On ellipsis with mismatched antecedents

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Introduction

Verb-Phrase ellipsis:
Ellipsis in a clause, omitting the verb and its internal arguments.

(1)   Mary [$_{VP}$ likes flying planes]. Kate doesn't [$_{VP}$ ~~like flying planes~~].

Ellipsis licensing:
Elided VP licensed under identity with a pronounced antecedent VP.

Sluicing: clausal ellipsis in a *wh*-question, leaving the *wh*-phrase overt.

(2)   Sally called someone, but I don't know who. [$_{TP}$ Sally called someone], but I don't know who [$_{TP}$ ~~Sally called t~~]

$\leadsto$ We want to establish identity between [$_{TP_E}$ Sally called t] and [$_{TP_A}$ Sally called someone].

Introduction

(3) **Merchant's 2001 focus condition on ellipsis:**
A constituent, XP_E may be elided iff it is e-GIVEN.

(4) A constituent, XP_E counts as e-GIVEN
iff XP_E has a salient antecedent, XP_A, and, modulo $\exists$-type shifting,

  a. XP_A entails F-clo(XP_E), and

  b. XP_E entails F-clo(XP_A)

(5) F-clo(XP) is the result of replacing focused parts of XP with existentially bound variables of the same type as XP.

(cf Barros and Kotek 2019)

Introduction

An illustration of e-GIVENness at work:

(6) [$_{TP_A}$ Sally called someone], but I don't know who [$_{TP_E}$ ~~Sally called t~~].

    a. F-clo(TP_A) = $\lambda w.\exists x$(*Sally called x in w*)

    b. F-clo(TP_E) = $\lambda w.\exists x$(*Sally called x in w*)

    c. $TP_A \vDash$ F-clo(TP_E)

    d. $TP_E \vDash$ F-clo(TP_A)

$\rightarrow$ e-GIVENness is met, sluicing correctly predicted to be possible.

Introduction

The puzzle: Ellipsis with mismatched antecedents.

(7) **Ellipsis with an aspectual verb:**
Context: Sally is an avid reader, and Mary is an author.

  a. Sally started a new book, and Mary did, too. *VP ellipsis*

  b. I know which avid reader started a new book, *sluicing*
  but not which author.

Introduction

(8) **Mismatched interpretations of (7):**
Context: Sally is an avid reader, and Mary is an author.

a. 'Sally started ~~to read~~ a new book, and Mary did ~~start to write a new book~~, too.'

b. 'I know which avid reader started ~~reading~~ a new book, but not which author ~~started writing a new book~~.'

I am not interested here in speakers who only accept this reading not as a "joke" of sorts, but rather those who access such interpretations naturally.

Roadmap

Roadmap

Complement coercion

A core assumption of formal semantics is the principle of compositionality:

(9) **The principle of compositionality:**
The meaning of a (syntactically complex) whole is determined by the meanings of its (syntactic) parts and the way in which these parts are combined.

Complement coercion

In the psycholinguistic and neurolinguistic literature, a challenge comes from complement coercion:

(10)   **A simple example of complement coercion:**

   The girl started the book.

   <u>Interpreted as:</u> The girl started reading the book.

An entity-denoting complement receives an eventive interpretation when composed with certain verbs such as *begin, try*, and *enjoy* (e.g. Pustejovsky 1995; Jackendoff 1997).

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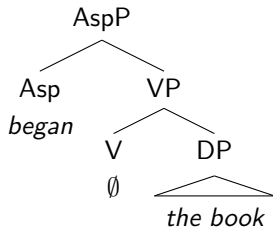An entity-denoting complement receives an eventive interpretation when composed with certain verbs such as *begin, try*, and *enjoy* (e.g. Pustejovsky 1995; Jackendoff 1997).

Complement coercion
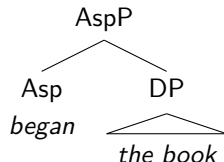
Two main approaches to complement coercion:

(12) *The girl…*

    (a) **A silent V:**

```
        AspP
       /    \
     Asp     VP
    begin   /  \
           V    DP
           ∅   /  \
            the book
```

Compositionality enforced
Meaning inference late,
triggered by silent V

    (b) **No Silent Structure:**

```
        AspP
       /    \
     Asp     DP
    begin   /  \
         the book
```

Compositionality not enforced
Type-shifting operation allows
DP to combine directly with Asp

Roadmap

(7) **Ellipsis with mismatched antecedents:**

Context: Sally is an avid reader, and Mary is an author.

   a. Sally started a new book, and Mary did, too.   *VP ellipsis*

   b. I know which avid reader started a new book,   *sluicing*
      but not which author.

For concreteness, I'll assume a No Silent Structure theory of complement coercion.

A theory that requires an *explicit* (silent) verb in the syntax will struggle with ellipsis like in (7), unless we allow *extreme* late interpretation.

Analysis: Sluicing

(13) **An analysis of ellipsis with complement coercion:**
  Context: Some of my friends are avid readers and others are celebrated authors. A couple of them have new projects…

  I know *which avid reader* started a new book, but not *which author*. (= 7b)

  a. I know *which avid reader* [$_{TP_A}$ *t* started a new book],
     but not *which author* [$_{TP_E}$ ~~*t* started a new book~~].
     ⤳ identity computed here

  b. I know which avid reader started ~~reading~~ a new book, but not
     which author ~~started~~ ~~writing~~ a new book.
     ⤳ type-shifted event descriptions computed here

No additional assumptions needed as long as we allow identity to be computed before type-shifting kicks in. Context guides pragmatic inferences independently in TP_A and TP_E.

Analysis: The importance of context

The contrast between *which reader* and *which writer* is crucial for allowing the mismatched reading.

(14)   **No-contrast sluicing with complement coercion:**
        <u>Context</u>: Each member of the Bloomsbury group is known to be both an avid reader as well as a writer.
        Someone from the Bloomsbury group [$_{TP_A}$ *t* started a new book], but I don't know *who* [$_{TP_E}$ ~~*t* started a new book~~].

The context establishes both *read* and *write* as relevant options.

Absent the contrasting *wh*-phrases and/or explicit contextual support, there is no procedure that will result in one choice in the antecedent and a different choice in the elided clause.

Analysis: The importance of context

(15) **Absent contextual support, the event types in antecedent and ellipsis must match:**

    * Someone from the Bloomsbury group started ~~to write~~ a book, but I don't know *who* ~~started~~ ~~to read~~ ~~a book~~.

Analysis: VP ellipsis

Recall that we can get the same mismatched readings with VP ellipsis.
We also see it with *one*-pronominalization:

(16) <u>Context</u>: Sally is an avid reader, and Mary is an author.
    a. Sally started a new book, and Mary did, too.   (= 7a)
    b. Mary started a new book and so did Sally.
    c. Sally started a new book and Mary started one, too.

Analysis: VP ellipsis

The same analysis extends to such cases straightforwardly:

(17) **VP-ellipsis with mismatched reading in (16a):**

Sally started a new book, and Mary did, too.

a. Semantic identity is computed over identical VPs:
   Sally -ed [$_{VP_A}$ start a new book], and Mary did [$_{VP_A}$ start a new book], too.

b. Different verbs can then be inferred via supporting context:
   Sally started ~~to read~~ a new book, and Mary did ~~start to write a new book~~, too.

Interim summary

- Identity for the purposes of ellipsis licensing is computed on structures that lack a verb.
- Type-shifting then occurs in each clause independently.
- Given the right contextual support, different verbs can be inferred.
- No additional assumptions are required beyond our standard theory of ellipsis licensing.

Roadmap

Background: Q-equivalence approaches

"Q-equivalence" is an alternative to focus-based approaches to sluicing.

The intuition: antecedents with expressions like indefinites and disjunctions implicitly raise questions as to which alternative holds.

(18) Sally called someone $\rightsquigarrow$ Who did Sally call?

Sluicing is possible when the sluice is equivalent to the question raised by the antecedent (Ginzburg and Sag 2000; AnderBois 2011; Barros 2014; Weir 2014; Kotek and Barros 2018).

Background: Q-equivalence approaches

Q: How do we determine precisely what question is raised?

▶ AnderBois 2011: the question raised by the antecedent is its Inquisitive-Semantic inquisitive denotation (called an *issue*)

▶ Algorithmic approaches: heuristically arrive at a Question under Discussion (QuD), in the sense of Roberts 1996/2012 (Büring 2003; Barros 2012, 2014).

(19)   **The algorithm in Barros 2014:**

    a. Replace the indefinite/disjunction with the corresponding *wh*-phrase.

    b. Front the *wh*-phrase.

    c. The result is the QuD raised by the antecedent.

We can use this QuD algorithm (19) to derive simple examples.

(20) **Simple sluicing with complement coercion:**
    a. Someone from the Bloomsbury group started a book, but I don't know *who*.
    b. <u>QuD</u>: *Who* from the Bloombury group started a book?
       $\left\{ \, x_{\text{Bloomsbury}} : x \text{ started a book} \, \right\}$

We can now apply type-shifting to retrieve an eventive interpretation.

Mismatched antecedents in Q-equivalence

Turning back to the more complex example (7b):

(7b) **Our sluice with mismatched antecedent:**
I know which avid reader started a new book, but not which author.

(21) **A family of questions QuD for (7b):**
$$\left\{ \begin{array}{l} \left\{ x_{\text{reader}} \mid x \text{ started } reading \text{ a new book} \right\}, \\ \left\{ x_{\text{author}} \mid x \text{ started } writing \text{ a book} \right\}, \\ \left\{ x_{\text{binder}} \mid x \text{ started } binding \text{ a book} \right\}, \ldots \end{array} \right\}$$

Here we need a more complex QuD structure to derive the right inferences — beyond what the literature currently provides.

Mismatched antecedents in Q-equivalence

Or an alternative:

(7b) **Our sluice with mismatched antecedent:**
I know which avid reader started a new book, but not which author.

(22) **A plain vanilla QuD for (7b):**
$$\left\{\; x : x \text{ started a new book} \;\right\}$$

We use a simple QuD and apply type-shifting late. This requires *two stages of pragmatic reasoning* within the theory:

- one in which QuDs are inferred for the purposes of ellipsis licensing,
- a second type-shifting for complement coercion takes place.

Mismatched antecedents in Q-equivalence

In Barros and Kotek 2019, we argue that QuDs for ellipsis licensing would have to be computed post-hoc, *after* a sluice is encountered.

If so, the timing question of when type-shifting can occur becomes even more delicate.

In addition, we still require the generalized account for VP ellipsis and *one*-pronominalization.

Conclusion

- A standard focus-based account can accommodate ellipsis with mismatched antecedents naturally, without requiring any additional assumptions.
- On the other hand, Q-equivalence accounts need to do extra non-trivial work.
- In particular, it becomes even more crucial to pinpoint the source of the QuD used to license ellipsis: how is it computed, and when?

Thank you! Questions?

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More examples

(23)   **Ellipsis with complement coercion:**

    a. I know which avid reader *started* a new book, but not which author.

    b. I know which author *started* a new book, but not which avid reader.

    c. I know which speed walker *tried* a new route, but not which cyclist.

    d. I know which composer *finished* a new symphony, but not which orchestra.

    e. I know which salesperson *preferred* the red convertible, but not which buyer.

Note: ellipsis is crucial for the mismatched interpretation.

(24) **Mismatched reading is impossible if the antecedent verb is made explicit:**

   a. *I know which avid reader started to read a new book, but not which author ~~started to write a new book~~.

   b. *Sally started to read a new book, and so did Mary ~~start to write a new book~~.

   c. *Sally started to read a new book and Mary started ~~to write~~ one ~~book~~, too.