

# Copy Raising, Perception Reports, and the Semantics of Raising and Control

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Ash Asudeh  
Carleton University

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University of Oslo

Joint work with Ida Toivonen

# Introduction

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- Copy raising, (1), has received far less attention in the literature than raising from an infinitival, (2):
  - (1) Mary seems like she cooks with garlic.
  - (2) Mary seems to cook with garlic.
- I will attempt to show that copy raising is actually a deeply interesting construction with consequences for:
  - The syntax and semantics of Germanic languages
  - Our understanding of the linguistic encoding of perception reports
  - Our understanding of the broader semantics of raising and control

# Outline

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- Copy raising in Germanic
  - Data from Dutch, English, German, Swedish
- Copy raising and perception
  - Focus on English and Swedish
  - A couple of revealing puzzles
- Formal analysis
  - A fine-grained semantics for raising and control

# Copy Raising in Germanic

Joint work with  
Ida Toivonen  
Marie-Elaine van Egmond  
Ilka Ludwig  
Anna Pucilowski

# Copy raising

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(1) Louise seems like she's had a rough day.

(2) The lawyer appeared as if she had won the case.

- The English copy raising (CR) verbs are *seem* and *appear*.
- The complement contains a finite verb.
- The complement is introduced by *like*, *as if*, *as though*.
- The complement contains a pronominal copy of the matrix subject (non-expletive copy-raising).

# Pronominal copy

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- (1) You seem like you're exhausted.
- (2) \* You seem like Mike's exhausted.



# Perceptual resemblance verbs

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- *look, sound, feel, smell, taste*
- (1) The cake looks/sounds/feels/smells/tastes like/as if/as though it was baked a long time ago.
  - (2) It looks/sounds/feels/smells/tastes like/as if/as though the cake was baked a long time ago.

# Perceptual resemblance verbs

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- PRVs are not copy raising verbs.
    - (1) It seems/looks like Jane is happy today.
    - (2) Jane seems like she's happy today.
    - (3) Jane looks like she's happy today.
    - (4) \* Jane seems like everything has gone wrong.
    - (5) Jane looks like everything has gone wrong.
  - *Seem* and *appear* require a pronominal copy.
  - *Look, sound, feel, taste, smell* do not require a pronominal copy.
- ➔ **PRVs are not CRVs, but they are clearly very similar.**

# Copy raising in Germanic: Questions

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- Do Germanic languages have CR?
  - We looked at Dutch, English, German and Swedish.
- Is there a difference between perceptual resemblance verbs and CR verbs?
- Is the copy pronoun necessarily a subject?
- Is there evidence for a strictly lexicalist analysis (à la Asudeh 2002, 2004, Asudeh & Toivonen 2007)?
  - CR is somehow a general capability of subject raising verbs

# Evidence

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- Grammars
  - CR receives no or very little mention in grammar books of the languages we have studied.
- Corpora
  - We have found attested CR examples for all four languages in both monitored corpora and unmonitored corpora (web).
  - ➔ Even though CR isn't discussed in grammar books, examples appear in corpora.
- Questionnaires
  - We conducted questionnaire studies for all four languages.

# Grammars

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- English: the grammar books we checked contained no CR examples (Huddleston & Pullum 2002; Biber et al. 1999; Quirk et al 1985)
- Dutch: the grammar books we checked contained no CR examples (Klooster 2001; Houët 1996)
- German: The grammar books we checked contained no CR examples (Helbig & Buscha 2001; Klossa 2001)
- Swedish: Teleman et al (1999) contains no discussion of CR, but it does contain the following example.

(1) Han {ser ut/verkar} som om han är lugnare nu.  
He looks/seems as if he is calmer now

# Corpora: English

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- (1) You didn't seem like you knew her when you saw her.  
(BNC)
- (2) Faith appears as if she is about to double-cross Luke and Skye.  
(Google: [www.soapcity.com](http://www.soapcity.com))

# Corpora: Dutch

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(1) Hij lijkt wel alsof hij de goedkope scheefheid toejuicht  
he seems just as if he the cheap crookedness applauds

‘He seems just like he’s applauding the cheap crookedness.’  
(Instituut voor Nederlandse Lexicologie corpus)

(2) De dialogen komen voor alsof ook zij door de  
the dialogues seem as if also they through the

computer zijn gemaakt.

computer be made

‘The dialogues seem like they were also made by the computer’  
(Google: kutsite.com)

# Corpora: German

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(1) Er kam sich plötzlich vor, als wenn er mit  
he appeared refl suddenly as if he with

Schiebern an einem Tisch säße.  
spivs at a table sat

‘He suddenly appeared to himself as if he was sitting at a table with spivs.’ (Das Digitale Wörterbuch der deutschen Sprache)

(2) Er scheint, als ob er schlief.  
he seems as if he sleeps

‘He seems like he’s asleep.  
(Google: [www.s-i-n.de](http://www.s-i-n.de))



# Corpora: Swedish

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(1) Han verkade som om han hade fått en stor  
he seemed as if he had received a large

vitaminspruta  
vitamin.injection

‘He seemed as if he had received a large vitamin injection.’ (PAROLE)

(2) Bilderna verkade som om dom köpts  
pictures.the seemed as if they were.bought

in från någon amerikansk tidning  
in from some American magazine

‘The pictures seemed as if they had been bought from some American magazine.’ (Google: [www.flashback.info](http://www.flashback.info))

# Questionnaires

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| Language | Number of speakers |
|----------|--------------------|
| English  | 127                |
| Dutch    | 91                 |
| German   | 65                 |
| Swedish  | 39                 |

# Questionnaires

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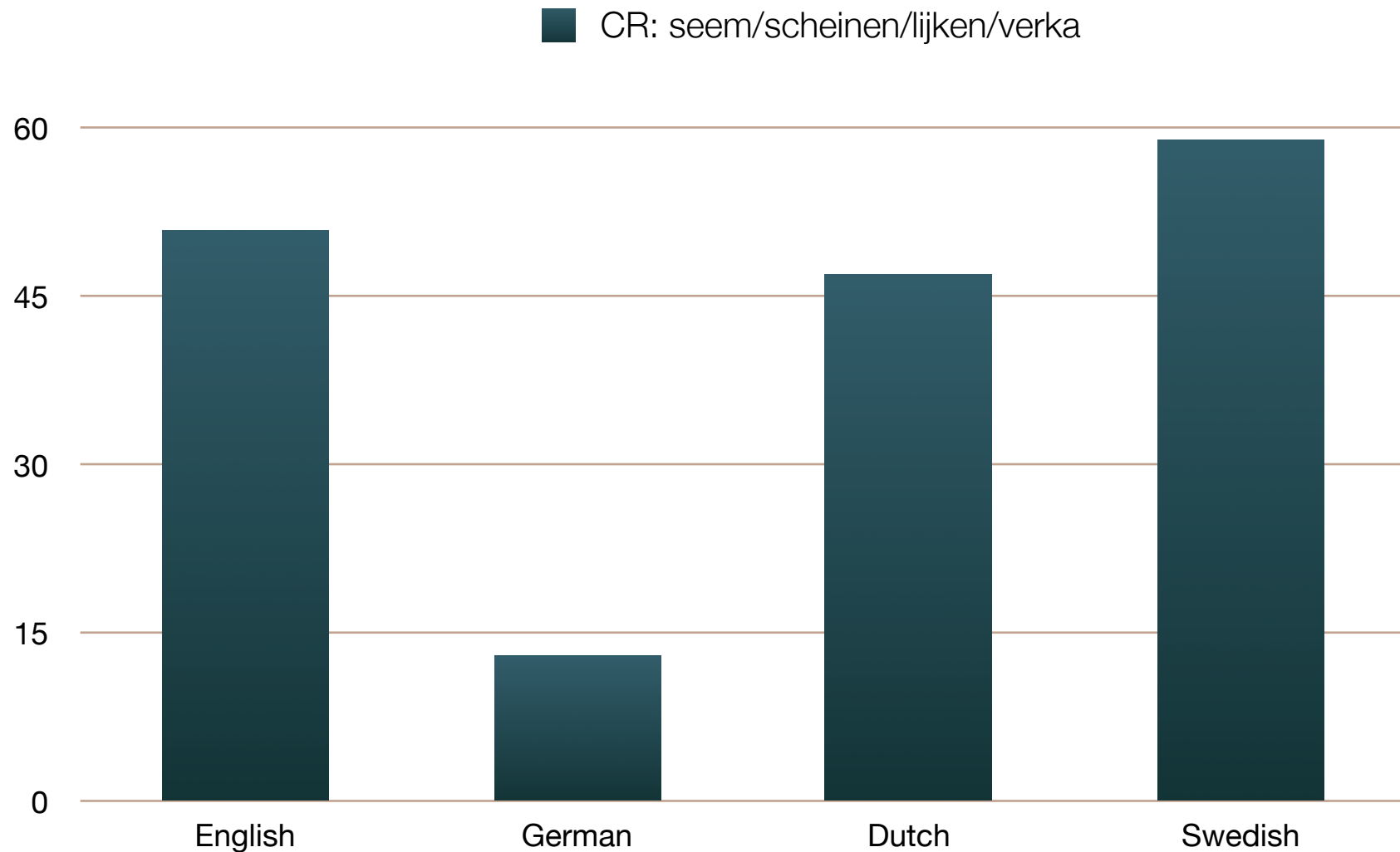
- Questionnaires contained a large number of fillers
- The participants were asked to judge each example as ‘good’, ‘bad’ or ‘don’t know’.
- Several different questionnaires were distributed for each language so the results here don’t necessarily represent the total number of participants.

# Results

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- The following slide shows the proportion of participants who accepted **at least two CR examples** and **rejected all *seem/appear* examples that didn't contain a copy pronoun**
  - (1) John seems like he's tired.
  - (2) \* John seems like Pete is tired.

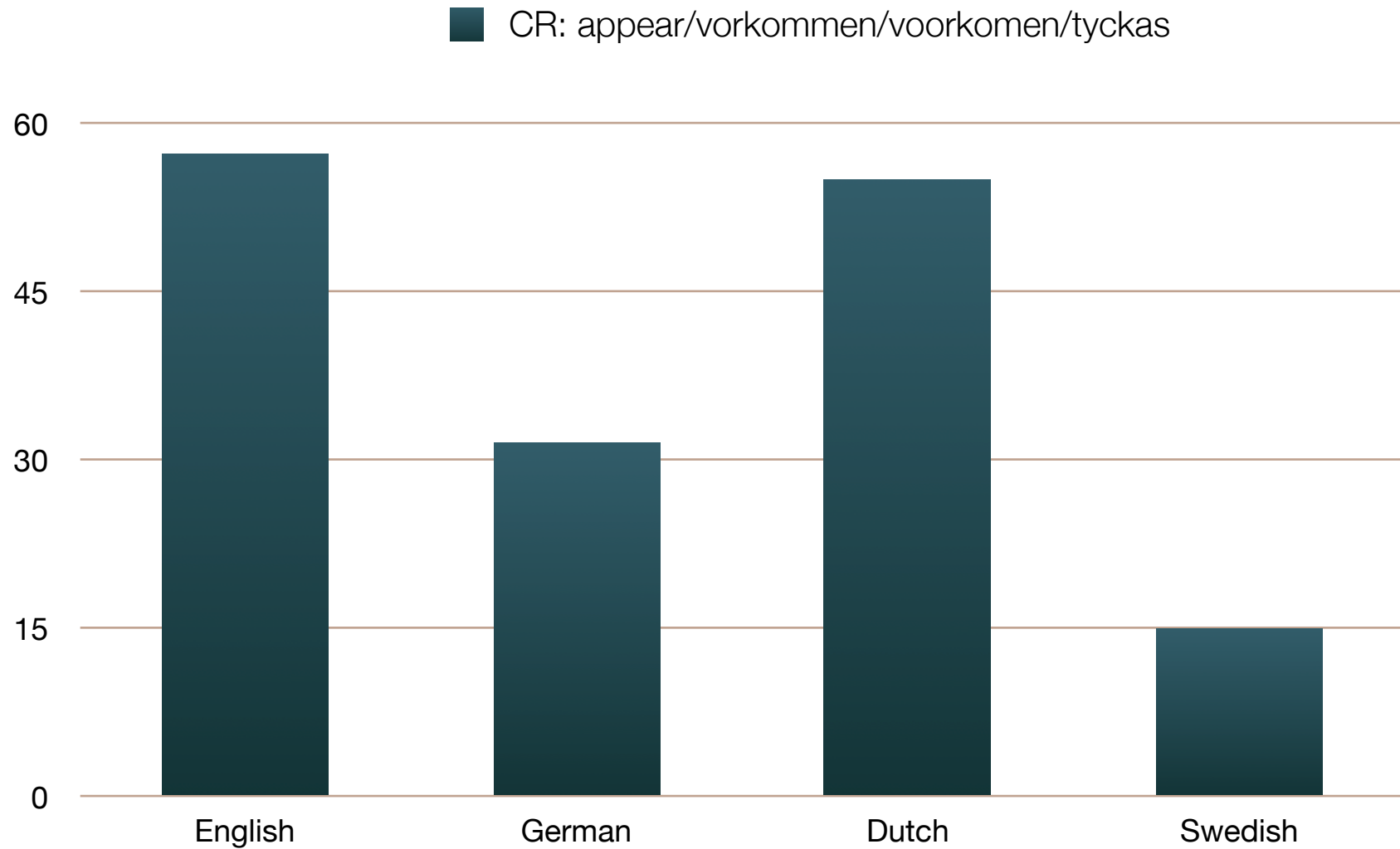
# Copy raising speakers



**Note:** More speakers than what's shown on the graph accept CR examples. However, if they also accept examples without pronouns, they are not counted as 'Copy raising speakers'.

# Copy raising speakers

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# Copy raising and acceptability

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- The low acceptability of copy raising is surprising.
- Copy raising examples occur quite frequently in corpora.
- Standard raising examples are not marked as unacceptable by our informants.
- At least when it comes to judging isolated examples, speakers prefer ‘John seems to be tired’ over ‘John seems like he is tired’.

# Low acceptance rate

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- Some dialects may not have copy raising.
- We have not controlled for age (or gender, social class, etc.): “change in progress”?
- Questionnaires were written: perhaps CR is informal?
  - But: speakers prefer *appear, voorkomen, voorkomen* over *seem, lijken, scheinen* CR even though the former verbs tend to be classified as more formal.
- In addition to these factors, we propose that copy raising is more restricted in use than regular raising. For example, CR demands that its subject is the source of perception (Asudeh & Toivonen 2006,2007).



# Pronominal copy

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- Different analyses of pronominal copy:
  - Pronounced trace (Ura 1998)
  - Base-generated A-chain (Potsdam & Runner 2001)
  - Remnant of long A-movement (Boeckx 2001, 2003, Fujii 2005)
- Asudeh (2002, 2004), Asudeh & Toivonen (2006,2007):
  - The pronominal copy is an ordinary, base-generated pronoun
  - Semantic composition: like a resumptive pronoun
- Copy doesn't have to be a subject
- Copy doesn't have to be in the immediate embedded clauses

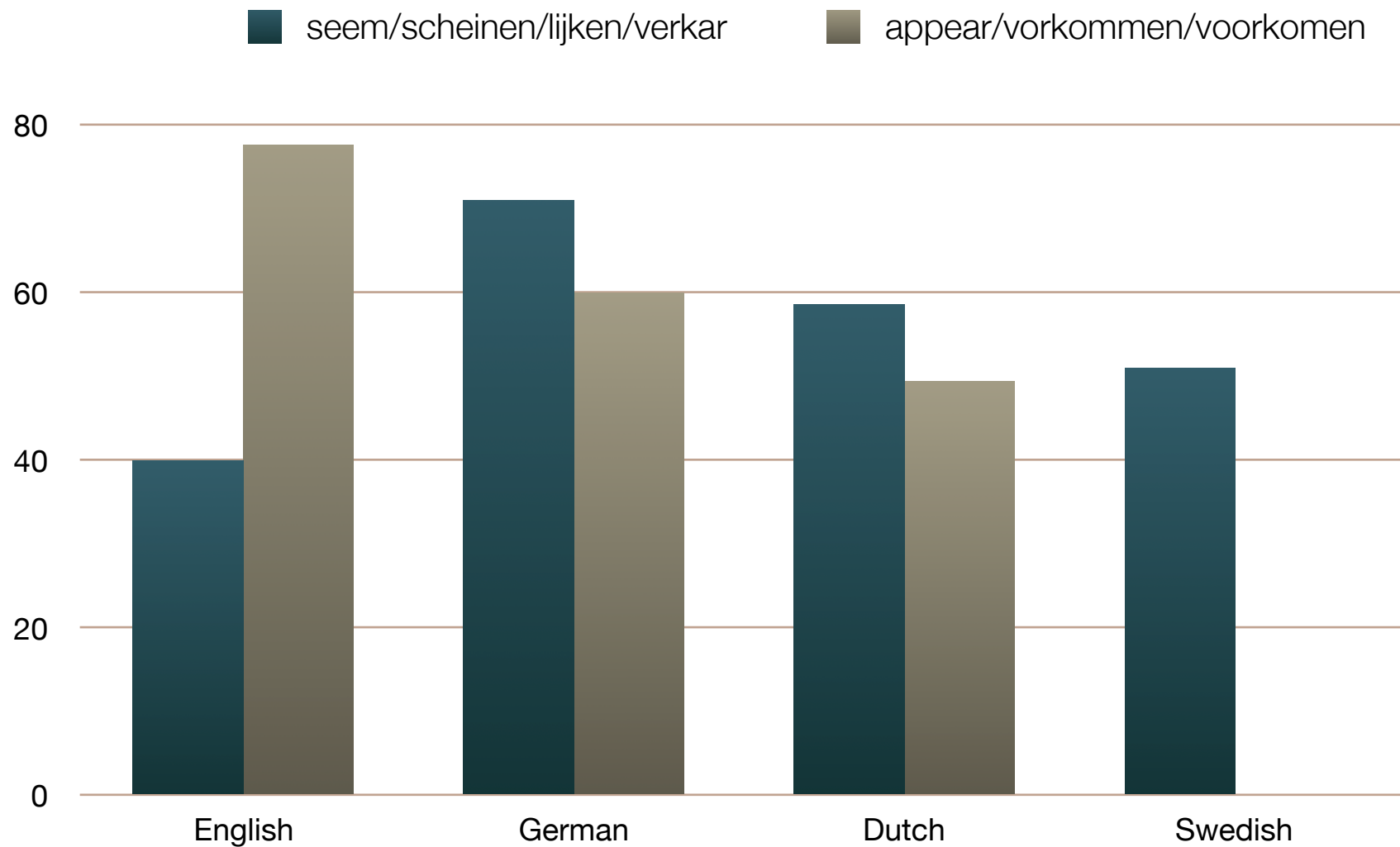
# Non-subject pronominal copies

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- The movement analyses and the base-generated A-chain analysis predict that the copy pronoun must be in the subject position of the immediately embedded clause
- Our resumption analysis makes no such prediction, although it also does not rule out the possibility of a further constraint restricting the pronoun to subject position.
- The next slide shows the proportion of CR speakers that accept non-subject pronominal copies.

# Non-subject pronominal copy

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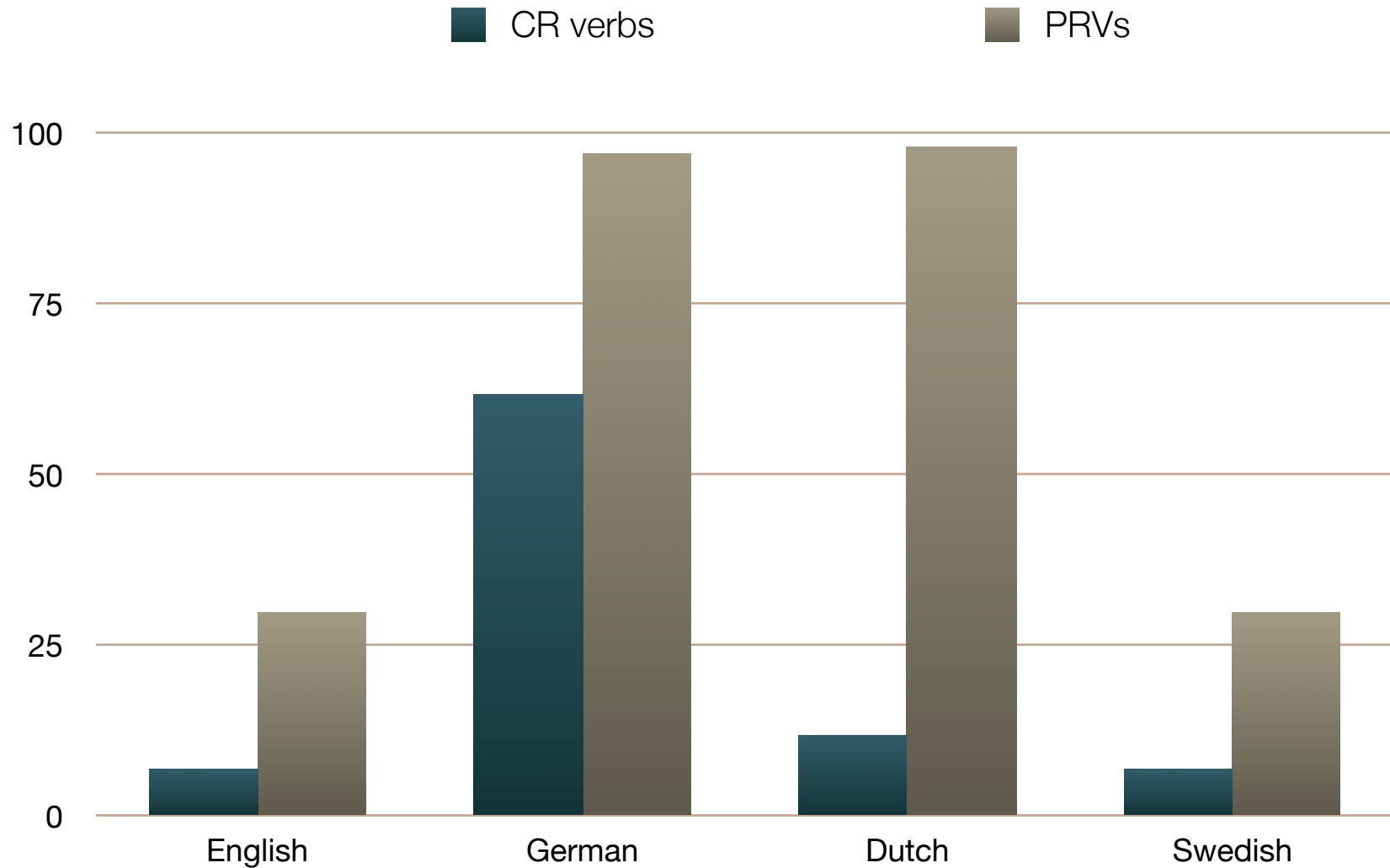
# Copy raising and perceptual resemblance

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- The following slide shows:
  - Participants who accept *seem/appear* without a pronominal copy ('Joan seems like all hell has broken loose')
  - Participants who accept *look/sound* without a pronominal copy ('Joan looks like all hell has broken loose')

# No pronominal copy: Copy raising vs. perceptual resemblance

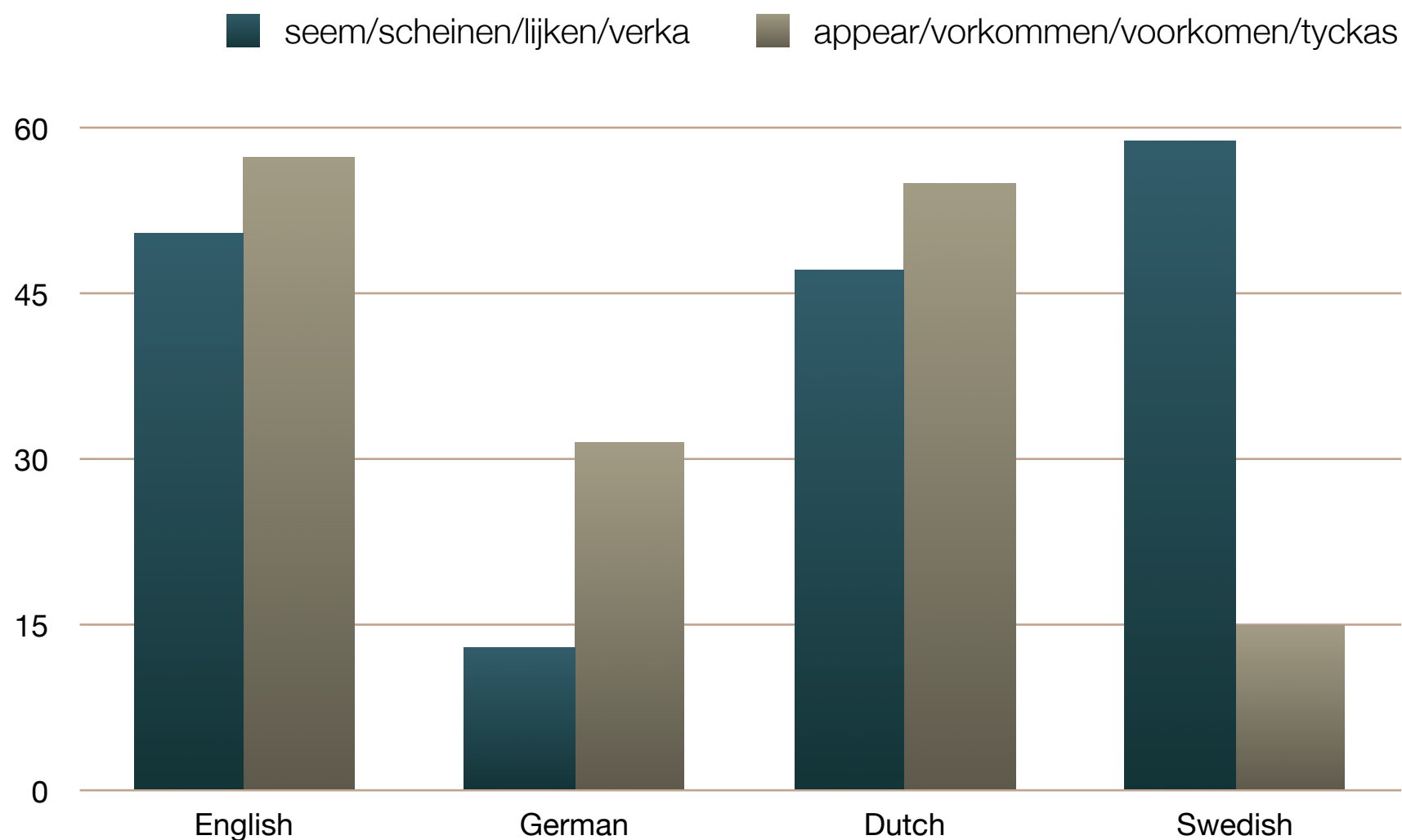
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# Lexical differences

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- CR speakers differ in which verb they accept as CR verb



# Lexical differences

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- One of the English questionnaires was filled out by 51 participants:
  - 26 allowed both *seem* and *appear* as CR verbs.
  - 5 allowed *seem* but not *appear* as a CR verb.
  - 24 allowed *appear* but not *seem* as a CR verb

# Lexical differences

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- German *vorkommen* is not used as a regular raising verb (according to some speakers, at least)

(1) ?? Peter kommt mir vor, seinen Hut verloren zu haben



# Conclusions

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- Copy raising seems to be a pan-Germanic construction. It exists in at least English, German, Dutch and Swedish.
- The pronominal copy is not restricted to subject position.
- Perceptual resemblance verbs are different from true CR verbs.
- Whether or not a particular verb is a CR verb seems to be lexically determined.
- ➔ Evidence for a lexicalist analysis in which the relation between CR subject and pronoun is based on anaphoric binding (Asudeh 2002,2004; Asudeh & Toivonen 2006,2007).

# Conclusions

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- CR examples aren't as readily accepted as standard raising examples.
- CR is more restricted than standard raising.
- What are the restrictions?
  - Asudeh & Toivonen (2006,2007): subject must be interpretable as a perceptual source (Swedish, English)
  - van Egmond (2004): animacy matters (Dutch)
- Perhaps there are other restrictions as well?

# Copy Raising and Perception: Evidence from English and Swedish

# Copy raising

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(1) Louise seems like she's had a rough day.

(2) The lawyer appeared as if she had won the case.

- The English copy raising (CR) verbs are *seem* and *appear*.
- The complement contains a finite verb.
- The complement is introduced by *like*, *as if*, *as though*.
- The complement contains a pronominal copy of the matrix subject (non-expletive copy-raising).

# Pronominal copy

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- (1) You seem like you're exhausted.
- (2) \* You seem like Mike's exhausted.

# Expletive subjects

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- CR verbs can occur with expletive subjects
  - (1) It seems like John is tired.
  - (2) It seems like there is a problem.
  - (3) It seems like it's impossible.
  - (4) There seems like there's a problem.
  - (5) \* There seems like John is tired.
  - (6) \* There seems like it's impossible.

# The data

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- Some native speakers don't feel comfortable with (some) copy raising examples.
  - The examples presented here as grammatical are structurally identical to examples that can readily be found in corpora and on the web.
- (1) Sometimes co-workers seem like they're just asking for rage.  
(Duluth News Tribune, August 14, 2007)
  - (2) He seemed like he didn't want to be there.  
([www.darrenbarefoot.com](http://www.darrenbarefoot.com))
  - (3) In this world of digital photography there seems like there is no room for film anymore.  
([www.flickr.com/photos/samtheman/page6](http://www.flickr.com/photos/samtheman/page6))

# The data

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- The grammaticality judgements indicated here conform with the majority view in the questionnaire study mentioned previously.
- The questionnaire study shows that there is dialectal variation.



# Infinitival raising and copy raising

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- (1) You seem like you are exhausted. (copy raising)
- (2) You seem to be exhausted. (infinitival raising)

# Infinitival raising and copy raising

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- Infinitival raising and copy raising are clearly related.
  - *seem, appear* are the only true copy raising verbs, and they are also members of the (much larger) class of infinitival raising verbs.
  - obligatory relationship between the matrix subject and the pronominal copy (CR)/infinitival subject (IR)

# Infinitival raising and copy raising

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- Infinitival raising verbs and CR verbs both have an *it*-expletive alternant:
  - (1) a. Jane seems to be tired.  
b. It seems that Jane is tired.
  - (2) a. Jane seems like she's tired.  
b. It seems like Jane is tired.

# Infinitival raising and copy raising

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- For both infinitival raising and copy raising, a *there*-expletive subject is licensed only if a *there*-expletive is licensed in the complement.
  - (1) a. It seems that there's a stranger in the garden.  
b. There seems to be a stranger in the garden.
  - (2) a. It seems like there's a stranger in the garden.  
b. There seems like there's a stranger in the garden.

# Perceptual resemblance verbs

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- *look, sound, feel, smell, taste*
- (1) The cake looks/sounds/feels/smells/tastes like/as if/as though it was baked a long time ago.
  - (2) It looks/sounds/feels/smells/tastes like/as if/as though the cake was baked a long time ago.

# Perceptual Resemblance Verbs

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- PRVs are not copy raising verbs.
    - (1) It seems/looks like Jane is happy today.
    - (2) Jane seems like she's happy today.
    - (3) Jane looks like she's happy today.
    - (4) \* Jane seems like everything has gone wrong.
    - (5) Jane looks like everything has gone wrong.
  - *Seem* and *appear* require a pronominal copy.
  - *Look, sound, feel, taste, smell* do not require a pronominal copy.
- ➔ **PRVs are not CRVs, but they are clearly very similar.**

# Absent cook, scenario 1

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- A and B walk into Tom's kitchen. Tom is at the stove noisily doing something, but exactly what is unclear.
  - (1) A: Tom seems to be cooking.
  - (2) A: It seems/looks/sounds like Tom is cooking.
  - (3) A: Tom seems/looks/sounds like he's cooking.

## Absent cook, scenario 2: A puzzle

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- A and B walk into Tom's kitchen. Ingredients and cooking implements abound, it smells like food, but Tom is not around.
  - (1) A: Tom seems to be cooking.
  - (2) A: It seems/looks/smells like Tom is cooking.
  - (3) A: \* Tom seems/looks/smells like he's cooking.
  - (4) A: \* Tom seems/looks/smells like he's been cooking.



# Perceptual sources

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- Based on the absent cook data, we propose that PRV and CRV subjects are *perceptual sources* - the source of information in some kind of perceptual report.
  - (1) Sara seems/looks/smells like she's been out drinking.
  - (2) Sara seems to have been out drinking.
- In (1), the evidence for the claim is some aspect of Sara.
- In (2), the evidence may come from some source other than Sara.

# Perceptual sources and non-synonymy of passives

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- (1) Bo seems to have been drenched by Tom.  $\equiv$   
Tom seems to have drenched Bo.
- (2) Bo seems/looks like she was drenched by Tom.  $\neq$   
Tom seems/looks like he drenched Bo.

# Swedish

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- The data presented so far are paralleled in Swedish.
- (1) Johan verkar ha ätit förgiftad mat.  
J. seems have eaten poisoned food.  
'Johan seems to have eaten poisoned food.'
  - (2) Johan verkar som om han har ätit förgiftad mat.  
J. seems as if he has eaten poisoned food.  
'Johan seems as if he has eaten poisoned food.'
  - (3) \* Johan verkar som om Katja har ätit förgiftad mat.  
J. seems as if K. has eaten poisoned food

# Swedish

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- Swedish *verka* behaves like English *seem, appear* with respect to the absent cook phenomenon
- PRVs and CRVS display the same similarities and differences in Swedish as in English.
- Like in English, there is dialectal variation.

# Swedish *på*

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- Swedish provides an extra piece of evidence for the claim that CRV (and PRV) subjects are perceptual sources.
- In expletive *verka* clauses, the perceptual source is optionally given as a *på*-PP adjunct.

(1) Det verkar som om Pelle tänker sluta.

it seems as if P intends quit

‘It seems like Pelle is going to quit.’

(2) Det verkar på Pelle som om han/Sara tänker sluta.

it seems on P. as if he/Sara intends quit

~‘Pelle gives the impression that it seems like he’s/Sara’s going to quit.’

## Swedish *på*: A second puzzle

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- The *på*-PP cannot appear in CR examples (*verka som*) with a non-expletive subject.
  - (1) Pelle verkar som om han tänker sluta.  
P.       seems as if he intends quit.  
'Pelle seems like he's going to quit.'
  - (2) \* Pelle verkar på Sara som om han tänker sluta.  
P.       seems on S.    as if he intends quit  
(intended: 'Sara gives the impression that Pelle seems like he's going to quit.')
- (2) is ungrammatical because the perceptual source must be uniquely expressed.

# Thematic role?

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- Is the perceptual source a thematic role?
- If so, the Swedish *på*-data can be explained by the Theta Criterion (or Full Interpretation, Coherence, ...)

# Thematic role?

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- In many theories, only arguments are assumed to carry thematic roles.
- The Swedish *på*-PP is an adjunct.
- The CR subject is a syntactic argument, but it crucially does not bear a thematic role.
- The CR subject is not a thematic argument, according to various standard tests (Potsdam and Runner 2001, Asudeh and Toivonen 2007, and others).



# The *på*-PP adjunct

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- The *på*-PP is optional.

(1) Det verkar (på Jonatan) som om det regnar ute.  
it seems on J. as if it rains outside  
'(Jonatan gives the impression that) it seems to be raining outside.'

- It's hard to extract out of the PP.

(2) Det verkar på Sixten som om han är lite tokig.  
it seems on S as if he is a.bit crazy  
'(Sixten gives the impression that) he seems to be crazy.'

(3) \* Vem verkar det på som om han är lite tokig?  
who seems it on as if he is a.bit crazy

# The CR subject

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- The CR subject is athematic — like infinitival raising subjects.
  - (1) Linda seems to be angry.
  - (2) Linda seems like she's angry.
- The athematic status of the CR subject has been argued for carefully by Potsdam and Runner (2001), Asudeh (2002, 2004), Asudeh and Toivonen (2007) and others.

# The CR subject is not thematic

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- The CR subject alternates with an expletive:
  - (1) It seems like John has lost his marbles.
  - (2) John seems like he's lost his marbles.
- Expletives and idiom chunks can be CR subjects:
  - (3) There seems like there's a lot of garbage in the river.
  - (4) The cat seems like it's out of the bag.

# The CR subject is not thematic

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- If the CR subject receives its own thematic role, it's difficult to explain why a copy pronoun is necessary.
  - (1) Sara seems like she's not sleeping much.
  - (2) \* Sara seems like the baby is not sleeping much.

# Perceptual source

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- If the perceptual source is not a thematic role, then what is it?
- We propose that it is a more general type of semantic role, similar to Parsons's thematic relations.
- Cf. instruments (1), *with*-themes (2), maybe the passive *by*-phrase (3).

(1) Jane cut the bread with a knife.

(2) They loaded the trailer with onions.

(3) That house was painted by the other guys.

- Slightly different from general time, place, manner adjuncts in being lexically governed/limited to a subset of predicates

# Conclusions

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- Copy raising and perceptual resemblance are related phenomena, but they should not be conflated.
  - ➔ Require a theory that can capture the similarities and differences
- A non-expletive copy raising subject is not a thematic subject.
  - ➔ Motivates a notion like perceptual source (Psource)
  - ➔ Motivates a more general notion of semantic role
- Perceptual sources solve the two puzzles:
  - ➔ Perceptual sources must be perceptually available (absent cook puzzle)
  - ➔ Perceptual sources are unique (på-PP puzzle)

Formal Analysis:  
Consequences for the  
Semantics of Raising and Control

# Formal analysis

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- Asudeh and Toivonen (2007):
  - Glue Semantics (Dalrymple 1999, 2001, Asudeh 2004, Lev 2007, Kokkonidis in press)
  - Glue *meaning constructor* :=  
Meaning language term : Composition language term
    - Meaning language := some lambda calculus
      - Asudeh and Toivonen (2007): event semantics
      - Model-theoretic
    - Composition language := linear logic
      - Proof-theoretic
    - Curry Howard Isomorphism between formulas (meanings) and types (proof terms)



# Formal analysis of standard raising

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1. Kim seems/appears to have won.
2. It seems/appears to have rained.
3. There seems/appears to be a problem.
4. The cat seems/appears to be out of the bag.
5. Kim seems/appears upset.
6. Kim seems/appears under the weather.
7. It seems rainy.
8. It seems/appears (that) Kim has won.
9. It seems/appears (that) Kim is upset.
10. It seems/appears (that) it rained.
11. It seems/appears (that) the cat is out of the bag.

- Core semantics (event semantics):

$$\lambda p \lambda s . seem(s, p)$$

Proposition,  $t$

State,  $s$

# Formal analysis of copy raising: Expletive subject

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1. It seem/appears like/as if/as though Kim has won.
2. It seems/appears like/as if/as though there is a problem.
3. There seems/appears like/as if/as though there is a problem.
4. The cat seems/appears like/as if/as though it is out of the bag.

- Core semantics (event semantics):

$$\lambda p \lambda s . \textit{seem}(s, p)$$

Proposition,  $t$

State,  $s$

- With Psource:

$$\lambda p \lambda s . \exists v_{\epsilon} [\textit{seem}(s, p) \wedge \text{PSOURCE}(s) = v_{\epsilon}]$$

Eventuality variable,  $\epsilon$

Existential closure of Psource

An eventuality is an event (type  $\epsilon$ ) or state (type  $s$ ) (Bach 1981).

# Formal analysis of copy raising: Non-expletive subject

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1. Fido seems/appears like/as if/as though he has been pricked by that porcupine again.
2. Fido seems/appears like/as if/as though that porcupine's pricked him again.

- Core semantics (event semantics):

$$\lambda x \lambda P \lambda s . seem(s, P(x))$$

Individual,  $e$   
Property,  $\langle e, t \rangle$

Note that  $Type(P(x)) = Apply(\langle e, t \rangle, e) = t$  (proposition type)

State,  $s$

- With Psource:

$$\lambda x \lambda P \lambda s . seem(s, P(x)) \wedge \mathbf{PSOURCE}(s) = x$$

Function from eventualities to  
eventualities or individuals

# Formal analysis of control

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- Based on Asudeh (2005), adapted to event semantics:

$$\lambda x \lambda P \lambda e. \text{try}(e, x, P(x))$$

Individual,  $e$

Property,  $\langle e, t \rangle$

Event,  $\epsilon$

- The subject of the control verb is an argument of the verb.
- The control verb applies the property corresponding to its complement to its subject.
  - The control verb composes with a property (Chierchia 1984).
  - The clausal complement of the control verb denotes a proposition (Higginbotham 1989, 1992).

# Formal analysis of perceptual resemblance verbs: Non-expletive subject

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1. Tina sounds/smells/looks/feels/tastes like/as if/as though Chris has baked sticky buns.

- Core semantics (event semantics):

$$\lambda x \lambda p \lambda s . sound(s, aural(x), p)$$

Individual,  $e$

Proposition,  $t$

State,  $s$

- *aural* is a partial function on eventualities or individuals that returns the aural aspect of its argument (i.e., the argument's sound), an individual.
- It is contributed as part of the PRV *sound*'s lexical meaning.
- Related functions are *visual* (*look*), *olfactory* (*smell*), *tactile* (*feel*), and *gustatory* (*taste*).

# Formal analysis of perceptual resemblance verbs: Non-expletive subject

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- Core semantics (event semantics):

$$\lambda x \lambda p \lambda s . sound(s, aural(x), p)$$

Individual,  $e$

Proposition,  $t$

State,  $s$

- With Psource:

$$\lambda x \lambda p \lambda s . sound(s, aural(x), p) \wedge \mathbf{PSOURCE}(s) = x$$

# Formal analysis of perceptual resemblance verbs: Expletive subject

---

1. It sounds/smells/looks/feels/tastes like Chris has been baking sticky buns.

- Core semantics (event semantics):

$$\lambda p \lambda s. sound(s, aural(\mathbf{PSOURCE}(s)), p)$$

Individual,  $e$

Proposition,  $t$

State,  $s$

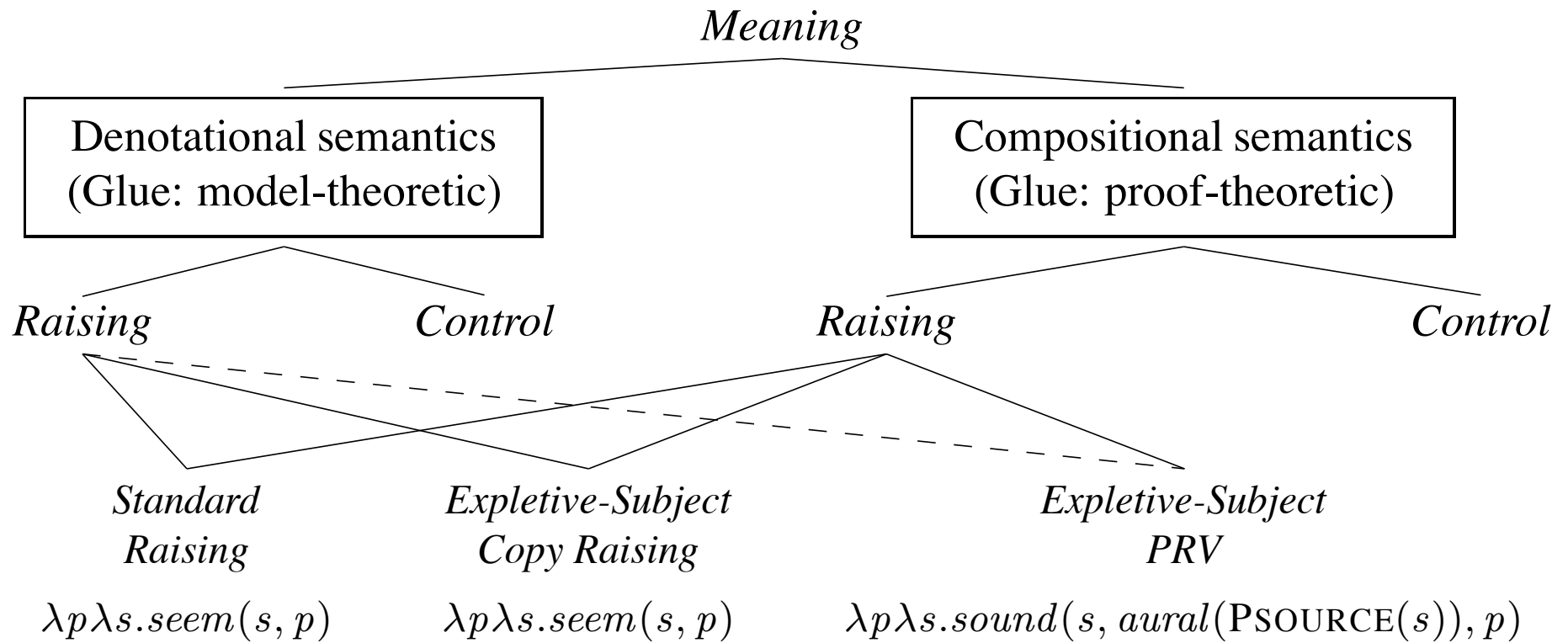
- With Psource:

$$\lambda p \lambda s. \exists v_{\varepsilon} [sound(s, aural(\mathbf{PSOURCE}(s)), p) \wedge \mathbf{PSOURCE}(s) = v_{\varepsilon}]$$

Eventuality variable,  $\varepsilon$

Existential closure of Psource

# Raising Semantics

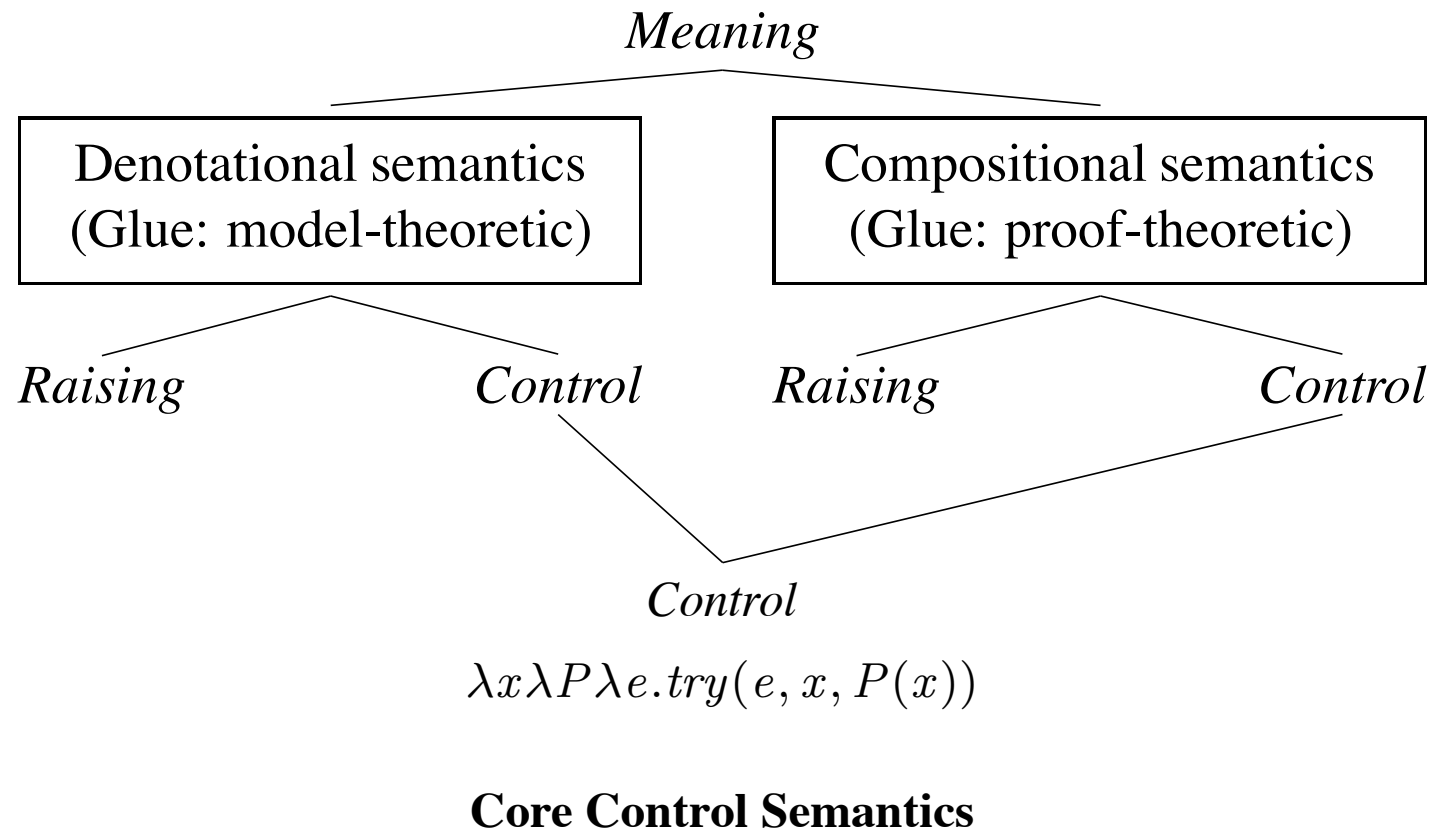


## Core Raising Semantics

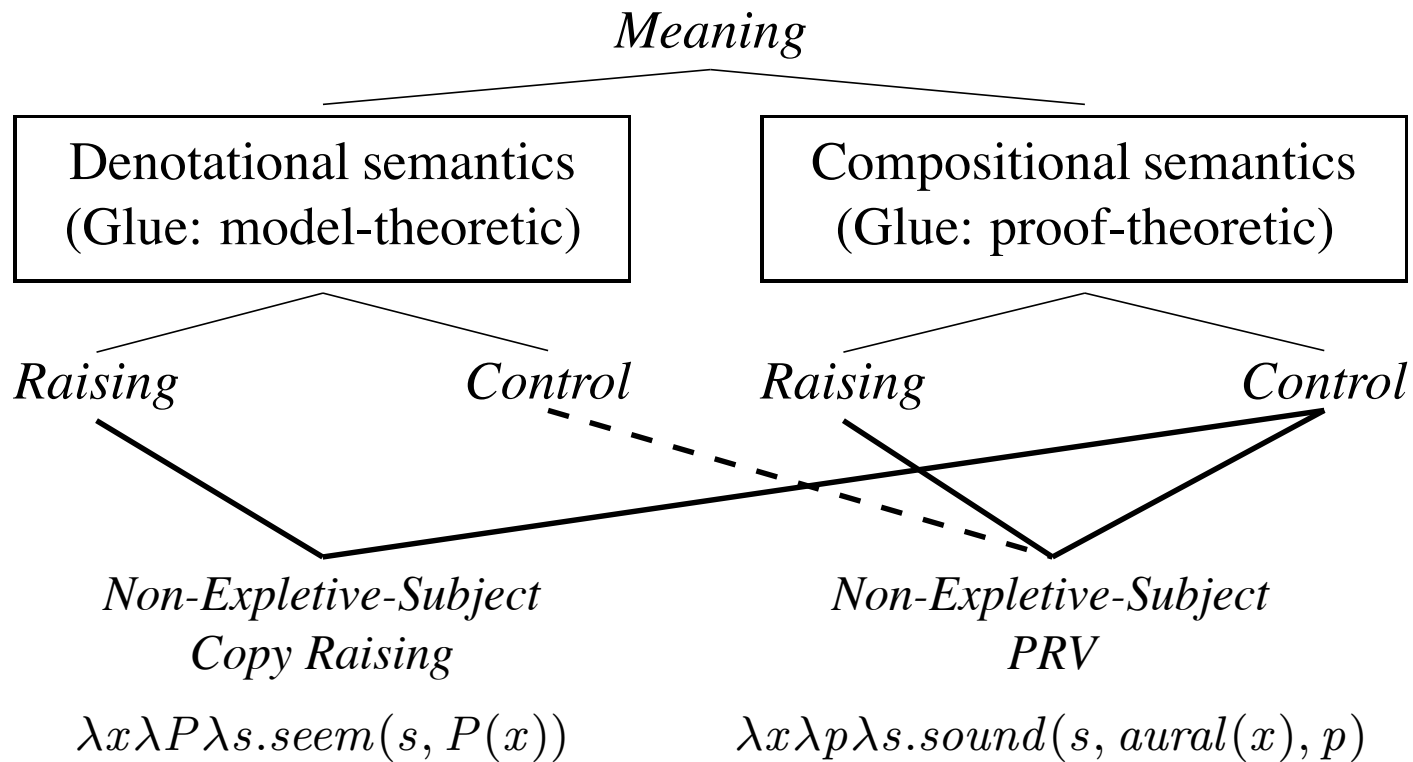


# Control Semantics

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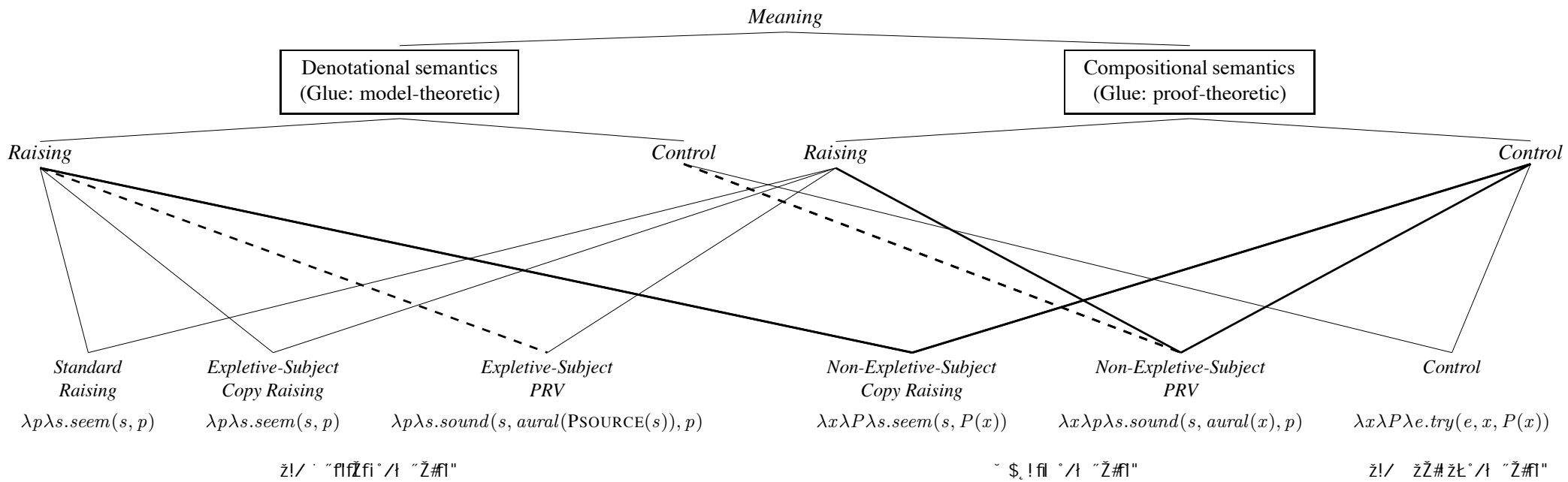


# Hybrid Semantics



## Hybrid Semantics

# A fine-grained semantics for raising and control



# Conclusions

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- Copy raising can be analyzed using a hybrid semantic term that is compositionally like (subject) control and denotationally like raising.
  - Finer-grained understanding of the semantics of raising and control
  - Perceptual resemblance verbs are another aspect of the picture, but one whose fit is somewhat less certain (more research required).
- Demonstrates need for a lexicalist analysis with careful investigation of the items involved:
  - Distinctions between copy raising and standard raising
  - Distinctions between copy raising and perceptual resemblance
  - Distinctions and similarities between both and control
- Can account for variation in judgements within resulting space

# General Conclusions

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- ➔ Copy raising provides evidence for lexicalist approaches to grammar:
  - Cross-linguistic data from Germanic
  - Subtle differences between copy raising and perceptual resemblance verbs
  - Formal analysis of the semantics of control and raising
- ➔ Supports a theory of the syntax–semantics interface in which there can be mismatches (e.g., LFG, Glue Semantics)
- ➔ Supports a theory of semantic composition that yields separate but related perspectives on denotation and composition

# Directions for future work

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- Copy raising in other Germanic languages? Norwegian?
  - Historical/typological perspective?
- Predicative complements?
- Connection to evidentials?
- Semantics of *like* and connection to semantics of comparatives?

# Thank you

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## References

- Asudeh, Ash. 2002. Richard III. In Mary Andronis, Erin Debenport, Anne Pycha, and Keiko Yoshimura, eds., *CLS 38: The Main Session*, vol. 1, 31–46. Chicago, IL: Chicago Linguistic Society.
- . 2004. Resumption as Resource Management. Ph.D. thesis, Stanford University.
- Asudeh, Ash, and Ida Toivonen. 2006. Copy Raising and Its Consequences for Perception Reports. In Jane Grimshaw, Joan Maling, Christopher Manning, Jane Simpson, and Annie Zaenen, eds., *Architectures, rules, and preferences: A festschrift for Joan Bresnan*. Stanford, CA: CSLI Publications.
- . 2007. Copy Raising and Perception. Ms., Carleton University, Ottawa, Canada.
- Boeckx, Cedric. 2003. *Islands and Chains: Resumption as Derivational Residue*. Amsterdam: John Benjamins.
- Boeckx, Cedric A. 2001. Mechanisms of Chain Formation. Ph.D. thesis, University of Connecticut, Storrs, CT.
- Chierchia, Gennaro. 1984. Topics in the Syntax and Semantics of Infinitives and Gerunds. Ph.D. thesis.
- Dalrymple, Mary, ed. 1999. *Semantics and Syntax in Lexical Functional Grammar: The Resource Logic Approach*. Cambridge, MA: MIT Press.
- Dalrymple, Mary. 2001. *Lexical Functional Grammar*. San Diego, CA: Academic Press.
- Fujii, Tomohiro. 2005. Cycle, Linearization of Chains, and Multiple Case Checking. In Sylvia Blaho, Luis Vicente, and Erik Schoorlemmer, eds., *Proceedings of Console XIII*, 39–65. Student Organization of Linguistics in Europe, University of Leiden.
- Helbig, Gerhard, and Joachim Buscha. 2001. *Deutsche Grammatik*. Munich: Langenscheidt Verlag.
- Higginbotham, James. 1989. Elucidations of Meaning 12(3): 465–517.
- . 1992. Reference and Control. In Richard K. Larson, Sabine Iatridou, Utpal Lahiri, and James Higginbotham, eds., *Control and Grammar*, 79–108. Dordrecht: Kluwer.
- Houët, Henriëtte. 1996. *Prisma Grammatica Nederlands*. Utrecht: Het Spectrum B.V.
- Huddleston, Rodney, and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Klooster, Wim. 2001. *Grammatica van het hedendaags Nederlands — een volledig overzicht*. The Hague: Sdu Uitgevers.
- Klosa, Annette. 2001. *Richtiges und gutes Deutsch*, vol. 9 of *Der Duden*. Mannheim: Bibliographisches Institut.
- Lev, Iddo. 2007. Packed Computation of Exact Meaning Representations. Ph.D. thesis, Stanford University.
- Potsdam, Eric, and Jeffrey T. Runner. 2001. Richard Returns: Copy Raising and its Implications. In Mary Andronis, Chris Ball, Heidi Elston, and Sylvain Neuvel, eds., *CLS 37: The main session*, vol. 1, 453–468. Chicago, IL: Chicago Linguistic Society.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A comprehensive grammar of the English language*. London: Longman.
- Teleman, Ulf, Staffan Hellberg, and Erik Andersson. 1999. *Svenska Akademiens grammatik*. Stockholm: Norstedts.
- Ura, Hiroyuki. 1998. Checking, Economy, and Copy-Raising in Igbo. *Linguistic Analysis* 28: 67–88.
- van Egmond, Marie-Elaine. 2004. Copy Raising in Dutch. Ms., University of Canterbury.