

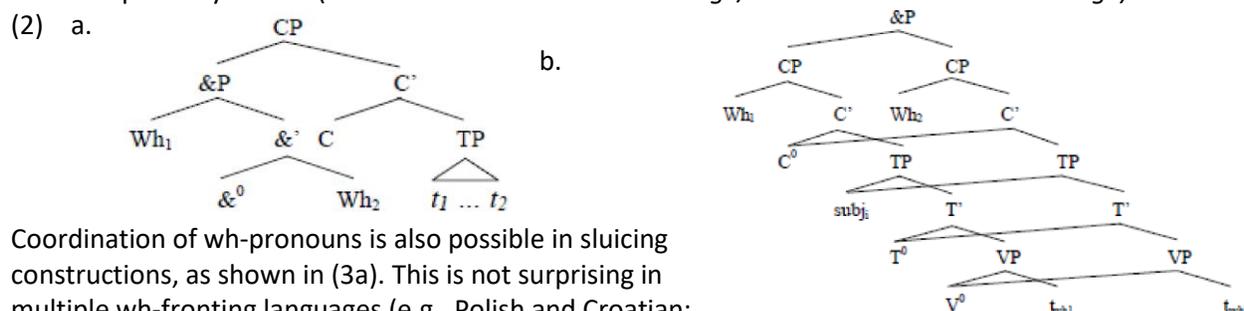
## Coordination of *wh*-phrases in sluicing constructions

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In this talk, we analyze coordinated multiple *wh*-sluicing. We build on Gračanin-Yuksek (2007) and Citko and Gračanin-Yuksek (2013), who propose that coordinated *wh*-questions (CWHs) of the kind given in (1a-b), can have a mono-clausal and a bi-clausal source.

- (1) a. **Co i gdzie** Jan śpiewa? Polish  
       what and where Jan sings  
       b. **What and where** does John sing? English

While Slavic CWHs allow both mono-clausal and bi-clausal structures in (2a-b), English allows only the bi-clausal structure in (2b), as evidenced by the ungrammaticality of coordination involving two arguments (i.e. \**Who and what won?*), the ungrammaticality of coordinated *wh*-questions with obligatorily transitive verbs when one *wh*-phrase is a direct object (i.e. \**What and where did John devour?*) and the lack of superiority effects (i.e. *What and where did John sing?*/*Where and what did John sing?*).



Coordination of *wh*-pronouns is also possible in sluicing constructions, as shown in (3a). This is not surprising in multiple *wh*-fronting languages (e.g., Polish and Croatian; see also Scott 2012 on Russian), given the grammaticality of multiple sluicing in general, illustrated in (3b) (Grebenyova 2007, 2009, Stjepanovic 2003, Szczegielniak 2008, among others).

- (3) a. **Wiem, że ktoś coś wygrał, ale nie wiem, kto i co.** Polish  
       know.1sg that someone something won but not know who and what  
       ‘Lit. I know that someone won something but I don’t know who and what.’  
       b. **Wiem, że ktoś coś wygrał, ale nie wiem, kto co.**  
       know.1sg that someone something won but not know who what  
       ‘I know that someone won something but I don’t know who (won) what.’

In multiple *wh*-fronting languages, coordinated multiple sluices like (3a) appear to be derived from the mono-clausal structure in (2a). Interestingly, however, coordinated multiple sluicing is also available in English (4), which does not allow the structure in (2a). The bi-clausal structure in (2b) is an unlikely source for (4) given that it lacks a single constituent containing both *wh*-phrases, which could be elided/unpronounced. Thus, coordinated multiple sluicing in English calls for a different analysis.

- (4) Someone saw something, but I can’t remember **who or what**.

We present evidence that coordinated multiple sluicing is *not* derived from the (mono-clausal) structure in (2a) even in languages that allow this structure for coordinated *wh*-questions (CWHs). The evidence comes from the Croatian event pronominal *to* (Progovac 2005), which can appear in simple *wh*-questions (5a), multiple *wh*-questions (5b) and CWHs (5c). Crucially, *to* can only appear *once per clause*; both (5b) and (5c), where (5c) is necessarily monoclausal (since it involves coordination of two arguments), become ungrammatical when the second *to* is added.

- (5) a. **Koga (to)** Jan zove? b. **Što (to) kome (\*to)** Jan daje? c. **Što (to) i kome (\*to)** Jan daje?  
       who.acc to Jan calls what.acc to to-who to Jan gives who.acc to and to-who to Jan gives  
       ‘Who is Jan calling?’ Lit: ‘What to whom is Jan giving?’ Lit: ‘What and to whom is Jan giving?’

Contrary to the claim that non-operator material cannot appear in COMP (Merchant 2001), *to* can appear in a single sluice (6a), but it is banned from multiple sluices (6b).

- (6) a. Netko zove Jana ali ne znam **tko to.** Croatian

someone calls Jan.acc but neg know.1sg who TO

'Someone is calling Jan, but I don't know who.'

b. Netko nekoga zove. Pitam se **tko** (**\*to**) koga (**\*to**).

someone.nom someone.acc calls wonder.1sg refl who.nom TO who.acc TO

'Someone is calling someone. I wonder who whom.'

The ban on even a single *to* in the (presumably mono-clausal) multiple sluice in (6b) is mysterious, but crucially, in coordinated sluices, *to* can appear following the first, the second, or *both* wh-phrases (7).

(7) Netko nekoga zove. Pitam se **tko** (**to**) i koga (**to**). *Croatian*

someone.nom someone.acc calls wonder.1sg refl who.nom TO and who.acc TO

'Someone is calling someone. I wonder who whom.'

Given that mono-clausal multiple (coordinated) wh-questions can only contain one *to* (5b-c), and that *to* is possible in sluicing (5a), the fact that (7) can surface with two instances of *to* shows that the coordinated multiple sluice is derived from clausal coordination (as shown in (8)), with *to* appearing at most once per clause, rather than from the mono-clausal structure in (2a) (but see Scott (2012), who proposes that multiple coordinated sluices in Russian can have either (2a) or (8) as their source).

(8) Bi-clausal source: ... I wonder [<sub>CP</sub> **who**<sub>i</sub> [<sub>TP</sub> ~~♯~~ calls someone]] or [<sub>CP</sub> **whom**<sub>i</sub> [<sub>TP</sub> someone calls ~~♯~~]].

Under the analysis in (8), wh-phrases in coordinated multiple sluicing undergo independent movements in separate clauses. The analysis explains the fact that in English the ungrammatical instances of multiple sluicing improve if the wh-phrases are coordinated – compare (9) with (4) above.

(9) ?\*Someone saw something, but I can't remember **who what**.

The analysis also accounts for the differences between coordinated multiple sluices and their non-coordinated counterparts. First, it explains the fact that in Croatian, multiple coordinated sluices do not exhibit superiority effects even when sluicing affects the matrix clause (10c), while the comparable multiple sluices without coordination do (10b) (Stjepanović 2003).

(10) a. Netko je nekad ovdje sakrio blago. *Croatian*

someone aux some-time here hidden treasure

'Somebody hid the treasure here at some point in the past.'

b. **Tko kad?** / **\*Kad tko?**

who when / \*when who (Stjepanović 2003)

c. **Tko i kad?** / **Kad i tko?**

who and when / when and who

Next, the fact that on our proposal coordinated multiple sluicing is in fact a coordination of two simple sluices with a single wh-phrase per clause captures the observation that, like their non-elided sources, coordinated multiple sluices have single pair readings (noted by Abels and Dayal 2017 and Gribanova (2009: 142), who builds on Grebenyova's (2006) work on multiple sluicing). Also, coordinated multiple sluices are not subject to the so-called Clausemate Condition (Abels and Dayal 2017), as shown in (11) for Croatian. The Clausemate Condition requires wh-phrases in multiple sluicing to originate within the same (finite) clause (see Lasnik 2014, Merchant 2001, Nishigauchi 1998, Takahashi 1994, among others), but since (11) is not a multiple sluicing configuration, the Clausemate Condition does not apply.

(11) Neki student tvrdi da je neki profesor dao otkaz.

some student claims that aux some professor given resignation. *Croatian*

Reci mi **koji student i koji profesor.**

tell me.DAT which student and which professor

'Some student claims that some professor resigned. Tell me which student and which professor.'

In sum, we argue that coordinated multiple sluices involve a coordination of single sluices and are not derived from coordinated wh-questions. This holds for languages with and without multiple wh-fronting.

**Selected references:** Abels, C. & V. Dayal (2017) On the syntax of multiple sluicing and what it tells us about wh scope taking, Ms.; Grebenyova, L. (2006) Sluicing puzzles in Russian. *FASL* 14, 157–171. Gribanova, V. (2009) Structural adjacency and the typology of interrogative interpretations. *Linguistic Inquiry* 40: 133-154. Lasnik, H. (2014) Multiple sluicing in English? *Syntax* 17: 1-20. Merchant, J. (2001) *The Syntax of Silence*. OUP. Progovac, Lj. (2005) *A Syntax of Serbian: Clausal Architecture*. Slavica Publishers. Scott, T. (2012) *Whoever doesn't HOP must be Superior: The Russian left-periphery and the Emergence of Superiority*. PhD dissertation, Stony Brook University.