. Vozmozhno/často/ voodushevlónno prepodajot sintaksis Boris.
    'Probably /often/with enthusiasm   teaches   syntax   Boris'
  b. Prepodajot vozmozhno/často/ voodushevlónno sintaksis Boris.
  c. Prepodajot sintaksis *vozmozhno/*často/*voodushevlónno Boris.
  d. Prepodajot sintaksis Boris *vozmozhno/*často/*voodushevlónno

(iv) S O V

German, Japanese, Tatar (head-final languages)

(Adv1)	S	(Adv2)	O	(Adv3)	V *(Adv4)
{top, foc}	{top-aboutness}	{mode	{+/-salient}	{mode,	
	{foc new info}	{aspect		aspect,	
		manner }		manner}	

(42)

FocP/TopP/ModifP

```
        SubjP
      S     ObjP
      ok
           O     ModeP
           ok
              tabun
           wahrscheinlich
                    SubjP
                  S     ObjP
                  ok
                     O      AspP
                     ok
                       yoku     SubjP
                       oft
                             S     ObjP
                             *
                                O     VoiceP
                                ok
                                  chûibukaku    SubjP
                                  ruhig
                                          S     ObjP
                                          *
                                            Obj    vP
                                            ok      |
                                                    V
```
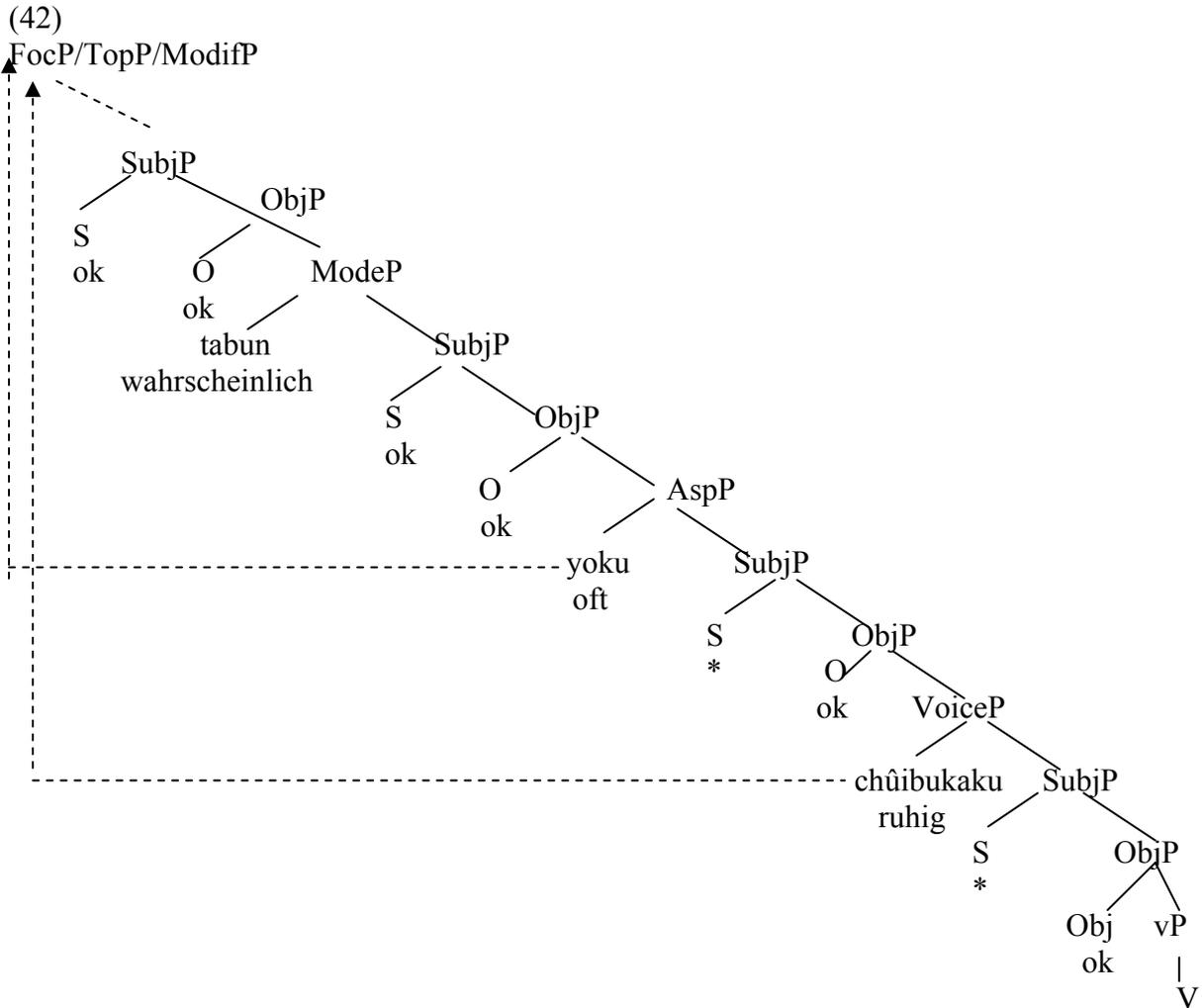
(43) a. Tabun/yoku/chûibukaku   John-ga   hon-o   yon-da
    Probably/often/carefully   John(Nom) book(Acc) read+past
    'Probably/often/carefully John read the book'
  b. John-ga tabun/yoku/chûibukaku hon-o yon-da
  c. John-ga hon-o tabun/yoku/chûibukaku yon-da

(44) a. weil wahrscheinlich/oft/ruhig Hans das Buch las.
  b. weil Hans wahrscheinlich/oft/ruhig das Buch las.
  c. weil Hans das Buch wahrscheinlich/oft/ruhig las.
    'because Hans the book probably/often/quietly read'

NOTE: in Tatar and Japanese two adverbs can permute, especially if they are adjacent

Russian, Serbo-Croatian

(Adv1)	**S**	**(Adv2)**	**O**	**(Adv3)**	**V**	**(Adv4)**
{top, foc}		{mode, {aspect,	topic	{mode? aspect, manner}	focus$_{new\ info}$	{aspect, manner}

(45)

FocP/TopP/ModifP

```
        SubjP
      S     ObjP
      ok  V   O    ModeP
          *  ?ok
              vozmozhno  SubjP
                       S     ObjP
                       ok  V   O    AspP
                           ok  O
                               ok
                          často  SubjP
                                S     ObjP
                                *   V   O    VoiceP
                                    ok  ok
                                     voodushevlónno  S    V    O
                                                     *   ok    O
                                                         ok    *
```

(V) O V S (OSV : O = topic-comment) (see Baylin 2003)

Russian, Serbian

(Adv1)	O	(Adv2)	V	(Adv3)	S	(Adv3)
topic	top-aboutness	{mode,		{mode?,		({aspect,
focus		aspect,		aspect,		manner})
		manner}		manner}		

(46)

FocP/TopP/ModifP

(47) a. Vozmozhno/često/voodushevlónno sintaksis prepodajot Boris.
     b. Sintaksis vozmozhno/často/voodushevlónno prepodajot Boris.
     c. Sintaksis prepodajot vozmozhno/često/voodushevlónno Boris.
     d. Sintaksis prepodajot Boris *vozmozhno/[ok]često/[ok]voodushevlónno

(48) a. Verovatno/ često/mirno ovu knjigu[+topic-aboutness] čita Jovan.
    Probably /often/quietly   this book   read Jovan
  b. Ovu knjigu verovatno/ često/mirno čita Jovan.
  c. Ovu knjigu čita verovatno/često/mirno Jovan.
  d. Ovu knjigu čita Jovan *verovatno/[ok]često/[?]mirno.

Conclusions on the clause: word order variations depend notably on the following properties:

(i) The Information Structure plays an important role (Choi 1999): informational features are parasitic on Case/agreement projections through the EPP-feature that attracts the arguments => scrambling is more generalized across languages that it appears. Freer word order languages (with a richer Case system) use the Mittelfeld extensively, in addition to the Vorfeld, to express its IS.

(ii) a. Absence of verb (VP?) movement = SOV
    b. Short verb movement (SAdvVO) / long verb movement (SVAdvO)
    c. Verb movement past S (VSO)

B. The noun phrase

Assumption : The noun phrase is also associated with an information structure

(49)

23
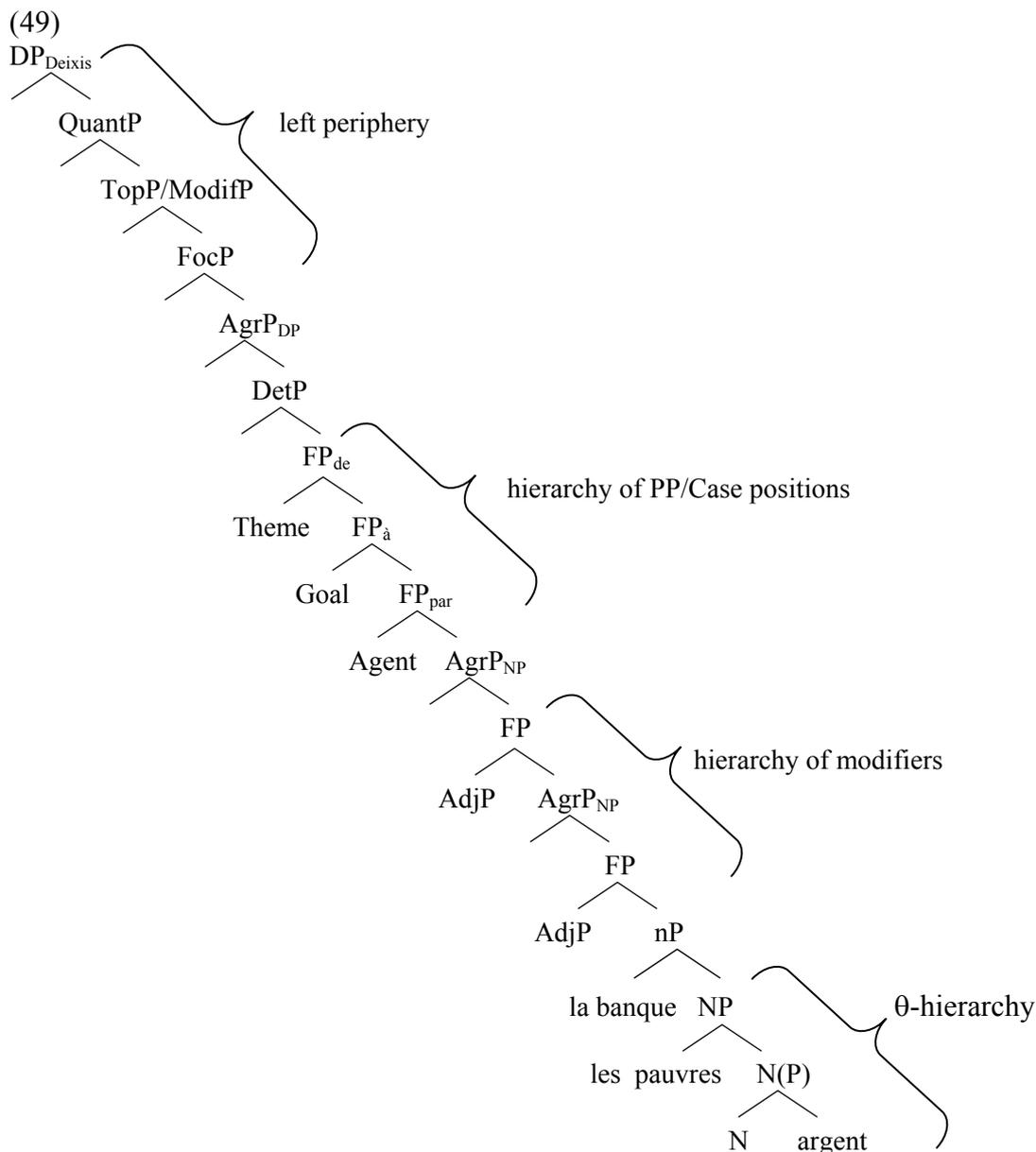
(I) Japanese, Tatar

- **prenominal adjectives**
- **prenominal PPs**

There is no NP-movement and the order between PPs and adjectives reflects the Mittelfeld hierarchy

(50) [DP [FPpp dushmannar tarafynnan [FPGen shäherneng [TP älege [QualP rähimsez
        enemy   by/from   cityGEN   recent   brutal
   [NP jimerelüe]]]]]]   (Tatar)
        destruction
   'the brutal destruction of the city by the enemy'

(51) [DP [FPpp teki-niyoru [FPGen machi-no [TP saikin-no [QualP hagesii [NP hakai]]]]]]
        enemy by   city Gen   recent   brutal destruction
                                                        (Japanese)

Note: possibility of permuting the adjectives. Should they be analyzed as unordered small clauses (like reduced relatives; Endo p.c.)

(II) English, Swedish, German, Hungarian, Russian, Serbian

- **prenominal adjectives**
- **postnominal PPs**

Analysis:

- pied-piping movement of the noun plus the adjective-related projection(s) past the PPs.

(52) DP
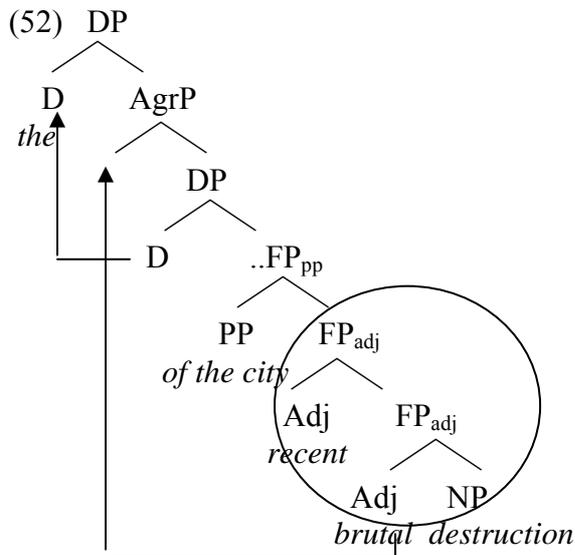
(53) The recent brutal destruction of the city

There is D-to-D raising in English/German, but not in Swedish

(54) [$_{DP}$ [$_{AgrP}$ [$_{NP}$ hus] [$_{DP}$ –et [....]]]] (Swedish)
　　　　　　　house　　-the

Determiner doubling:

(55) [$_{DP}$ det [$_{AgrP}$ [$_{FPadj}$ stora [$_{NP}$ hus]] [$_{DP}$ –et [....]]]] (Swedish)
　　　　the　　　　　big　　house　　-the

(III) Hebrew: postnominal adjectives and postnominal PPs (Shlonsky 2006)

- reverse order of postnominal adjectives
- N > Adj2 > Adj1 > PP

(56) a. hafgaza　　　'isra'elit masivit 'efšarit šel ha-'ir
　　　bombardment Israeli   massive possible of the city
　　　'a possible massive Israeli bombardment'
　　b. Ha Volvo ha xadaš ha axaron šel Schneider
　　　the Volvo the new the last of Schneider
　　　'Schneider's last new Volvo'

(57)
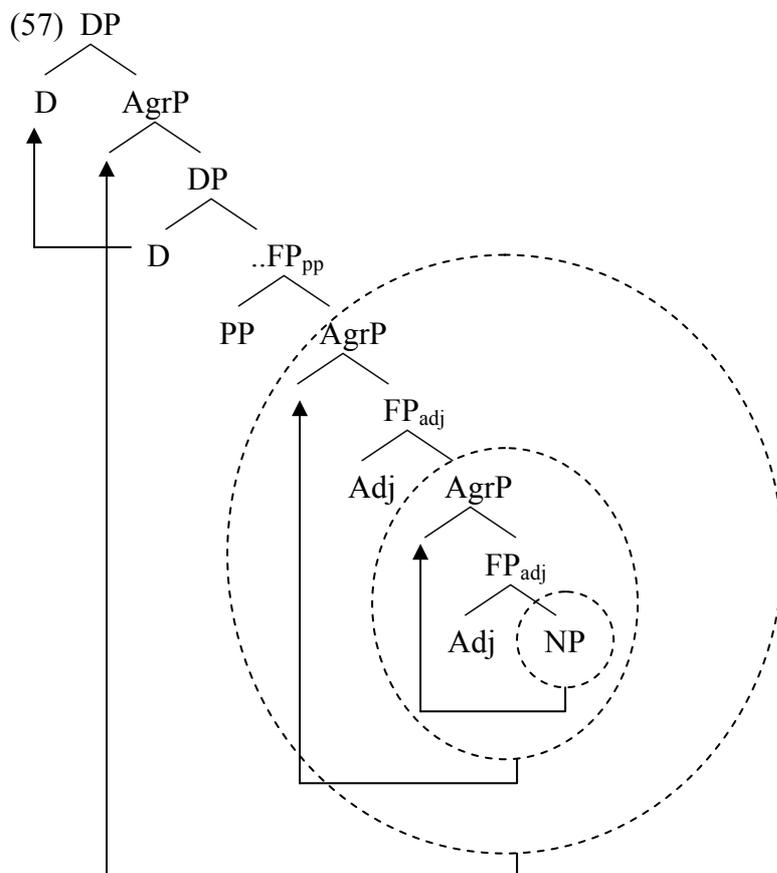
(IV) Mixed languages : French, Italian, Spanish, Romanian, Greek

- Adjectives are most naturally postnominal, but some of them can be prenominal

(58) DP
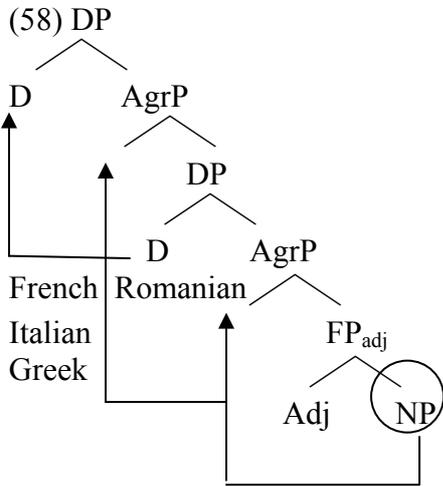
- Romanian: enclitic definite determiner

(59) [$_{DP}$ [$_{AgrP}$ băiat-[$_{DP}$ [$_{D}$ ul] [$_{FPqual}$ frumos]]]]
     poet   -the   famous

- Prenominal adjectives in Romance

(60)a. de nombreuses SUPERBES petites voitures
    'numerous beautiful small cars'

   b. DP
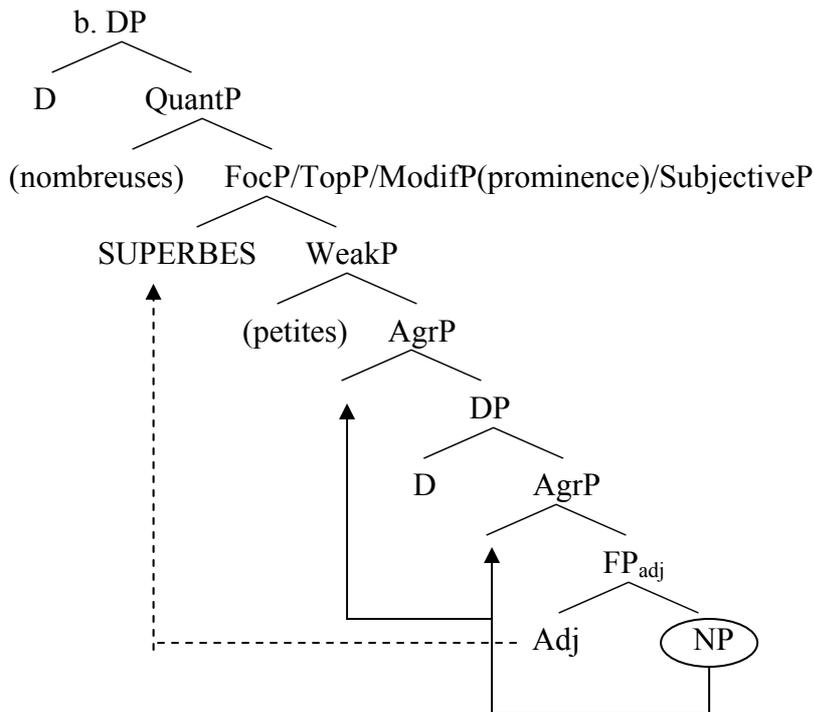
- N   <   Adj1   < Adj2

(une) voiture rouge italienne

(61) [$_{AgrP}$ [$_{NP}$ N] [$_{FP}$ Adj1 [$_{AgrP}$ [$_{FP}$ Adj2 NP]]]]

- N   <   Adj2   <   Adj1   (Laenzlinger 2005, Cinque 2005)
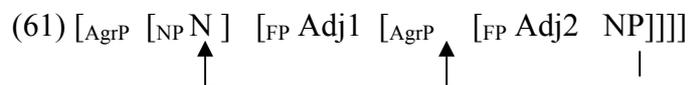
(une) voiture   rouge   splendide

(62) [$_{AgrP}$ [$_{AgrP}$ N+Adj2] [$_{FP}$ Adj1 [$_{AgrP}$ [$_{FP}$ Adj2 NP]]]]

- Postnominal PPs

(63) | Argumental PPs > Adjunct PPs > Adjective1 > Adjective2 |
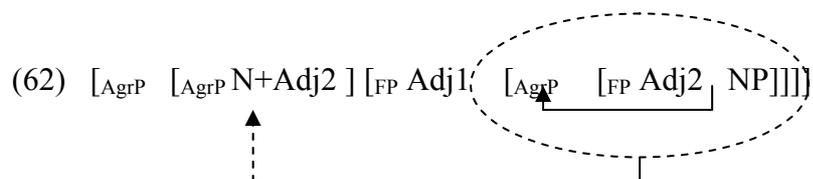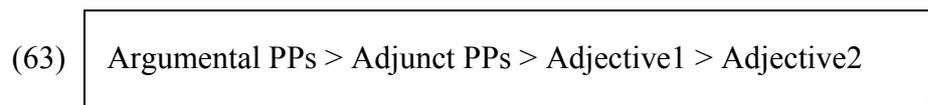
(64) la voiture rouge de Jean de 1958
     the car   red   of Jean of 1958
     'John's 1958 red car'
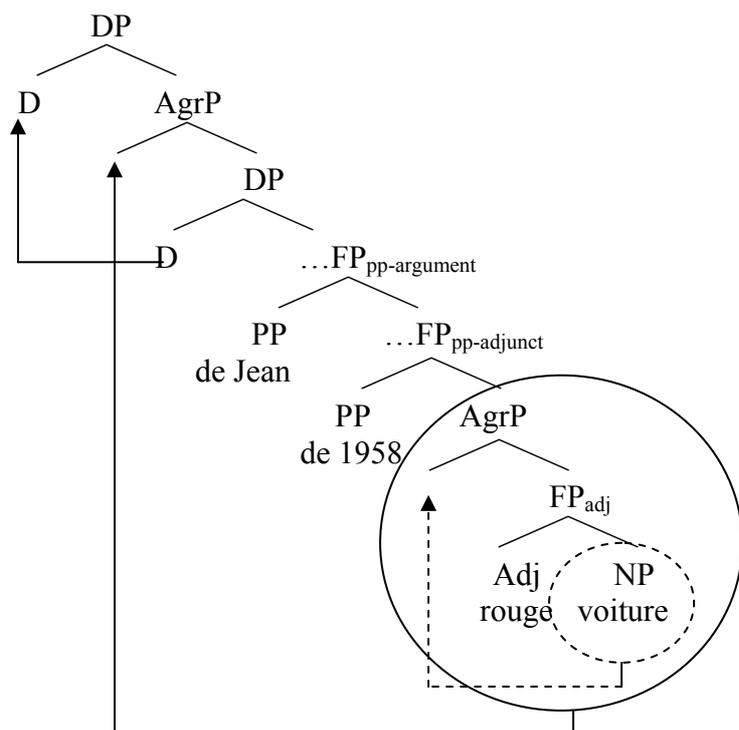
(V) Fronting to the Vorfeld

- (Pied-piping) NP-movement
- Adjective fronting
- Argument fronting
  (i) Case

(65)   a. [DP [GenP [DP John]'s [DP [NP book]]]]   (English)
        b. [DP [GenP [DP Johanns] [DP [NP Buch]]]]   (German)
        c. [DP (a) [NomP [DP Mari] [QualP szep [NP kalap-ja]]]   (Hungarian)
            the Mari nice hat   (Szabolcsi 1994)
            'Mari's nice hat'
        c.' [DP [DatP [DP Mari-nak] [DP a [QualP szep [NP kalap-ja]]]]]

    (ii) Topic/focus

(66) a. . [DP egy [TopP [DP a szegenyeknek] [TopP [PP a bank reszerol] [QualP nagyleku
        a   the poor+Dat   the bank by   generous
      [NP penz adomany] [DP a szegenyeknek] [PP a bank reszerol]]]]]
        money gift   (Hungarian)
        'a generous gift of money to the poor by the bank'
      b. [DP [[QualP velikolepnaya [NP mašina]] [FPGen [DP moego papi]]]   (Russian)
             beautiful   car   my father+Gen
          'my father's beautiful car'
      b.' [DP [TopP/FocP [DP moego papi +Gen] [[QualP velikolepnaya [NP mashina]] [FPpp s
        otkryvaiusheisia kryshjei]]]]
           'my father's beautiful car with an open roof'
      c. [DP to [AdjP oreo] [DP to [NP vivlio] [DP+Gen tis Marias]]]   (Greek)
         the   nice   the   book   the Maria
         'Maria's nice book'
      c.' [DP [FocP [DP Tis Marias] [DP to [AdjP oreo] [DP to [NP vivlio]]]]]   (Ntelitheos 2002)
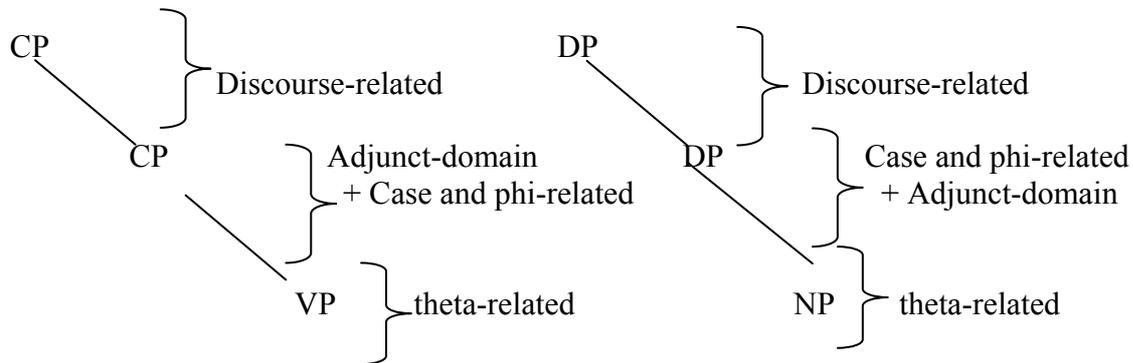

To summarize the syntactic properties of noun phrases:

- **Noun raising:**   **(i) no NP-movement**
                        (ii) NP-movement
                        (iii) extended pied-piping (NP-)movement
                             e.g. [FPadj Adj [N]]
                               [AgrP N [Adj]]

- **Generalized noun's complement movement to Case- and P-related positions**
- **Fronting to DP:**   **(i) (extended) NP-movement for agreement with D**
                         (ii) adjective fronting (top/foc)
                         (iii) argument fronting for Case (Gen) or for Top/Foc

VIII. Conclusions

Cartographic approach:

    A. Antisymmetry: Spec-Head-Compl, no multiple Spec, no free/multiple adjunction

    B. Specifier-based approach to adjunct merging

    C. Parallel structure for the clause and the noun phrase according to 3 domains

CP

          Discourse-related

      CP

           Adjunct-domain
           + Case and phi-related

            VP   theta-related

DP

          Discourse-related

      DP

           Case and phi-related
           + Adjunct-domain

            NP   theta-related

Case and phi-related positions float among adverb-related projectionss	Case/PP and phi-related positions are higher than the adjective-related positions

    D. Parallel transformations

        1) Remnant movement: NP-movement and possibly VP-movement

        2) Modifiers in final position are stranded after predicate and argument movement (remnant movement)

        2) More or less heavy pied-piping movement to account for some mirror-image ordering in the postnominal/verbal domain

    E. Syntax-IS interface to motivate movement

        o   The left-periphery contains discrete discourse positions
        o   The Mittelfeld contains A-positions associated with informational features (calculated in terms of informational ranking)
        o   The Nachfeld is the predicated/thematic domain evacuated by the arguments

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