

## Phase-by-phase computation of prominence in ellipsis and PP stranding island alleviations

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### PP Stranding in ellipsis

PP's appear to be stranded in in elided structures in languages that do not allow PP-stranding (Szczegielniak 2006, 2008, Rodrigues et. al 2009, Nykiel 2014)

1. Jan zagrał w jakimś teatrze, ale nie wiem którym ~~Jan zagrał teatrze w~~  
Jan played in some theater, but I do not know which ~~Jan played theater in~~  
'Jan played in some theater but I do not know which one'
- \*2. Którym<sub>1</sub> Jan zagrał w teatrze t<sub>1</sub>  
which Jan played in theater  
'In which theater Jan played in'

Elided structure in (1) has the appearance of PP-stranding if we assume a movement derivation of sluicing (Merchant 2000)  
PP stranding is impossible in Polish as shown in (2)

## Movement and PP stranding generalization breaks down

- Ellipsis allows omission of P in complex DP remnants, but requires P in simple ones
3. Jan zatańczył z kimś      ale nie wiem \*(z) kim  
Jan danced with someone but not know with who  
'Jan danced with someone but I do not know with who'
4. Jan zatańczył z jakimś kolegą ale nie wiem (z)którym  
Jan danced with some friend but not know with which  
'Jan danced with someone but I do not know with which one'

## Movement impossible stranding PP regardless of type of DP

- \*5. Jan zatańczył z kimś      ale nie wiem kim1 Jan zatańczył z t1  
Jan danced with someone but not know who Jan danced with  
'Jan danced with someone but I do not know with who'
- \*6. Jan zatańczył z jakimś kolegą ale nie wiem którym1 Jan zatańczył z kolegą t1  
Jan danced with some friend but not know which Jan danced with friend  
'Jan danced with some friend but I do not know which friend he danced with'
- It cannot be argued that sluices that omit a PP are generated via regular wh-move

## Clefts in the elided site

•Szczegielniak (2006, 2008) argued that a movement account of PP-stranding alleviation can be salvaged by postulating that the underlying structure of the sluice is a cleft lacking a copula.

7. Jan zatańczył z jakimś kolegą, ale nie wiem  
Jan danced with some friend but not know

którym<sub>2</sub> to [z t<sub>2</sub> kolegą]<sub>1</sub> Jan zatańczył t<sub>1</sub>  
which it with friend Jan danced

‘Jan danced with some friend but I do not know  
which friend it was that he danced with’

## Cleft analysis problems

The cleft analysis incorrectly predicts that structures like (8) are ungrammatical since when pronounced the continuation is ungrammatical:

8 Jan zatańczył z którymś kolegą ale nie wiem  
Jan played in some theater but not know  
\*[którym kolegą]<sub>2</sub> to [w t<sub>2</sub>]<sub>1</sub> Jan zatańczył t<sub>1</sub>  
which friend it with Jan danced

## Grammaticality assumption

- We want to assume that the ellipsis site has:
  - A denotation, derived on the basis of
  - Internal structure, which is
  - Grammatical
- Why?
  - PP stranding is not free (from Szczegielniak 2008):
    - VP ellipsis vs Sluicing
    - Case matching
    - Not possible with multiple wh
    - Not possible with non-D linked wh
  - We cannot assume that Polish can alleviate any PP-stranding violation via sluicing.
  - We want to assume that constraints on PP-stranding alleviation are structure sensitive

## How do we proceed?

- Cases of PP stranding are instances of phase-by-phase computation of information structure and prominence
- A PP stranding remnant is a DP phase which has enough structure to assign prominence within itself.
- In essence, PP stranding is discontinuous ellipsis

## Phase level evaluation of prominence

- Kratzer & Selkirk (2007) argue that in all new clauses prominence is assigned to highest XP within a phase
9. a. The highest phrase within the spell-out domain of a phase corresponds to a prosodic major phrase in phonological representation.  
 b. The Elsewhere Condition  
 A spell-out domain with eligible material must contain a major phrase.

## Spell out of major phrase

Within vP phase we can see the principles in action (copied from Kratzer and Selkirk (2007):

10. VP-internal PPs lack stress in presence of direct object

- a. ... *dass ein Jünge [eine Geige im Supermarkt kaufte].*  
 that a boy a violin in.the.DAT supermarket bought  
 '... that a boy bought a violin in the supermarket.'

VP-internal PPs are stressed in absence of direct object

- a. ... *dass ein Jünge [im Súpermarkt lebte].*  
 that a boy in.a.DAT supermarket lived  
 '... that a boy lived in a supermarket.'

## Major phrase spell-out cd.

The computation of above examples

11.

Spellout of VP-internal PP as a MaP/phrase stress depends on its position in VP:

a.  $[ \dots [ \underline{\text{object}} [PP \text{ verb}] ]_{VP} V ]_{VP} \rightarrow ( \overset{x}{\text{object}} )_{\text{MaP}} PP \text{ verb}$   
*spellout*

vP phase:  $\underbrace{\hspace{10em}}$   
 spellout domain

b.  $[ \dots [ \underline{PP} \text{ verb} ]_{VP} V ]_{VP} \rightarrow ( \overset{x}{PP} )_{\text{MaP}} \text{ verb}$   
*spellout*

vP phase:  $\underbrace{\hspace{10em}}$   
 spellout domain

## Phase heads

- Phase heads, H, are how syntax interprets features of the C-I and M-S interfaces
- Lexical heads and their projections are how syntax interprets Lexical interface features.
- Each H can have:
  - Focus features triggers [~]
  - Prominence features
  - Givenness features triggers [G]
  - Ellipsis features
  - Linearization features

## Phase heads cd

- There is evidence that Phase Heads are not the same as lexical heads
  - Bošković (2014) phase head always on top but not any specific category
  - Pestersky (2014) Phase head not C, but above CP in cyclic movement
- Features on phase heads different from Lexical heads
  - Linearization (Fox & Pesetsky 2007)
  - Edge features (Chomsky 2014)
  - Ellipsis features (Gengel 2006)
- I Assume that H is a boundary of the complement structure always c-commanding it.

## ellipsis features

- Each phase head H can carry ellipsis features
- Ellipsis features are a function of Givenness
- Givenness features are encoded on each phase head
- termination of Givenness is indicated by a [G] operator c-commanded by a phase head with Givenness features within each phase. Kučerová (2007, 2012) shows that [G] can break constituency.
- A phase head that carries Givenness features but no Ellipsis features cannot be dominated a phase head with Ellipsis features (MaxElide!)

## focus

- Focus can be encoded on any phase head.
- Focus triggers prominence
- Focus triggers termination of alternative semantics {~} Rooth (1992) within that phase.
- Computation of focus and Givenness is computed phase by phase.
- Focus overrides ellipsis features
- A phase carrying focus can be contained in a phase that carries ellipsis features, focus=remnant
- We still need something like AvoidFocus! Schwarzschild (1999) so as to not have each phase carry focus features

## Discontinuous ellipsis

12. I disproved theories held by Wittgenstein last year and  
~~I disproved theories held (by) Einstein~~ this year

13. Jan zatańczył z Marią we wtorek i  
 Jan zatańczył with Maria on Tuesday and  
~~Jan zatańczył z Jolą~~ w piątek  
 Jan danced with Jola on Friday.

‘Jan danced with Mary on Tuesday and with Jola  
 on Friday’



## Discontinuous ellipsis

Ellipsis can appear to target discontinuous strings that do not appear to be constituents (Bruening 2015)

14. I disproved theories held by Wittgenstein last year and  
~~I disproved theories held by~~ Einstein this year.

Note we cannot assume that there is evacuation movement (Vincente 2000) of 'by Einstein this year'

\*15. [By Einstein]<sub>1</sub> [this year]<sub>2</sub> , I disproved theories held t<sub>1</sub> t<sub>2</sub>

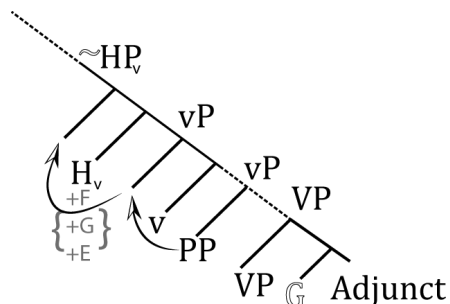
## discontinuous ellipsis

- Examples cannot be analyzed as movement of the remnant
- Focus of remnants can be computed at the local phase level
- Domain of focus in ellipsis is Function of contrast with antecedent
- Here DP level, so why better with PP in Polish and optional in English?
  - English PP can be selected by H (stranding)
  - Polish not (no stranding)
- Movement cannot account for PP stranding effects since DP complexity plays a role and cleft analysis does not hold

## Localized movement within vP phase

- The PP = *by Einstein, do Joli* raises from within the vP domain to Spec-H<sub>v</sub>
- H<sub>v</sub> has a focus feature that licenses focus movement to its Spec and  $\sim$  operator (Rooth 1992)
- H<sub>v</sub> has a Givenness feature that marks complement down to [G] as Given

16.



### Can there be localized movement within DP: only if large enough and there is contrast

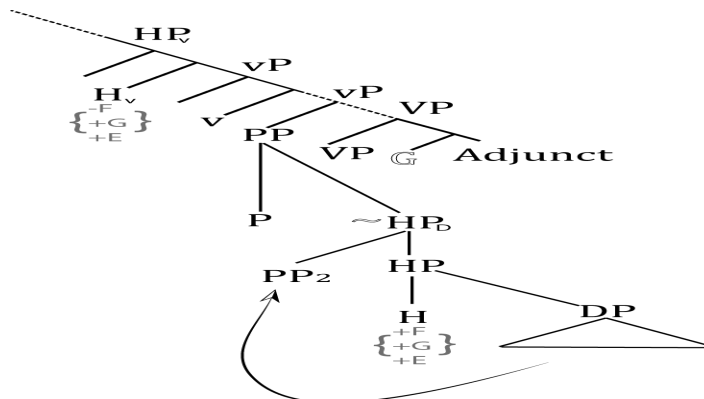
\*17. Jan zatańczył z Marią we wtorek i  
 Jan danced with Maria on Tuesday and  
~~Jan zatańczył z Jolą w piątek~~  
 Jan danced with Jola on Friday.  
 ‘Jan danced with Mary on Tuesday and Jola on Friday’

18. Jan zatańczył z kolegą z pracy we wtorek a  
 Jan danced with friend from work on Tuesday and  
~~Jan zatańczył z kolegą ze szkoły~~ w piątek  
 Jan danced with friend from school on Friday.  
 ‘Jan danced with a friend from work on Tuesday and with  
 a friend from school on Friday’

## Focus within DP

19. Jan zatańczył z kolegą ze szkoły ...w piątek

Jan danced with friend from school on Friday.



## PP stranding in sluicing is inherent focus of complex wh-phrase

- D-linked wh-phrases are part of a DP phase
- That is why their extraction is easier than of non-d-linked phrases
- Complexity matters in PP stranding (Nykiel 2013) since complex DP's have enough structure to have focus assigned inside them (there is a highest XP to establish prominence)
- PP stranding in ellipsis is not movement out of the PP but Focus assignment within DP that is the complement of P

## Consequences

- No PP stranding in vP ellipsis
    - PP argument has to be prominent inside the vP to raise out for EPP (same in English)
20. W domu będzie nam ciepło ale (w) lesie nie będzie  
 In house will us(dat) warm but in forest not is  
 'It will be warm for us in the house but not in the forest.'
- No PP stranding in multiple wh-sluiques
    - AvoidFocus! Forces us to to have focus at the phase where both remnants are contained
21. Jan napisał jakiś list do jakiegoś ucznia ale nie wiem który \*(do) którego  
 Jan wrote some letter to some student but not know which (to) which  
 'Jan wrote some letter to some student but I do know which to which (student)'
- Superiority not alleviated (Stjepanovic 2013)
    - Multiple wh structures within a CP phase have equal prominence.

## Island alleviation

- Can such an approach account for island alleviation in Sluicing?
  - Maybe
22. We hired a linguist who speaks a Balkan dialect but we do not know  
~~We hired a linguist who~~<sub>VP</sub> ~~speaks~~ **which dialect**
- Possibly movement of wh only to edge of vP phase.