Interpretation cannot determine the source of multiple sluicing in Hungarian

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Main goals and claims

What is the source of (1-a) in Hungarian: (1-b) or (1-c)?

(1) a. Valaki meghívott valakit, de nem tudom ki kit.   multiple sluicing
   someone invited someone.ACC but not know.I who.NOM who.ACC
   'Someone invited someone, but I don't know who whom.'

   b. Ki hívott meg kit?   single wh-fronting
   who.NOM invited PRT who.ACC
   Literal: 'Who invited whom?'

   c. Ki kit hívott meg?   multiple wh-fronting
   who.NOM who.ACC invited PRT
   Literal: 'Who whom invited?'

Main goals and claims

▶ We'll adjudicate between these two sources (i.e. Structure A vs. Structure B).
- Assumption: there's (isomorphic) structure inside the ellipsis site.

(1) a. Valaki   meghívott valakit,   de nem tudom, ki   kit.
    someone invited   someone.ACC but not I.know who.NOM who.ACC
    'Someone invited someone. But I don't know who whom.'

    Structure A: ... de nem tudom, ki   ~~hívott meg~~ kit.   single wh-fronting
    ... but not I.know who.NOM invited PRT who.ACC

    Structure B: ... de nem tudom, ki   kit   ~~hívott meg~~.   multiple wh-fronting
    ... but not I.know who.NOM who.ACC invited PRT

▶ <u>Key idea</u>: whatever the source is (i.e. Structure A vs. B) there should be
   interpretational correlations with the interpretations allowed by multiple sluicing.

Main goals and claims

- **No interpretive difference** among the structures in (1).
    - Based on novel experimental data.
    - Contra existing claims in the literature.

- **Answerhood conditions** are not sufficient to determine the source of Hungarian multiple sluicing.

Roadmap

1. Background
2. Experiment 1: Acceptability rating task
3. Experiment 2: Forced choice task
4. Theoretical implications
5. Conclusions

Background

The properties of **non-elliptical** sentences should **predict** the properties of **elliptical** ones.
(i.a. Tancredi, 1992)

- ▶ <u>Availability</u> of multiple sluicing:
  - Languages that allow multiple wh-movement allow multiple sluicing (i.a. Merchant, 2001).
    e.g. Bulgarian, Hungarian, Polish, and Russian

- ▶ Parallel extends to possible <u>interpretations</u>:
  - Interpretations of **multiple wh-fronting questions** = those of **multiple sluicing**.
    e.g. Hungarian (van Craenenbroeck & Lipták, 2013)

Parallel in interpretation

► Check what interpretations single vs. multiple wh-fronting questions allow for.

► Check which one the interpretation(s) of multiple sluicing aligns with.

  → Whichever type of question it parallels = the source.

► There are disagreements in the existing literature on Hungarian.

É. Kiss (2002)

► Single wh-fronting questions must have a single-pair (SP) answer:

(2) A: János kit   mutatott   be kinek?   (É. Kiss, 2002, ex.68)
    John who.ACC introduced PRT who-to
    'Who did John introduce to whom?'
  B: Pétert   mutatta   be Marinak.
    Peter.ACC introduced PRT Mary-to
    'He introduced Peter to Mary.'

► Multiple wh-fronting questions must have a pair-list (PL) answer:

(3) A: János kit   kinek   mutatott   be?   (É. Kiss, 2002, ex.69)
    John who.ACC who-to introduced PRT
    'Who did John introduce to whom?'

  B: Pétert   Marinak és Évának, Zoltánt   Évának és Júliának, Istvánt   pedig Júliának
    Peter.ACC Mary-to and Eva-to Zoltan.ACC Eva-to and Julia-to Istvan.ACC and   Julia-to

    és   Marinak mutatta   be.
    and Mary-to introduced PRT
    'He introduced Peter to Mary and Eva, Zoltan to Eva and Julia, and Istvan to Julia and Mary.'

Surányi (2006)

► Single wh-fronting questions license both a PL and a SP answer:

(4) A: Ki nézett rá kire?   (Surányi, 2006, ex.28)
    who looked PRT who-on
    'Who looked at who?'

B: János nézett rá Marira, Pali Gabira,...
   John looked PRT Mary-on Paul Gaby-on
   'John looked at Mary, Paul looked at
   Gaby, ...'

B':János nézett rá   Marira.
   John looked PRT Mary-on
   'John looked at Mary.'

Surányi (2006)

► Multiple wh-fronting questions must have a PL answer:

(5) A: Ki   melyik tárgyat   tanítja?   (Surányi, 2006, ex.27)
      who which subject.ACC teaches
      'Who teaches which subject?'
   B: Pál a   szintaxist   tanítja, Márk a   szintaxist és a   morfológiát,...
      Paul the syntax.ACC teaches Mark the syntax.ACC and the morphology.ACC
      'Paul teaches syntax, Mark teaches syntax and morphology, ...'
   B': #Pál a   szintaxist   tanítja.
        Paul the syntax.ACC teaches
        'Paul teaches syntax.'

▶ Multiple wh-fronting questions must have a PL answer (also É. Kiss, 1993).

(6) Ki kinek hagyott egy üzenetet?   (van Craenenbroeck & Lipták, 2013, ex.66)
    who who-to left   a   message.ACC
    'Who left a message for whom?'

    a. Everyone left a message for someone. I wonder who each person left a message for.
    b.*A single person left a message for someone. I wonder who the person was and for whom he left
       a message.

van Craenenbroeck and Lipták (2013)

▶ Multiple sluicing is only compatible with a PL scenario (promoted by *everyone*, (7-a)):

(7) a. Mindenki hagyott egy üzenetet valakinek. Nem tudom, hogy ki kinek.
    everyone left a message.ACC someone-to not I.know that who who-to
    'Everyone left a message for someone. I don't know who for whom.'
  b.*Valaki hagyott egy üzenetet valakinek. Nem tudom, hogy ki kinek.
    someone left a message.ACC someone-to not I.know that who who-to
    'Someone left a message for someone. I don't know who for whom.'

<div align="right">(van Craenenbroeck & Lipták, 2013, exs.67-68)</div>

(See also Nishigauchi 1998 for Japanese and Merchant 2001 for English.)

▶ Assumption: Strict parallel between ellipsis and non-ellipsis.

▶ Multiple sluicing derives from multiple wh-fronting.

Interim Summary

Existing literature:

- **Single wh-fronting** questions: disagreement as to whether they **only** license **SP** answers, or **both SP and PL** answers.

- **Multiple wh-fronting** questions: allow for **only a PL** reading.

- **Multiple sluicing**: is claimed to also **only** be available in **PL** contexts.

- **Multiple sluicing** is derived from **multiple wh-fronting** questions.

	É. Kiss (2002)	Surányi (2006)	van Craenenbroeck and Lipták (2013)
multiple wh-fronting	pair-list reading	pair-list reading	pair-list reading
single wh-fronting	single-pair reading	single-pair reading & pair-list reading	-
multiple sluicing	-	-	pair-list reading

Interim Summary

- None of the reported judgements have been subjected to rigorous experimental testing.

- No minimal pairs → potential **confounding factors** in reported judgements:
  - *Which NP* vs. *who* in the question.
  - Transitives vs. ditransitives.
  - Presence vs. absence of verb in the answer.
  - Position of verb in the answer (VO vs. OV).
  - Presence vs. absence of verbal particle: indexes focus movement.

Experiment 1: acceptability rating

- 45 native speakers of Hungarian.
- Rate on a 1-7 scale how acceptable an (SP/PL) answer is to the relevant question in a dialogue.
- Methodology has been used successfully to test the answerhood conditions of questions in English (Achimova, Deprez, & Musolino, 2013).

Experiment 1: acceptability rating

3×2 design:

► 3 Constructions: multiple sluicing—8a, single wh-fronting questions—8b, multiple wh-fronting questions—8c

► 2 Readings: SP and PL, promoted by a preceding sentence (*Someone...* for SP and *Everyone...* for PL) + a matching explicit SP/PL answer.

Experiment 1: stimuli

(8) A: {Valaki / Mindenki} meghívott valakit.   Tudod,   hogy...
    A: {Someone / Everyone} PRT.invited someone.ACC you.know that...

    a. ... ki   kit?
        who who.ACC

    b. ... ki   hívott   meg kit?
        who invited PRT who.ACC

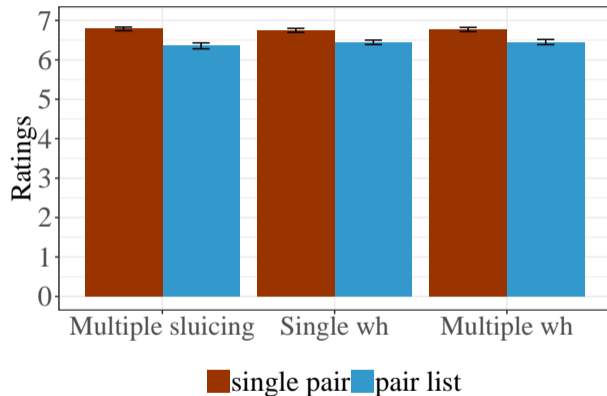   c. ... ki   kit   hívott meg?
        who who.ACC invited PRT

    'A: Someone/Everyone invited someone. Do you know who (invited) who?'

(9) B: {Mari Jánost.   / Mari Jánost,   Péter Zsuzsit,   Ádám pedig Évát.}
    B: Mary John.ACC / Mary John.ACC Peter Susie.ACC Adam and   Eva.ACC

18 experimental items, 30 fillers.

High acceptability ratings.

SP rated higher than PL:

- ► Reading main effect ($p < 0.001$)
- ► Construction n.s.
- ► Interaction n.s.

Bad fillers: mean=1.59.
Good fillers: mean=6.75.

Experiment 2: forced choice

- 39 native speakers of Hungarian.
- Forced choice task: participants had to choose between a SP and a PL answer in response to a question in a dialogue context.
- 3 conditions = 3 Constructions:
  - multiple sluicing—10a, single wh-fronting questions—10b, multiple wh-fronting questions—10c

Experiment 2: stimuli

(10) A: Valaki,   vagy valakik   meghívtak valakit.   Tudod,   hogy...
A: Someone.SG or   someone.PL PRT.invited someone.ACC you.know that...

   a. ... ki   kit?
       who who.ACC

   b. ... ki   hívott   meg kit?
       who invited PRT who.ACC

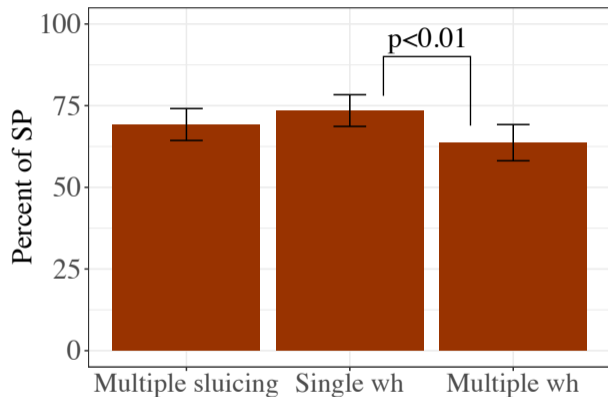   c. ... ki   kit   hívott meg?
       who who.ACC invited PRT

   'A: Someone, or some people invited someone. Do you know who (invited) who?'

(11) B: {Mari Jánost.   / Mari Jánost,   Péter Zsuzsit,   Ádám pedig Évát.}
B: Mary John.ACC / Mary John.ACC Peter Susie.ACC Adam and   Eva.ACC

18 experimental items, 30 fillers.

Experiment 2: results

Uniform preference for SP.

Significant difference between: single (74% SP) and multiple (64%) wh-fronting questions ($p < 0.01$).

Multiple sluicing (70% SP) doesn't differ from either.

Overall results

▶ Previously reported judgements not confirmed by our findings.
  - ✗ Multiple sluicing and multiple wh-fronting questions: only compatible with PL.

▶ No evidence of dialectal variation.

▶ Hungarian multiple sluicing, single and multiple wh-fronting questions pattern alike with respect to their answerhood conditions:
  - **SP answers are preferred** over PL ones across the board, though **both** answer types are **generally available**.

▶ Exp. 2: multiple sluicing does not clearly align with either type of question in how strong the SP preference is.
  - Representing a "middle ground" when it comes to interpretation?

Theoretical consequences

- These findings complicate our view of the syntax of multiple sluicing.

- Assuming that properties of non-elliptical sentences predict properties of elliptical ones: **no reason** *in principle* to prefer analyzing multiple sluicing as **deriving from either question type**.

Potential sources

12a: both wh-phrases are moved, and thus both escape deletion, which targets the complement of C (i.a. Merchant, 2001; van Craenenbroeck & Lipták, 2013).

12b: one of the wh-phrases escapes deletion without needing to move (i.a. Abe, 2015, 2016).

(12) Valaki/Mindenki meghívott valakit.   De nem tudom, ki   kit.
     someone/everyone invited   someone.ACC but not I.know who.NOM who.ACC
     'Someone/Everyone invited someone. But I don't know who whom.'

   a. ... De nem tudom, ki   kit   [C ~~hívott meg~~].   → move-and-delete approach
      ... but not I.know who.NOM who.ACC   invited PRT

   b. ... De nem tudom, ki   [C ~~hívott meg~~ [kit]F].   → in-situ approach
      ... but not I.know who.NOM   invited PRT who.ACC

Follow-up ideas

Investigate potential factors uncontrolled in earlier theoretical work, which may have led to generalizations incompatible with our experimental findings:

▶ *Which NP* vs. *who* in the question.

▶ Transitives vs. ditransitives.

▶ Presence vs. absence of verb in the answer.

▶ Position of verb in the answer (VO vs. OV).

▶ Presence vs. absence of verbal particle: indexes focus movement.

Conclusions

- ► Claims about the answerhood conditions of Hungarian multiple sluicing and single/multiple wh-fronting questions were made on the basis of **heterogeneous examples**.

- ► **Novel, controlled experimental data**:
  - ■ **All relevant structures pattern alike**: license both SP and PL answers, with a preference for SP.
  - ■ **Multiple sluicing is in between the two types of questions** in terms of how strong a preference it has for SP.

- ► **Answerhood conditions cannot distinguish** between the two possible sources for the ellipsis site.
  → No longer have an argument for multiple sluicing deriving from multiple wh-fronting.

Thank you!

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References I

Abe, J. (2015). *The in-situ approach to sluicing* (Vols. Linguistik Aktuell/Linguistics Today, 222). John Benjamins Publishing Company.

Abe, J. (2016). Make short answers shorter: Support for the in situ approach. *Syntax*, *19*(3), 223–255.

Achimova, A., Deprez, V., & Musolino, J. (2013). What makes pair list answers available: An experimental approach. In N. LaCara, L. Fainleib, & Y. Park (Eds.), *NELS 41: Proceedings of the 41st Annual Meeting of the North East Linguistic Society.* Amherst, MA: GLSA.

É. Kiss, K. (1993). Wh-movement and specificity. *Natural Language & Linguistic Theory*, *11*(1), 85–120.

É. Kiss, K. (2002). *The Syntax of Hungarian.* Cambridge University Press. doi: 10.1017/CBO9780511755088

Merchant, J. (2001). *The syntax of silence: Sluicing, islands, and the theory of ellipsis.* Oxford University Press.

Nishigauchi, T. (1998). 'multiple sluicing'in japanese and the functional nature of wh-phrases. *Journal of East Asian Linguistics*, *7*(2), 121–152.

Surányi, B. (2006). Mechanisms of wh-saturation and interpretation in multiple wh-movement. In N. Corver & L. L. S. Cheng (Eds.), *Wh-movement: Moving on* (p. 289-318). Cambridge, MA: MIT Press.

Tancredi, C. D. (1992). *Deletion, deaccenting, and presupposition* (Unpublished doctoral dissertation). Massachusetts Institute of Technology.

van Craenenbroeck, J., & Lipták, A. (2013). What sluicing can do, what it can't and in which language: On the cross-linguistic syntax of ellipsis.

Experiment 1 fillers

1) good fillers, where the answer was an unambiguously good one, e.g.
Q: *Today's exam was really hard. Did everyone fail?*
A: *No, two people passed.*

2) bad fillers, where the answer clearly did not address the question, e.g.
Q: *Every child went skiing in February. Do you know where?*
A: *Over Christmas.*

3) medium fillers, where the answer given was a partial answer, e.g.
Q: *Oh my God, there isn't any cake left! Which girls ate it?*
A: *Mary.*

Experiment 2 fillers

1) one potential answer was good and one was bad, e.g.
Q: *There were lots of things in the mail today. Who wrote a letter to Fanni?*
A1: *David.* A2: *Yesterday.*

2) both answers were potentially good answers, e.g.
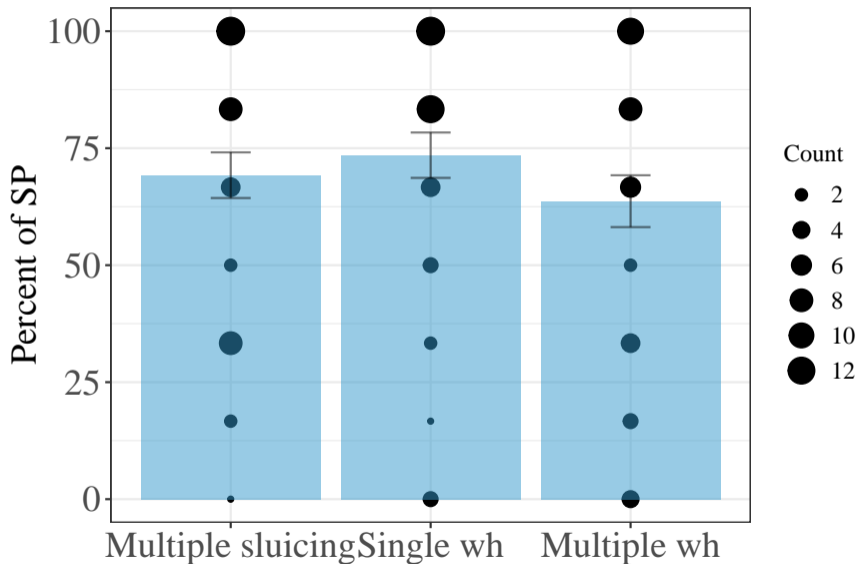Q: *I had ice cream yesterday. Guess which flavor!*
A1: *Maybe vanilla.* A2: *Maybe vanilla and chocolate.*

3) both answers were good, but the choice potentially depended on interpretation, e.g.
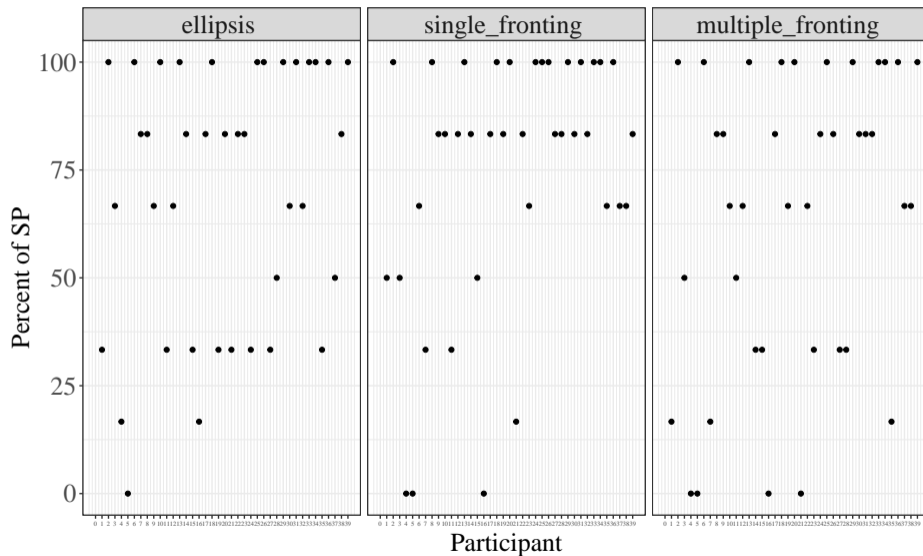Q: *Oh my God, there isn't any cake left! Which girl or which girls ate it?*
A1: *Mary.* A2: *Mary and Susan.*

Data on individuals (Experiment 2)

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