

**University of Leipzig, Department of Linguistics**  
**SS2015 – module 04-046-2011/IGRA08**  
**Sharing constructions**

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**Assmann (2012): PGs by fission and fusion**

- The challenges posed by parasitic gaps:
    - (1) Which book did you file \_\_ [without reading \_\_]?
      - apparent extraction from two positions simultaneously
      - apparent extraction from an adjunct
      - can be embedded in exactly one strong island:
    - (2) \*Which book did you file \_ [without knowing [the author who wrote \_\_]]?
      - how can 2 elements become 1? – structure preservation
      - how to escape the island?
      - if only 1 element moves – c-command?
      - if only 1 element moves – Activity Condition?
  - Major results of the paper:
    - the structure preservation problem is solved by means of pre-syntactic fission) plus syntactic fusion
    - fission leads to an unstable object: probe features on antecedent, which keeps the matrix phase-head active so that the operator can escape from the island
    - selective islandhood: Op is too far embedded → edge-feature insertion is impossible
    - against licensing by A-mvt: Antecedent loses its D-feature through Agree with Op
    - advantage: can derive mismatches between the two gaps
- Can the mechanism be adequately restricted?

## **1 The fission approach**

### **1.1 Assumptions**

- temporal adverbial clauses, host empty operators; evidence: ambiguity + islandhood
  - (3)
    - a. I saw Mary in New York before [<sub>S1</sub> she claimed [<sub>S2</sub> that she would arrive]]
    - b. I saw Mary in New York after [<sub>S1</sub> she swore [<sub>S2</sub> that she had left ]]
    - c. I couldn't leave until [<sub>S1</sub> John said [<sub>S2</sub> I could leave ] ]
    - d. I haven't been there since [<sub>S1</sub> I told you [<sub>S2</sub> I was there ] ]
  - (4) islands cancel ambiguity
    - a. I haven't been there since I made the claim that I was there
    - b. I haven't been there since you asked whether I was there

- CED (Müller 2010): edge-features can only be added to phase heads as long as the head is still active → extraction from last-merged specifiers is prohibited
- extension Assmann: edge-features can also be added as long as there are operation triggering features in the edge-domain of the phase head

## 1.2 Fission

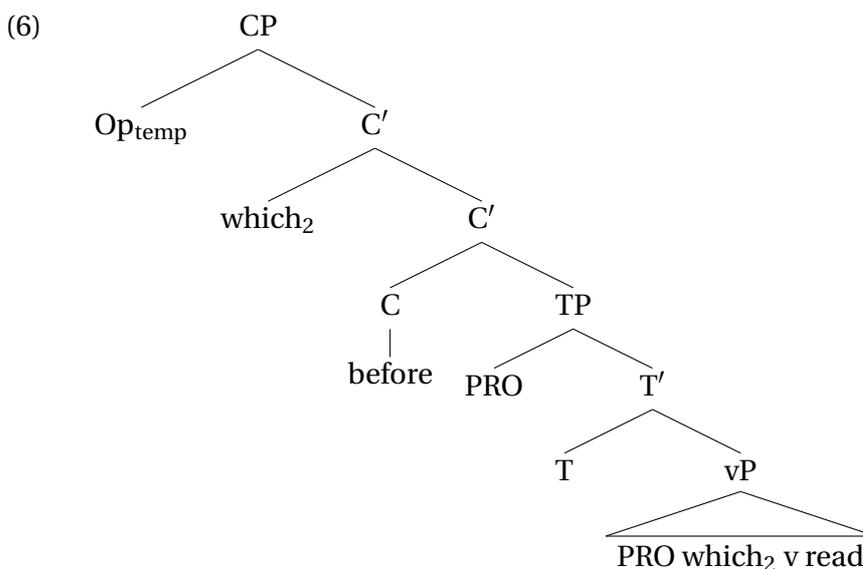
- idea: Sentences with pgs are based on defective numerations, e.g., if an argument is missing
- fission creates an unstable object: it takes one element of the numeration and splits it into two: one part then bears probe-features which have to be checked by the other split-off part; → fission ≠ copying

- (5) a. Before fission:  
 which [D,  $\phi$ , wh, [ $\bullet$ N $\bullet$ ] ..., PHON, SEM]
- b. After fission:  
 which<sub>1</sub> [[\*D\*],[\* $\phi$ \*], wh, [ $\bullet$ N $\bullet$ ], ... PHON, SEM]  
 which<sub>2</sub>: [D,  $\phi$ ]

- note that fission only copies those features that are needed for convergence (thus: no phon features - but what about sem? - ref index is copied as well, part of phi-features)

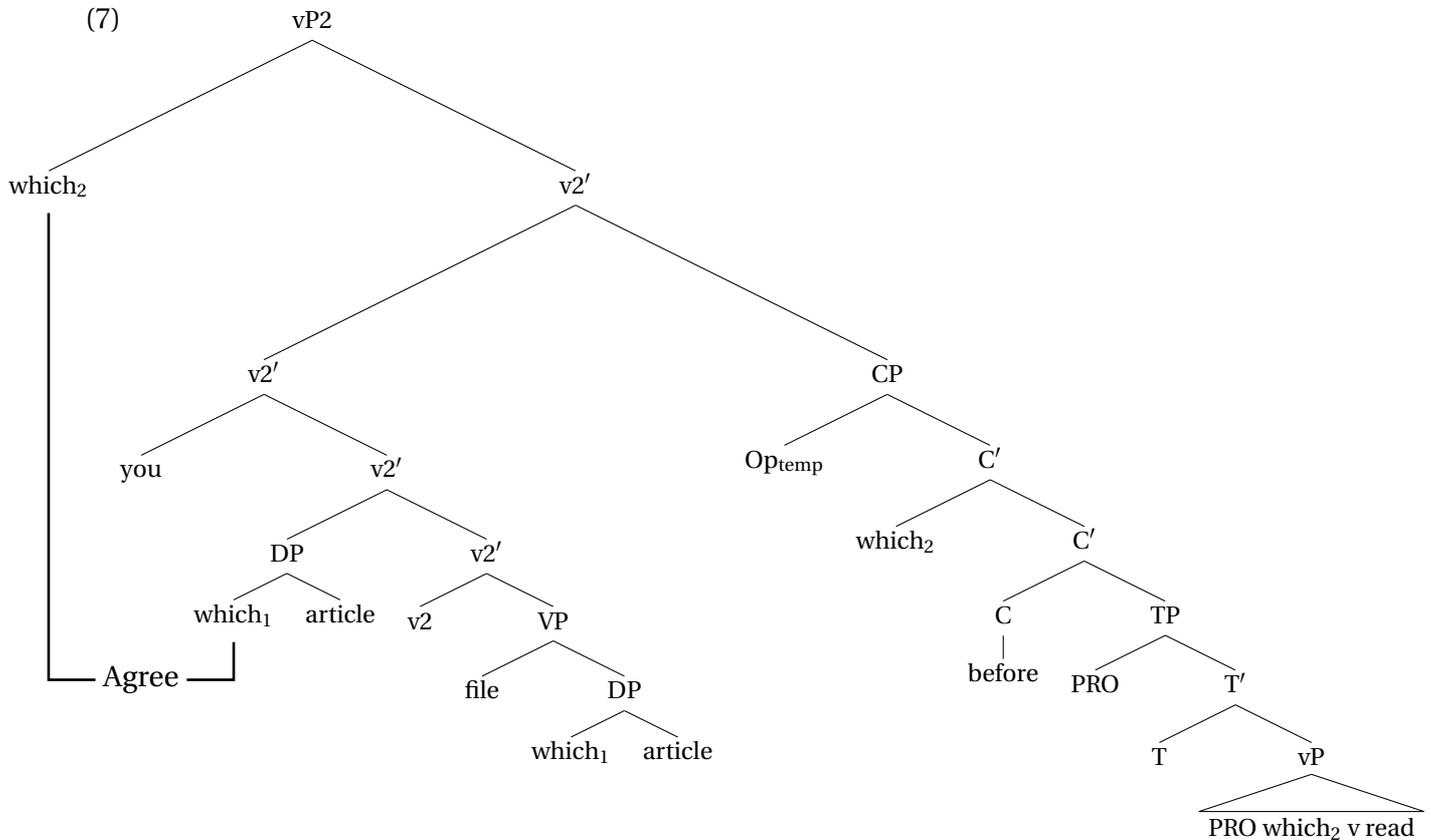
## 1.3 Sample derivation

- Constructing the adjunct clause:
  - which<sub>2</sub> is merged in the adjunct clause
  - movement of which<sub>2</sub> to SpecCP: presence of the operator-feature on C licenses insertion of an edge-feature → movement of which<sub>2</sub>



- constructing the matrix clause
  - which<sub>1</sub> merges as the object of file, then undergoes edge-feature-driven mvt to SpecvP;
  - phase-head is no longer active after Merge of the EA and the adj-clause, but which<sub>1</sub>, which is in v's checking domain, has probe features, which licenses the insertion of an edge-feature (according to the definition above)

- which<sub>2</sub> can now move from the adj to matrix SpecvP:
- Fusion = Agree which<sub>1</sub> – which<sub>2</sub> → deletion of which<sub>2</sub> (note that Agree is assumed to be possible if the probe c-commands the goal or vice versa)

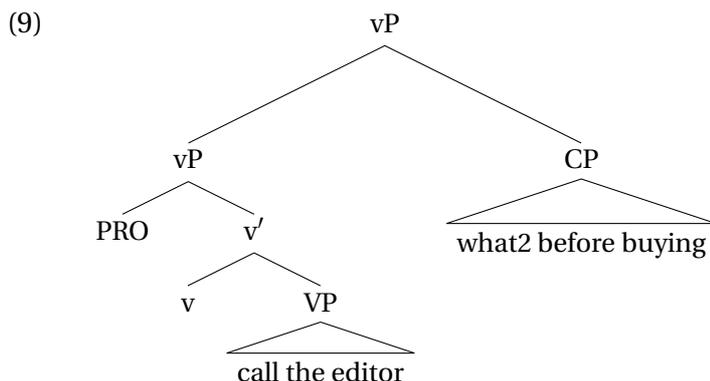


## 2 Special properties of PGs

### 2.1 Selective islandhood

- (8)
- What did you read \_\_ [before buying pg]?
  - \*What did you read \_\_ [after expecting me to call the editor [before buying pg]]

- wh<sub>2</sub> has to escape the island, which in turn is only possible if it is within the same phase as wh<sub>1</sub>. However, if wh<sub>2</sub> is embedded within 2 islands, it cannot escape the second island because there will be no active element in the vP-domain of the higher island:



## 2.2 Asymmetric reconstruction

- (10) a. [Which books about himself?<sub>i</sub>?]<sub>1</sub> did John<sub>i</sub> file \_\_\_<sub>1</sub> before Mary read pg<sub>1</sub>?  
 b. [Which books about herself?<sub>j</sub>?]<sub>1</sub> did John file \_\_\_<sub>1</sub> before Mary<sub>j</sub> read pg<sub>1</sub>?

- wh<sub>2</sub> has no [ $\bullet$ N $\bullet$ ]-feature, consequently, it is intransitive so that it cannot be combined *with picture of herself*. The only possible binder available is *John*, which, however, cannot bind *herself*.
- The first example is well-formed because *John* can bind *himself*. Since no anaphor is present in the adjunct, no problem obtains.

→ prediction: never any reconstruction into the PG (what about principle C?)

## 2.3 Movement-type asymmetries between which<sub>1</sub> and which<sub>2</sub>

- observation: movement of wh<sub>2</sub> is subject to fewer/different locality constraints than wh<sub>1</sub>, i.e. it does not behave like a true wh-element or true topicalization/scrambling element but rather like a neutral operator:

- wh-islands:

- (11) a. Welche Radios weisst du nicht, wie man repariert?  
 which radios know you not who one repairs  
 ‘Which radios don’t you know how to repair?’

- b. ?Radios weiss ich nicht, wie man repariert.  
 radios know I not how one repairs  
 ‘AS for radios, I don’t know how to repair them.’

- (12) a. \*Welche Radios weisst du [wie man [ohne pg zu reparieren] \_\_\_ verkauft]?  
 which radios know you how one without to repair sells  
 ‘Which radios did you know how to sell without repairing?’

- b. ?Welche Radios hast du [ohne zu wissen [wie man pg repariert]] \_\_\_ verkauft?  
 which radios have you without to know how one repairs repairs sold  
 ‘Which radios did you sell without knowing how to repair?’

- long-distance scrambling: only inside the adjunct, not inside the matrix:

- (13) a. \*dass ich das Radio glaube [dass man [ohne pg zu reparieren] \_\_\_] verkaufen kann]  
 that I the radio believe that one without to repair sell can  
 ‘that I believe that one can sell the radio without repairing it’

- b. ?dass ich das Radio [ohne zu sagen [dass man noch pg reparieren muss]] \_\_\_ verkauft habe  
 that I the radio without to say that one still repair must sold have  
 ‘that I have sold the radio without saying that one still has to repair it’

## 2.4 Licensing by A'-movement but not by A-movement

- No licensing by A-movement

- (14) a. \*John was killed \_\_ by a tree falling on pg.  
 b. \*Mary seemed \_\_ to disapprove of John's talking to pg.

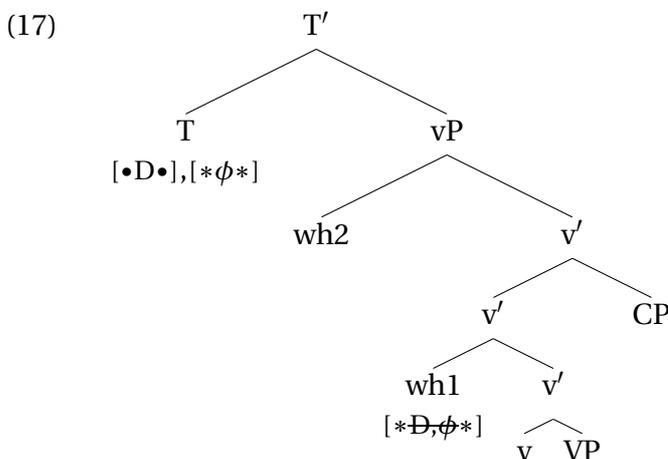
- A-movement followed by A'-movement does not help:

- (15) \*Which house was sold \_\_ [before we could demolish pg]?

- Anti-c-command condition:

- (16) \*Which spy \_\_ killed John [before anybody could speak to pg]?

- idea: As a result of Agree, the D-feature and the  $\phi$ -features of wh1 are deleted (no longer syntactically visible) so that the SU cannot satisfy the EPP of T and check T's phi-features:



## 3 Exercises

- What happens if you merge wh2 in the matrix clause and wh1 in the adjunct?  
 → probe features of wh1 could not be checked: trapped inside the island, no c-command

- How to derive the S-structure licensing?

- (18) \*Who filed which paper without reading?

- wh1 would be too far embedded within VP so that no Agree would be possible with wh2 – unless wh1 undergoes scrambling

- How to derive subject PGs?

- (19) Alex, who [friends of pg] admire \_\_

- How to derive the following contrast?

- (20) a. a note which [unless we send back pg] \_\_ will ruin our relationship.  
 b. \*a note which \_\_ will ruin our relationship [unless we send back pg]

- (20-b) adj adjoined to vP → general failure of A-mvt to license PGs; (20-a): adjunct above TP  
 → SU can check EPP of C – wh2 of the adj must arguably move to SpecCP as well

## 4 Open issues

- what happens if we do this with elements without any movement-inducing features? – there will be no element at the edge of the matrix vP so that wh2 cannot escape the island
- why not move which1 into specvP - Münchhausen-style? – no c-command into the adjunct as (by assumption) islands are impervious to Agree
- what about multiple gaps (Engdahl 1983: 10) – predicted not to exist

- (21) a. The contract which I want to peruse \_\_ before damaging \_\_ while filing \_\_ is written on Peruvian papyrus.  
 b. Here is the man who meeting \_\_ convinced Mary that beginning to love \_\_ would make her end up hating \_\_.

- why is the second chain an A'-chain – why is there a variable?
- why should the operator behave more like topicalization rather than wh-movement w.r.t. weak islands if movement of the op is not triggered by designated features
- is deletion still possible if wh1 and wh2 differ in Case-features?

- (22) I wonder which papers John said were \_\_ available [before reading pg]

- is deletion of which2 necessary at all? If it does not have any phi-sem-features?
- if the phi-features of wh1 are deleted – consequences for interpretation?
- does it derive the fact that PGs are impossible with adjuncts? – arguably yes because only elements requiring a structure-building feature can trigger the repair operation
- does it derive the fact that PGs require a referential interpretation?
- what triggers edge-feature insertion? arguably a very general effect on outcome, i.e. insertion is in principle always possible
- advantages w.r.t. Nunes (2001)? – mismatches

## References

- Engdahl, Elisabet (1983): 'Parasitic gaps', *Linguistics and Philosophy* 6(1), 5–34.  
 Müller, Gereon (2010): 'On Deriving CED Effects from the PIC', *Linguistic Inquiry* 41(1), 35–82.