## 24.93 "The search for meaning"

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## Lecture 1/11

#### Introduction

My name is Kai von Fintel. I was born in Germany many years ago. I went to the USA for graduate school and staved. I have lived more than half of my life in Massachusetts. By now, I am an American of German descent. I received my PhD from the University of Massachusetts at Amherst. I have taught at MIT since 1993. I am a semanticist = I work on meaning. I think it's the most awesome topic in the world. Hence this class.

### What is meaning? Let's brainstorm!

What kind of things have meanings or mean something?



#### Bee Threat Elicits Alarm Call in African Elephants

Lucy E. King . Joseph Soltis , lain Douglas-Hamilton, Anne Savage, Fritz Vollrath

Published: April 26, 2010 • http://dx.doi.org/10.1371/journal.pone.0010346

Article	Authors	Metrics	Comments	Related Content
*				

Abstract

Introduction

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Acknowledgments

**Author Contributions** 

References

Reader Comments (1)

Madia Coverage (1)

#### Abstract

Unlike the smaller and more vulnerable mammals, African elephants have relatively few predators that threaten their survival. The sound of disturbed African honeybees Apis meliffer scutellata causes African elephants Loxodonta africana to retreat and produce warning vocalizations that lead other elephants to join the flight. In our first experiment, audio playbacks of bee sounds induced elephants to retreat and elicited more head-shaking and dusting, reactive behaviors that may prevent bee stings, compared to white noise control playbacks. Most importantly, elephants produced distinctive "rumble" vocalizations in response to bee sounds. These rumbles exhibited an upward shift in the second formant location, which implies active vocal tract modulation, compared to rumbles made in response to white noise playbacks. In a second experiment, audio playbacks of these rumbles produced in response to bees elicited increased headshaking, and further and faster retreat behavior in other elephants, compared to control rumble playbacks with lower second formant frequencies. These responses to the bee rumble stimuli occurred in the absence of any bees or bee sounds. This

#### kimbbearly:

why dont humans have a specific noise that means "there are bees here lets leave immediately" why are elephants more advanced than us

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we do have a specific noise, it sounds like this:

"there are bees here lets leave immediately"

A former meerkat expert at London Zoo has been ordered to pay compensation to a monkey handler she attacked with a wine glass in a love spat over a llama-keeper.

[Associated Press, Oct. 14, 2015]

# Language is a precision instrument for conveying meanings.

## We have specific noises for everything!

# "infinite use through finite means" (Wilhelm von Humboldt)

Language sample #1  $\leftarrow$  click to see movie!

Language sample #2  $\leftarrow$  click to see movie!

### **Tempting idea**

- Speaker S has a thought.
- Speaker S encodes the thought in a string of sounds.
- Speaker S produces the string of sounds.
- Hearer H hears the string of sounds.
- Hearer H decodes the string of sounds.
- Hearer H now has the thought S had had.

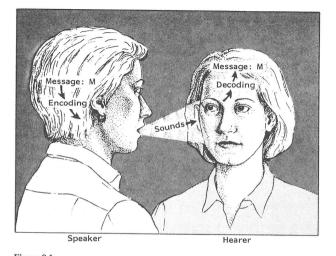


Figure 9.1

The Message Model of communication. A speaker has some message in mind that she wants to communicate to a hearer. The speaker then produces some expression from the language that encodes the message as its meaning. Upon hearing the beginning of the expression, the hearer begins identifying the incoming sounds, syntax, and meanings; then, using her knowledge of language, she composes these meanings in the form

of a successfully decoded message.

### That model is wrong!

- the signal is multi-dimensional
- the thought is not entirely encoded because context and inference play a huge role
- the conveyed content is multi-dimensional as well

## We can convey thoughts with minimal means

Dude! ← click to see movie!

# How can one word encode so many different meanings?

## The meaning conveyed comes from

- the meaning of "dude" (very minimal)
- the context
- intonation
- co-speech gestures

### Eleven more weeks of meaning

- the core properties of human language
- the interplay of semantics/grammar and pragmatics in the creation of meaning
- · writing systems
- oral versus written language
- other secondary systems (drums, whistling, smoke, ...)
- sign languages

- language and thought
- translatability
- language diversity, endangerment, should we all speak the same language?
- animal communication systems
- the science of cursing
- social signals in language

#### **Empirical Areas**

Quantification LE OB Indefinites Definites Scope Evistential constructions

Reference anaphora and binding Reciprocals and reflexives

Possessives

Genericity

Attitude verbs

Numeral semantics

Negation and polarity Conjunction or disjunction

Plurality Distributivity Mass reference

Modality Mood

Conditionals Evidentiality

Tense and aspect Subjective and evaluative

predicates Events

Exceptives

Argument structure

Lexical semantics

Decomposition

Opacity, de se, and logophoricity

Ellipsis ----- Contained

Inflectional derivational morphology

Vagueness and gradability

Comparatives and superlatives

Measurement, scales, and degrees

Modification

Polysemy

Antecedent

Deletion

Indexicality and deixis Irony Context dependence

Metaphor Metonymy

Nonasserted content and its projection

Implicature and pragmatic enrichment

Presupposition

Exhaustion and maximality

Expressive meaning Politeness

Dialogue

Discourse structure Discourse particles Information structure Intenstion

Imperatives

Questions and interrogatives

Focus Topic

Evolucione Additives

Scalar operators

"Superlinguistics" Application of linguistic concepts

and tools to other semiotic systems Animal Communication

Methods

Diachrony

Corpus studies Field-hased semantics and semantics of underrepresented languages

Experimental studies Signed languages Experimental studies with child

Perspectives, Frameworks

Algebraic models Theories of semantics

Alternative Semantics Composition and type theory

Variable-free semantics Semantic categories Situation Semantics

Computational methods in semantics Dynamic theories of meaning

Discourse Representation Theory Acquisition of semantics or pragmatics

Typology, variation, and universals

participants

Propositional logic **Mathematical Tools** 

Logic Predicate logic Set theory. Relations. Functions

Orderings Lambda calculus

Mereology, Lattices Probability Category Theory Game Theory

Type Theory

#### I like to talk with students rather than at them

Might be harder in such a large class, but I will try.

#### **Piazza**

There's a piazza forum linked on Canvas

### Reading for next week [on canvas]

Trask on "The uniqueness of human language"

### The most complicated word in English

ismo clip ← click to see movie!