The coordinate structure constraint: a minimalist perspective

Jan-Wouter Zwart
University of Groningen

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> *...the CSC does not need to be weakened to allow certain types of extractions. On the contrary, the CSC can be maintained in a strong form...*
> De Vos (2005:5)

1. Introduction: discussion about the CSC

(1) a. *Who do you love [John and —]
b. *I wonder who [John likes — and Bill hates Mary]

(2) *Coordinate Structure Constraint (CSC)*
No extraction (out) of members of a coordinate structure (Ross 1967)

(3) *Noted exceptions*

a.	Across-the-board (ATB)	I wonder who [John likes — and Bill hates —]
b.	Scene-setting	the whiskey I [went to the store and bought —]
c.	Contiguous	the troops he wanted to [go and address —]
d.	Conative	the thesis he wanted to [try and finish —]
e.	*such that* 1	not the kind of guy you can [listen to — and stay calm]
f.	*such that* 2	the stuff those guys in the Caucasus [drink — and live to be 100]

(Ross 1967, Schmerling 1972, Goldsmith 1985, Lakoff 1986, Na & Huck 1992, Kehler 2002)

(4) *The argument against the CSC*
a. Lakoff 1986: you can always extract out of coordinate structures, provided you get the scenario right (Type A: natural course of events = 3b-d, Type B: unexpected course of events = 3e, Type C: cause-effect = 3f) ➜ there is no syntactic constraint CSC, everything goes and frame semantics filter the results
b. Kehler 2002: extractability is a function of coherence *(Parallel* coherence requires balanced members = 3a; *Cause-Effect* coherence allows extraction from primary member expressing the coherence i.e. the first member = 3e-f; *Contiguity* coherence allows extraction out of second member, the other being just scene setting = 3b-d) ➜ there is no syntactic constraint CSC, everything depends on the location of the (discourse) topic, either in both members or in just one of them

(5) *Historical perspective*
a. the CSC could never be reduced to locality principles of the *barriers* framework (Chomsky 1986): government by *love* should free up *John and who* in the derivation of (1a)
b. in current terms, if the CSC is real, coordinate structures should constitute *phases* (Chomsky 2001), but so far only CP and vP have been identified as such

➜ today: - explore the possibility that coordinate structures are phases
- explore the consequences for the exceptions to the CSC in (3)

2. Simplest merge

(6) *What we need for a (bottom-up) derivation*
   a. a numeration of elements to be merged (RESOURCE)
   b. a process of merger (MERGE)
   c. a WORK SPACE containing the output of MERGE (a subset of the RESOURCE)

(7) Bobaljik 1995: merger = establishment of a link between two members of the numeration

(8) *Proposed mechanism* (MERGE): assign one element from the RESOURCE to the WORK SPACE

(9) a. John loves Mary

   b. 1. NUMERATION: *John, loves, TENSE, Mary,* {WORK SPACE: ∅ }
   assign Mary *to the WORK SPACE*
   2. NUMERATION: *John, loves, TENSE, Mary,* {WORK SPACE: *Mary* }
   assign loves *to the WORK SPACE*
   3. NUMERATION: *John, love, TENSE, Mary,* {WORK SPACE: *Mary*, *loves+Mary* }
   assign TENSE *to the WORK SPACE*
   4. NUMERATION: *John, love, TENSE, Mary,* {WORK SPACE: *Mary*, *loves+Mary, TENSE+loves+Mary* }
   assign John *to the WORK SPACE*
   5. NUMERATION: *John, love, TENSE, Mary,* {WORK SPACE: *Mary*, *loves+Mary, TENSE+loves+Mary*, *John+TENSE+loves+Mary* }

(10) a. Mary, John loves

   b. 1-5 as in (9b)
   assign Mary *to the WORK SPACE*
   6. NUMERATION: *John, love, TENSE, Mary,* {WORK SPACE: *Mary*, *loves+Mary, TENSE+loves+Mary*, *John+TENSE+loves+Mary, Mary+John+tense+loves+Mary*}

(11) Movement (remerge) can only involve elements in the NUMERATION (incl. WORK SPACE)

(12) The NUMERATION may include phrases = output of previous AUXILIARY DERIVATION

(13) a. Pictures of John please Mary

   b. 1. NUMERATION: [*pictures of John*], *TENSE, please, Mary,* {WORK SPACE: ∅ }

   5. NUMERATION: [*pictures of John*], *TENSE, please, Mary,* {WORK SPACE: *Mary*, *please+Mary, TENSE+please+Mary*, *pictures=of=John+TENSE+please+Mary* }

   c. *John, [pictures of —] please Mary

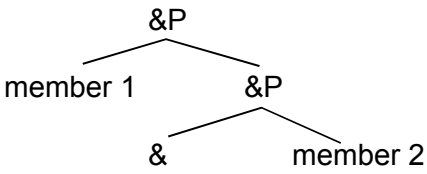
   d. explanation: *John* is not in the NUMERATION, therefore cannot be (re)merged

(14) Predictions: - extraction from complement position always possible
   - extraction from specifier/adjunct position never possible
   = Condition on Extraction Domains (CED, Huang 1982, Toyoshima 1997)

(15) a. * It's the CAR that [the driver of —] caused a scandal (merged as specifier)
   b. It's the CAR that [the driver of —] was arrested (merged as complement)
   (Chomsky 2005)

3. Coordination vs. subordination

(16) Conjunction as head (De Groot 1959, Munn 1993, Kayne 1994)



(17) a. I saw John and Mary

b. NUMERATION: *I, TENSE, saw, John, and, Mary*, { WORK SPACE: ∅ }

c. * Mary, I saw [John and —]
predicted to be possible, since Mary *is in the NUMERATION and could be remerged*

(18) The CSC follows if coordinations are always outputs of AUXILIARY DERIVATIONS

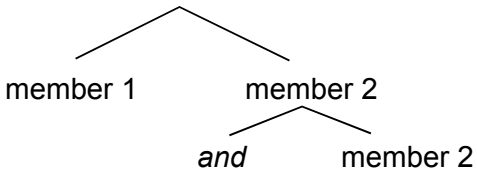
NUMERATION: *I, TENSE, saw,* [*John and Mary*], { WORK SPACE: ∅ }

(19) *multiple members*
a. subordination: [I know [that you know [that he knows [that we know ...]]]]
b. coordination: [[[[A + B] + C] + D]

(20) a. I saw [Tom and Dick and Harry] yesterday
b. I saw [[[Tom and Dick] yesterday] [and Harry]]

(21) Coordination: not embedding but *stringing*

(22) Conjunction: not a head, but a left edge marker of the second member (Zwart 2005)



(23) ➜ coordination always involves phrases, i.e. outputs of AUXILIARY DERIVATIONS

➜ no extraction *out of* coordinated phrases

(24) What about extraction *of* coordinated phrases?

4. Merging vs. stringing

(25) How do we get [[A + B] + C] ?
a. 1. NUMERATION: *A, B, C*, { WORK SPACE: ∅ }
suppose we start with *B*: *assign* B *to the WORK SPACE*
2. NUMERATION: *A, B, C*, { WORK SPACE: *B* }
assign A *to the WORK SPACE*
3. NUMERATION: *A, B, C*, { WORK SPACE: *B, A+B* }
b. assigning *C* to the WORK SPACE now yields simple embedding structure, so: stop.

c. 1. NUMERATION-1: *A, B,* { WORK SPACE: ∅ }
ultimately
3. NUMERATION-1: *A, B* { WORK SPACE: *B, A+B* }

4. NUMERATION-2: [*A+B*]*, C,* { WORK SPACE: ∅ }
ultimately
6. NUMERATION-2: [*A+B*]*, C,* { WORK SPACE: *C*, [*A+B*]+*C* }

➜ Stringing, unlike Merging, always yields a phase (or: involves 2-member NUMERATIONS)

(26) Hypothesis: stringing and merging do not mix ➜
coordinate structure is always output of AUXILIARY DERIVATION

(27) a. I saw Tom and Dick yesterday and Harry

b.

list of numerations	*operation*
NUMERATION-1: *Tom, Dick*	STRINGING
NUMERATION-2: *saw,* [*Tom and Dick*]*, yesterday*	MERGING
NUMERATION-3: [*saw Tom and Dick yesterday*]*, Harry*	STRINGING
NUMERATION-4: *I, tense,* [*saw Tom and Dick yesterday and Harry*]	MERGING

5. Back to the counterexamples to the CSC

(28) *Essentially two types*
a. complement type: *went to the store and bought, go and tell, try and finish*
b. adjunct type: *drink and (still) stay sober, drink and (hence) live to be 100*

(29) *Extraction possibilities*

	EXTRACTION FROM 1ST MEMBER	EXTRACTION FROM 2ND MEMBER
complement type	*	✓
adjunct type	✓	*

(30) Complement type: second member is really a complement (Wiklund 2005)
➜ first member specifier (AUXILIARY DERIVATION), hence a phase

(31) John went and read the constitution = John *actually* read the constitution

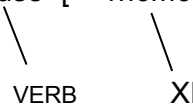
(32) a. Han satt i soffan o sjöng (Swedish)
he sit:PAST on couch and sing:PAST
'He sat on the couch singing.' (Wiklund 2005:142)
b. Hur satt han i soffan o sjöng — ?
how sit:PAST he on couch and sing:PAST
'He sat on the couch singing how ?'

(33) posture/motion verbs (Wiklund 2005, based on Ramchand 2004)

a. **dynamic** [cause [process [result]]]

VERB

b. **static** [cause [*rheme*]] ('rheme' = "content of the predication")



(34) Adjunct type: second member is really an adjunct (Postal 1998) or a second conjunct (Kehler 2002)
➜ i.e. output of AUXILIARY DERIVATION, hence a phase

(35) drink beer *yet* stay sober

(36) *Lakoff mixed cases*
a. Sam is not the kind of guy you can just [sit there] and [listen to —] **complement type**
b. Sam is not the kind of guy you can just [listen to —] and [stay calm] **adjunct type**
c. Sam is not the kind of guy you can just [sit there], [listen to —] and [stay calm]
d. Sam is not the kind of guy you can just [sit there] and [listen to —] and [not punch (him) in the nose] **parasitic gap?**
e. ...without punching (him) in the nose

(37) complement (MERGING): *sit there and listen to —*
adjunct/conjunct (MERGING/STRINGING): [*sit there and listen to —*] & *stay calm*

6. Conclusion

[1] fundamental difference between subordination and coordination: merging vs. stringing
[2] phase-wise derivation yields opacity effects: output of auxiliary derivation is opaque
[3] CSC can be maintained if coordinated structures are always output of auxiliary derivation
[4] exceptions to CSC would have to involve complementation or adjunction/coordination, depending on which member is transparent or opaque

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Department of Linguistics, P.O. Box 716, NL-9700 AS Groningen, The Netherlands
c.j.w.zwart@rug.nl ● www.let.rug.nl/~zwart