How Many Mothers? Multidominance in Syntax
UMass Amherst, June 24-25, 2023

Nothing to Share: Why and when (not) to Elide Multidominant Structures?

Barbara Citko *(University of Washington)*
Martina Gračanin-Yuksek *(Middle East Technical University)*

1. Introduction

Two ways to PF-reduce syntactic structure:

- Ellipsis: some material, syntactically present and semantically interpreted, is not pronounced, subject to recoverability.
- Multidominance (**MD**): some material, literally *shared* between multiple constituents, is pronounced once, but interpreted more than once.

Can Ellipsis be reduced to Multidominance, or vice versa?

The existence of PF-reduced constructions whose properties derive from one or the other mechanism (ellipsis/MD) suggests the answer is *NO*:

- Ellipsis: Verb Phrase Ellipsis, sluicing (Ross 1969, Merchant 2001, Johnson 2001, among many, many others)
- Multidominance: Across-the-Board Extraction, Coordinated Wh-Questions (Williams 1978, Goodall 1987,…, Citko 2005, Gračanin-Yuksek 2007, Citko & Gračanin-Yuksek 2013, 2021)
- Ellipsis/Multidominance: Right Node Raising (Barros & Vicente 2011)

If *both* PF-reduction mechanisms are in principle available:

(*i*) What factors influence the choice between ellipsis and MD?

(*ii*) How do the two interact with one another: can multiply-dominated material be elided and if so, under what circumstances?

To answer these questions, we focus on coordinate structures in which the elements that survive PF-reduction are wh-phrases: **Coordinated Wh-Questions (CWHs)** in (1), and **Coordinated Sluices (CSs)** in (2).

(1) **What and when** should you teach?

(2) Someone saw something, but I can't remember **who or what.**

We will argue that PF-reduction is governed by economy.

Economy has been applied to ellipsis in various ways:

- Max Elide (Takahashi and Fox 2005, Merchant 2008, Hartman 2011)
- Least Effort/Derivational Economy (Messick and Thoms 2016)

For us, there are two ways in which economy plays a role in deriving PF-reduced representations:

- Economy favors "least effort" derivations (*i.e.,* derivations with fewest operations) from a set of possible derivations that arrive at the same string with the same interpretation (Chomsky 1991; Bošković 1997; Collins 2001; among many others).
- Economy bans derivations in which PF-reducing operations apply vacuously (*i.e.,* without having an effect on the string).[1]

We will offer the following answers to the questions in (*i*) and (*ii*):

(*i*) *What factors influence the choice between ellipsis and MD?*

The choice between ellipsis and MD depends on which derivation (the one with ellipsis or the one with MD) involves fewer operations, in line with Chomsky (1991), among others.

(*ii*) *How do the two interact with one another: can multiply-dominated material be elided and if so, under what circumstances?*

Multiply-dominated material can be elided, but only if ellipsis is not vacuous.

2. Differences between English Coordinated Wh-Questions and Coordinated Sluices

CSs and CWHs differ in several respects.

(i) compatibility with obligatory arguments

Coordination of obligatory arguments is impossible in CWHs, but possible in coordinated sluices:

(3) a. ***What and to whom** did John give?

b. I heard that John gave something to someone but I forgot **what and to whom**.

[1] We apply to pronunciation the insight of Fox (2000), who argues that covert semantic operations that have no effect on the interpretation of an utterance are banned from applying:

i. Scope Economy (Fox 2000: 3)
Scope-shifting operations (SSOs) cannot be semantically vacuous.

In CWHs involving obligatory transitive verbs, coordination of a wh-object with a wh-adjunct is impossible. No such restriction holds of coordinated sluicing:

(4) a. *__What and when__ did John buy?

b. I know that John bought something sometime last week, but I don't remember __what or when__.

(ii) interpretation

CSs, unlike CWHs, allow so-called *it*-readings (5b-c) vs. (6b-c): the wh-phrase introducing the first conjunct (*what*) is interpreted in the second conjunct in a CS, but not in a CWH.

We take it to mean that the wh-phrase introducing the first conjunct is not syntactically present in the second conjunct in a CWH, but it *is* in a coordinated sluice.

(5) a. __What and where__ did John sing?

b. __What__ did John sing and __where__ did John sing? *At-all* reading

c. # __What__ did John sing and __where__ did John sing *it*? **It* reading

(6) a. I heard that John sang something, but I forgot __what and where__.

b. # … but I forgot __what__ John sang and __where__ he sang. **At-all* reading

c. … but I forgot __what__ John sang and __where__ he sang *it*. *It* reading

CWHs and CSs also differ in the "degree" of PF-reduction *within the &P*.

CWHs: the structure that is interpreted twice is pronounced once (PF-reduction to 1)

(7) a. __What and where__ did you teach? CWH

b. __What__ *did you teach* ~~what~~ and __where__ *did you teach*~~ where~~? LF

c. What and where *did you teach*? PF

CSs: structure that is interpreted twice is not pronounced at all (PF-reduction to 0)

(8) a. I know you taught something but I forgot **what and where**. CSs

b. … but I forgot **what$_1$** *you taught* ~~what$_1$~~ and **where$_2$** *you taught it* ~~where$_2$~~. LF[2]

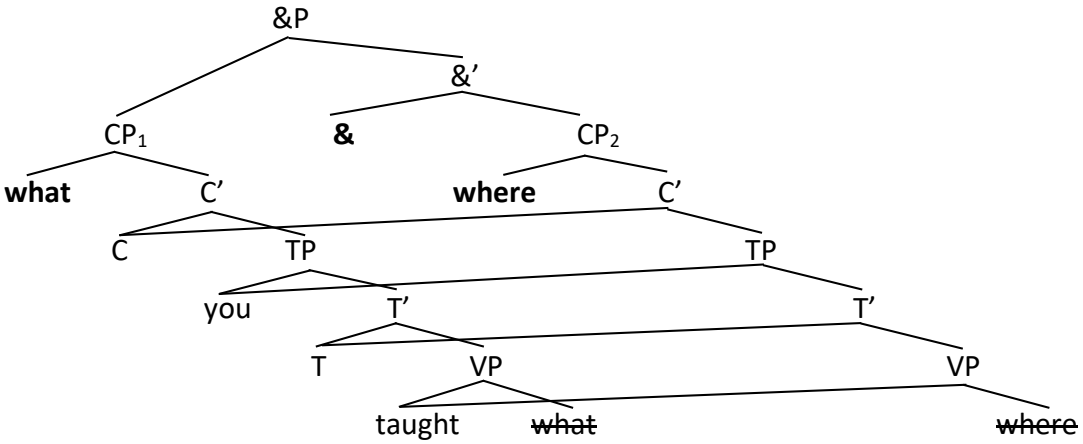
c. … but I forgot what and where. PF

These differences led us to conclude that ***CWHs and CSs have different structures*** (Citko and Gračanin-Yuksek 2013, 2020)

In CWHs, PF-reduction to 1 results from a MD structure.

(9) a. I don't know **what and where** you taught.

b. I don't know



This structure derives the properties of English CWHs that we discussed above:

- *No obligatory arguments:* Coordination of obligatory arguments would lead to thematic requirements of the verb not being satisfied in one or both conjuncts.
- *No it-reading:* Since CP_1 does not contain the wh-phrase that introduces CP_2 (and vice versa), the wh-phrase that introduces CP_2 cannot be interpreted in CP_1 (and vice versa).

[2] In (8b) we simply represent the LF of the second conjunct in CSs based on the interpretation that it receives (the *it*-reading). What exactly underlies this interpretation depends, to an extent, on whether the structure involves ellipsis (and if so, whether it is conceived of as PF deletion or LF copying), MD, or the combination of the two. Under the PF deletion analysis, the options include (i) and (ii), but probably not (iii):

i. …where you taught $^{P}e_1$ (Merchant 1999, 2001)

ii. …where you taught ~~*what*~~

iii. …where you taught *something*

The problem is not specific to CSs; whatever LF underlies the *it*-reading in the second conjunct in CSs also underlies the LF of the simple sluice in sentences like (iv).

iv. John taught something, but I don't know where <he taught it/*something>.

Since CSs have different properties (allow obligatory arguments, have the *it*-reading), they *cannot* have the structure in (9).

How to derive PF-reduction to 0 in CSs?

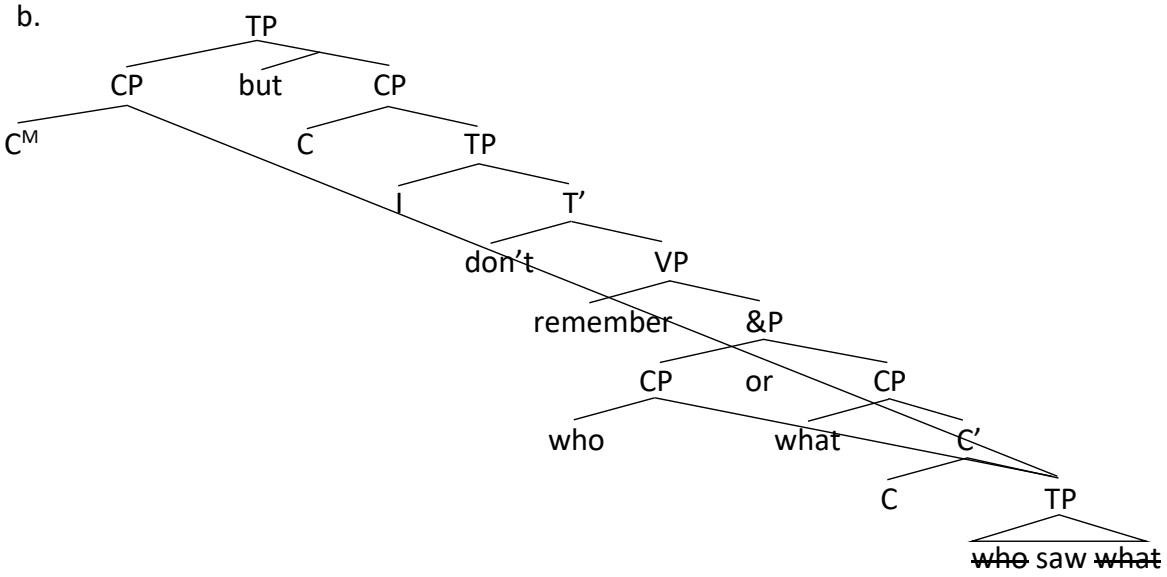
(*i*) Share the TP between the conjuncts and the antecedent (à la Johnson 2013);

(*ii*) Elide the TP in both conjuncts (the TP may or may not be shared between the conjuncts).

Extending Johnson's (2013) proposal for Andrews amalgams to CSs, the structure would look something like (10b).

(10) a. Someone saw something, but I don't remember **who or what**.

b.

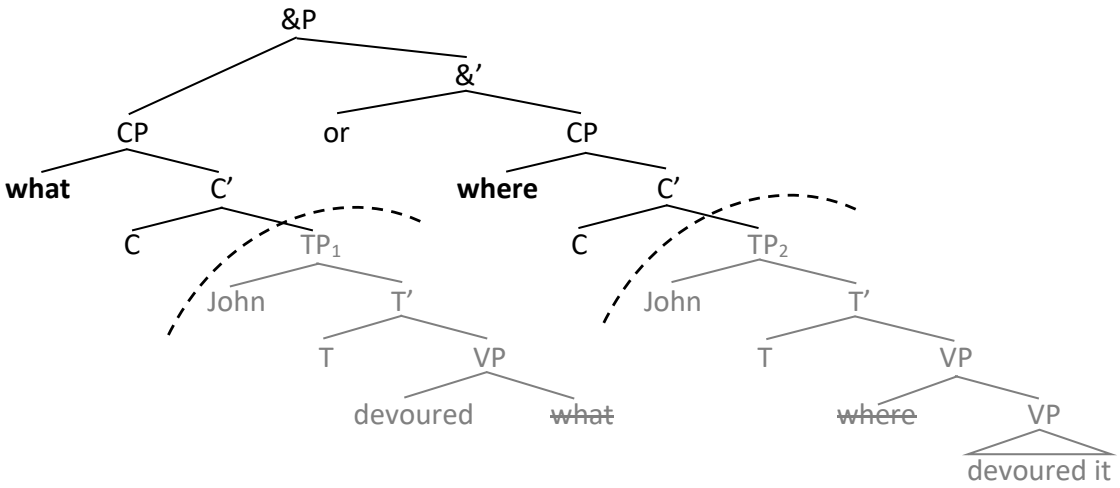


We do not consider this structure as a likely structure for CSs: it is hard to see how the wh-phrases in the shared antecedent TP (sister to C^M) would be pronounced as *someone* and *something* instead of *who* and *what*.

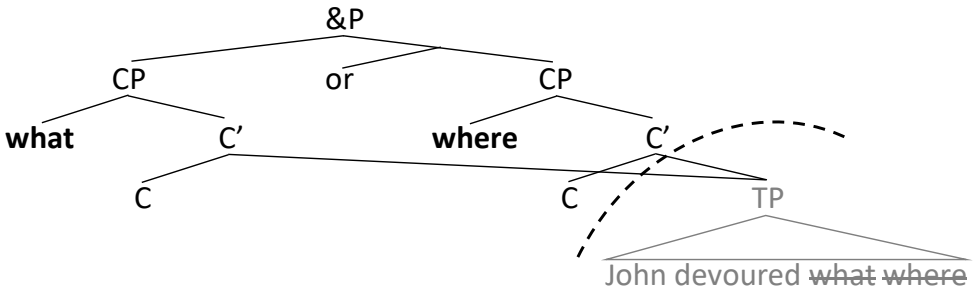
This leaves us with the possibility (*0)*: assume that the antecedent TP is *not* multiply dominated, and elide the TP(s) in the CSs. This possibility can be implemented ***without MD*** (as in (11b) or ***with MD*** (as in (11c).

(11) a. John devoured something, but I don't know **what or where**.

b. Ellipsis *without* Multidominance (Citko & Gračanin-Yuksek 2020)



c. Ellipsis *with* Multidominance



In both (11b) and (11c):

- Each conjunct is interpreted as a complete CP (at LF, the PF-reduced TP is present in both conjuncts),
- The interpreted TP is not pronounced in *either* conjunct (it is PF-reduced to 0 in both).

Both (11b) and (11)c) derive the properties of CSs:

- *Obligatory arguments:* both wh-phrases are "present" in both conjuncts.
- *It readings:* the wh-phrase that introduces the first conjunct is "present" in the second conjunct (and vice versa).

At this point, three (most likely more) questions arise:

- Which of the two structures, Ellipsis *with* MD in (11c) or Ellipsis *without* MD in (11b) *is* the right structure for CSs, and why? (*Section 3.1*)
- Why cannot CWHs involve the structure of CSs and have the properties that go with it?

(*Section 3.2*)

- Why cannot CSs involve the structure of CWHs, given in (9), and have the properties that go with it? (*Section 3.3*)

3. Analysis

3.1 *Which of the two structures, Ellipsis with MD (11)c) or Ellipsis without MD (11b) is the right structure for CSs, and why?*

The two structures yield the same string and the same interpretation.

However:

Ellipsis *without* MD (the derivation in (11b)) involves:

- *More* structure building (the PF-reduced TP is generated twice – once per conjunct), *and*
- *Two* applications of ellipsis

Ellipsis *with* MD (the derivation in (11c)) involves:

- *Less* structure building (the PF-reduced TP is generated once), *and*
- *A single* application of ellipsis

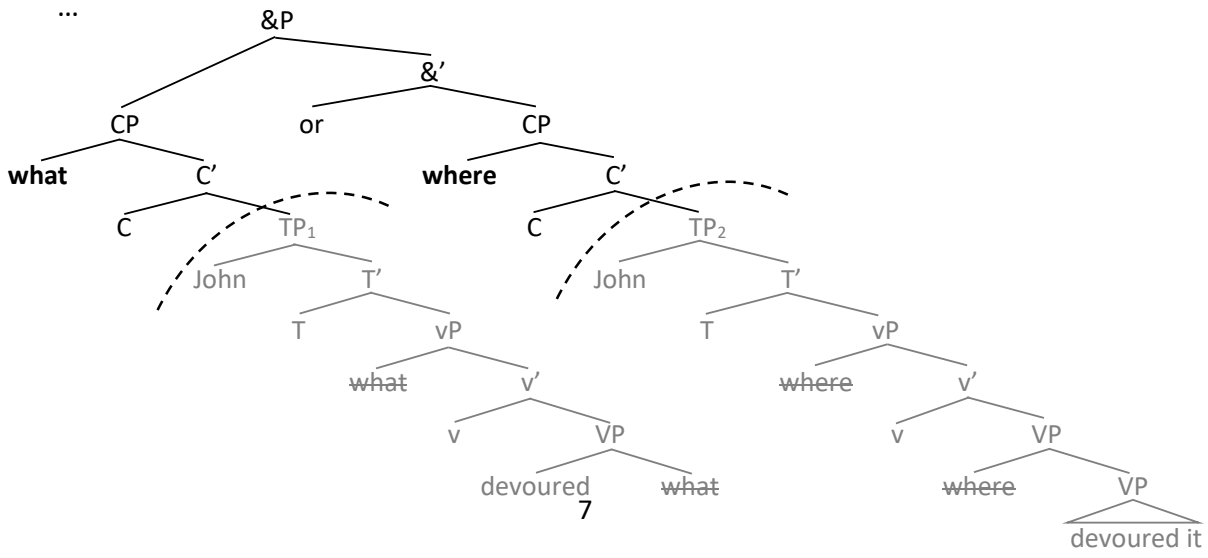
Thus, CSs necessarily involve the Ellipsis with MD structure because this structure is *more economical*.

BUT: Economy applies in situations where *all else is equal*. Comparing the two structures, *is* all else equal?

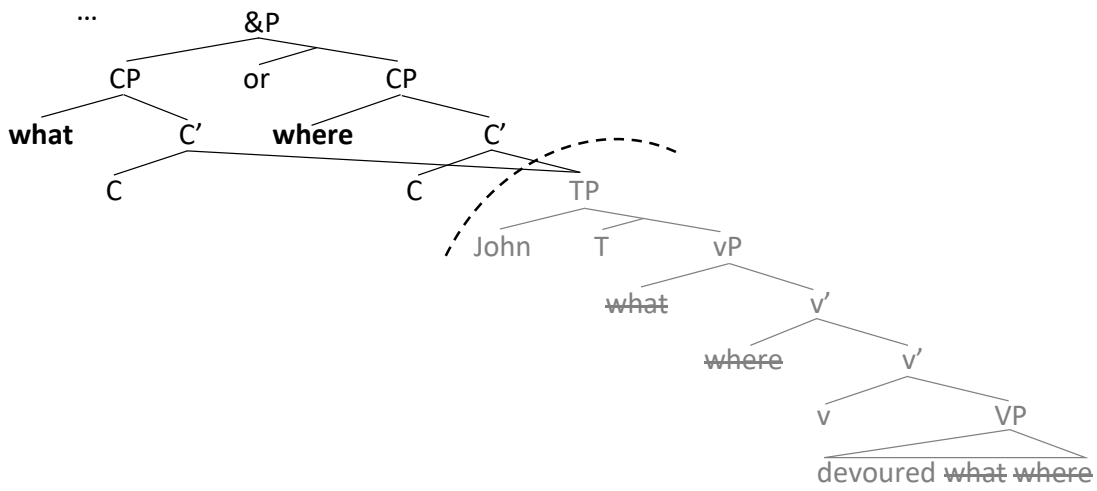
(12) a. John devoured something, but I don't know **what or where**.

b. Ellipsis *without* MD

…



c. Ellipsis *with* MD



What might *not* be equal:

- In (12c), even though the wh-phrases end up in the specifiers of separate CPs, they presumably still go through multiple specifiers of a single *v*. This looks like a multiple wh-fronting (**MWF**) configuration.
- In (12b), neither *v*P has multiple specifiers. Hence, no MWF configuration involved.

Given that English doesn't have MWF, why do we even consider the possibility that English CSs might have this structure?

Because ellipsis!

Ellipsis ameliorates island violations (Ross 1969; Chomsky 1972; Lasnik 2001; Merchant 2001, Fox & Lasnik 2003, but see Barros, Eliott & Thoms 2014, 2015):

(13) a. They want to hire someone who speaks a Balkan language, but I don't remember which. (Merchant 2000: 42)

b. She bought a big car, but I don't know how big. (Merchant 2008: 136)

c. A biography of one of the Marx brothers is going to be published this year — guess which! (Merchant 2001: 185)

d. They persuaded Kennedy and some other Senator to jointly sponsor the legislation, but I can't remember which one. (Chung et al.'s 1995: 273)

e. Ben will be mad if Abby talks to one of the teachers, but she couldn't remember which. (Merchant 2000: 42)

Under the "salvation-by-deletion" account of island repair under ellipsis, the illegitimately crossed island boundaries receive a diacritic (*).

(14) They want to hire someone who speaks a Balkan language, but I don't remember which (Balkan language) [$_{TP}$ they want to hire [$_{NP}$ someone *[$_{CP}$ who speaks ~~which Balkan language~~]]]

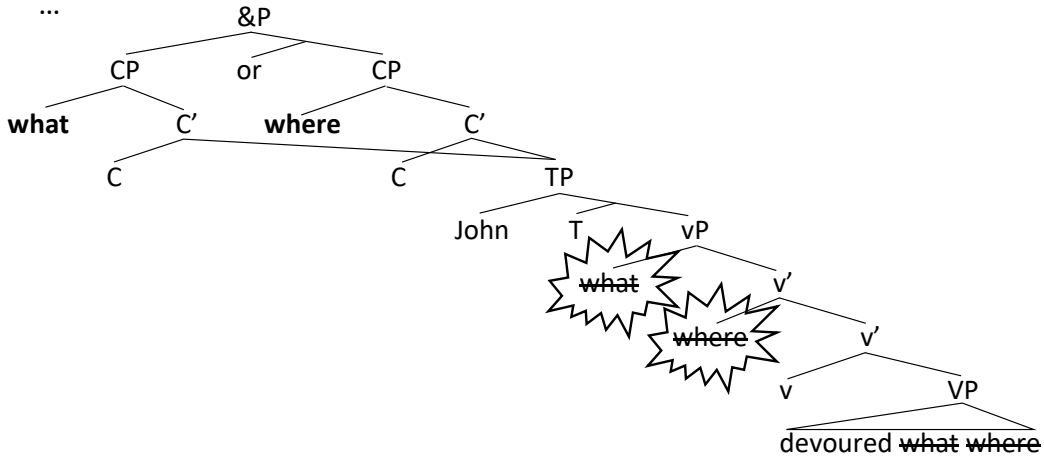
A * is not interpretable at PF.

If the *s are deleted, PF no longer needs to interpret them.

(15) They want to hire someone who speaks a Balkan language, but I don't remember which <(Balkan language) [$_{TP}$ they want to hire [$_{NP}$ someone *[$_{CP}$ who speaks ~~which Balkan language~~]]]>

We apply this reasoning to argue that the structure involving Ellipsis *with* MD (11c)/(12c), repeated below, is the right structure for CSs despite multiple *v*P specifiers.

(16) …



Suppose that the MWF parameter is formulated as (17).

(17) **MWF Parameter**

MWF languages: Multiple wh-specifiers at phase edges do not cause a problem at the PF-interface (a phase node with multiple wh-specifiers does not receive a *).

Non-MWF languages: Multiple wh-specifiers at phase edges *do* cause a problem at the PF-interface (a phase node with multiple wh-specifiers *does* receive a *).

The formulation of the MWF parameter in (17) correctly predicts that English doesn't front all wh-phrases in multiple questions, and that it doesn't permit multiple sluicing:

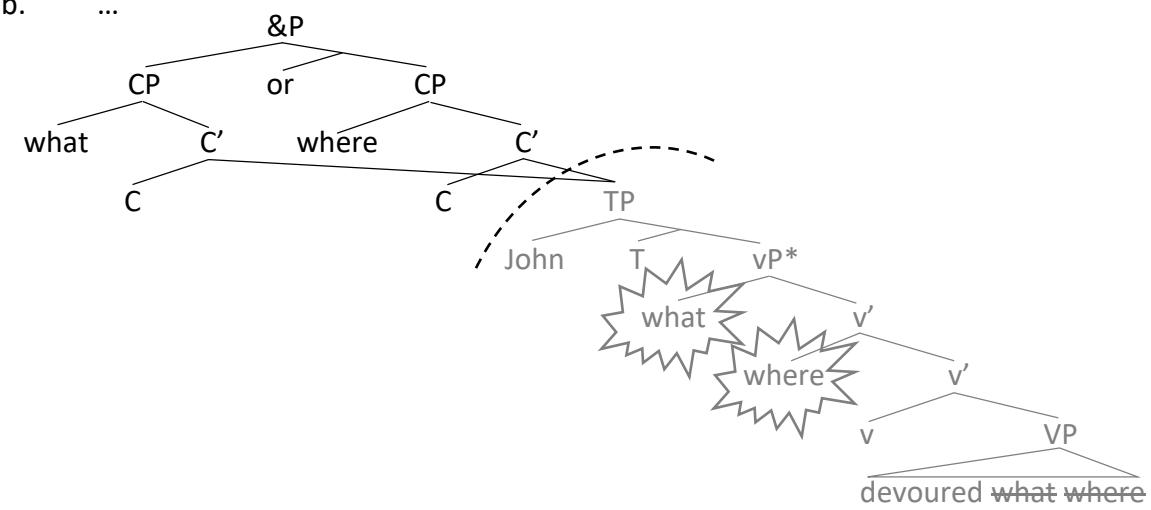
(18) ***Who what** saw?

(19) ?*Someone saw something, but I can't remember **who what**. (Lasnik 2014: 8)

It also removes the potential issue with the Ellipsis *with* MD structure in (11c/(12c): multiple wh-specifiers of *v*P are deleted.

(20) a. John devoured something, but I don't know **what or where**.

b. …



Caveat

The MWF Parameter in (17) might be too strong, given the fact that multiple sluices are not universally disallowed in non-MWF languages.

(21) a. Jemand hat was gesehen, aber ich weiß nicht, **wer was**. *German*
someone has something seen but I know not who what
(lit.) 'Someone saw something, but I don't know who what.'

b. Kapjos idhe kapjon, alla dhe ksero **pjos pjon.** *Greek*
someone.NOM saw someone.ACC but not I.know who.NOM who.ACC
(lit.) 'Someone saw someone, but I don't know who whom.'
(Merchant 2006: 285)

We hypothesize that the MWF Parameter can be further parametrized.

English: both CP and *v*P edges count with respect to the MWF Parameter.

- no wh-questions with multiple wh-fronting
- only biclausal (hence coordinated) sluicing allowed

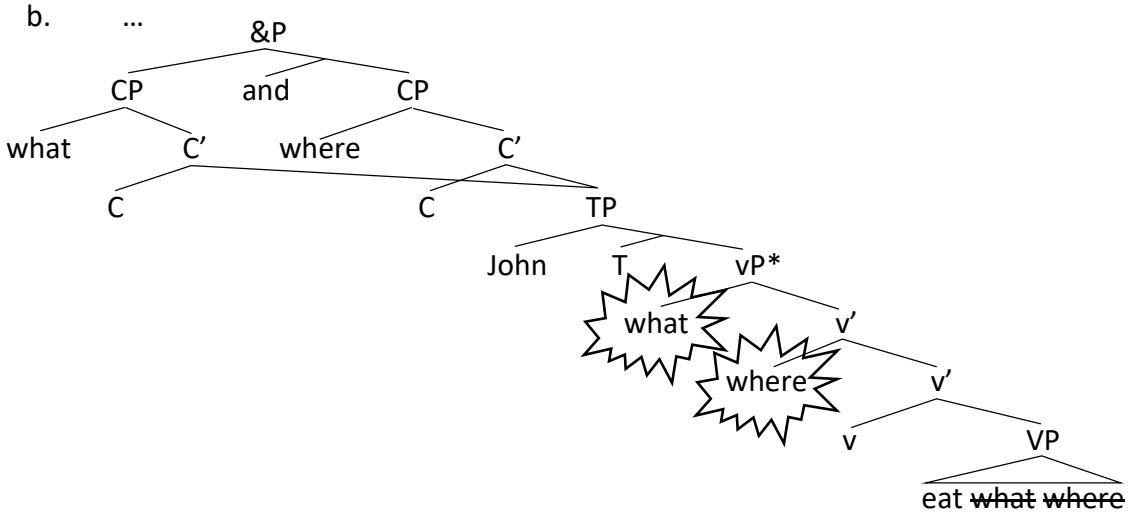
German, Greek: only *v*P counts with respect to the MWF Parameter

- no wh-questions with multiple wh-fronting
- multiple sluicing allowed (multiple wh-specifiers of C fine, multiple wh-specifiers of *v*P deleted)

3.2 <u>Why cannot CWHs involve the structure of CSs (and have the properties that go with it)?</u>

(22) a. **What and where** did John eat?

b. …



A CWH in English cannot involve the MD structure we proposed for CSs (given in (22b)) because:

- although neither CP phase receives a * (because each C only contains a single wh-phrase in its specifier),
- the representation contains multiple wh-phrases in [Spec *v*P]
- *v*P receives a *, which survives till PF
- derivation crashes.

In CSs, the TP is deleted (the *-marked *v*P is not pronounced in either conjunct), so the *never reaches the PF and the derivation converges.

The structure for CWHs differs in how material is PF-reduced:

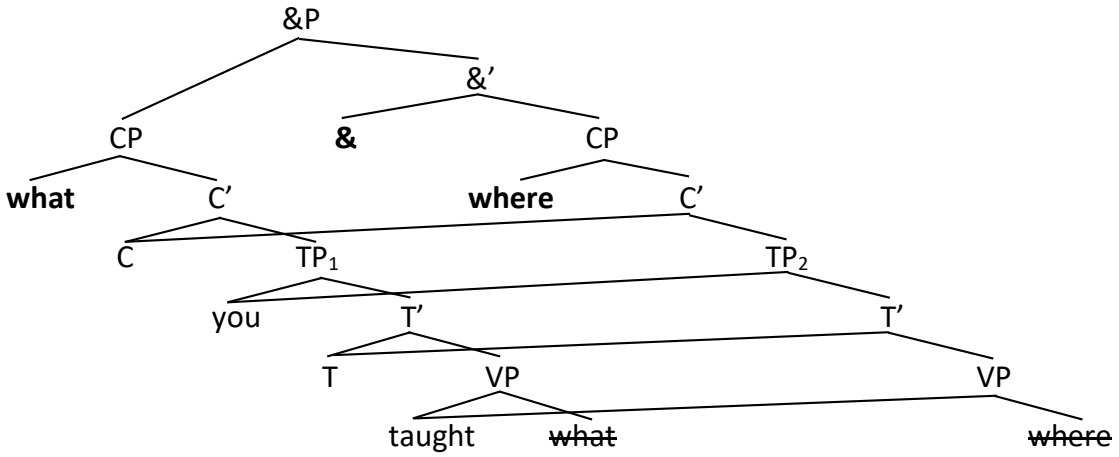
- CSs involve ellipsis but CWHs do not.[3]

[3] A third option, in which CWHs include two independent conjuncts with TP ellipsis in the first conjunct, as in (i), is less economical than (23): it includes more structure building and an application of ellipsis. The analysis of CWHs in (i), proposed by e.g., Browne 1972; Bánréti 1992; Whitman 2002, has been independently criticized by e.g., Kazenin (2002) and Gračanin-Yuksek (2007).

i. I don't know [what [you taught ~~what~~]] and [where [you taught ~~where~~]]

(23) a. I don't know **what and where** you taught.

b. I don't know



The difference between (22b) and (23b) explains why the properties of CWHs differ from those of CSs:

– *compatibility with obligatory arguments*

(24) a. ***Who and what** saw?

b. Someone saw something, but I can't remember **who and/or what.**

– *interpretation*

CWHs have only the *at-all*-reading (not the *it*-reading):

(25) a. **What and when** did you teach? *CWH*

b. = What did you teach and when did you teach? *At-all*-reading

c. ≠ What did you teach and when did you teach IT? **It*-reading

CSs have only the *it*-reading (not the *at-all*-reading):

(26) a. I think John taught something some time last year. Can you tell me **what and when**?

b. = …what John taught and when John taught IT? *It*-reading

c. ≠ …what John taught and when John taught? **At-all*-reading

The *it*-reading requires the trace/copy of *what* to be present in the conjunct introduced by *when*, as is the case in (22b), where the conjuncts share the TP that contains traces/copies of both wh-phrases.

Given the proposal that the MWF parameter is inoperative in elided structures (because the offending nodes do not have to be PF-interpreted), we can provide the answers to the first two questions posed by the differences between CWHs and CSs:

(*i*) *Which of the two structures, the one without MD (11b) or the one with MD (11c) is the right structure for CSs, and why?*

The MD structure in (11c) is the right structure for CSs because it is more economical.

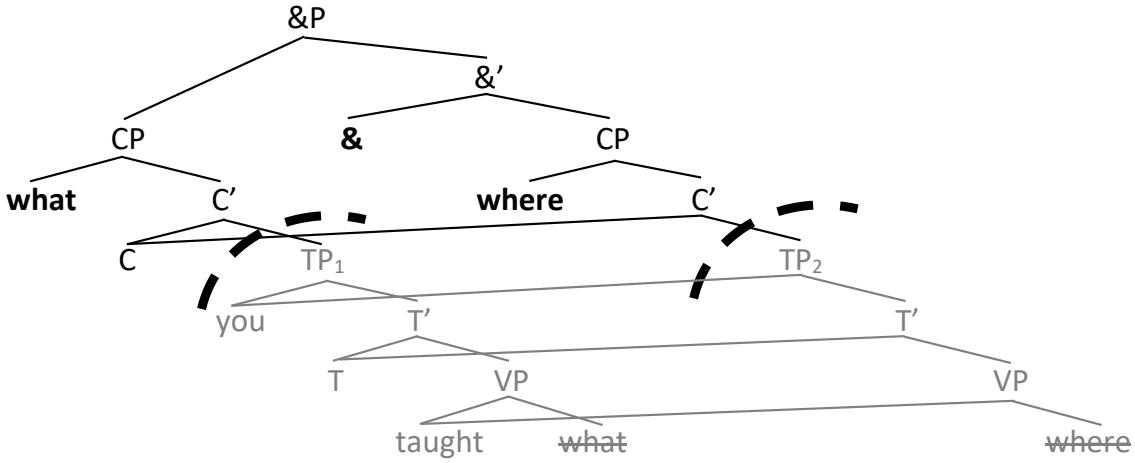
(*ii*) Why cannot CWHs involve the structure of CSs?

CWHs cannot involve this structure (and share the properties of CSs) because they do not involve ellipsis.

3.3 Why cannot CSs involve the structure of CWHs (9)+ellipsis and have the properties that go with it?

(27) a. I know you taught something somewhere but I don't know **what or where**.

b. I don't know



If CSs involved this structure, we would expect them to have the same properties as CWHs. In particular, we would expect them to have the same interpretation, but they don't.

We propose that the derivation in (27b) violates economy (Citko & Gračanin-Yuksek 2020).

- Ellipsis can only apply if it has an effect on pronunciation.
- Ellipsis is triggered by an E(llipsis) feature, which instructs "the PF system to skip its complement for purposes of parsing and production." (Merchant 2001: 60)

- In (27), the E feature is located on C.
- Since both TP_1 and TP_2 are its complements, both have to be deleted.
- Deleting one TP (say TP_1) will already have deleted the string *John sang.* Thus, deleting TP_2 will have no further effect on pronunciation.

This reasoning relies on the assumption that there is a single shared C in (27b). The existence of both (28a) and (28b) shows that this is a possibility, not a necessity.

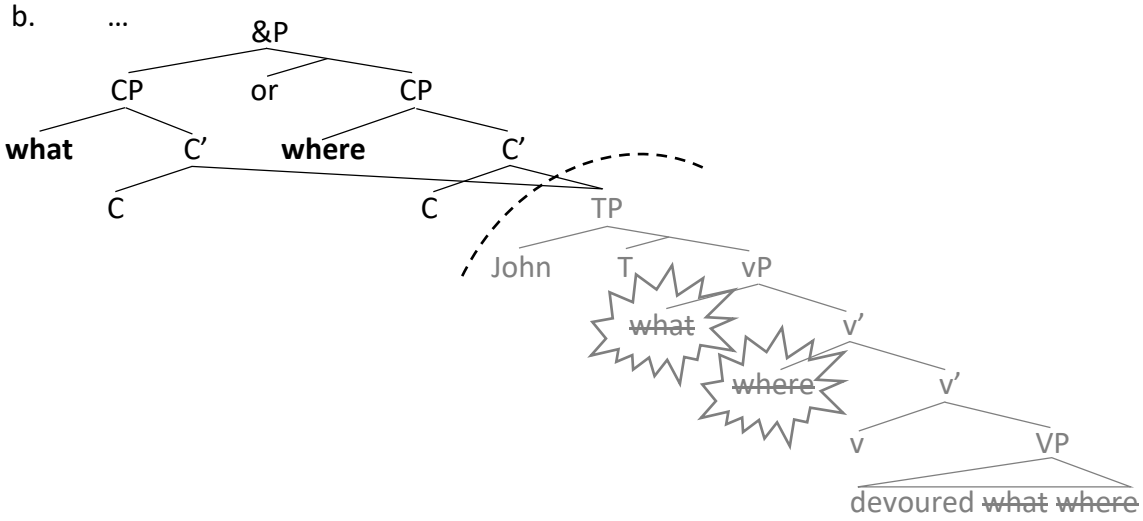
(28) a. **What or where** *did* you teach?

b. **What** *should* or **where** *did* you teach?

Why *doesn't* the structure we proposed for CSs, given in (29b), violate economy?

(29) a. John devoured something, but I don't know **what or where**.

b. …



In (27b), the C is shared; the E-feature present on C in one conjunct is necessarily present on the C in the other conjunct. This results in a vacuous application of ellipsis.

In (29b), each conjunct has its own C, so ellipsis applies vacuously only if *both* C's bear the E-feature. Since the presence of the E-feature on both C's is not forced, the structure is well-formed.

The structure in (29b), *without ellipsis*, is the structure we adopted for Romanian CWHs, following Raţiu (2010).

- Romanian CWHs allow obligatory arguments, as shown in (30).

(30) **Cine şi ce** ti-a spus? *Romanian*
who and what to-you-has told
'Who told you something and what was it?' (Comorovski 1996: 135)

They also allow *each* wh-phrase (even when it is an obligatory argument of the verb) to be followed by an interrogative particle *oare* (31a), and differ in this respect from MWHs (31b).

(31) a. *Oare* **cine** si *oare* **ce** va spune?
OARE who and OARE what AUX say
'Who will say something and what will he say?'

b. *Oare* **cine** (**oare*) **ce** va spune?
OARE who OARE what AUX say
'Who will say what?' (Raţiu 2010: 5)

The presence of multiple question particles in Romanian in CWHs suggests the presence of multiple Cs/multiple CPs.

The grammaticality of CWHs involving coordination of obligatory wh-arguments suggests a shared TP.

4. Summary

We proposed:

- PF-reduction (the choice between ellipsis and MD) is subject to economy.
- Economy (no vacuous operations) precludes CSs from having the structure of CWHs.
- A new (fine grained) formulation of MWF parameter, which allowed us to argue that CSs in English involves an MD structure because it is more economical.
- The reformulated MWF Parameter precludes CWHs from having the structure of CSs.

References

Bánréti, Zoltán. 1992. A mellérendelés [Coordination]. In F. Kiefer (ed*.), Strukturális Magyar nyelvtan I. Mondattan [Strucural Hungarian Grammar I. Syntax],* 715–797. Budapest: Akadémiai Kiadó.

Barros, Matthew and Luis Vicente. 2011. Right Node Raising Requires both Ellipsis and Multidomination, University of Pennsylvania Working Papers in Linguistics: Vol. 3: Iss. 1, Article 15. Available at: https://repository.upenn.edu/pwpl/vol3/iss1/15

Barros, Matthew, Patrick Elliott, and Gary Thoms. 2014. There is no island repair. Ms., Rutgers University/University College London/University of Edinburgh.

Barros, Matthew, Patrick Elliott and Gary Thoms. 2015. More variation in island repair: The clausal/non-clausal island distinction. In Helena Aparicio, Gallagher Flinn, Kathryn Franich, Joanna Pietraszko & Tamara Vardomskaya (eds.), *Proceedings of the 49th annual meeting of the Chicago Linguistic Society*, 331– 345. Chicago: Chicago Linguistic Society.

Bošković, Željko. 1997. *The syntax of nonfinite complementation: An economy approach.* Cambridge, Mass.: MIT Press.

Browne, Wayles. 1972. Conjoined questions and the limitation on English surface structure. *Linguistic Inquiry* 3, 223–226.

Chomsky, Noam. 1972. Some Empirical Issues in the Theory of Transformational Grammar. In *The Goals of Linguistic Theory*, Stanley Peters (ed.), 63-130. Englewood Cliffs, NJ: Prentice-Hall.

Chomsky, Noam. 1991. Some notes on economy of derivation and representationion. In *Principles and parameters in comparative grammar*, ed. Robert Freidin, 417-454. Cambridge, Mass.: MIT Press.

Chung, Sandra, William A. Ladusaw, and James McCloskey. 1995. Sluicing and Logical Form. *Natural Language Semantics* 3:239–282.

Citko, Barbara. 2005. On the Nature of Merge: External Merge, Internal Merge, and Parallel Merge, *Linguistic Inquiry* 36: 475-497.

Citko, Barbara and Martina Gračanin-Yuksek. 2013. Towards a new typology of coordinated wh-questions. *Journal of Linguistics* 49. 1–32.

Citko, Barbara and Martina Gračanin-Yuksek. 2020. Conjunction saves multiple sluicing: How *(and) why?. *Glossa: a journal of general linguistics* 5(1): 92.

Citko, Barbara and Martina Gračanin-Yuksek. 2021. *Merge: Binarity in (Multidominant) Syntax.* Cambridge, MA: MIT Press.

Collins, Chris. 2001. Economy Conditions in Syntax. *In The Handbook of Contemporary Syntactic Theory*, ed. Mark Baltin and Chris Collins, 45-61. Malden: Blackwell Publishers.

Comorovski, Ileana. 1996. *Interrogative phrases and the syntax-semantics interface*. Dordrecht: Kluwer Academic Publishers.

Gračanin-Yuksek, Martina. 2007. About sharing. Doctoral dissertation, MIT.

Fox, Danny. 2000. *Economy and semantic interpretation.* Cambridge, MA: MIT Press.

Fox, Danny, and Howard Lasnik. 2003. Successive-cyclic movement and island repair: The difference between sluicing and VP-ellipsis. *Linguistic Inquiry* 34:143–154.

Goodall, Grant. 1987. *Parallel structures in syntax.* New York, NY: Cambridge University Press.

Hartman, Jeremy. 2011. The Semantic Uniformity of Traces: Evidence from Ellipsis Parallelism, *Linguistic Inquiry* 42, 367–388.

Johnson, Kyle. 2001. What VP ellipsis can do, what it can't, but not why, in *The handbook of contemporary syntactic theory*, Mark Baltin and Chris Collins (eds.) Blackwell Publishers, pp. 439-479.

Johnson, Kyle. 2013. Licensing ellipsis. *Studies in Chinese linguistics* 34(2). 71–98.

Lasnik, Howard. 2001. When can you save a structure by destroying it? In *NELS 31*, ed. by Minjoo Kim and Uri Strauss, 301–320. Amherst: University of Massachusetts, Graduate Linguistic Student Association.

Lasnik, Howard. 2014. Multiple Sluicing in English? *Syntax* 17: 1-20.
Merchant, Jason. 1999. E-type traces under sluicing. In Kimari Shahin, Susan Blake & Eun-Sook Kim (eds.), *The Proceedings of the seventeenth West Coast Conference on Formal Linguistics*, 478–492. Stanford, CA: CSLI.
Merchant, Jason. 2000. Islands and LF-movement in Greek sluicing. *Journal of Greek Linguistics* 1: 41–64.
Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
Merchant, Jason. 2006. Sluicing. 2006. In Martin Everaert and Henk van Riemsdijk (eds.), The Syntax Companion, 269-289. Blackwell: London.
Merchant, Jason. 2008. Variable island repair under ellipsis. In *Topics in ellipsis*, ed. by Kyle Johnson, 132–153. Cambridge: Cambridge University Press.
Messick, Troy and Gary Thoms. 2016. Ellipsis, economy and the (non)uniformity of traces. *Linguistic* Inquiry 47(2).
Ratiu, Dafina. 2010. A multidominance approach to conjoined questions in Romanian. Paper presented at DGfS, Humboldt University, Berlin.
Ross, John R. 1969. Guess who? In *Papers from the Annual Meeting of the Chicago Linguistics Society 5,* ed. by Robert I. Binnick, Alice Davison, Georgia Green, and Jerry Morgan, 252–286. Chicago, IL: Chicago Linguistics Society.
Takahashi, Shoichi, and Danny Fox. 2005. MaxElide and the re-binding problem. In *Proceedings of SALT 15*, ed. by Effi Georgala and Jonathan Howell, 223–240.
Whitman, Neal. 2002.Category neutrality: a type-logical investigation. Doctoral dissertation, Ohio State University.
Williams, Edwin. 1978. Across-the-board rule application. *Linguistic Inquiry 9*, 31–43.

Barbara Citko
bcitko@uw.edu

Martina Gračanin-Yuksek
martina@metu.edu.tr