

In Need of Mediation*

UCL Workshop on Interface Based Approaches to Information Structure
Sep 14 2008

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Strong Functionalist Hypothesis

The information structure of a sentence is syntactically encoded in terms of syntactic positions and/or syntactic features. XP movement leads to the checking/valuation of such features corresponding to information structure distinctions.

- (1) *What did he fix?*
[CP[DP den Wagen]][Comp,+foc hat][TP er t repariert]
the car has he fixed
"he fixed the car"

Cartographic approach (Rizzi 1997)

- (2) [... Force [... Topic [... Focus [... Fin [TP ...]]]]]

Weak Functionalist Hypothesis

At the interface(s), certain syntactic constellations are subject to rules of interpretation that determine the information structural properties of the XPs involved. This leads to the displacement of XPs (including altruistic movement).

This can happen either **directly**:

- (3) a. *Comment Mapping Rule*
If XP in ([4]) is interpreted as topic, then interpret N₂ as comment.
b. *Background Mapping Rule*
If XP in ([4]) is interpreted as focus, then interpret N₂ as background.
(Neeleman & van de Koot 2008)

- (4) 

cf. also Kučerová (2007)

or indirectly (Zubizarreta 1998, Samek-Lodovici 2006, Szendrői 2001) in terms of the links between prosody and information structure, and between syntax and prosody.

Claim: At least for movement to the left periphery, neither the strong nor the weak functionalist hypotheses are correct.

Plan of the talk:

- Overview of partial fronting
- Why partial fronting cannot be explained away
- Properties of partial fronting

* This talk reports research carried out in collaboration with Caroline Féry (Potsdam), Denisa Lenertová (Leipzig), Stavros Skopeteas (Potsdam) and Thomas Weskott (Potsdam)

- A linearization based account of partial fronting
- "Focus movement" and "topic movement" are special cases of partial fronting
- Markedness and Movement
- Is scrambling infected, too?

1. The informational status of the left periphery

Grammatically triggered movement such as wh-movement differs from topic and focus movement:

- Wh-movement is almost always either obligatory or forbidden. Movement related to information structure is nearly always optional. Where it is obligatory, as in Hungarian, it expresses a **semantic** property (exhaustivity, Horvath 2007).
- In wide focus and other contexts (due to the optionality of focus or topic fronting), the leftmost element of TP can also be moved to the left periphery of the sentence ["Formal Fronting"] ["Stylistic Fronting"]. (Koster 1978 (Dutch), Bhatt 1989 (Kashmiri), Fanselow 2002 (German), but cf. already Bierwisch (1963)). Cf (5) - (7).

(5) *Why are you so excited?* (German)

- Ein Kind hat einen Frosch gefangen
A child has a frog gefangen
'A child has caught a frog.'
- Wahrscheinlich hat ein Kind einen Frosch gefangen
Probably has a child a frog caught
- Heute früh hat ein Kind einen Frosch gefangen
Today early has a child a frog caught

(6) *Why are you so excited?* (Polish)

- Jakieś dziecko złapało żabę.
some child. caught frog
"Some/A child has caught a frog."
- ?Prawdopodobnie jakieś dziecko złapało żabę.
probably some child caught. frog
- Dzisiaj rano jakieś dziecko złapało żabę.
today morning some child caught frog
"A child has caught a frog early this morning."

(7) *Why are you so excited?* (Czech)

- Nějaké/Jedno dítě si chytilo zajíce.
a/some child refl. caught rabbit.acc
'A child has caught a rabbit.'
- Asi si nějaké/jedno dítě chytilo zajíce.
probably refl. a/some child caught rabbit.acc
- Dneska ráno si nějaké/jedno dítě chytilo zajíce.
today morning refl. a/some child caught rabbit.acc

- The XP sitting at the left periphery can also be just part of the focus/the topic (as observed by Jacobs 1991, Krija 1994, Buring 1997 for German).

(8) *What's new?* (German)

- Nun, einen Frosch habe ich gefangen.
Well a.acc frog have I caught
'Well, I caught a frog.'
- Nun, einen Frosch hat wer gefangen.
Well a frog has someone caught
'Well, someone caught a frog.'

- (9) *What's new?* (Polish)
- a. No/a i owszem, żabę złapałem.
 well, frog.acc caught.1.sg.m
 'Well, I have caught a frog.'
- b. No/a i owszem, żabę ktoś złapał.
 well, frog.acc somebody caught.3.sg.m

- (10) *What's new?* (Czech)
- a. Zajíce_i jsem chytil t_i.
 rabbit.acc aux.1Sg caught
- b. Zajíce_i prý kdosi chytil t_i.
 rabbit.acc prt. somebody caught
 'I caught a rabbit'/'Somebody has caught a rabbit.'

Examples such as (5) - (10) are not amenable to a treatment in terms of information-structure related movement. The factor driving (5) - (10) can be shown to explain so-called "focus movement" and "topic movement" to the left periphery as well.

- The problem is not confined to Central Europe

Russian

- (11) a. *What have the children done?*
 Cvety oni sobrali.
 flowers.acc they have-plucked
What's the noise outside?
 Deti V MJAC igrajut.
 children in ball play
 'Children are playing ball.'
- (Janko 2001:195)

Italian

- (12) a. *Why are you so late?*
 Un blocco stradale, ha trovato il tassí.
 a block road, has found the taxi
- b. La festa, gli abbiamo fatto.
 the feast, to-him have.we done
 'We killed him.'

Greek

- (13) a. *What did you do on the weekend?*
 Tin efimeriDa Djavasa.
 the.acc newspaper I-have-read
 'The newspaper I have read.'
- b. *What about the neighbours?*
 Mijes varane I jítone.
 fly.acc.pl.fm hit.3pl def.nom.pl.ms neighbour.nom.pl.ms
 'They are bored.'

Breton

- (14) *What will happen?*
 Va lein e tebrin
 my breakfast eat.fut.1sg
 'I will eat my breakfast' (= (40) in Jouitteau 2008)

Hungarian

(15) *What did Peter do yesterday afternoon?*

a. Péter [**fel**-olvasta a **Hamletet** a **kertben**] (nem pedig úszott).
Peter PV-read the Hamlet-ACC the garden-in not rather swam

'What Peter did was read out Hamlet in the garden (rather than swim).

b. Péter [a **Hamletet** olvasta fel a **kertben**] (nem pedig úszott).

c. Péter [a **kertben** olvasta fel a **Hamletet**] (nem pedig úszott). (Szabolcsi 1981, Kenesei 1998)

Estonian

(16) *What have the children done?*

a. Korjasid lilli.
plucked flowers

b. Lilli korjasid.

Finnish

(17) *Have you heard that Peter left his wife yesterday?*

Ei, talonsahan hän my-i!
no house.3s.poss-part he sell.past.3s
'No, he sold his house!'

Haitian Creole (and Trinidadian Vernacular English)

(18) *What are you doing there?*

a. Se kuit M ap kuit poul.
it is cook I pres.prog cook chicken
'I am COOKING chicken.'

b. Se poul m ap kuit
it is chicken I pres.prog cook
'It is CHICKEN that I am cooking'

(Cozier, 2006)

Somali

(19) *What did Cali do?*

a. Cali Maryanbuu dilay.
Cali Mary focbeat

b. Maryanbuu dilay Cali.
Mary foc beat Cali

(Svolacchia, Mereu & Puglielli 1995)

Gurune

(20) *What would you like to do?*

a. Mam boti eNme la boolE
I like play foc football
'I like to play football.'

b. BoolE ti mam bota eNme
football foc I like play

Hausa

(21) *What happened?*

Dabboobi-n jeejii nee mutàaneesu-kà kaamàa.
animals-of bush prt men 3pl-rel.perf catch
'The men caught wild animals.'

(Hartmann & Zimmermann, in press)

English may have a similar problem

(22) *What did John do?*

John gave to Mary [all of the money in the satchel].

Williams (2003:34)

- The problem is not confined to the movement of DP as part of a VP/TP focus

(23) *What have you done downtown?*

What have you bought?

Bücher hab ich **ein paar** gekauft
 books have I a couple bought
 "I bought a few books"

(related observations in Puig-Waldmüller 2006)

(24) **No'** vypala na redkost' **burnaja** . (Leonov 'Russian Woods')
 night-NOM occurred exceptionally wild-NOM

'An exceptionally wild night occurred.'

Sekerina (1997:233)

(25) a. **jurrwumurlung** gurdij garra-ny **garndi** (Ngarinyman)

long stand be-NPST tree

'there is a long tree standing up' (lit. 'long stand it-is tree')

b. **burdaj** ga-ram=ngardi **gujugu** (Jaminjung)

wind 3sg-come.PRS=SENT.FOC big

'a big wind is coming!' (lit. 'wind comes big') Schulze-Bentzen (2008).

- Prosodically, the construction does not differ from the fronting of a narrow focus

Féry (2006): A series of production experiments ---

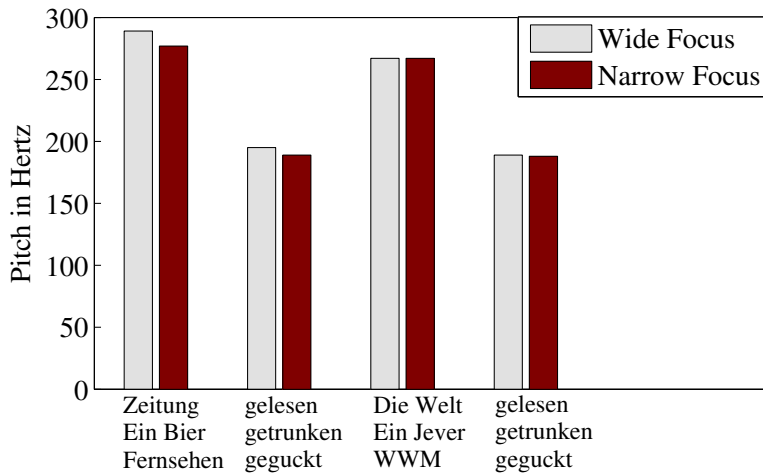
(26) a. Wide focus: { Did you go out afterwards? }

b. Narrow focus: { What did you drink? }

(27) a. Ein Bier haben wir getrunken./ Ein Jever haben wir getrunken.

a beer/a Jever have we drunk 'We drank a beer/a Jever.'

b. Wir haben ein Bier getrunken./ Wir haben ein Jever getrunken.



Wide and narrow focus fronting also do not differ in acceptability (Féry 2006, Fanselow, Lenertová & Weskott 2008)

FLW: Acceptability rating study. written material 7- point scale, 4 items/condition

(28) a. Das Fahrrad hat er repariert
 the bicycle has he repaired

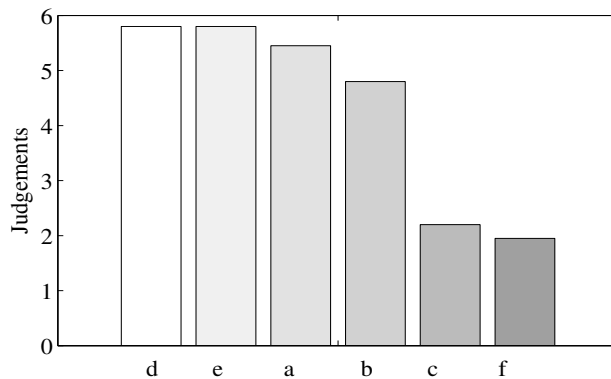
b. Das Fahrrad hat der Nachbar repariert.
 the bicycle has the neighbour repaired

'He/the neighbour fixed the bicycle.'

- (29) a. Was hat er gestern vormittag repariert? (object focus)
 what has he yesterday morning fixed
 ‘What did he fixed yesterday morning?’
- b. Was hat er gestern vormittag gemacht? (VP focus)
 what has he yesterday morning done
 ‘What did he do yesterday morning?’
- c. Warum hat er das Werkzeug genommen?(IP focus)
 why has he the tools taken
 ‘Why did he take the tools?’

Narrow Object Focus (I)	6.34
VP Focus (II)	6.23
IP Focus, pronominal subject (III)	5.19
IP Focus, non-pronominal subj. (IV)	4.48

Data from Féry (2006): Auditory presentation, 7-point scale



- a. All-new focus: Pronoun: 5.45
 b. All-new focus: Unaccented subject DP: 4.8
 c. All-new focus: Accented subject DP: 2.2
 d. Narrow focus on the object: Pronoun: 5.8
 e. Narrow focus on the object: Unaccented subject DP: 5.8
 f. Narrow focus on the object: Accented subject DP: 1.95

2. Partial Fronting Cannot be Explained Away

Does the movement element have an additional pragmatic function?

A topic in a focus?

- (30) *What do you want to do in your holiday?*
 Ein Buch würde ich gerne lesen.
 A book would I eagerly read
 ‘I would like to read a book.’

Preparation of topic shift?

- (31) Die Bauern lebten in kleinen Steinhäusern und stellten vor allem Käse her.
The peasants lived in small stone houses and produced mostly cheese

Ihre Ziegen brachten sie im Winter ins Tal
their goats took they in winter into-the valley

Damit sie etwas dort zu essen finden konnten.
so that they could find something to eat there.

- (32) *What had you wanted to do in your holiday?*
[Ein Buch]_i hätte ich gerne _{t_i} gelesen, aber ich musste immer Windeln wechseln.
a book had I eagerly read but I had-to always diapers change
Und dann wurde das Kind noch krank...
and then became the child even ill
'I had wanted to read some book, but I always had to change diapers. And then the child even fell ill.'

- (33) *Why did you quarrel with him?*
a. BOUdu na mě ušil!
hut.acc for me.acc stitched.sg.ms
'He has cheated me!'
b. Schöne AUgen hat er ihr gemacht.
beautiful eyes has he her made
'He made eyes at her.'
c. Den GARaus hat er ihr gemacht.
the garaus has he her.dat made
'He killed her.'

- (34) a. Anna a "gombhoz varrta a "kabátot. (Hu)
Anna the button.all sewed the coat.acc
b. Anna a "kabátot varrta a "gombhoz.
Anna sewed the coat to (fit) the button.'
= 'She was attentive to the details rather than the whole picture.'

If the basic distinctions of information structure were applicable to parts of idioms, we would e.g. expect that idioms could be partially deaccented, but they cannot.

Is Partial Fronting Remnant Movement?

- (35) [_{t_i} gesehen]VP hat er nur eine EUle_i t_{VP}.
seen has he only an owl
'He only saw an owl.'
- (36) *What did she do?*
a. [Den GARaus _{t_i} _{t_j}]VP/FOC hat sie ihm_i gemacht_j t_{VP}.
the garaus has she him.dat made
'She killed him.'
b. [Den GARaus _{t_i} gemacht]VP/FOC hat sie ihm_i t_{VP}.
- (37) [Mit den Hühnern ins Bett ~~gegangen~~] sind wir gegangen
With the chicken into-the bed are we gone
"we went to bed early"
- Alle Tassen im Schrank hat der nicht mehr
all cups in-the cupboard has he not more
"He is quite crazy"

- (38) a. *And what happened then?*
 [Ein TAXi] hat sie gesagt dass sie sich nehmen wird.
 a taxi has she said that she refl. take will
 ‘She said she wants to take a taxi.’
- b. *How did she excuse herself?*
 [Ein UNfall] sagte sie dass es gewesen war.
 an accident said she that it been was
 ‘She said it had been an accident.’
- c. *How did she upset him?*
 [Seinen JOB] hat sie ihn gedrängt aufzugeben.
 his.acc job has she him.acc urged give-up.inf
 ‘She urged him to give up his job.’
- (39) a. *[Gesagt, dass sie sich t_i nehmen wird] hat sie ein TAXi_i.
 said that she refl. take will has she a taxi
 ‘‘She said she would take a taxi’’
- b. *[Gedrängt t aufzugeben] hat sie ihn seinen JOB_i.
 urged give-up.inf has she him.acc his job
- c. *[t_i Aufzugeben gedrängt] hat sie ihn seinen JOB_i.
 ‘‘she urged him to give up his job’’
- (40) hat sie [_{VP} gesagt dass sie sich ein Taxi nehmen wird] → illicit long scrambling
 hat sie [_{VP} ein Taxi [_{VP} gesagt dass sie sich t nehmen wird]] → remnant movement
 hat sie [_{VP} gesagt dass sie sich t nehmen wird] [_{VP} ein Taxi t_{VP}]
 [_{VP} ein Taxi t_{VP}] hat sie [_{VP} gesagt dass sie sich t nehmen wird]

The parasitic gap which *Akten* binds in (41) has the category DP, it is not a VP.

- (41) *What did he do?*
 AKten_i hat er [anstatt e_i zu bearbeiten] t_i in den Papierkorb geworfen.
 documents has he instead-of to process in the basket tossed

3. Properties of Partial Focus Fronting

- (42) a. *What did he do?*
 Ein BILD hat er zerrissen.
 a picture has he torn
 ‘He tore a picture.’
- b. *What happened?*
 Im GRABen ist er gelandet!
 in ditch has he landed
 ‘He drove into the ditch!’
- (43) *What did you do on Sunday?*
 a. Den WAGen hab’ ich gewaschen.
 the.acc car have I washed
 ‘I washed the car.’
- b. #GeWAschen hab ich den Wagen.
 ‘I WASHED the car.’
- (44) a. *What has happened last Sunday?*
 VerLETZT hab ich mich.
 hurt have I myself
 ‘I hurt myself.’
- b. *Why did he have to leave?*
 BeLEIdigt hater wen.
 insulted has he someone.acc
 ‘He insulted someone.’

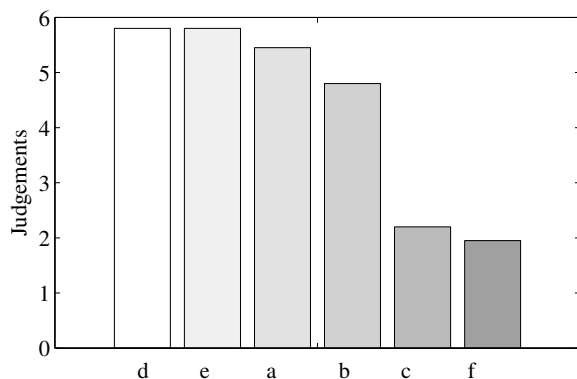
Only the leftmost accented element may be fronted:

- (45) a. Er hat den Nagel auf den KOPF getroffen.
he has the.acc nail on the.acc head hit
'He clearly expressed the truth.'
- b. Den Nagel hat er auf den KOPF getroffen.
c. #Auf den KOPF hat er den Nagel getroffen.
- (46) a. Er ist vom REgen in die TRAUfe gekommen.
he has from rain in the eaves come
'He jumped out of the frying pan into the fire.'
- b. Vom REgen ist er in die TRAUfe gekommen.
c. #In die TRAUfe ist er vom Regen gekommen.
- (47) *What's new?*
- a. GULáš jsem uvařila.
goulash aux.1sg cooked.sg.fm
'I cooked goulash.'
- b. #GULáš matka uvařila.
goulash mother cooked.sg.fm

Indefinite subjects like 'somebody' and epithets do not block movement, see also (30).

- (48) a. *What's new?*
KARla někdo hledal.
Karel.acc somebody.nom looked-for.sg.ms
'Somebody was looking for Karel.'
- b. *How was the party yesterday?*
Ein BUCH hat jemand vorgelesen.
a book has somebody read out
'Someone read out a book.'
- (49) *What did Fritz do on Sunday?*
Ein BUCH hatder Idiot gelesen anstatt schwimmen zu gehen.
a book has the idiot read instead swim to go
'The fool read a book, instead of going swimming!'
- (50) *Why is Karl not here? B: You know Peter was giving a party yesterday and he prefers a very loud music. A: So what happened?*
Den STROM hat uns der Nachbar ausgeschaltet ...
the.acc electricity has us the neighbor switched-off
'Our neighbor has switched off the electricity.'
- (51) *What's the matter? Do you know how late it is?*
#Den STROM hat uns der Nachbar ausgeschaltet ...
the.acc electricity has us.dat the neighbor switched-off

Recall Féry's experimental evidence:



- a. All-new focus: Pronoun: 5.45
- b. All-new focus: Unaccented subject DP: 4.8
- c. All-new focus: Accented subject DP: 2.2
- d. Narrow focus on the object: Pronoun: 5.8
- e. Narrow focus on the object: Unaccented subject DP: 5.8
- f. Narrow focus on the object: Accented subject DP: 1.95

While accent intervention is crucial, we are not confronted with 'accent movement'

- (52) a. Peter sagte einen Bären habe man ihm aufgebunden. (Ge)
 Peter said a.acc bear.acc has one him bound-on
 'Peter said they lied to him.'
- b. Auch HANS sagte einen Bären habe man ihm aufgebunden.
 'Also Hans said they lied to him.'

Hausa, Haitian, Somali --> focus is not realized by accentuation

4. Cyclic Linearization: a sketch of an analysis

- Any element can go to Spec,C → unselective “attraction” to that position (as in Chomsky 2005)
- Ban on crossing of accented phrases to be expressed in terms of “cyclic linearization theory” (see Fox & Pesetsky 2003, 2005)
- The building of a tree involves the creation of ordering statements $\alpha > \beta$ for the elements merged in that tree, i.e., hierarchical relations are created independent of serialization
- Ordering statements cannot be changed in the course of the further derivation.

(53) Once a phase is complete, the complement domain of its head must have been spelt out.

(54) **The assignment of structural accents/stress takes place in the context of immediate linearization.**

(55) ... [α [β ... [α β ...] ...]

How is (structurally) unaccented material treated in our model? Such syntactic objects are not serialized immediately. Example: wh-words

- (56) wen mag ein Logiker?
 Who.acc likes a.nom logician?
 “who does a logician like?”
- (57) dass den Fritz NIemand mag
 that the.acc Fritz nobody likes
 “that nobody likes Fritz”

Non-structural accents:

- (58) a. Wieviel Leute hat wer nicht erkannt?
 how-many people has who not recognized
- b. wh_x, x number of people, wh_y, y a person, [y did not recognize x persons]
- (59) *At the class reunion, many did not recognize some of their school friends. Did somebody not recognize anyone?*
- a. NIemanden hat nur der HUBert t wiedererkannt.
 nobody.acc has only the Hubert.nom recognized
 ‘Only Hubert did not recognize anyone.’

- b. Es hat nur der HUbert niemanden wiedererkant.
it has only the Hubert nobody.acc recognized
- (60) A: *How will Grass react to the bad reviews?*
B: Nun, dieHAAre wirder sich NICHT gerade raufen...
well thehair will he himself not really pull out
'Well, he won't be completely upset.' (Jacobs, 1996:8)
B': Nun, er wird sich nicht gerade die HAAre raufen...
- (61) a. A: *Is he an anarchist?*
B: Nun, HÄUserhater noch NICHT angezündet.
well, houses has he yet not set-on-fire
'Well, he hasn't set any houses on fire so far.'
- b. A: *Are they anarchists?*
B: HÄUser hatvon denen KEIner angezündet.
houses has of these nobody set-on-fire
'No one of them has set houses on fire.'
- c. A: *Is he religious?*
B: Die Bibel hater noch NIE gelesen.
'He has not ever read the bible.'

The contrastive focus ends up preceding the non-contrastive one. This may be a matter of scope (Wagner 2008) or be explained in terms of templatic relations (similar to Neeleman & van der Koot 2008) created when a fronted XP receives an accent related to contrastivity.

5. Can we eliminate Focus And Topic Movement?

CompleteFronting is always a special case of partial fronting

- (62) What have you done in the city?
- a. Bücher hab ich mir ein paar gekauft
books have I me a couple bought
'I bought a few books.'
- b. Ein paar Bücher hab ich mir gekauft.
- c. Ein paar Bücher gekauft hab ich mir.
- d. ich hab mir ein paar Bücher gekauft
- (63) *What have you bought?*
- a. Ein BUCH hab' ich mir gekauft.
a book haveI myself bought
- b. [_{VP} Ein BUCH gekauft] hab ich mir.

(63b) would be incompatible with pied-piping theories if the focus phrase would be attracted (see also Horvath 2006).

And topic movement?

- (64) *What about Tom?*
- a. Den/ihn hat niemand eingeladen
him has nobody invited
- b. #_{[VP} den eingeladen] hat niemand
- c. #_{[VP} ihn eingeladen hat} niemand
'Nobody invited him'
- d. #_{[VP} den Idioten eingeladen hat niemand
the.acc idiot invited has nobody
'Nobody invited that idiot'

However, German topics seem to always leave VP (Wurmbrand 2001, Frey 2004). TPs cannot be moved to Spec,CP. The data in (64) thus find an independent explanation. If this is correct, one predicts that a fronted subordinate CP can contain a topic, and this prediction is borne out.

- (65) a. *As for your book*
 [CP das lesen zu müssen] war eine Zumutung.
 that read to must was a cheek
 'It was a bit too much to have to read it.'
- b. *As for generative syntax*
 b.' Die zu unterrichten ist mir ein Gräuel.
 it to teach is me.dat a horror
 b. "Die ist mir zu unterrichten ein Gräuel."
 'I hate teaching generative syntax.'

Binding & locality differences exist, but can be explained.

6. Why should an XP be moved at all?

- Exhaustive interpretation? Yes, but this is not focus movement (Horvath 2006)
- Contrast marking

If contrast is not signalled at all as in (66-B3), unmarked order can even become worse than marked word order (66-B1) (Kliegl, Fanselow & Weskott in prep.), but the effect can be eliminated by adding some explicit marker of contrast.

- (66) a. Hans hat den ganzen Wagen gewaschen
 Hans has the complete car washed
 "Hans cleaned the complete car"
- B1. Den Aussenspiegel hat er vergessen
 The.acc outside mirror has he forgotten
- B2. Er hat aber den Aussenspiegel vergessen
 He has however the outside mirror forgotten
 "(However,) he forgot the outside mirror"
- B3. Er hat den Aussenspiegel vergessen

Single item experiment (forced choice) B1 vs B2

B1: 282 participants

B2: 223 participants $\chi^2 = 6.893, p < .01$

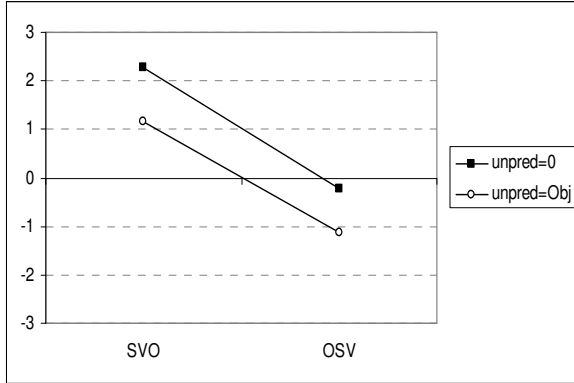
Something must be done (but it need not be movement)

- Predictability

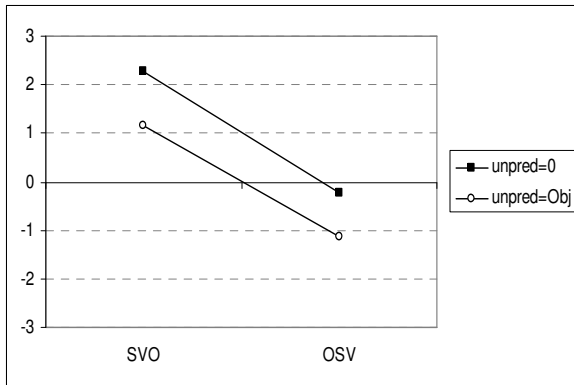
Multi-language experiment, 48 participants per language

- (67) You went for a walk and you saw a fisherman on the bank of a river. One day later, friend asks: what did the fisherman do?
 a. a trout the fisherman has caught
 b. a duck the fisherman has caught

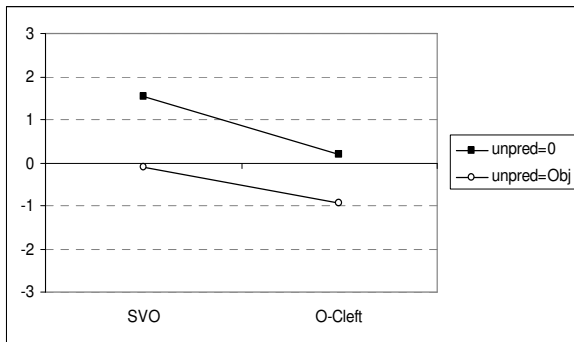
Finnish



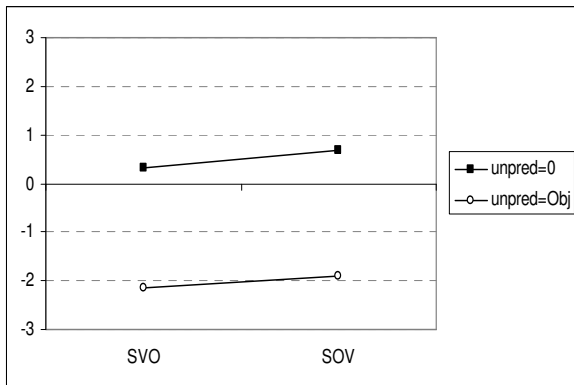
Russian



German



Armenian



7. Beyond Movement to the Left Periphery

- (68) *When did he read the book?*
Er hat das Buch gestern gelesen
he has the book yesterday read
"he read the book yesterday"

--> Partial fronting of given VP (also across arguments)

Partial idiom scrambling (not across arguments, afaik).

- (69) aus seinem Herzen **erneut** keine Mördergrube gemacht
out his heart again no murderer mie made
"to have again spoken very frankly"

den Bock **mal wieder** zum Gärtner machen
the he-goat once again to-the gardner make
"to have chosen the completely wrong person"

die Flinte **zu früh** ins Korn geworfen haben
the gun too early into.the rye thrown have
"to have given up to early"

die Fahne **gerne** nach dem Wind hängen
the flag with pleasure after the wind hang
"to like to be opportunistic"

Obviously, what is fronted is not given (since it is meaningless). Scrambling still helps to bring the focus closer to the right edge of the clause (indirect weak functional)