

# Questions in Language and Linguistics

Ash Asudeh

Jesus College

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# Introduction



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2. What is the importance of questions and related phenomena in language to linguistic theory?
3. What is the phenomenon of **resumption**, what challenges does it pose, and what kind of theory might meet these challenges?





# The Nature of Linguistics



# What is linguistics?



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- ✦ Linguistics is the study of language



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  - ✦ Processing
  - ✦ Structure



# What is linguistics?



# What is linguistics?

- ✦ **Structure: theoretical linguistics**

- ✦ Phonetics
- ✦ Phonology
- ✦ Morphology
- ✦ Syntax
- ✦ Semantics
- ✦ Pragmatics



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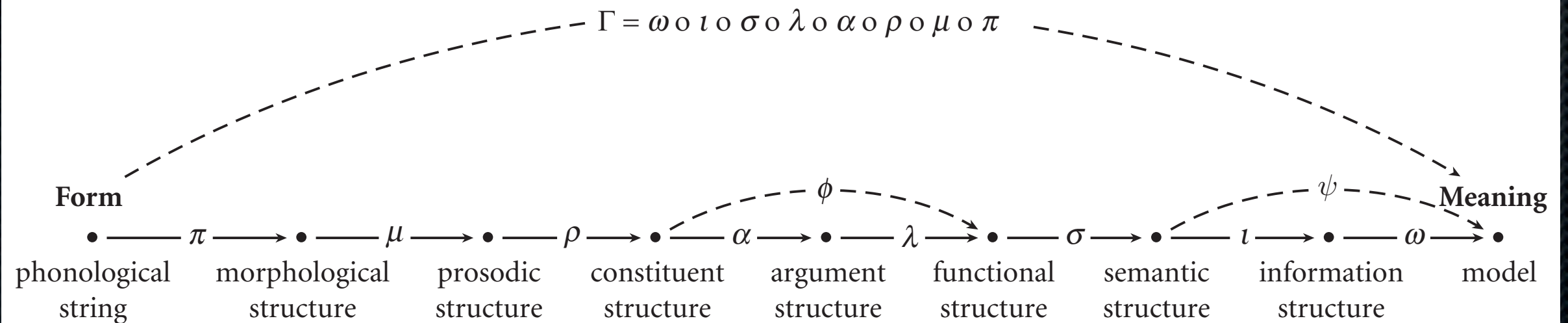
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- ✦ Pragmatics

Knowledge of Language:  
Its Nature, Origin, and Use



# Grammatical architecture





# What linguistics is not

- ✦ “Don’t end sentences with prepositions.”
- ✦ “German is a logical language.”
- ✦ “Eskimo has 50/100/200/... words for snow.”
- ✦ “Kids these days don’t speak or write properly.”
- ✦ “The media/technology is ruining the English language.”



What linguistics is not



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Language Myths

[languagelog.org](http://languagelog.org)



# What linguists are not

- ✦ Linguists are not necessarily polyglots.
- ✦ Speaking more than one language is one way in which people may initially become interested in linguistics, but other common entry points are literature, mathematics, logic, psychology, philosophy, neuroscience, and computer science.



What linguists are not



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    - (3) This is the rat that ate the malt that lay in the house that Jack built.



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    - (1) Articulate badgers belligerently alleged that culling is a violation of their animal rights.



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- Semantics must **compositionally** provide **corresponding** interpretations.

- Given  interpret  $\alpha$  as the interpretation of  $\beta$  applied to the interpretation of  $\gamma$  or vice versa, as appropriate.



# Questions and Related Phenomena



# The importance of questions



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- ✦ Hypotheses are **empirical questions**, and generative linguistics typically views itself as an empirical science.



# Data and how we get it

- ✦ Native speaker intuitions
- ✦ Dictionaries and descriptive grammars
- ✦ Corpora
- ✦ Experiments



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(3) \* Was the badger that Mary interviewing was culled?



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  - (1) Which book did Robin say that ... Sandy said that Hilary wrote?
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- Questions are also part of the demonstration of the computational complexity of human language — particularly, the minimal computational device that is sufficient to characterise natural language structure.
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  - (2) the book which Robin said that ... Sandy said that Hilary wrote
- The minimal class of (formal) languages that can capture unbounded dependencies are **context free languages**, which are accepted by the computational device known as a **pushdown automaton**.



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- ✦ Structure building operations plus **declarative** statements of relationships between parts of a single structure.
  - ✦ Categorical Grammar, Generalized Phrase Structure Grammar, Head-Driven Phrase Structure Grammar  
Lexical-Functional Grammar



# What the approaches share



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- ✦ The derivational and declarative approaches equally share the assumption that an unbounded dependency involves a relationship between an element  $X$  that occurs in a position that is at a distance from another element  $Y$  with which  $X$  is closely related.



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- ✦ Syntactic and semantic theories are effectively designed to deal with precisely this kind of situation.



# Resumption



# The phenomenon

- ✦ It is not uncommon to find languages in which the position to which some initial element in a question or relative clause is related is not empty, but rather filled by an agreeing pronoun.
- ✦ Such pronouns are called **resumptive pronouns** and the phenomenon is called **resumption**.



# Irish



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(1) an ghirseach ar ghoid na síogaí í  
the girl comp stole the fairies her  
'the girl that the fairies stole away'  
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(2) Céacu ceann a bhfuil dúil agat ann?  
which one comp is liking at.you in.it  
'Which one do you like?'  
(McCloskey, 2002: 189)



# Hebrew



# Hebrew

(1) raʔiti ʔet ha-yeled she rina ʔohevet ʔoto  
saw.I acc the-boy comp Rina loves him  
'I saw the boy who Rina loves.'  
(Borer, 1984: 220)



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(2) eyze student nigashta ito?  
which student you.met with.him  
'Which student did you meet with?'  
(Sharvit, 1999: 591)



# Swedish



# Swedish

(1) en elev som Maria undrar om han fuskar  
a student that Maria wonders if he cheats  
'a student who Maria wonders if he cheats



# Swedish

- (1) en elev som Maria undrar om han fuskar  
a student that Maria wonders if he cheats  
'a student who Maria wonders if he cheats'
- (2) Vem undrar Maria om han fuskar?  
who wonder Maria if he cheats  
'Who does Maria wonder if he cheats?'



# English

(1) \* This is the girl who the fairies stole her away.

(2) This is the girl who the fairies stole away.

(3) \* Who did the fairies steal her away?

(4) Who did the fairies steal away?



The problem of resumption:  
Background to a theory



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- ✦ Ordinary pronouns normally **complete**, or **saturate**, the predicate that they occur with.
  - (1) John ate it.
  - (2) \* What did John eat it?
- ✦ Resumptive pronouns must somehow **not** be doing this.



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- ✦ Expressions are interpreted exactly as many times as they occur, no more and no less.
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  - (1) This innocent man is allegedly guilty.
  - (2)  $\neq$  This innocent man is guilty.
  - (3)  $\neq$  This allegedly innocent man is allegedly guilty.
- ✦ Resource sensitivity can be formally captured by using a **resource logic** for semantic interpretation.



# The Resource Management Theory of Resumption

- ✦ **The Principle of Compositionality**

The meaning of an expression is determined by the meaning of its parts and their arrangement.

- ✦ **McCloskey's Generalization**

Resumptive pronouns are ordinary pronouns.

- ✦ **The Resource Sensitivity Hypothesis**

Natural language is resource-sensitive.



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- If a resumptive pronoun is an ordinary pronoun, then it contributes a semantic resource, because ordinary pronouns do this.
- But in resumption the pronominal resource is in fact not required for compositional interpretation: it constitutes a surplus resource.
- RSH entails that there must be a consumer for the surplus resource in languages that allow resumption. This element 'manages' the surplus resource.
- The difference between languages that allow resumption (Irish, Hebrew, Swedish...) and languages that do not (English) boils down to whether the language has a way to consume the surplus resumptive pronoun or not.



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  1. Linguistics as an empirical science.
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  3. The problem posed by resumption, and a possible solution.

