Ellipsis and the QuD: evidence from sluicing with nominal antecedents

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(slides available at http://tiny.cc/poppels-camp)
What is ellipsis?

Natural languages allow us to elide material that is provided contextually:

(1) a. Someone murdered Joe but we don't know who (murdered him).

b. Joe was murdered but we don't know who #(murdered him).

• All languages seem allow some forms of ellipsis, and it is easy to see why:

  - Ellipsis is efficient: speakers get away with reduced utterances while still conveying complex meanings.
  - Helps establish common ground: by eliding material, speakers signal that they take it to be in common ground and topical.

• Big question: what aspects of the context make ellipsis possible?

• This talk focuses on sluicing: ellipsis of clauses that are embedded under interrogative wh-phrases, as shown in (1).
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  - split-antecedent ellipsis

Linguistic antecedent is important: it introduces the referent.

But so are other factors:

- World knowledge: e.g. by introducing situationally evoked referents (Poppeels & Kehler, 2017)
- Availability of relevant Question under Discussion (QuD)

QuD hypothesis: questions can be sluiced if they correspond to a salient QuD (AnderBois, 2014; Barros, 2014; Ginzburg & Sag, 2000)
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Interim summary:

• 2 types of theories:
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  • Referential theories: other factors matter, e.g. ’QuD availability’
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- Experiment 2: 'QuD availability'
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This talk: sluicing with **nominal antecedents**

- Experiment 1: acceptability
- Experiment 2: 'QuD availability'
- Experiment 3: acceptability again
- **Preview**: our results raise novel challenges for both Identity and QuD theories
Why look at nominal antecedents?

From Poppels and Kehler (2019):

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Mean Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you mind if I put on some music?</td>
<td>---What kind of music?</td>
<td></td>
</tr>
<tr>
<td>Would you mind turning the TV off?</td>
<td>---Why?</td>
<td></td>
</tr>
<tr>
<td>Can I borrow your textbook over the weekend?</td>
<td>---Why?</td>
<td></td>
</tr>
<tr>
<td>I think the 49ers need a new quarterback.</td>
<td>---Agreed, but who?</td>
<td></td>
</tr>
<tr>
<td>Could you sign up for my class next quarter?</td>
<td>---Which one?</td>
<td></td>
</tr>
<tr>
<td>Can I get a few autographs?</td>
<td>---Sure, how many?</td>
<td></td>
</tr>
<tr>
<td>Can we see some sort of performance from you at the party tonight?</td>
<td>---What type of performance?</td>
<td></td>
</tr>
<tr>
<td>Did you not tell your friends about the game today?</td>
<td>---I did, but I forgot to tell them where.</td>
<td></td>
</tr>
<tr>
<td>What's a phone number at which we can reach you?</td>
<td>---Why?</td>
<td></td>
</tr>
<tr>
<td>And shortly after 3 pm is when you heard the explosion?</td>
<td>---Yes, but I couldn't tell where.</td>
<td></td>
</tr>
<tr>
<td>Could you unload the dishwasher?</td>
<td>---When?</td>
<td></td>
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<td>Can we get something to eat that I like?</td>
<td>---It depends on what.</td>
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<td>I think our son would do much better with a different math teacher.</td>
<td>---That depends on who.</td>
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<td>If this company is to thrive in the long run, it needs a more aggressive</td>
<td>CEO.---Well, tell me who and I'll take care of it.</td>
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<td>I'd love to watch the ballgame on my phone while we're out.</td>
<td>---No problem, I'll just have to remember how.</td>
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<td>Can I please see a card trick?</td>
<td>---I'm sorry, I don't know how.</td>
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<td>Are those the steaks that are on sale?</td>
<td>---Yes, sir. How many?</td>
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<td>I really want to hear at least one Justin Bieber song before the night</td>
<td>is over.---OK, I just have to figure out when.</td>
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<td>Apparently, the FBI knew about the bomb threat in advance.</td>
<td>---But did they also know when?</td>
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<td>Can I get another drink on the house?</td>
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From Poppels and Kehler (2019):

(3) Did you not tell your friends about the game today? — I did, but I forgot to tell them where (the game would be; it would take place; . . . ).
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(3) Did you not tell your friends about the game today? — I did, but I forgot to tell them where (the game would be; it would take place; ...).
Why look at nominal antecedents (cont’d)?

(4) Did you not tell your friends about the game today? — I did, but I forgot to tell them where (the game would be; it would take place; . . .).

• Represent a challenge for IDENTITY theories: $\textit{clauses} \neq \textit{nominals}$
Why look at nominal antecedents (cont’d)?

(4) Did you not tell your friends about the game today? —I did, but I forgot to tell them where (the game would be; it would take place; . . . ).

- Represent a challenge for IDENTITY theories: \( clauses \neq nominals \)
- Only previous mention (that I am aware of): Beecher (2007).
Why look at nominal antecedents (cont’d)?

(4) Did you not tell your friends about the game today? — I did, but I forgot to tell them where (the game would be; it would take place; . . . ).

• Represent a challenge for IDENTITY theories: *clauses ≠ nominals*
• Only previous mention (that I am aware of): Beecher (2007).
• Nominal-antecedent VP-ellipsis exhibits QUD effects (Miller & Hemforth, 2014):

(5) Mubarak’s survival is impossible to predict and, even if he does, his plan to make his son his heir apparent is now in serious jeopardy. [COCA: CBS Evening News]
Expt 1

**Goal:** measure acceptability of sluices with nominal antecedents like (6):
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(6) A: I can’t see your parents in the audience. Did you not tell them about your performance today?
B: I did, but I forgot to tell them {when|where|what about|how long|why}. 
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(6) A: I can’t see your parents in the audience. Did you not tell them about your performance today?
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- Strategy:
  - Carefully design contexts to enable 1 nominal-antecedent sluice (caveat: selection bias!)
  - Mechanically substitute other wh-phrases to create variability
  - Test if variability can be explained in terms of ‘QuD availability’
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  • Mechanically substitute other wh-phrases to create variability
  • Test if variability can be explained in terms of 'QuD availability'
• 30 nominal-antecedents sluices like (6): 6 contexts, 5 wh-phrases.
• 63 participants, 12 fillers (2:1 ratio)
Expt 1: Results

Mean acceptability
lower-bound fillers
nominal-antecedent sluices
upper-bound fillers

1 2 3 4 5

lower-bound fillers
nominal-antecedent sluices
upper-bound fillers
Expt 2

- **Question:** can we explain this gradability?
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Expt 2

- **Question**: can we explain this gradability?
- Challenging for IDENTITY theories
- QUD theories: sluicing depends on the availability of a relevant Question under Discussion (QUD) (AnderBois, 2014; Barros, 2014; Roberts, 2012)
- **Plan for Expt 2**:
  - Measure predictability of sluiced question (QUD)
  - Check if this 'QUD availability' measure predicts acceptability
Expt 2: passage-completion task

(Instructions: carefully read the passage below, carefully read all continuations, and then choose the continuation you find most likely.)

"A: I can't see your parents in the audience. Did you not tell them about your performance today? B: I did, but I forgot to tell them...

1. ...where I was performing."

2. "...how long it would last."

3. "...when it was going to start."

4. "...why they should be in the audience."

5. "...what it was about."

• Answer choices: modal response in separate norming experiment in which participants paraphrased the ellipsis site
Expt 2: Results
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- Frequentist analysis: $\beta = 1.826, p = 0.037$
- Bayesian analysis: $P(\beta > 0) = 0.983$
Expt 3: revisiting acceptability

**Goal:** determine if QUD effect is specific to sluicing, by replicating Expt 1 and adding unelided variants (N = 153)
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- Replication of QUD effect: $P(\beta > 0) = 0.998$
- Interaction not significant: $P(\beta < 0) = 0.837$
- No evidence that QuD effect is ellipsis-specific!
Expt 1:
- Some nominal-antecedent sluices are impeccable, others terrible.
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• Expts 2 & 3:
  • Some of the variance is due to variation in 'QUD availability'.
  • However, QUD effect is not specific to ellipsis.
Discussion

- **Expt 1:**
  - Some nominal-antecedent sluices are impeccable, others terrible.
  - This pattern is problematic for Identity theories.
  - Referential theories stand a better chance of explaining variability, since they recognize multiple factors as potentially relevant.

- **Expts 2 & 3:**
  - Some of the variance is due to variation in 'QUD availability'.
  - However, QUD effect is not specific to ellipsis.

- **Bottom line:** something beyond predictability is constraining ellipsis.
Partee’s marbles

(7) I dropped 10 marbles and I only found 9 of them. #It must be under the sofa.
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(7) I dropped 10 marbles and I only found 9 of them. #It must be under the sofa.

⇒ Even though the missing marble is maximally salient, *it* is infelicitous unless the marble was introduced explicitly.
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(8) I can’t see your parents in the audience, did you not tell them about your performance today? —I did, but I forgot to tell them...

a. . . when (the performance was).

b. . . why #(they should be there).
Partee’s marbles

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   a. ...when (the performance was).
   b. ...why #(they should be there).

⇒ Even though a perfectly coherent continuation exists for (8-b), sluicing appears to point us back to the antecedent (i.e., the performance).
Thank you!


References II


Poppels, T., & Kehler, A. (2019). *Sluicing inferred propositions*. Poster to be presented at a workshop entitled ’Sluicing and Ellipsis at 50’ at the University of Chicago.
References


