**Gapping without gaps**

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1. Introduction

(1) Gapping  
John loves Mary and Bill Sue

(2) Standard analysis: clausal coordination + ellipsis  
[TP John loves Mary] and [TP Bill loves Sue]

(3) a. ellipsis of the verb (Ross 1967, Hartmann 2000)  
b. ellipsis of a remnant VP (Jayaseelan 1990, Coppock 2001)

(4) Alternatives:  
a. clausal coordination, but no ellipsis (Chao 1988)  
b. VP-coordination, no ellipsis (Johnson 2006)  
c. incomplete category coordination (WYSIWYG) (Steedman 1990)

(5) Gapping as a rule of core grammar  
a. configurational matrix [local, bi-unique, c-command/precedence] (Koster 1987, 1998)  
b. bounding condition (Neijt 1979)

(6) Locality conditions on gapping (Neijt 1979:23f)  
a. Coordinate Structure Constraint  
Alfonse cooked the rice and the beans and Harry *(cooked the rice and) the potatoes

b. Sentential Subject Constraint  
*That Alfonse ate the rice is fantastic and that Harry ate the beans is fantastic

c. Complex NP Constraint  
*Alfonse discussed the question of which rice we would eat and Harry discussed the question (of) which beans we would eat

2. Problems with the standard analysis (clausal coordination + ellipsis)

(7) 1. No gap-remnant interaction (cf. Ross 1970:250)  
a. I want Bob to shave himself, and Mary *(wants Bob) to wash himself  
b. John heard noone object, and Bill *(heard noone) say anything

c. John kicked the ball, and Bill #(*kicked) the bucket

(8) 2. Differences between gapping and VP-deletion/pseudogapping (cf. Hartmann 2000, Johnson 2006)  
a. VP-deletion/pseudogapping: both coordination and subordination  
Gapping: only coordination (9)  
b. VP-deletion/pseudogapping: in embedded contexts

3. A WYSIWYG analysis

(17) John kissed Mary and Bill Sue  
WYS = clause  
WYS = string of NPs
explains immediately:

a. no gap-remnant interactions: there is no gap (cf. (7))
b. only coordination: second member is not a clause, hence no subordination (cf. (9))
c. not in embedded contexts (no completerizer): no clausal coordination (cf. (10))
d. no additional material (adverbs/negation): no clause hosting such elements (cf. (11))
e. no mismatches: no clause, no verb, no voice manipulation possible (cf. (13))
f. Neijt’s anomaly: no cross-clausal relation (cf. (14))
g. Carrera’s generalization: coordinating unlike categories, no lexical item for the coordinator (cf. (15))

| (19) | [TP I bought a car ] & [NP [ you ] [ motorbike ] ] no lexical item for &
clauses
NPs |

Not immediately explained:

a. linear order (cf. (12))
b. the locality effects (cf. (6))
c. how gapping works

d. etc.

4. Simplest Merge

(21) Narrow syntax requires

a. a set of elements = Numeration
b. an object under construction = Derivation

(22) Standard view of the derivation

a. select 2 elements x, y from the Numeration
b. combine x and y yielding A
c. select z from the Numeration
d. combine z and A yielding B
e. etc.

(23) Simpler version

a. select x from the Numeration
b. put x in the derivation
c. select z from the Numeration
d. put z in the derivation
e. etc.

(24) Movement

a. no internal merge
b. selected elements from the Numeration stay in the Numeration
c. move = remerge: select from the Numeration a second time

(25) Even simpler version (work with Jordi Fortuny)

a. Numeration (N^2) = \{ x, y, z \}

b. within N^2, select x creating A = \{ x, N^1 = \{ y, z \} \} i.e. a pair consisting of the element

selected and the residu of the Numeration

c. within N^2, select y creating B = \{ y, N^1 = \{ z \} \}

5. Layered derivations

(26) a. top-down derivation
b. no movement
c. linear order is a function of merge (a nest of ordered pairs), cf. Fortuny 2007
\( ( x, ( y, ( z, o )) ) = ( x, y, z ) \)

(27) Linear Correspondence Axiom
\( ( x, y ) = / x y / \)

WORKING HYPOTHESIS

The output of a (sub)derivation is interpreted at the interfaces (i.e. a derivation is a phase)

(29) Working hypothesis

The output of a (sub)derivation is interpreted at the interfaces (i.e. a derivation is a phase)

(30) What happens at the interface point between derivation layers?

a. conventionalization (words, idioms)
b. categorization (category of output is established)
c. reanalysis (syntactic projection may be overruled)
d. morphological realization ("counter cyclic")
e. atomization (opacity)
f. interpretation (relevant to gapping)

http://www.let.rug.nl/zwart/docs/ho07hvd.pdf

(31) Lexical integrity

a. I'm looking for book shops
b. "It's book that I'm looking for — shops

(32) DERIVATION 1

NUMERATION
bookshops

DERIVATION 2

NUMERATION

DERIVATION

bookshops

looking

DERIVATION

looking

(33) a. He is a jack of all trades
b. "All trades he's a jack of —
c. "Of all trades he's a jack —
(34) a. NUMERATION = / he, is, a, jack, of, all, trades / *
   b. NUMERATION = / he, is, a, [jack of all trades] /

(35) **CED-effects**
Noncomplements are inserted as atoms in the derivation (i.e. as the output of a previous derivation)

(36) The man hit the ball
Candidate numerations:
   a. / the, man, hit, the, ball /
   b. / the, man, hit, [the ball] /
   c. / [the man], hit, the, ball /
   d. / [the man], hit, [the ball] /
   e. / [the man], [hit the ball] / etc.

(37) (36a) and (36b) give us the wrong constituency:
   ( { the ( { man | hit ( { the ( { ball } ) } ) ) } ) )

(38) a. It was the CAR of which they arrested the driver —
   b. * It was the CAR of which the driver — caused a scandal
   c. * It was the CAR of which we left because of the driver —
   d. It was the CAR of which the driver — was arrested
   (but: ‘of which car did they believe the driver — to have caused a scandal? ’)

(39) **Guiding thought**
When ‘subextraction’ out of P is impossible, P may be the output of a previous derivation (explanation: Generalized Integrity).

6. **Gapping**

(40) **Single word responses (fragment answers) are outputs of derivations**
(Who did John kiss?) Mary.

(41) **Extraposed coordinands too**
I saw JOHN the other day and BILL

(42) Numeration 1 = / I, PAST, see, John, [the other day] /
   Numeration 2 = / Bill /
   Numeration 3 = / [ I saw John the other day ], and, [ Bill ] /

(43) **Hypothesis about coordination (deriving Coordinate Structure Constraint)**
a. Coordinands are outputs of separate derivations
b. Coordination yields output of a separate derivation

(44) **The relevance of focus**
The N of the derivation yielding [ Bill ] (cf. (42)) consists of all and only the ALTERNATIVES TO THE FOCUS ELEMENTS in the output of the derivation yielding [ I saw John the other day ]

(45) **Interface effect (interpretation)**
At the interface, off-setting may take place isolating the focused elements

(46) **Gapping**
JOHN kissed MARY and BILL SUE

   Numeration 1 = / John, PAST, kiss, Mary /
   Output 1 = / John kissed Mary /

   Focused elements of Output1: John, Mary

   Numeration 2 = / Bill, Sue /
   Output 2 = / Bill Sue /

   focus alternative to John = Bill
   focus alternative to Mary = Sue

   Numeration 3 = / [John kissed Mary], and, [Bill Sue] /

   Output 3 = (1)

(47) **Interface effect (categorization)**
syntactically, Output 1 is a clause (TP)
   semantically, Output 1 (also) yields a list of (focused) NPs

7. Addressing the questions that remained (cf. (20))

(48) **Linear order** (cf. (8d)/(12))
Numeration 2 is the product of the focus structure of Output 1
   Output 2 created after Output 1
   Numeration 3 is ordered

(49) **Deriving the order**
Possibly, and is part of Numeration 2 in (42) and (46), so that Numeration 3 has no new lexical material (and as a linker of the second member, cf. Zwart 2005)

(50) **Locality conditions on gapping** (Neijt 1979:23f)
a. **Coordinate Structure Constraint**
   Alfonse cooked the rice and the beans and Harry *(cooked the rice and) the potatoes
b. **Sentential Subject Constraint**
   *That Alfonse ate the rice is fantastic and that Harry ate the beans is fantastic
c. **Complex NP Constraint**
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(51) a. **CSC:** the rice and the beans is an atom in Numeration1, therefore the beans cannot be a separate focus element in Output1 and the potatoes cannot be listed in Numeration2 as an alternative to the beans
b. **SSC:** that Alfonse ate the rice is a noncomplement hence also an atom in Numeration1, therefore Alfonse and the rice cannot be focus elements in Output1, and Harry and the beans cannot be listed in Numeration2 as alternatives to Alfonse and the rice
(52) **returning to embedded contexts**

*John loves Mary and I'm pretty sure that Bill Sue* (cf. (10))

(53) **Explanation**

Numeration2 contains elements that are not alternatives to the focused material in Output1.

(54) 'John loves Mary and I think Bill Sue

(55) **Account**

*I think* is not a matrix clause embedding *Bill (loves) Sue*, but a hedge element.


(*the city John left for I think*)

(57) **returning to additional material**

*John kissed Mary but Bill not Sue* (cf. (11))

(58) **Dutch: negation can be focus alternative to affirmative particle**

**Jan kust Marie Wel en Piet Trudy Nie**

John kisses Mary *AFF and* Pete Trudy *NEG*

8. **Conclusion**

(60) 1. **Top-down derivation using simplest merge and layered derivations allows for a WYSIWYG analysis of gapping without gaps**

2. **Constraints on gapping follow from (a) Generalized Integrity, (b) the idea that the numeration for the 'gapped 'clause' contains all and only alternatives to focus elements of the antecedent clause**

(61) **Applicability to other ellipsis constructions?**

a. fragment answers  ✔

b. extraposited coordination  ✔

c. stripping ✔?

John kissed Mary, (but not Bill / and Bill, too)

d. sluicing/swiping ✔?

I wonder { why / what for }

e. right node raising ✔?

[John loves and Bill hates] Mozart

f. N-gapping ✔

John kissed one cheek, and Bill two

g. NP-deletion x?

John has kissed one cheek, and Bill has two

h. pseudogapping x?

i. VP-deletion x?

(62) **VP-deletion with obligatory strict reading of elided material**

[People who live in New York,] write to the Trib on the condition of its beaches, and [people who live in Los Angeles,] do, too

(strict: they write on the condition of New York’s beaches)

(63) **Same construction with gapping: sloppy reading becomes available again**

[People who live in New York,] write to the Trib on the condition of its beaches, and [people who live in Los Angeles,] to the LA TIMES

(sloppy: they write on the condition of LA’s beaches)

(64) **VP-deletion is failure to spellout at PF** (cf. Tancredi 1992, Vanden Wyngaerd & Zwart 1999)

References


Ross, J.R. 1967. Constraints on variables in syntax. Diss MIT.


Steedman, M. 1990. Gapping as constituent coordination. Diss MIT.


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