

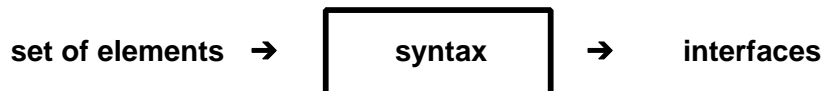
Ellipsis in layered derivations

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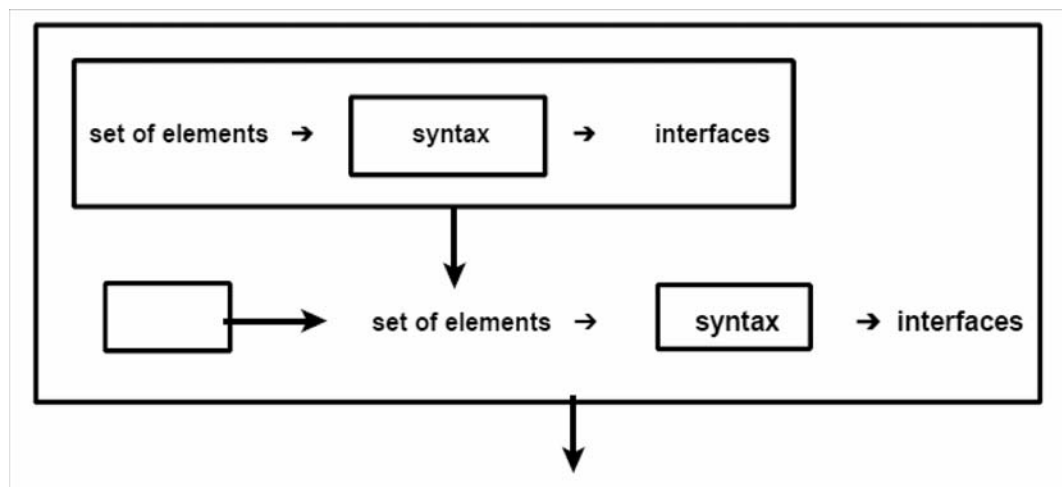
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1. Layered derivations

- (1) A derivation is a mapping from a set of elements to an interface representation (mapping = syntax):



- (2) traditionally: a derivation is a single run, complicating the syntax (phases, parallel derivations)
- (3) Layered derivations: a network of such derivations:



- (4) consequences:
- a. syntax is maximally simple (possibly finite state)
 - b. locality effects are a function of derivation layering (no phases)
 - c. no parallel/multidimensional derivations
 - d. interfaces are not just external but also **internal** to the derivation
- (5) interface effects:
- a. atomization (capturing a derivation into a single item)
 - b. recategorization
 - c. reanalysis
 - d. idiosyncratic sound-meaning associations
 - e. morphological expression, incl. substitutions (*did*)
- (6) ellipsis = a prototypical sound-meaning discrepancy
- (7) starting assumption
- ellipsis is an interface operation >
- a. there is no ellipsis in syntax
 - b. ellipsis need not refer to syntactic category (e.g. VP-ellipsis)

(8) questions:

- a. at which interfaces does ellipsis occur? (internal/external)
- b. what does the output of ellipsis look like? (nothing/empty category/empty structure)
- c. are differences between ellipsis types better understood in terms of derivation layering?

2. Ellipsis involves multiple derivation layers

(9) Ellipsis appears typically in coordination contexts:

- a. **gapping** Tasman discovered Tasmania **and** Cook the Cook Islands
- b. **VP-deletion** Tasman reached Australia **and** Cook did, too
- c. **N-ellipsis** Tasman discovered three islands **and** Cook discovered four
- d. **sluicing** Tasman discovered an island **but** I don't know which island

(10) coordination requires multiple derivation layers (assuming maximally simple syntax)

- a. the sailors and the Maoris
- b. [the [sailors [and [the [Maoris]]]]] > single derivation, wrong constituents
- c. [[the sailors] and [the Maoris]] > layered derivation, right constituents

(11) derivation layers for, say, gapping (9a):

1. { Tasman, discovered, Tasmania } → syntax → [Tasman discovered Tasmania]_a
2. { Cook, discovered, [the Cook Islands] } → syntax → [Cook discovered the Cook Islands]_b
3. { a, b, and } → syntax →
[Tasman discovered Tasmania and Cook discovered the Cook Islands]

(12) questions:

- are these the correct sets of elements?
- what happens at which interface (internal/external)?
- what does the output look like at each stage? etc.

3. The syntactic prerogative

(13) common assumption
Ellipsis is a syntactic operation

(14) corollary
Ellipsis targets syntactic constituents (there must be a constituent antecedent)

(15) consequence
Often, a **movement** is needed to create a remnant constituent that can undergo ellipsis

(16) **pseudogapping** (Jayaseelan 1990, Lasnik 1995)
Tasman discovered Tasmania before Cook did the Cook Islands

[_{VP} discovered [the Cook Islands]]

[the Cook Islands] [_{VP} discovered e]

did [the Cook Islands] [~~_{VP} discovered e~~]

(17) same with sluicing (9d) > movement to Spec,CP + TP-deletion (Merchant 2001)

- (18) my assumption here
Ellipsis is an operation of the interfaces
- (19) corollary
not evident that ellipsis targets syntactic constituents (needs a constituent antecedent)
- (20) consequence
hypothesized movements may be superfluous

(21) nonconstituent ellipsis

a. **TP-ellipsis**

Tasman heeft Australië bereikt en Cook heeft ~~Australië~~ ook bereikt
 Tasman has Australia reached and Cook also

cf. Cook (*ook) heeft Australië bereikt (*ook)

b. **Right node raising**

Tasman heeft [drie eilanden] ontdekt en Cook heeft vier
 Tasman has three islands discovered and Cook has four

eilanden ontdekt
 islands discovered

- (22) factors triggering ellipsis (Tancredi 1992)
 - a. identification of a **focus** and a **focus-related topic**
 - b. prosodic articulation (pitch accent vs. deaccenting)
 - c. a focus-related topic is an LF-representation with the focus elements replaced by variables

(23) TASMAN discovered TASMANIA TASMAN discovered Tasmania
 focus: Tasman, Tasmania focus: Tasman
 focus-related topic: x discovered y focus-related topic: x discover Tasmania

(24) trigger for deletion > identification of focus-related topic at the interfaces
 (I am assuming this doesn't need to correspond to a syntactic constituent)

4. Gapping vs. VP-deletion

(25) differences
 a. subordination contexts b. locality c. ordering d. nature of conjunction

(26) subordination

- a. VP-deletion
Tasman discovered Tasmania before Cook did
- b. gapping
* Tasman discovered Tasmania before Cook the Cook Islands

(27) nonlocal antecedent

- a. VP-deletion
Tasman reached Australia, and I'm not sure about Gilbert, but Cook did

- b. gapping
 - * Tasman discovered Tasmania, and I'm not sure about Gilbert, but Cook the Cook Islands

(28) ordering

- a. VP-deletion > gapping
Tasman reached Tasmania, and Cook did too, and Gilbert the Gilbert Islands
- b. gapping > VP-deletion
 - * Tasman reached Tasmania, and Cook the Cook Islands, and Gilbert did too

(29) the nature of the conjunction (Carrera 2006)

gapping does not occur in languages that have a different conjunction for nominal and clausal coordination (Yoruba, Wolof, Mandarin, Thai)
(no such effect with VP-deletion reported)

Wolof: clausal coordinator te, NP-coordinator ag/ak

- * Jënd naa woto te yow mobilette
to.buy PERF:1SG car and you motorbike
(intended) 'I bought a car and you a motorbike.'

5. The basics

(30) At least three derivation layers:

1. antecedent clause layer
2. dependent clause layer (also referred to as: deletion layer)
3. conjunction layer

(31) deletion vs. reconstruction question

- a. deletion > deletion layer is a full-fledged syntactic structure, deletion at the interface
- b. reconstruction > deletion layer has a (structured?) empty category, interpretation at the interface

(32) If we see *syntactic* gap-remnant effects *within* the relevant derivation layer, (31a) is correct (effects *outside* the relevant layer can be a function of reconstruction at the interface)

6. Gapping

(33) Some gap-remnant interactions hard to establish

- a. binding (Ross 1970:250)
 - * I want Bob TO SHAVE HIMSELF and MARY ~~wants Bob~~ TO WASH HIMSELF
- b. idiom formation
 - # JOHN kicked THE BALL and BILL ~~kicked~~ THE BUCKET
- c. negative polarity licensing
 - * JOHN heard noone OBJECT and BILL ~~heard noone~~ SAY ANYTHING_{NPI}

(34) Not always conclusive

[kick the bucket] = output of separate derivation layer, no focus-related topic x kick y

(35) Obvious cases of gap-remnant interaction

- a. case
You find her and I ~~find~~ him

- b. tense morphology
 Tasman is gekomen en Cook is gegaan
 Tasman is come:PART and Cook is go:PART
 'Tasman came and Cook went.'
- (36) gapping, sets of elements (cf. (9a))
 layer 1 (antecedent layer) = { Tasman, discovered, Tasmania }
 layer 2 (gapping layer) = { Cook, discovered, [the Cook Islands] }
 layer 3 (coordination layer) = { [output of layer 1], [output of layer 2], and }
- (37) earlier proposal (Zwart 2009): layer 2 is just a set of NPs (can't account for (35))
- (38) but now: **output** of layer 2 is a set of NPs
- (39) gapping, interfaces (outputs of derivation layers)
 layer 1 (antecedent layer) = [Tasman discovered Tasmania]
 layer 2 (gapping layer) = [Cook the Cook Islands]
 layer 3 (coordination layer) = [Tasman discovered Tasmania and Cook the Cook Islands]
- (40) explains Carrera's generalization (cf. (29))
 > need to combine **clause** and **NP**
- (41) explains the fact that gapping can't trigger VP-deletion (cf. (28b))
 > no focus-related topic *x discovered y* associated with the output of the gapping layer
- (42) predicts that gapping can trigger VP-deletion **inside layer 2**
- (43) Antecedent-contained deletion
 Dulles suspected everyone Angleton did (sc. suspected)
- (44) traditionally treated in a reconstruction approach, requiring Quantifier Raising to avoid an infinite regress (May 1985, Fiengo and May 1994)
 [everyone Angleton did Δ] Dulles suspected e >
 [everyone Angleton *suspected e*] Dulles suspected e
- (45) deletion approach, not needing QR (Vanden Wyngaerd and Zwart 1999)
 Dulles suspected [everyone Angleton ~~suspected e~~]
 > focus-related topic *x suspect y* triggers deletion (and substitution at the interface)
- (44) gapping > Antecedent-contained deletion
 ✓ Dulles suspected Philby, and Johnson ~~suspected~~ [everyone Angleton ~~suspected~~]
- (45) the antecedent clause cannot provide the trigger for ACD
 * Dulles suspected Philby, and [everyone Angleton did] Johnson
- (46) conclusion
 gapping: the verb is present in the gapping layer, but not at the interface
- (47) layer 3: [Cook the Cook Islands] is interpreted at the interface as 'Cook *discovered* the Cook Islands', through the focus-related topic of the antecedent clause, but this is just **implicit**, not enough to trigger VP-deletion

- (48) implicit antecedent cannot trigger VP-deletion (Sag 1976:316)
[Tasman, watching Cook trying to reach New Zealand:]
* I don't think he will

(49) Gapping is reduction of a clause to its string of focus elements (at the **internal** interface)

7. VP-deletion

- (50) Since VP-deletion can trigger gapping, the VP must not be implicit/reconstructed, but must be present throughout the derivation
- (51) VP-deletion is failure to assign phonetic features to terminals referring to the focus-related topic (at the **external** interface)
- (52) Tancredi 1992: parallel deaccenting ~ deletion
> syntactically, everything is still there
- (53) strict/sloppy identity is just a function of the ambiguity of deictic elements
Tasman reached his eponymous island before Cook ~~reached his eponymous island~~
(strict: Tasman's island, sloppy: Cook's island)

8. Other cases of ellipsis

pseudogapping

- (54) Tasman discovered Tasmania and Cook did the Cook Islands
- (55) shows VP-deletion properties:
- subordination
Tasman discovered Tasmania before Cook did the Cook Islands
 - locality
Tasman discovered Tasmania, and I'm not sure about Cook, but Gilbert did the Gilbert Islands
 - feeds gapping
Tasman discovered Tasmania, and Cook did the Cook Islands, and Gilbert the Gilbert Islands
- (56) proposal: this is just a more picky variant of VP-deletion, i.e. with the object no longer part of the focus-related topic
- (57) Phillips (2003) shows some differences between VP-deletion and pseudogapping (or partial VP-deletion), but these hinge on judgments that I could not get confirmed
Mary read all the books quickly and John did slowly (collective scope only)
Mary read all the books quickly and John read all the books slowly (ambiguous)

N-ellipsis

- (55) Tasman discovered four islands and Cook discovered three ~~islands~~
- (56) you get strict/sloppy identity > treat like VP-deletion
Tasman discovered three islands he named after himself and Cook discovered four ~~islands he named after himself~~

- (57) interaction with gapping
 TASMAN discovered THREE islands he named after himself and COOK FOUR ~~islands he named after himself~~
 > *discovered* is reconstructed, *islands etc.* is marked for non-spellout, but syntactically present

sluicing

- (58) Tasman discovered an island but I don't know which island
- (59) abandoning the syntactic prerogative opens up the possibility of 'stranding in situ'
- (60) sluicing layer
 set of elements = { Tasman, discovered, [which island] }
 syntax creates: Tasman discovered which island
 focus-related topic = *Tasman discovered* *x*
 output = which island
- (61) solves a number of problems of the standard (movement + deletion) analysis
- (62) multiple sluicing in non-multiple wh-movement languages
 I know Tasman discovered an island at some point, but I don't know which island when
 > syntax: Tasman discovered which island when
 > output: which island when
- (63) no sluicing of R-pronouns in Dutch (violating Merchant's 2001 P-stranding generalization)
- a. Tasman is ergens geboren maar ik weet niet **waar**
 Tasman is somewhere born but I know not where
 'Tasman was born somewhere, but I don't know where.'
- b. Tasman is ergens beroemd door geworden maar ik weet
 Tasman is somewhere famous through become but I know
- niet { waar *(door) // door wat }
 not where through through what
- 'Tasman became famous because of something, but I don't know what.'
- (64) P-stranding generalization (Merchant 2006, vol 4:273)
 A language *L* will allow P-stranding under sluicing if *L* allows P-stranding under wh-movement
- (65) but not assuming movement, the source is
 Tasman is door WAT beroemd geworden
 Tasman is through what famous become:PART
- (66) no C-domain phenomena under sluicing
 second position clitics, complementizer agreement on the wh-word, etc.
- Bavarian* (Lobeck 1995:95)
- a. Du woidd-st doch kumma owa mia wissn ned wann(*-st)
 you wanted-2SG PRT come:INF but we know not when(-2SG)

- b. ... wann-st (du) komma woidd-st
 when-2SG you come:INF wanted-2SG

'You wanted to come, didn't you, but we don't know when (you wanted to come).'

- (67) Sluicing occurs in wh-in-situ languages (Japanese, Chinese, Korean) and languages with (non-fronting) wh-focus strategy (Turkish, Hungarian, Hindi)

fragment answers

- (68) Which island did Tasman discover? Tasmania.
- (69) Hankamer, Merchant > sluicing-like analysis (movement + deletion) (Merchant 2004)
- (70) arguments for ellipsis (in addition to case)
 Where does *he* keep *his* pets? *In *John's* bedroom <*he* keeps *his* pets>
- (71) arguments for movement (many in Merchant 2004, but see Stainton 2006)
 - island effects
 - restrictions (things that can't move cannot be fragment answers)
- (72) The Pope likes to drink beer and what? Tomato juice <*he likes to drink beer and>

9. Conclusion

- (73) a. all cases of ellipsis (discussed here) start from a complete clausal structure
 b. some cases (gapping, sluicing, fragment answers?) involve reduction to focused material at an internal interface (i.e. between derivation layers)
 c. others (VP-deletion, pseudogapping, N-ellipsis) involve just a marking for deaccenting or ellipsis, but this takes effect only at the external interface (i.e. at the end of the derivation)
- (74) Any analysis referring to ellipsis needs to identify the kind of ellipsis involved.

References

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