

Coercing Propositional Anaphora

Itamar Kastner

Humboldt-Universität zu Berlin
<http://itamarkast.net>

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AG Polysemy and coercion of CEPs
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- 1 The meaning of a CEP is determined by material in its complement clause. (Popp and Stiebels; Bogal-Allbritten)
- 2 The meaning of a CEP varies with the category of its complement. (Rentzsch and Mitkovska; Schwabe)
- 3 Propositional anaphors require a fine-grained distinction between a proposition and its content. This distinction also has syntactic consequences. (Meijer)
- 4 A semantic classification of verbs won't necessarily predict syntactic or even semantic differences, but we can isolate some clustering factors. (Serdobolskaya; Wechsler)

Introduction

The meaning of a CEP varies across **complement category**.

Invariant

- (1) a. *John asked* [_{CP} *what time it is*]. **time(x)**
b. *John asked* [_{DP} *the time*]. **time(x)**

Varies a little

- (2) a. *John knows* [_{CP} *that it's late*]. **true/false**
b. *John knows* [_{XP} *how late it is*]. **amount**

Varies a lot

- (3) a. *I explained* [_{CP} *that I was late*]. **say x as explanation**
b. *I explained* [_{DP} *my lateness*]. **explain(x)**

Decades of discussion on C-Selection and S-Selection.

Introduction

We can **predict meaning differences** based on complement category.

Counterexample

(4) *John thought [_{DP} the story].

(5) Bill thought [_{DP} **the same thing** (that Mary did)].

Claims

- The polysemy of CEPs is conditioned by the **syntactic category** of their complement
 - CP (clausal) or DP (nominal).
 - Proposition or entity.
- The meaning of a CP complement is more predictable than that of a DP complement.
- CEPs that exceptionally coerce **anaphoric complements** lead us to rethink selection: entities (DPs) are special.

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Selection and polysemy

Predicates impose different selectional restrictions on their complements (Grimshaw 1979).

kick: only DP

(6) John **kicked** {✓ the ball / ✗ that the ball was nearby}.

seem: only CP

(7) It **seems** {✗ dog / ✓ that the dog is nearby}.

Know, understand: DP or CP

(8) a. I **know** {✓ the time / ✓ that it's late}.

b. I **understand** {✓ the question / ✓ that it's complicated}.

Selection and polysemy

In a small class of verbs, different meanings arise depending on whether the complement is a DP or a CP.

(Pietroski 2000; Halpert and Schueler 2013)

Explain

- (9) a. I **explained** [_{CP} that the Wall fell].
(so people are free to cross the city)
- b. ≠I **explained** [_{DP} the fall of the Wall].
(with a brief history lesson)

See Moltmann (2013:131) for a the philosopher's view of:

- (10) a. *John remembers* [_{CP} that Mary won].
- b. ≠*John remembers* [_{DP} the proposition that Mary won].

Selection and polysemy

Not just *explain* (Kastner 2015)

- (11) a. The guests **observed** [_{CP} that the owl was bored].
(they noted what they saw)
- b. The guests **observed** [_{CP} that it was getting late].
(they noted what they saw)
- c. ≠The owl **observed** [_{DP} the mouse] with interest.
(he watched it intently)
- d. ≠The guests **observed** [_{DP} kosher dietary laws].
(they obeyed restrictions)
- (12) a. Lestrade **guessed** [_{CP} that Moriarty is the killer].
(he hazarded a guess)
- b. ≠Lestrade **guessed** [_{DP} the killer].
(correctly guessed his identity)

Selection and polysemy

- (12) a. Lestrade guessed [_{CP} that Moriarty is the killer].
(he hazarded a guess)
- b. ≠Lestrade guessed [_{DP} the killer].
(correctly guessed his identity)
- (13) Many verbs are polysemous: (Marantz 1984; Kratzer 1996)
- a. **throw** the ball
- b. **throw** a party
- c. **throw** a boxing match
- d. ...

The isomorphic account

- **Different readings** for a DP complement and a CP complement.
- The CP complement is predictable, the DP complement is not.
- DP = entity, CP = proposition. cf. Moulton (2015); Elliott (To appear)

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Factivity

- Assume (something like) file cards for **discourse referents**.

(Heim 1983)

- Welcome consequence:
- Definite DPs are factive/presupposed, but CPs are not.

CP = proposition

CP complements **introduce a new topic** to the discourse.

(14) I explained [_{CP} that the minister resigned] but in fact he was fired.

DP = entity

Definite DP complements are **factive** (presupposed).

(15) #I explained [_{DP} the minister's resignation] but in fact he was fired.

The isomorphic account:

(Kastner 2015)

- The meaning of CP complements is an apposition.
- Unlike DP complements.

Makes sense if syntactic structure is interpreted by the semantics:

- Definite DPs are:
 - Presupposed.
 - Potentially polysemous.
- CPs are:
 - New discourse referents.
 - Predictable (appositive).

⇒ Category is the trigger of differences in meaning and factivity.

Crosslinguistic confirmation

- ASL (Kastner and Davidson 2013)
- Greek (Kastner 2015)
- Hebrew (Kastner 2015)
- Washo (Hanink and Bochnak 2016)
- Korean (Bogal-Allbritten and Moulton 2017)

C-Selection, S-Selection, neither or both?

- Grimshaw (1979): Both are necessary.
- Pesetsky (1992, 1993): Just S-Selection (+ L-Selection + Case).
- Rothstein (1992); Odijk (1997): Need both.
- Subsequent work assumes that both are needed (Adger and Quer 2001).

⇒ Probably still need both, but there is a lot of overlap.

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Propositional anaphora (Elliott 2016, To appear; Moltmann 2004, 2013)

(16) *John thought [_{DP} the story].

(17) Bill thought [_{DP} the same thing (that Mary did)].

Propositional anaphors:

- DPs containing an operator/quantifier.
- Interpretation depends on something else in the clause or discourse.

Propositional anaphora

Varieties of propositional anaphora

- (18) a. John noticed **everything** that Mary did.
b. John noticed **the same thing** that Mary did.
c. Scorpius noticed that Delphi was acting strangely and Albus noticed **it** *(too).
d. Scorpius thought that Delphi was acting strangely and Albus noticed **that** too.
e. I'm not sure **what** Albus noticed ___.

- All require an **antecedent**.

- (19) a. # John noticed everything.
b. # John noticed the same thing.
c. # John noticed it.

Propositional anaphora

Elliott (2016) shows that **propositional DPs are nominal**.

Propositional DPs are **complements of prepositions**

- (20) a. Jeff hopes for [_{DP} a new bicycle].
b. Jeff hopes for [_{DP} the same thing as Abed].
c. *Jeff hopes for [_{CP} that he'll get a new bicycle].

Propositional DPs can't be **impersonal passives**

- (21) a. *It is believed [_{DP} the rumor].
b. *It is believed [_{DP} the same thing as Abed].
c. It is believed [_{CP} that Jeff has a new bicycle].

The problem

For a handful of verbs, **ordinary DP complements are out** but propositional anaphora are fine.

- (22) a. John thought/?hoped {~~X~~ the story / ✓ everything that Mary did}.
- b. John thought/?hoped {~~X~~ the story / ✓ the same thing that Mary did}.
- c. Scorpius thought that Delphi was acting strangely and Albus thought/?hoped {~~X~~ the suspicion / ✓ it too}.
- d. Scorpius thought that Delphi was acting strangely and Albus thought/?hoped {~~X~~ the suspicion / ✓ that too}.
- **Think** and **?hope**.
 - **Conclude**, **imagine** and **claim** if we consider the different readings of DP complements and CP complements.

Coercing anaphora

CP complements are **appositions**, **DP** complements are **idiosyncratic**.

Interpretation

(Elliott 2016)

Propositional anaphors can be **CP-like**.

- (23) a. Jeremy explained something – namely, that Cameron resigned.
- b. What did Jeremy explain? That Cameron resigned.

They can also be **DP-like**.

- (24) a. Jeremy explained something – namely, the fact that Cameron resigned.
- b. What did Jeremy explain? The fact that Cameron resigned / Cameron's resignation.

The problem

For a handful of verbs, **ordinary DP complements are out** but propositional anaphora are fine.

- Not a **syntactic** ban on nominal complements.
- So what do we do?
- The **semantics** still requires an antecedent.
- Maybe any verb can take a DP as long as the semantics works out.

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Where we're at

Cases of propositional anaphora:

- The embedded clause is coerced into an entity – a DP.
- Its propositional content must be filled in by an immediately accessible proposition.
- For formalizations, see Moltmann (2004, 2013) or Elliott (2016).

The semantics for *something* makes reference to an additional element y , the other embedded proposition.

$$(25) \quad \llbracket \text{something} \rrbracket = \lambda Q \exists P. \forall x, y [(P(x) \wedge P(y)) \rightarrow \text{CONTENT}(x) = \text{CONTENT}(y)] \wedge Q(P) \quad (\text{Elliott 2016})$$

Proposal

Take these results at face value: assume that **any** verb is compatible with a DP complement as long as the semantics is satisfied.

(26) **C-Selection:**

Specify the syntactic category of possible arguments to a predicate, **above and beyond DPs**.

(27) **S-Selection:**

Specify the semantic role of possible argument to a predicate (**including entities** – these may change by predicate!).

For a root-based formalization, ask me about Irwin and Kastner (in prep).

Does this follow from anything?

- We know that (27) is right: the interpretation of an entity argument varies with the argument.
- But (26) is a stipulation made necessary by the data.

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Broader context

Selection, complementation and embedding:

- C-Selection and S-Selection are both necessary.
- C-Selection has a soft spot for DPs and always allows them, in principle.
- Any entity can be an argument in a Canonical Lexical Representation (Grimshaw 1982).
- S-Selection is too broad a term. What we need is detailed “encyclopedic” (Halle and Marantz 1993) listing of how a lexical root is polysemous with certain complements.

Consequences: Cognate objects

We expect to find additional environments where C-Selection and S-Selection differ.

The good news: Cognate objects

(Oltra Massuet 2011; Moltmann 2013)

Cognate object construction: semantically related arguments are possible, but no others.

- (28) a. John was smiling.
b. *John smiled [_{DP} a story].
c. John smiled [_{DP} a wide **smile**].
d. John smiled [_{DP} a wide **grin**].
- (29) a. John was thinking.
b. *John thought [_{DP} a story].
c. John thought [_{DP} the most original **thought** of his life].
d. ?John thought [_{DP} the most original **idea** of his life].

The good news: Cognate objects

(Oltra Massuet 2011; Moltmann 2013)

Cognate object construction: semantically related arguments are possible, but no others.

- (28)
- a. John was smiling.
 - b. *John smiled [_{DP} a story].
 - c. John smiled [_{DP} a wide smile].
 - d. John smiled [_{DP} a wide grin].

- **Unergative verbs** do not generally take internal arguments.
- But a restricted set of internal arguments is possible.
- Not a “cognate” restriction.
- Rather, a semantic one.
- The C-Selectional constraint is violable.

The bad news: **Raising** verbs

(30) This **seems** to be a problem.

(31) * [_{DP} This counterexample] clearly **seems**.

- S-Selection: No entities.
- C-Selection: No DPs?
- We end up stipulating the same information twice.
- Then again, that's the current analysis of raising verbs anyway.

Other verbs embed CPs but not propositional DPs:

advise, boast, brag, complain, pray, object, warn.

(Elliott 2016)

Conclusions

- 1 The polysemy allowed by CEPs depends on the syntactic category of the complement.
- 2 C-Selection and S-Selection are both necessary, but the theory allows for isomorphism.
- 3 Semantics interprets syntactic structure.
 - Interpretation based on syntactic category.
 - Factivity as a special case of presupposition.
- 4 Propositional anaphora allows to coerce an entity (DP) out of a proposition (CP).

Thank you!

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