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Embedded V2, Factivity and Main Point of Utterance

Kajsa Djärv*, Caroline Heycock⁺ and Hannah Rohde⁺ *University of Pennsylvania, ⁺University of Edinburgh

 $kdjarv@sas.upenn.edu,\ caroline.heycock@ed.ac.uk,\ hannah.rohde@ed.ac.uk$

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Introduction

- What are the constraints on where V2 can appear in complement clauses (one type of Embedded V2)?
- Is EV2 sensitive primarily to local lexical constraints or to pragmatic factors concerning the status of the embedded clause in the larger discourse context?
- Today: New experimental results.

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- Swedish, like all Scandinavian languages, is robustly V2 in root clauses.
- In embedded clauses, V2 is never required, but is sometimes possible:
- (1) EV2 evidenced by Subject Vfin-Neg/Adv order:

Han sa att han (**har**) aldrig (**har**) gillat broccoli. He said that he **have** never **have** liked broccoli. 'He said that he's never liked broccoli.'

(2) EV2 evidenced by XP-Vfin-Subject order:

Han sa att broccoli **har** han aldrig gillat. He said that broccoli.TOP **has** he never liked. 'He said that brocolli, he has never liked.'

Embedded V2 has been linked to assertion...



Certain factive predicates claimed to resist EV2 (e.g. be happy):

(3) Han var glad att han (***behövde**) inte (**behövde**) betala he was happy that he **needed** not **needed** pay hela notan. whole bill

'He was happy that he didn't have the pay the whole bill.'

(4) * Han var glad att hela notan **behövde** han inte he was happy that whole bill.TOP **needed** he not betala.

pay

'He was happy that he didn't have the pay the whole bill.'

Factive complements are presupposed; resist assertion...



The so-called 'semi-factives' (e.g. *discover*) don't presuppose their complements in e.g. questions and conditionals, but **do** presuppose their complements elsewhere—

(5) Han upptäckte att han (**behövde**) inte (**behövde**) betala He discovered that he **needed** not **needed** pay hela notan. whole bill.

'He discovered that he didn't have the pay the whole bill.'

(6) Han upptäckte att hela notan **behövde** han inte He discovered that whole bill.TOP **needed** he not betala.

pay.

'He discovered that he didn't have the pay the whole bill.'

But they appear to allow EV2 **even when** their complements are presupposed!



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Sharpening the notion of assertion:
Simons' (2007: 1035–6) "Main Point of Utterance" (MPU)
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The MPU of an utterance U is the proposition p communicated by U that renders U **relevant**. Questions/response sequences can be used as diagnostic: the proposition communicated by the response that answers the

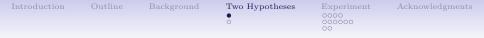
question is the main point of the response.

- (7) Q. Why didn't Kate come to the party?A. John thinks that she's left town.
- (8) Q. Why didn't John invite Kate to the party?A. He thinks that she's left town.

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Questions:

- What determines the distribution of EV2?
- How does factivity / assertion (MPU) interact with EV2?



Two Hypotheses

Local Lexical Selection (Wiklund *et al.* 2009):

Claims:

- Indirect relation between MPU and EV2: Both licensed by ForceP, selected by assertives and semifactives only.
- Factives select a smaller clause, incompatible with both EV2 and MPU. (MPU lexically licensed, *contra* Simons)
- EV2 and MPU-interpretation both optional, and independent, properties of ForceP.

Evidence: acceptable examples of ...

- a. ... Embedded MPU, without EV2. [MP
- b. ... EV2 in non-MPU embedded clauses.

 $\begin{array}{l} [\mathrm{MPU} \not\rightarrow \mathrm{EV2}] \\ [\mathrm{EV2} \not\rightarrow \mathrm{MPU}] \end{array}$



Two Hypotheses

Global Pragmatic Effects (Jensen & Christensen 2013):

Claim:

- MPU \iff EV2.
- MPU pragmatic (following Simons), not lexically licensed. Evidence:
 - Corpus data: Correlation of EV2 and predicate class.
 - Problem: Corpus in fact not coded for MPU.

This view is essentially an update of the classic analysis of embedded root phenomena in Hooper & Thompson 1973.



Experiment 1: Factivity & MPU in English

Testing:

- Can we use Simons' (2007) Q&A paradigm to reliable manipulate MPU in an experimental setting?
- Can factives embed MPU clauses?

Experiment 1: Factivity & MPU in English

Experiment:

- L1 English speakers (n=47)
- Task:
 - Read short Q&A-pairs (24 items, 24 fillers).
 - Rate directness of answer on 1-5 scale
 - Factive predicates: 'be happy', 'be disappointed', 'be relieved', 'be surprised'.
 - Non-factive predicates: 'I got the impression', 'it seemed to me'.



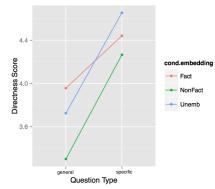
Experiment 1: Factivity & MPU in English Items: 2 discourse contexts × 3 embedding contexts:

- A: I hear that you went to Paris last summer.
 - What was the city like?
 How was it?
 Specific (sets up MPU = EC)
 General (sets up MPU = EC/MC)
- B: I was surprised that the city was really great. I got the impression that the city was really great. The city was really great. I got the impression that the city was really great. The city was really great.

Relevant Predictions (Factives vs. Non-factives):

- If manipulation of MPU is successful, then the non-factives (at least) should be judged as more direct answers in the Specific than in the General condition.
- Difference between factive and non-factive in Specific condition: if factives can't embed MPU, then the factive complement should not be a possible direct answer to the Specific question.

Experiment 1: Factivity & MPU in English



- If manipulation of MPU is successful, then the non-factives (at least) should be judged as more direct answers in the Specific than in the General condition. → Confirmed.
- Difference between factive and non-factive in Specific condition: if factives can't embed MPU, then the factive complement should not be a possible direct answer to the Specific question. → Falsified: factives can embed MPU.

Experiment 0000 000000 Acknowledgments

Experiment 2: Swedish Embedded V2

Now that we have established participants show sensitivity to Q&A manipulation, we can make use of this in experimental investigation of EV2 in Swedish.

- Test for the effect on acceptability of EV2 in Swedish of:
 - a. Local syntactic/semantic context (matrix predicate type);
 - b. Discourse pragmatic context (MPU).

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Experiment 2: Swedish Embedded V2

- L1 Swedish speakers (n=118)
- Task:
 - Read short dialogues (16 items, 16 fillers).
 - Rate the acceptability of the answers on 1-6 scale.
 - 2 MPU contexts (main/embedded) × 4 predicate types × 2 word orders (EV2/EV3).



Experiment 2: Swedish Embedded V2

Clause-embedding predicates used in Expt 1, by predicate-type:

Assertive	Assertive	Factive	Semifactive
(com)	(epist)		
säga	anta	vara lättad	upptäcka
say	suppose	be relieved	discover
berätta	förmoda	vara glad	märka
tell	assume	be happy	notice
förklara	gissa	vara ledsen	komma fram till
explain	guess	be sad/sorry	arrive at
hävda	vara säker	vara förvånad	få veta
claim	be sure	be surprised	come to know



Experiment 2: Swedish Embedded V2

Background: Little Albin and his mother Carina went to the cinema. Embedded Clause MPU:

- A: How did **Albin** find the cinema trip?
- **B**: Carina gissade att **han** (hade) nog inte (hade) väntat sig så mycket action.

'Carina guessed that he probably hadn't expected that much action.'

Main Clause MPU:

- A: How did **Carina** find the cinema trip?
- **B**: **Hon** gissade att Albin (hade) nog inte (hade) väntat sig så mycket action.

'She guessed that Albin probably hadn't expected that much action.'

Position of verb (V2, V3) and predicate type varied in the Bs.

Experiment 2: Swedish Embedded V2

Predictions:

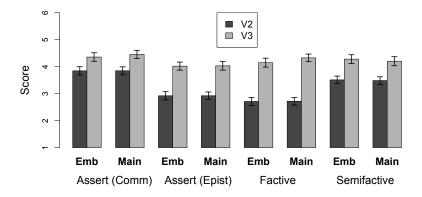
- Local Lexical Selection: EV2 will interact with predicate type, not MPU.
- Global Pragmatic Effect: EV2 will interact with MPU, not predicate type.

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Experiment 2: Swedish Embedded V2



- Local Lexical Selection: EV2 interacts with pred. type, not MPU. \rightarrow yes
- Global Pragmatic Effect: EV2 interacts with MPU, not pred. type. \rightarrow **no**
- Results mirror pattern in EV2 in Jensen & Christensen's (2013) corpus data.



Conclusions I

- Claims about the effect of MPU can be tested experimentally.
- Our results confirm Wiklund et al's observation (*contra* hypothesis in e.g. Christensen & Jensen) that MPU has no direct effect on EV2 in Swedish.
- Results show that there is still work to be done to explain effects of embedding predicates on possibility of EV2:
 - Factives **can** embed MPU but still resist EV2: problem for characterisation of "licensing" environment à la Wiklund et al 2009.
 - Semifactives allow EV2 even when truth of complement is presupposed: problem for accounts based on island effect of factivity.



Conclusions II

Empirical & theoretical follow-ups:

- Single experiment combining measure of perception of MPU and judgment of EV2.
- Closer examination of "true" factives and semifactives.

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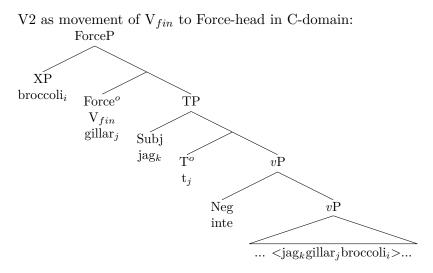
Part of this work was supported by NSF grant BCS-1349009 to Florian Schwarz.



These judgments are mirrored in corpus data from Danish, reported by Jensen & Christensen (2013):

Predicate Class	Assertive	Factive	Semifactive
Example	$s\ddot{a}ga$	vara lättad	$uppt\"acka$
	(tell)	(be relieved)	(discover)
% EV2	46%	15%	60%





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Two Hypotheses

Local Lexical Selection (Wiklund *et al.* 2009):

Evidence: Primarily own judgments.

- Q. Varför kom han inte på mötet igår?'Why didn't he come to the meeting yesterday?'
- A. Vi upptäckte att han (hade) tyvärr inte (hade) we discovered that he had unfortunately not had fått på vinterdäcken ännu. put on winter-tires.def yet

'We discovered that he unfortunately hadn't changed to winter tires yet.'

 \rightarrow Embedded clause is MPU, but both V-in-situ and EV2 claimed to be grammatical. So: MPU $\not\rightarrow$ EV2



Two Hypotheses

Local Lexical Selection (Wiklund *et al.* 2009):

Evidence: Primarily own judgments.

- Q. Varför kom han inte på festen? why came he not to party.DEF 'Why didn't he come to the party?'
- A. Kristine sa att han **fick** inte. Kristine said that he was-allowed not 'Kristine said that he wasn't allowed to.'

 \rightarrow Embedded clause is EV2, but both main and embedded MPU claimed to be available. So: EV2 $\not\rightarrow$ MPU.