The cartography of the left periphery:  
- The status of criterial markers.

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Cartography and «further explanation»

Cartographic studies involve a large descriptive endeavour, which discovers numerous properties of functional sequences: order of positions, mutual incompatibility, freezing effects, etc. Some such properties are invariant, other properties are variable.

How can such properties be related to fundamental ingredients of linguistic computations?

The search for «further explanations» of cartographic properties may thus become a powerful generator of empirical problems, which can nourish fundamental theoretical research in syntax, and enrich the empirical basis of syntactic theory.
Where to look for forms of “further explanation”

Given the fundamental architecture of the grammatical system, “further explanations” of cartographic properties may come:

1. From principles which constrain the interface systems (interpretive procedures, etc.);
2. From principles which constrain formal syntax (locality, labeling, etc.)
A fundamental difference between Topic and LP Focus

Many languages admit **multiple Topics** in the left periphery (either a language admits a single topic, or a potentially unlimited number of topics)

Languages typically admit a **single Focus** in the left periphery.
Multiple Topics

(1)  ITALIAN:

A Maria, il tuo libro, glielo devi dare al più presto

‘To Maria, your book, you it-to him should give as soon as possible’

(2)  ABIDJI (Hager-Mboua 2014)

kòfí  ëkëòkò  ëkë  è  pìpjé  nì.

Kofi TOP  banana DEF TOP  ASPpeel  RES PRON

‘Kofi, the banana, he peeled it.’
A single focus in the left periphery

(1) ABIDJI Topic

kòfí éké òkókò é éké è pìpjé nì.
Kofi TOP banana DEF TOP ASP.peel. RES PRON
‘Kofi, the banana, he peeled it.’

(2) ABIDJI Focus

*kòfí bé òkókò é bé è pìpjé
kofi Foc banana Def. Foc ASP.peel.
‘KOFI THE BANANA peeled’

(Hager-Mboua 2014)
Uniqueness of corrective focus in the left periphery

(1)A: So che quest’anno Piero ha vinto le olimpiadi...
‘I know that this year Piero won the Olympics...’

B: * Ti sbagli: quest’anno, GIANNI, I MONDIALI ha vinto, non Piero, le olimpiadi
‘You are wrong: this year, GIANNI, THE WORLD CHAMPIONSHIP won, not Piero, the Olympics

B’: Ti sbagli: quest’anno, GIANNI ha vinto una competizione importante, non Piero; inoltre, ha vinto I MONDIALI, non le olimpiadi
‘You are wrong: this year GIANNI won an important competition, not Piero; moreover, he won THE WORLD CHAMPIONSHIP, not the Olympics.'
Uniqueness of focus (in clefts) and multiplicity of topics in French

(1) Je donnerai ton livre à Jean demain
    ‘I will give your book to Jean tomorrow’

(2) Ton livre, à Jean, je le lui donnerai ___ ___ demain
    ‘Your book, to Jean, I it-to him will give ___ ___ tomorrow’

(3) * C’est à Jean que c’est ton livre que je donnerai ___ ___ demain
    ‘It’s to Jean that it’s your book that I will give ___ ___ tomorrow’
Some examples of uniqueness of LP focus

(1) Italian: * A MARIA (,) IL TUO LIBRO devi dare (non a Giulia, il disco) (Rizzi 1997)

(2) English: * TO MARY (,) YOUR BOOK you should give (not to Julie, the record

(3) (E)Armenian: * YEREK SALORN ê SiranƏ kerel (Giorgi & Haroutyunian 2016)

‘YESTERDAY THE PLUM has Siran easten’

(4) Hungarian: * EMÖKE ATTLÁVAL beszélt

Emöke-NOM Attila-INSTR talk-PAST-3SG (Puskas 2000: 83)
Some examples illustrating the uniqueness of LP focus

(5) Hebrew: * le Maria (,) et ha sefer Sel-xa kedai Se titen (lo le Giulia et ha qaletet)
  to M. acc the book of-2ms worthwhile that (you) give (not to G. acc the DVD)
  (U. Shlonsky, p.c.. See also Shlonsky 2015)

(6) Jamaican: * A di bami a di pikni im gi
  The bammy the child he give
  (Durrleman 2008:75)

(7) Gungbe: * wémà lɔ wɛ Sɛna wɛ zɛ
  THE BOOK SENA took
  (Aboh 2004)

(8) Abidji: * ɔkókɔ̀ ɛ bɛ kɔfì bɛ ____ pipjɛ ____
  banana  Def. Foc Kofi Foc ____ peel.RES ____
  « THE BANANA, KOFI ____ peeled ____ »
  (Hager-Mboua 2014)
An interface explanation: A recursive focus would determine an interpretive conflict at LF

(1) [ Foc ]

“Focus” “Presupposition”

(2) * [ A MARIA ] Foc1 [ IL TUO LIBRO ] Foc2 [ devi dare ]

‘To MARIA YOUR BOOK you should give
Topic interpretation is compatible with recursion

(1) [ ] Top [ ]

“Topic” “Comment”

(2) [A Maria]  Top1 [ [ il tuo libro ] Top2 [ glielo devi dare ] ]

‘To Maria your book you it-to-him should give
Italian: a single corrective focus is possible in complex sentences

In some languages, a single LP focus position is possible in complex sentences (e.g., Italian):

(1)a. A GIANNI ho detto __ che dovremmo leggere il tuo libro, non a Piero

    'TO GIANNI I said that we should read your book, not to Piero'

b. Gli ho detto che IL TUO LIBRO dovremmo leggere __, non quello di Franco

    'I said to him that YOUR BOOK we should read, not Franco’s'

c. *A GIANNI ho detto __ che IL TUO LIBRO dovremmo leggere __, non a Piero, quello di Franco

    'TO GIANNI I said that YOUR BOOK we should read, not to Piero, Franco’s'
Analysis 1 (1997): this follows from the same interface principle operative in simple clauses

(1) [ ] Foc [ ]

“Focus” “Presupposition”

If the presupposition includes the whole c-domain of Foc, the same interpretive clash is triggered in simple and complex sentences:

(2) *[A GIANNI] Foc1 [ ho detto __ che [IL TUO LIBRO] Foc2 dovremmo leggere __ ]

'TO GIANNI I said that YOUR BOOK we should read, not to Piero, Franco’s'
Counterevidence: in some languages more than one LP focus is possible in complex sentences

Aboh (2004): In Gungbe, more than one LP focus position is possible in complex sentences (one per clause):

(2)a Sena wè __ sè ḍɔ Remi wè __ zé hi lɔ
    Sena Foc hear-Perf that Remi Foc __ take-Perf knife +def
    'SENA heard that REMI took the knife'

(2)b Sena wè __ sè ḍɔ hi lɔ wè Remi zé __
    Sena Foc hear-Perf that knife +def Foc Remi take+perf
    'SENA heard that Remi took THE KNIFE'
Analysis 2: the computation of the presupposition is parametrized (LF)

A parameter: The presupposition is

i. The whole complex sentence complement of Foc (Italian);

ii. The simple clause complement of Foc (Gungbe)

(1) *[A GIANNI] Foc1 [ ho detto __ che [IL TUO LIBRO] Foc2 dovremmo leggere __ ]

'TO GIANNI I said that YOUR BOOK we should read, not to Piero, Franco’s'

(2) Sena wè __ sè ḍɔ  ḥi lɔ  wè  Remi zé __

Sena Foc hear-Perf that knife +def Foc Remi take+perf

'SENA heard that Remi took THE KNIFE'
The Uniformity Principle

« In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances ». 

N. Chomsky (2001) Derivation by Phase, p.2
Empirical evidence against a parametrized computation of presupposition

(1) A Dopo due ore di riunione, Maria ha detto che si doveva finire
      ‘After two hours of meeting, Maria said that we should finish’

B. Ricordi male! GIANNI ha detto qualcosa, non Maria; e poi mi sembra che abbia semplicemente detto che voleva fare una pausa
      ‘You don’t remember well! GIANNI said something, not Maria! Moreover, I think he simply said that he wanted to take a break.’

C. # Ricordi male! GIANNI è andato via, non Maria!
      ‘You don’t remember well! GIANNI went away, not Maria!’
Analysis 3: a PF parameter

- **Italian** has a special intonational contour involving the flattening of the post Foc string. This precludes multiple foci in complex clauses:

- **Gungbe** has no special focus-related contour: focus is marked by the special particle *we*, not by intonation (Aboh 2004). So, nothing precludes the occurrence of foci in distinct clauses. Multiple occurrences of focus in the same clause continues to be excluded by the LF clash mentioned earlier.
So, we have principles and parameters...

1. an LF principle determining the computation of presupposition in focal structures: the presupposition is the simple clause complement of Foc. This accounts for the general impossibility of multiple left-peripheral Foc positions in the same simple clause;

2. a PF parameter: a special flattening contour may be assigned to the post-focal string, or not. This accounts for the observed variation: some languages can have left peripheral foci occurring in different simple clauses (Gungbe), other languages have a single left-peripheral focus in a complex sentence (Italian).

The parametrization is where it should be expected under the Uniformity Principle.
Variation in topic constructions: Uniqueness vs. multiplicity of topics, and the role of locality

In Italian (and many other languages) multiple topics are possible and natural:

(1)  A Gianni, il libro, glielo darò domani
‘To Gianni, the book, I will give tomorrow’

In English, a single topic per clause is fully acceptable:

(2)a  This book, I’ll give __ to John tomorrow
b  To John, I’ll give this book __ tomorrow
c * To John, this book, I’ll give __ __ tomorrow
Variation in topic constructions: Uniqueness vs. multiplicity of topics, and the role of locality

With two DP topics:

(1) Gianni, la macchina, lo ho convinto ad affittarla
   ‘Gianni, the car, I him-convinced to rent-it’

In English, a single topic per clause is possible:

(2)a John, I convinced __ to rent the car
   b The car, I convinced John to rent __
   c * John, the car, I convinced __ to rent __
An independent difference between English and Italian

In English, the topic is linked to a gap: in Italian, an object topic is obligatorily resumed by a clitic:

(1) Your book, John will give __ to Mary

(2)a Il tuo libro, Gianni lo darà __ a Maria
    b * Il tuo libro, Gianni darà __ a Maria

Why is clitic resumption obligatory in Italian?
Cinque (1990): a gap not bound with the clause is interpreted as a variable, but the topic is not an operator, so a variable remains unbound, in violation of Chomsky’s (1986) Full Interpretation.

What about English?
Topicalization in English

Chomsky 1977, Cinque 1990: English has no clitics, but it may utilize a null operator (of the kind used in many constructions across languages, appositive relatives, etc.) to connect the topic and the variable:

(3) Your book, Op I will give ___ to Mary

This analysis is made immediately plausible by the fact that in closely related languages, like Dutch, topicalization may use an overt operator:

(4) Die man (die) ken ik ___ (Dutch: Koster 1978)

‘That man, I know’
Intervention effects and Relativized Minimality

Relativized Minimality:

In configuration ... X ... Z ... Y ... A local relation is disrupted between X and Y when:

1. Z hierarchically intervenes between X and Y, and
2. Z is a position of the same type as X


(1) *What do you think [ John read __ ]?
   
   OK

(2) *What_ do you wonder [ who_ read __ ]?
   
   *
The ban against double topic in English as a RM effect

(1) * John Op the car Op I convinced __ to rent __

If topicalization involves a null operator in English, in cases of double topicalization one operator will inevitably move across the other, in violation of RM.
The ban is not against a double preposing, but against two topics

(1) Words like that, in front of my mother, I would never say __ __ (I. Roberts)

Here the adverbial PP targets a different position, Mod, used to highlight adverbials (neither a topic nor a focus position):

(2)a John rapidly left the room

   b Rapidly, John left the room
The ban is not against a double preposing, but against two topics

(1) Words like that OP, in front of my mother MOD, I would never say __ __ (I. Roberts)

Here the two positions OP and MOD are distinct enough to not give rise to a violation of Relativized Minimality.
Topic and hanging topic in English

Topic:

(1) John, I’ll give the book to __ (tomorrow)

Hanging topic:

(2) As for John, I’ll give the book to him (tomorrow)
Incompatibility topic - Wh operator

(1) John, Bill talked to __ yesterday
(2) * John Op who<sub>Q</sub> talked to __ yesterday?

It is ok as hanging topic in English, involving resumption, no movement and no operator:

(5) As for John, who talked to him yesterday?

With Italian CILD it is also fine:

(6) A Gianni, chi gli ha parlato ieri?

This may involve movement (will go back to this question), but does not involve any operator, so no RM violation.
Yes-no questions

(3) * John, did you talk to __ yesterday?

It is plausible that yes-no questions involve a null operator: direct evidence for this: in V-2 language, yes-no questions are V1, with the first position plausibly occupied by the operator:

(6)a Gestern hat Hans das Buch gekauft
    b hat Hans das Buch gekauft?
    c Op_{yes-no} hat Hans das Buch gekauft?

So we have a RM violation in (3):

(6) * John Op Op_{yes-no} did you talk to __ yesterday?
Yes-no questions compatible with Hanging Topic in English and CLLD in Italian

(8) As for John, did you talk to him yesterday?

(9) A Gianni, gli hai parlato ieri?

If (3) is perceived as less deviant than (2), this may have again to do with the different nature of the operators involved (argumental vs clausal)

(2) * John, who talked to __ yesterday?

(3) * John, did you talk to __ yesterday?

Such finer distinctions would justify a detail experimental (with Likert scales, etc.) in view of building a more refined, quantitative model of syntactic well-formedness.
Top incompatible with imperatives in English

(4) * John, talk to __ tomorrow

Again, it is plausible that imperatives involve a null Imp operator, given that we have V1 structures in V2 languages:

(9)a Nimm das Buch   (vs Das Buch nehmen)
    b Lies das Buch   (vs Das Buch lesen)

So, presumably there is an imperative operator, which also licenses the null 2p subject
Top incompatible with imperatives in English

(10) * John Op \( O_{\text{imp}} \) talk to \( \_ \_ \) tomorrow

Here we have a RM violation, but not with Hanging Topic in English:

(11) As for John, \( O_{\text{imp}} \) talk to him tomorrow

Nor with CILD in Italian:

(12) A Gianni, \( O_{\text{imp}} \) parlagli domani