



# What does a plausible ‘in-situ’ theory of ellipsis look like?

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- This debate will focus on **fragmentary utterances** (clausal ellipsis)
- Prevailing view in the Mainstream Generative Grammar, since ~Y2K: <sup>[1][2]</sup>
  - (i) ‘standard’ fragmentary utterances are elliptic clauses (**ECs**);  
ellipsis is nonpronunciation (*Silent Structure* analysis)
  - (ii) Ellipsis is unselective;  
to avoid ellipsis, remnants move above the ellipsis site

... [<sub>EC</sub> remnant<sub>1</sub> [<sub>XP</sub> ... *t*<sub>1</sub> ... ] ]

= the *Move and Delete* approach (**MDA**)



- **Main motivation:** ellipsis remnants show the hallmarks of A'-movement

- Explains the P-stranding generalisation <sup>[1][2]</sup>

A: Haben sie mit dem Mann gesprochen? <sup>[3]</sup>

B: Nein, mit der Frau. (5.99 / 7)

B': ? Nein, der Frau. (4.76 / 7)

**For B:** [<sub>EC</sub> [mit der Frau]<sub>1</sub> [<sub>XP</sub> sie haben *t*<sub>1</sub> gesprochen] ]

**For B':** \* [<sub>EC</sub> [der Frau]<sub>1</sub> [<sub>XP</sub> sie haben mit *t*<sub>1</sub> gesprochen] ]

P-stranding!

(assuming that T-to-C movement is bled by ellipsis) <sup>[4]</sup>

- **Main motivation:** ellipsis remnants show the hallmarks of A'-movement

- Island-sensitivity (when island-evasion is unavailable)<sup>[1][2][5-7]</sup>

A: They examined a well-prepared student.

B: \* Yes, v<sup>ê</sup>ry well.

(adapted from Merchant 2001:181)

A: The fact that a Lab<sup>ô</sup>ur MP threatened John is comical.

B: \* And Cons<sup>ê</sup>rvative, too.

(Griffiths et al. 2021)

\* [<sub>EC</sub> [very well]<sub>1</sub> [<sub>XP</sub> they examined [<sub>ISLAND</sub> a *t*<sub>1</sub> prepared student]] ]

\* [<sub>EC</sub> [Conservative]<sub>1</sub> [<sub>XP</sub> [<sub>ISLAND</sub> the fact that [<sub>ISLAND</sub> a *t*<sub>1</sub> MP] threatened J] is comical]] ]

- **In-situ Silent Structure analyses:** “postulating ellipsis-driven movement yields incorrect predictions / requires implausible recourse to ‘ellipsis repair’. Problems of the MDA are avoided by permitting ellipsis to occur around a designated constituent” [8-15]

... [EC remnant<sub>1</sub> [XP ... t<sub>1</sub> ... ] ]      **OR**

... [EC [XP ... [remnant] ... ] ]      (\*not Abe 2015)

- A good in-situ theory of ellipsis must:
  - Explain why remnants of ellipsis show A'-properties
  - Confer greater descriptive and explanatory adequacy more generally



# Perspective A: The Syntactic Question Approach (SQA)

Griffiths (2019)

Griffiths, Güneş & Lipták (2018, 2020, 2021)



- 1<sup>st</sup>** 3 facts about clausal ellipsis that motivate the SQA (*basic facts*)
- 2<sup>nd</sup>** Defining characteristics of the SQA
- 3<sup>rd</sup>** Explaining the A'-properties of fragments
- 4<sup>th</sup>** Unique advantages of the SQA



## [1] Identity over structured meanings (phrase markers / LFs / Structured Propositions)

(i) **various phenomena** adequately explained **only if** identity condition on clausal ellipsis is stated over structured meanings

- Fixed diathesis (mismatching) effects [16-23]
- Scope variability in truth-conditionally equivalent elliptic clauses [24]
- Variable island repair under ellipsis [25][26]
- Island-sensitivity and contrastivity in elliptic clauses [6]
- The Warner/Potsdam VP ellipsis dataset [27]
- Scopal parallelism effects under VP ellipsis [28]
- Co-intensional antecedent/elliptic pairs [29]
- Cross-linguistic variability in reprise (echo) fragments [12][13][14]





## [1] Identity over structured meanings (phrase markers / LFs / Structured Propositions)

(ii) Results of **psycholinguistic studies** favour an identity condition stated over structured meanings

- Structural matching is required between the elliptic clause and its antecedent ( *copy  $\alpha$  / recycling* ) [30-33]
- Structural mismatches are repaired by the processor [32][33]
- Structural information allowing for ellipsis licensing decays quickly [33][34]



## [2] Deaccented clauses (DCs) are licensed when ECs aren't

- **Deaccented clauses** (DCs) = deaccenting is licensed (*given*; narrow focus)

(1) A: Someone has eaten<sub>act</sub> my sandwich.

B: \* Yeah, your sandwich was eaten<sub>pass</sub> by Bîll.

B: Yeah, *your sandwich was eaten<sub>pass</sub>* by Bîll. [voice alternation]

(2) A: Who ate the cake?

B: \* Well, Bîll *has been looking guilty lately*.

B': Well, Bîll's *been looking guilty lately*. (adapted from Weir 2014:68)



### [3] Fragments are sensitive to the pragmatic status of questions

- (i) If the explicitly-uttered antecedent ( $A_{EX}$ ) is a question, an assertoric fragment must answer that question <sup>[35]</sup>

(3) A: [<sub>CP1</sub> Who<sub>x</sub> did Mary say [<sub>CP2</sub> x has the key to the liquor cabinet]]?

a. *If CP1 is used as the antecedent:*

B: She said that Frânk has the key to the liquor cabinet.

b. *If CP2 is used as the antecedent:*

B: \*Frânk has the key to the liquor cabinet, but I don't know what Mary said.

B': Frânk has (the key to the liquor cabinet), but I don't know what Mary said.



### [3] Fragments are sensitive to the pragmatic status of questions

- (ii) Answered / dismissed (implicit) questions cannot serve as antecedents for ellipsis, despite being discourse proximate <sup>[36]</sup>

(4) A: Where did she go?

B: I don't know. But I think *\*(she went)* with Tîm.

(5) A: What will she sing?

B: Well whatever it is, *\*(she'll sing it)* twice.

(6) A: She is going to sing something.

B: Well whatever it is, *\*(she'll sing it)* twice, I bet.

B: Well whatever it is, when *\*(will she sing it)*?



- Identity condition must be stated over structure

(7) **Isomorphism condition on reduction** (approximated from Anand et al. 2021)

Let XP be the **argument domain** of an elliptic / deaccented clause CP. Reduction is licensed in CP only if:

The heads and relations therebetween in  $XP \subseteq$  the heads and relations therebetween in a discourse-salient phrase YP.

*discourse-salient* = contained in an at-issue discourse unit <sup>[43-47]</sup>

- The condition in (7) accounts for the observation that mismatches are permitted above but not below the argument domain of an antecedent/EC pair <sup>[1][16-23]</sup>



- The deaccenting facts can be dealt with by employing *antecedent accommodation* (AA): [11-14][17][24][27][33][36][37]

- AA triggered when the Isomorphism Condition is not met
- Accommodated, implicit antecedents ( $A_{IM}$ ) are structured meanings (LFs)
- Linguistic material in proximate discourse informs possibilities for AA

## (8) **Formal restrictions on AA** (Griffiths et al. 2021)

- (i) The argument domain of the accommodated antecedent must be syntactically constructed using nonelliptic linguistic material in the **discourse-salient** context (*modulo* vehicle change).
- (ii) If head  $x$  is accommodated, then the maximal projection of  $x$  must be accommodated.



(9) A: Someone has eaten<sub>act</sub> my sandwich.

B: Yeah, *your sandwich was eaten*<sub>pass</sub> by Bîll.



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**A<sub>IM</sub>:** Your sandwich was eaten by someone.





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**A<sub>IM</sub>:** Your sandwich was eaten by someone.

(10) A: Someone has eaten<sub>act</sub> my sandwich.

B: \* Yeah, *your sandwich was eaten<sub>pass</sub>* by Bîll.

**!!** Cannot use elided material to build accommodated antecedent **!!**



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!! Cannot use elided material to build accommodated antecedent !!

**A<sub>IM</sub>:** Someone has eaten my sandwich. (same as A<sub>EX</sub>)



- SQA** -- Clausal ellipsis is sensitive to questions (Fact **[3]**) because (most) elliptic clauses can only be licensed by questions
- If  $A_{EX}$  is not a question, AA is triggered, yielding a wh-question  $A_{IM}$
  - Ellipsis occurs around designated subclausal phrases  
(**no** ellipsis-driven movement)



(11) A: Someone has eaten the cake.

$A_{EX}$  = not a question, AA required

B: Yeah, Jôhn has eaten the cake.

**Step 1:** Convert remnant into a wh-phrase of the same type

*John* → *who* / *which person*

**Step 2:** Do antecedent accommodation (AA)



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**Step 2:** Do antecedent accommodation (**AA**)

**$A_{IM}$ :** Who has eaten the cake?

For the technical details, see Griffiths (2019), Griffiths et al. (2021)



- Recall**
- If  $A_{EX}$  is a declarative assertion, then ellipsis licensed by wh-question  $A_{IM}$
  - $A_{IM}$ s are linguistic objects; must obey wh-question formation rules in  $L$

**Upshot** -- A'-properties of fragments are derived without ellipsis-driven movement

- Correct predictions for wh-movement languages:
  - Remnants of ellipsis must correspond to wh-movable items [2][38][39]
  - The P-stranding generalization holds
  - Island sensitive (when island-evasion is unavailable)



- Remnants of ellipsis must correspond to wh-movable items

(12) A: Susie just met with someone important.

B: \* Yeah, **she just** met with Joe Bîden.

**A<sub>IM</sub>:** \* Meet who did Susie just?



- The P-stranding generalization holds

(13) A: Anna hat mit jemandem gesprochen.

B: ?? Ja, sie hat mit dem Hâns gesprochen.

**A<sub>IM</sub>:** \* Wem hat Anna mit gesprochen?





- Island sensitive (when island-evasion is unavailable)

(14) A: The best hiding place is under the bêt.

B: \* No, the best hiding place is under the câr.

**A<sub>IM</sub>:** \* What is the best hiding place under?

(with intended interpretation)



**SQA** -- A'-properties of fragments are a reflex of licensing ellipsis from wh-question antecedent, which must be grammatically well-formed in *L*

**Prediction** -- If antecedent is a non-wh question, fragments shouldn't show A'-properties

- Borne out for ECs with AltQ antecedents in wh-movement languages: <sup>[11][12]</sup>
  - Remnants of ellipsis can correspond to wh-immovable items
  - The P-stranding generalization does not hold



- Remnants of ellipsis can correspond to wh-immovable items

(15) A: Is *în* or *ûnder* the bed the best hiding place?

B: *Ûnder* the bed is the best hiding place, I reckon. (Griffiths 2019)

(16) A: Are you travelling *tô* or *frôm* Africa?

B: I'm travelling *tô* Africa. (Zwicky 1982:7)



- The P-stranding generalization does not hold

(17) A: Hat Anna mit dem Mädchen oder dem Jungen gesprochen?

B: Sie hat mit dem Mädchen gesprochen.

## Conclusion:

SQA is fine-grained enough to correctly predict that *antecedent type* (decl, whQ, AltQ, echoQ) affects the behaviour of fragments

(see Griffiths et al. 2018, 2020, 2021 for reprise fragments)



**Known fact:** There are fewer (perspicuous) constraints on wh-question formation in wh-in-situ languages than in wh-movement languages

**Prediction of SQA:** Fragments in wh-in-situ languages are less sensitive to islands than their counterparts in wh-movement languages <sup>[11]</sup>

(18) A: Hasan [<sub>ISLAND</sub> **kedi-yi** gezdir-en bir çocuk]-la konuŝ-tu.

Hasan cat-ACC walk-NOM one child-COM talk-PST

‘Hasan spoke with a child that walked a cat.’

B: Hayır, Hasan [<sub>ISLAND</sub> **köpeđi** gezdiren bir çocuk]la konuŝtu.

(19) \* Hayır, (O) **köpeđ-i-y-di**

No, it dog-ACC-COP-PST

‘No, it was a dog.’

**A<sub>IM</sub>:** Hasan [<sub>ISLAND</sub> **ne-yi** gezdir-en bir çocuk]-la konuŝ-tu?



**Specific prediction:** island sensitivity only when no wh-question  $A_{IM}$  available

(20) A: Ali [<sub>ISLAND</sub> Ayşe-yi **bir sebepten** davet ed-en adam]-a kız-dı.  
 Ali Ayşe-ACC a reason invitation make-NOM man-DAT get.angry-PST  
 ‘Ali is angry at the man that Ayşe invited for a particular reason.’

B: \* Evet, **mecburiyetten**. (Yes, out of obligation)

$A_{IM}$ : \* Ali [<sub>ISLAND</sub> Ayşe-yi **niye** davet ed-en adam]-a kız-dı? (why...)

- Same pattern noted for Mandarin Chinese <sup>[41]</sup> and Japanese <sup>[42]</sup>



- Linear order is correctly and straightforwardly conserved (as in all in-situ theories) <sup>[12][15]</sup>

(21) A: Bob's writing awful love songs again.

B: Oh no, not again! Why? And who is he even writing them fôr?

## *Move-and-delete approach:*

(22) [ who<sub>3</sub> even<sub>1</sub> [fôr t<sub>3</sub>]<sub>2</sub> [is he t<sub>1</sub> writing love songs t<sub>2</sub>]]?

- Requires “Tucking In” (conceptionally unwelcome)
- Requires moving unmovable *even*



## Main claims of the SQA:

- Ellipsis licensing makes reference to structured meanings (LFs)
- Antecedent accommodation is real.  $A_{IM}$ s must be syntactically-well formed
- An elliptic clause must be licensed by a discourse proximate, unanswered question

## Consonant with:

- [1(i)] Various phenomena motivating structural identity condition
- [1(ii)] Psycholinguistic literature
- [2] Deaccenting vs. ellipsis facts
- [3] Sensitivity to questions

## Can explain (better than the MDA):

- [4] Effect of antecedent type on remnant type, P-stranding possibilities, and island sensitivity
- [5] Island sensitivity variation across wh-movement and wh-in-situ languages
- [6] Linear order conservation facts





- Struckmeier's proposal is similar to mine, but without the idea that clausal ellipsis must be licensed by a linguistically-derived question.
- The consequence of this absence is an inability to explain:

[1] The “major constituent” property of (most) fragments

[2] Why island-sensitivity is observed in dialogues where all material is at-issue:

A: John's a bad worker.      B: \* No, John's a hârd worker.

[3] Why the P-stranding generalization holds

[4] A difference between wh-mvmt and wh-in-situ languages regarding fragment's isl-sensitivity

[5] Cross-linguistic differences in reprise fragments

[6] 'Antecedent-type' variation

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# Aims of my proposal

- Subscribe to many things already said in the literature.
- Specifically, agree with the SQA *for the most part*.
- Most specifically: Agree with SQA that MDA restrictions cannot be right: undergenerate ellipsis options, or require stipulative 'fixes' to prevent undergeneration.
- But then: Demonstrate that syntactic formulation of QuDs may undergenerate ellipsis options, too.
- Propose a retreat to safer (if less predictive) claims:
  - sketch a theory that does not undergenerate
  - *accept* (sic!) overgeneration for now, if necessary
  - address issues with new factors *later* (sic!)

# Island structures

For movement islands, a *disconnect* between ellipsis and movement options can be shown to exist. Recall example:

- 1) A: Would John hire sb. *who tries fix a car with a hammer?*  
 B: #No, ... sb. ~~*who fixes cars with a screw driver.*~~

Such cases show: materials from *these RCs* are (indeed) unavailable for semantic reconstruction.

But are materials from RCs *always* unavailable, in fact?

# Fragments from the island?

A story my four year-old would tell (= slightly incoherently):

2) A: Daddy, I saw a cartoon about a zoo:  
 There was a giraffe and an elephant.  
 (#) And Pedro tried to catch a rabbit.

B: Hä? Ist Pedro ein Pflanzenfresser, der Tiere jagt?  
 'Huh? Is Pedro a herbivore that chases animals?'

A: Nein, Zoowärter.

*no, zookeeper(s)*

'No, Pedro is a zookeeper.' *or:*

'No, Pedro chases zookeepers.'

= Main *or* relative clause can be reconstructed!



# Fragments from the island?

Note: Relative clauses are movement islands in German, too:

- Remnant cannot overtly evacuate RC, *contra* MDA:

A:\* Zoowärter ist Pedro ein Pflanzenfresser der t jagt  
*zookeepers is Pedro a herbivore who t chases*

- Wh-word cannot leave from RC, either, *contra* SQA:

A: \* Was ist Pedro ein Pflanzenfresser, der t jagt?  
*what is Pedro a herbivore who t chases*

# Warning!

The following example may be considered offensive  
by some viewers!

# Fragments from the island?

Witness the following example:

- 3) A: So I met Adrian in the US, who drives a truck and wears a baseball cap and loves burgers and is so all-American...
- B: Oh no, let me guess: Adrian is a guy who always has a *gun* with him?
- A: No, a woman.

# Fragments from the island?

Most people 'get' the following reading:

- 3) A: So I met Adrian in the US, who drives a truck and wears a baseball cap and loves burgers and is so all-American...
- B: Oh no, let me guess: Adrian is a guy **who always has a gun with him?**
- A: No, **~~he always has a woman with him.~~**

# Fragments from the island?

Most people 'get' the following reading:

- 3) A: So I met Adrian in the US, who drives a truck and wears a baseball cap and loves burgers and is so all-American...
- B: Oh no, let me guess: Adrian is a guy **who always has a gun with him?**
- A: No, **~~he always has a woman with him.~~**

*Of course*, we do not want to equate women with guns, or with 'property' – apologies for the example (which, however, we used in the abstract = needed to address here to clarify).

But do notice *why* this reading is (probably) so salient:

# Fragments only from island?

- 3) A: So I met **Adrian** in the US, who **drives a truck and wears a baseball cap and loves burgers** and is so all-American...
- B: Oh no, let me guess: **Adrian is a guy who always has a gun with him?**
- A: No, ~~he always has a woman with him.~~

**Numbers of boys/girls called Adrian** + **stereotypes about men**  
 = drive construal where *Adrian* is male, so that  
 = **main clause** is quasi-tautological, so that  
 = **relative clause** is only informative proposition, so that  
 = online meaning construal (!) causes reconstruction of RC?

But: No, *Adrian is a woman* also coherent/ informative!

# Fragments only from island!

- Witness the following *continuative* RC:
- 4) A: John gave the news to Jim,  
       who then passed it on to Claire.  
       B: No, ~~Jim passed it on to Sue.~~  
       B': # No, ~~John gave the news to Sue~~
- Witness the following *non-continuative* RC:
- 5) A: In the German Democratic Republic, they had cars  
       whose bodies were made from carbon.  
       B: No, ~~the bodies were made from cardboard.~~  
       B': ?? No, ~~they had cardboard in the GDR.~~

# What is going on here?

- Relative clause materials are sometimes *unavailable* and sometimes *available* for elliptical reconstruction.
- If syntax (wh-extractions?) drives this, we need *multiple* RC structures, *some* of which movement-transparent. But:
  - + No known LIs drive this – learnability?
  - + No *overt* (Germ./ Engl.) RC is transparent for extraction
  - = No reason we should believe this in the first place?
- I submit that discourse properties, not syntax, control the reconstructions we have just witnessed.



# FMA: The proposal

In the remainder of the talk, I will outline a *hybrid* theory and:

- present the discourse part of the FMA,
- then present its syntactic part.
- Disclaimer: Proposal overgenerates/ is incomplete/ is clearly inspired by many suggestions from the literature.

The proposal in a nutshell is this:

- Only *last at-issue proposition* reconstructs in a discourse.
- Remnant materials licensed (only) by *verbatim* items taken from the structure expressing last at-issue proposition.

# Meanings license meanings

Ellipsis remnants receive a *propositional* reading.  
Hearers must decide *which* proposition to recover.  
They choose the last at-issue proposition:

- 1) A: Would John hire somebody  
who tries fix a car with a hammer?  
B: No, ...  
= John would not hire [such a] person.  
≠  $X_{\text{who}}$  does not fix a car w/ a hammer.  
... ~~John would hire~~ a screw driver.'

Main clause is at issue – *its* proposition must reconstruct!

# Meanings license meanings

## Continuative Relative Clauses

- 4) A: John passed the news to Jim,  
who then passed it on to Claire.  
B: No, ~~Jim passed it on~~ to Sue.

### Explanation:

Continuative relative clauses are discourse moves in their own right = introduce at-issue propositions.

These propositions *can* reconstruct – and *must*, if they are the *last* proposition proffered for inclusion in the CG.

# Meaning license meanings

Other relative clauses: *can* be considered at-issue, if 'their' main clause is not informative upon reconstruction:

- 5) A: In the GDR, they had cars  
       whose bodies were made from carbon.  
       B: No, ~~they were made from cardboard~~.  
       B':?? No, ~~they had cardboard in the GDR~~.

Explanation: Knowledge about cardboard & European countries = main clause reconstruction is uninformative.

Also, *cardboard* is just not a salient alternative to *cars*.

# For historical accuracy



*Trabant 601*: GDR-produced automobile,  
aka the *Rennpappe* ('racing cardboard')

Body made from cotton-plastic compound  
called 'Duroplast' – *not* cardboard

# Meanings license meanings

CG contains propositions. *Extra*-propositional LIs must appear in fragments, even unfocussed [Ott & Struckmeier]:

6a) A: Who does Peter like?

B: [Seine Freunde]<sub>F</sub> wohl<sub>-F</sub> (\*mag er)  
*his friends MP (\*likes he)*

≈ 'He likes his friends, probably.'

6b) A: Peter likes somebody. (*indef raises question*)

B: Wen denn<sub>-F</sub> (\*mag er)?  
*who MP (likes he)*

≈ 'So who?'

Note: MPs cannot be asked for (≠SQA); don't move (≠MDA).

# Can SQA/MDA adopt this?

Of course, a syntactic theory could state that:

- syntax 'generally' forbids reconstruction from islands, etc,...
- but 'exceptionally', discourse make propositions so salient:
  - they serve as 'short sources' for reconstruction (MDA) or
  - as short sources to derive questions from (SQA)...
  - and MPs etc. are just exceptional, somehow.

But notice:

SQA derives its restrictions from syntactic QuDs,  
and MDA derive its restrictions from syntactic movements,  
but theories then *retreat* from using movements bit by bit?

# Other SQA predictions?

The SQA can point out that it still gets *other* ellipsis predictions right. To which I say:

- Not good enough: If SQA predictions undergenerate (by design), we should reject SQA just like the MDA.
- Also, the empirical record of SQA for movement in structures *other* than RCs (in German) is mixed bag, too:
  - I will discuss P-stranding in some detail here,
  - but must leave other phenomena for Q&A, for reasons of time. See examples in the appendix.



# P-stranding is inconclusive

MDA/ SQA argue P-Stranding is evidence for (different) movement restrictions on ellipsis. I claim the *opposite* is true:

- 7) Für wen arbeitet Peter? – (%) Den Papst.  
*for who works Peter the pope*  
 'Who does Peter work for? – The pope.'
- 8) \*Den Papst arbeitet Peter für. ≠ MDA!
- 9) \*Wen arbeitet Peter für? ≠ SQA!

P-Stranding is much worse than P-less elliptical structures considered structurally identical by SQA/ MDA (cf. [Lemke]).

# P-stranding is inconclusive

P-less DPs seem restricted by *morphophonology*:

- Proper names (w/o overt case): Possible!
  - DPs marked for accusative: *pretty good*, as just seen in (7)
  - Dative fragments *often ok*; judgements vary a bit:
- 10) Mit wem hat Peter getanzt? – (%) Seiner Frau.  
*with who has Peter danced* *his wife*  
 'Who did Peter dance with? – His wife.'
- 11) \*Seiner Frau hat Peter mit getanzt. **≠ MDA!**  
 \*Wem hat Peter mit getanzt? **≠ SQA!**
- Genitive P-complements *seem* to support MDA/SQA  
 – but can receive alternative explanations as well.

# P-stranding in English

Assumption that languages *with* P-stranding just allow P-less DP remnants across the board is *not* unproblematic, either:

- 12) A: Peter slept during a ceremony.  
B: Which ceremony (% did he sleep during)?  
A: His own wedding (% he slept during)!

In sum, I claim that P-stranding is:

- at best *inconclusive* for the issue, but...
- at worst shows SQA *undergenerates* ellipsis options.

# Other SQA predictions

The SQA makes other syntactic predictions. I do not agree that these predictions are *really* borne out (see appendix):

- Subclause extraction options (other than from RCs) *do not always* mirror ellipsis reconstruction options.
- Other islands in German (e.g. N complements, DP left branches) *do not really* predict ellipsis options, either.
- Real-life discourse data often requires assuming QuDs that *do not always* follow SQA predictions [Riester et al].
- And in most cases where restrictions *do* occur, overt movements are *harshly unacceptable* – but ellipses allegedly derived from these structures are much better, often only just 'a bit hard to get' – why?

# Syntactic aspects of the FMA

And now for something completely different:  
Some aspects of ellipsis are not explained by discourse.

- Why is there *formal* 'connectivity effects'?
- Why do semantic equivalents often *not* reconstruct?
- Why does only the *last* proposition reconstruct?  
(CG, needless to say, stores *many* propositions!)

These restrictions, the FMA claims:

- are unrelated to meaning/ discourse.
- follow from *syntax* (but not from *movements*, either).
- help remind us that remnants are *different* from the ellipsis site.

# Forms license forms

Following [Chung] and [Gonzalez & Ramos], a.o., I assume fragments are only licensed by LIs used *verbatim* in last at-issue proposition.

Many interesting consequences already found in the literature (again, see appendix for examples). To name but two:

- Semantic equivalents often do not reconstruct (e.g. active/passive sentence equivalents): different Case licensors.
- In code-switching, Cases assigned by 'uttered verb' in L1, *not* by elided equivalent 'after the switch' to L2.
- ... and many more.

# Forms license forms: Case

Many German verbs license lexical Cases.

Hearer reconstructs *completely parallel* Case-licensing frame:

- 14) Wen<sub>Acc</sub> friert es? – Ihn<sub>Acc</sub> / \*er<sub>\*Nom</sub> friert es  
*who freezes it him / he freezes it*
- 15) Wer<sub>Nom</sub> friert? – Er<sub>Nom</sub> / \*ihn<sub>\*Acc</sub> friert  
*who freezes he / him freezes*  
 'Who is cold?' – 'He is.' (reading for both)

Note: Restriction holds for *elliptical* answers *only*.

= Not an issue of question-answer congruence.

# Forms license forms: Last p?

Trivially (but importantly), restriction to the *last* at-issue propositions holds *only* with ellipsis:

- 16) A: Peter has stolen a hovercraft.  
 And Susi has stolen a race car.  
 B: No, ~~Susi has stolen~~ a fighter jet.  
 B': No, # ~~Peter has stolen~~ a fighter jet.  
 B'': No, Peter has stolen a fighter jet.

I.e., *contrasts* reach further than ellipsis reconstruction. Why?

Claim: If hearers must *remember formal* licensing contexts *verbatim*, then *memory* restricts ellipsis to last utterance:



# Verbatim forms vs. memory

Long-standing fact about form retention in short term memory:

“The original form of [a] sentence is stored only for the short time necessary for comprehension to occur.” (Sachs 1967: 442)

(Cf., similarly, Anderson 1974, Gernsbacher 1985, Potter & Lombardi 1998, Holtgraves 2008, Roll et al 2013, a.o.)

= Memory restriction regarding *forms* amongst the most robust psycholinguistic findings!

= you *cannot remember* verbatim licensors from any p but the last!

# A (quick) word on acquisition

The MDA cannot, I believe, be acquired:

- Restrictions vary across Ls = are parametrized
- But if 'ellipsis movements' differ from observable movements, then parameter values cannot be set (or not correctly).

The SQA faces a milder version of this problem:

- Differences in judgements between wh-movement and ellipsis options obscure parameter setting, too.

# A (quick) word on acquisition

The FMA faces no related acquisition issues:

- Formal elements postulated in the ellipsis site are *recoverable* from last preceding utterance – thus, still present in short term memory.
  - Semantic reconstruction likewise only addresses *recoverable* material (very much *by design*).
  - No syntactic operations are postulated that
    - a) are non-observable (due to ellipsis), or
    - b) could vary from operations in ellipsis site.
- = FMA with best *explanatory adequacy* (and 'beyond')?

# Explaining FMA explanations

The FMA is supported empirically – and also plausible given even the most basic (= SMT) assumptions:

- Why *elide recoverable* materials? *3rd factor*:  
Maximize channel capacity (for non-psychics)!
- Why reconstruct *propositions*, but not MPs? *C-I*:  
CG stores propositions; MPs *not* CG-recoverable.
- Why reconstruct *at-issue* propositions? *C-I*:  
Coherence: Discourse is dealing with them.
- Why recover *last* at-issue proposition? *3rd factor*:  
Memory: Lest hearers forget remnant licensors.

# Summary

Commonalities and differences of SQA & FMA:

- Both assume deletion is *in-situ* ( $\neq$  MDA).
- Both assume structure in the ellipsis site, and fragment licensing from within that structure.
- Both assume QuDs are important for reconstruction/coherence, but...
- FMA considers syntactically formed QuDs *superfluous*, while SQA claims they are *central* for ellipsis.
- SQA assumes that ellipsis site is structurally realized completely, while FMA is still on the fence about that.

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# Appendix

Extraction options for subclauses  $\neq$  ellipsis options. According to [Müller]:

- Wen glaubst Du, dass der Chef entlässt?  
*who believe you that the boss fires*  
'Who do you believe the boss will fire?'
- ??Wen ignorierst Du, dass der Chef entlässt?  
*who ignore you that the boss fires*  
'Of which person X do you ignore the fact the boss will fire X?'
- Witness the ellipsis option, however:  
A: Du ignorierst, dass der Chef deine Mutter entlässt.  
B: Nein, *meinen Vater entlässt der Chef.*  
'No, he fires my father.'

# Appendix

Wh-movements of complements of N do not mirror ellipsis:

- Über wen hat James ein Buch geschrieben?  
*about who has James a book written*  
'Who did James write a book about?'
- \*Über wen hat James ein Buch geklaut?  
*about who has James a book stolen*  
'For which person X, James has stolen a book about X?'
- But note the ellipsis option:

A: James hat ein Buch über Chomsky geklaut.

B: Nein, über Tomasello (\*hat James ein Buch geklaut).

*no, about Tomasello (\*has James a book stolen)*

,No, James stole a book about Tomasello.'



# Appendix

Left branch extractions don't *conclusively* mirror ellipsis:

- \*Wessen hat Peter \_\_ Auto geklaut?  
*whose has Peter car stolen*  
,Whose car has Peter stolen?'
- A: Peter has stolen Chuck McChucking's car.  
B: Wessen (\*hat Peter Auto gestohlen)?  
*whose*  
'Whose car did he steal?'

Possibility of subsequent *NP ellipsis* obscures data for D-layer – no conclusive evidence for SQA (nor FMA).

# Appendix

Unmoveable attributive structures: Ellipsis better than SQA predicts.

- \* Was hat Peter ein t Auto gekauft.  
*what has Peter a car bought*  
'Peter has bought a green car' (unacceptable)
- A: Peter hat ein grünes Auto gekauft.  
*Peter has a green car bought*  
,Peter has bought a green car.'  
  
B: ?Nein: rotes!  
No red  
'No, he bought a red car.' (degraded, but acceptable)

Note: Pre-N attribute structure should fare like restrictive RCs in German, since they are structurally near-identical (Struckmeier 2007), i.e. they could just constitute non-at issue propositional structures.

# Appendix

## German/ French corpus data: QuDs **not predicted** by SQA

- Riester et al (2018: 426): „Due to syntactic constraints in English, the question answered by an embedded narrow focus often looks like an echo question [...]:

Q25: {Countries which are not European in WHAT sense of the word are knocking at the door?}  
A25': Mais voilà que [maintenant des pays qui ne sont pas européens au sens [géographique]<sub>F</sub> du terme  
*but there.you.go that now indef countries that not are not European in.the sense geographical of.the term*

RC+left branch

*frappent à la porte]*  
*knock at the door*

‘But now countries that aren’t European in the geographical sense are knocking at the door.’

- Riester et al (2018: 427):

{What kind of people is the speaker concerned with?}  
[[Ich]<sub>T</sub> beschäftige mich mit denjenigen, [die in diese Unterkünfte hineingehen,]  
*I concern myself with those who into these accommodations enter*  
‘I am concerned with those people who go into these accommodations,’

{The speaker is concerned with people who do WHAT with the refugees?}  
~~[[Ich] beschäftige mich mit denjenigen,~~ [die mit [den Flüchtlingen]<sub>T</sub> [reden,]  
*I concern myself with those who with the refugees talk*  
‘who talk to the refugees,’

RC

{The speaker is concerned with people who take the refugees WHERE?}  
~~[[Ich] beschäftige mich mit denjenigen,~~ [die sie<sub>T</sub> [mitnehmen auch [zu sich]  
*I concern myself with those who them take also to th.s.*  
‘take them home with them’

RC-internal VP

# Appendix

Chung 2013 requires verbatim licensors for Case:

- Although it's possible in principle **PRO to lose gracefully**, it's completely unclear **what sort of person** ~~loses gracefully~~. (cf. 2013: 27)

Since phi-finite nominative licensor is unavailable in the **antecedent**, **subject of elliptical clause** is not licensed (despite clear intuition what verb in the elliptical clause 'would look like').

# Appendix

Gonzalez & Ramos (in prep.) show licensors used verbatim (from 'before the switch') must license Case of an item in *another* language ('after the switch'):

- Juan folgte jemandem. (German)  
*Juan followed somebody*<sub>Dat</sub>
- Juan siguió [a alguien]. (Spanish)  
*Juan followed somebody*<sub>Acc</sub>

Note 'Spanish case' on German wh-word in:

Juan siguió [a alguien] aber ich weiß nicht *wen*<sub>Acc</sub>/\**wem*<sub>Dat</sub>  
*Juan followed someone but I know not who / who*  
'Juan followed somebody, but I don't know who.'