Resumption as Resource Management

Ash Asudeh
University of Canterbury / Carleton University
Thank You

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- Thesis committee members:
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Hypothesis (Resource Sensitivity):
Natural language is universally resource-sensitive.
Resource Sensitivity

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- Phonology, Syntax
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Phonology, Syntax

Semantic composition

(1) This innocent man is allegedly guilty.
≡ This allegedly innocent man is allegedly guilty.
Hypothesis (*Resource Sensitivity*): Natural language is universally resource-sensitive.

- Phonology, Syntax
- Semantic composition
  1. This innocent man is allegedly guilty.
  2. This allegedly innocent man is allegedly guilty.

Resource logic for semantic composition: **linear logic**

- Substructural perspective:
  - contraction ✗, weakening ✗, commutativity ✓
Logical v. Linguistic Resource Sensitivity

- Logic of linear implication (\(\rightarrow\)):
  - logical resource sensitivity
- Add conjunction (\(\otimes\)):
  - logical RS no longer sufficient
- Why add conjunction?
  - Pronouns: \(\lambda z. z \times z : A \rightarrow (A \otimes P)\)
Logical v. Linguistic Resource Sensitivity

- Logic of linear implication (\(\rightarrow\)):
  - logical resource sensitivity

- Add conjunction (\(\otimes\)):
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- Why add conjunction?
  - Pronouns: \(\lambda z. z \times z : A \rightarrow (A \otimes P)\)

- Linguistic resource sensitivity
  - Add linguistically motivated goal condition:
    \[\Gamma \vdash \phi : s_t\]
Resumption

- Grammaticized resumptive pronouns

(2) an ghirseach ar ghood na síogaí í
the girl C.PAST stole the fairies her
the girl that the fairies stole away (McCloskey 2002)

- Copy raising

(3) Every baby seemed like she’d eaten most of the crackers.

(4) *Every baby seemed like I’d eaten most of the crackers.
Resource Management

\[
\begin{align*}
A & \rightarrow (A \otimes P) \\
A & \rightarrow (A \otimes P) \\
A & \rightarrow A \\
A & \rightarrow A \\
\end{align*}
\]
Resource Management

Lexical contributions

Antecedent

Pronoun

Manager resource

\[
\begin{align*}
A &\rightarrow (A \otimes P) \\
A &\rightarrow (A \otimes P) \\
A &\rightarrow A \\
A &\rightarrow \epsilon
\end{align*}
\]
Step 1  Manager resource removes pronoun

Resource Management

Lexical contributions

Antecedent

Pronoun

Manager resource

\[ A \rightarrow (A \otimes P) \]

\[ [A \rightarrow (A \otimes P)] \rightarrow (A \rightarrow A) \rightarrow \varepsilon \]

\[ \rightarrow \varepsilon \]

Step 1
Resource Management

Lexical contributions

Antecedent

Pronoun

Manager resource

Step 1

Manager resource removes pronoun

Step 2

Result of removal combines with antecedent

Final result: antecedent ✔, pronoun ✗
Theoretical Implications

1. Logical understanding of linguistic principles
2. Lexicon = locus of resumptive-licensing
3. Unification of resumption environments
Empirical Predictions

1. Resumptives have the form of ordinary pronouns
2. Resumptives have the interpretation of ordinary pronouns
3. Resumptive unbounded dependencies are not island-sensitive
4. Resumptive licensors may be distinguished by morphology or lexical class
5. Formal explanation of why anaphoric elements are used resumptively
Processing

- Intrusive Pronouns

(5) I met a / the linguist that Kate forgot if Thora had seen him before.

(6) *I met every linguist that Kate forgot if Thora had seen him before.
Intrusive Pronouns

(5) I met a / the linguist that Kate forgot if Thora had seen him before.

(6) *I met every linguist that Kate forgot if Thora had seen him before.

Processing model:
- Production
  - Incremental wellformedness: local > global
- Parsing
  - Partial interpretation: informative v. uninformative
Contact

asudeh@csli.stanford.edu

www.ling.canterbury.ac.nz/personal/asudeh/