



# ELL101: Intro to Linguistics

## Week 1 Introduction

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# What is linguistics?

## Linguistics is

- scientific study of human language
- interested in nature of knowledge that enables human beings to use language

## Linguistics is NOT

- study of individual languages (that is, all human languages have equal scientific values)
- learning a foreign language
  
- Language is a human instinct

# What is linguistics?

- Linguists ask questions like
  - How many languages exist?
  - How many distinctive sounds are there in human speech?
  - How do you pronounce 'ghoti'?
  - Why are the pronunciations of 'writer' and 'rider' the same?
  - Why do we drive in the 'parkway' and park in the 'driveway'?
  - What's the longest word in English?
  - How many boys and girls are there in the following sentence?: 'Three boys danced with two girls.'
  - Where are Michael and Robert?: 'Michael saw Robert from the building.'
  - Read:  $\forall x \forall y ((\text{HAVE}(\text{YOU}(\text{ABILITY}x)) \vee \text{NEED}(\text{TASK}y(\text{ABILITY}x))) \supset \neg \text{DO}(\text{YOU}(\text{TASK}y)))$
  - Which part of the brain is responsible for speaking a language?
  - Why cannot a computer program understand our language?

# Fields of linguistics

- Week 1-2: Phonetics (physical sound properties)
- Week 2-3: Phonology (speech sound rules)
- Week 4: Morphology (word parts)
- Week 5-6: Syntax (structure)
- Week 7-8: Semantics (meaning)
- Week 7-8: Pragmatics (conversation & convention)
- Week 9: First & Second language acquisition
- Week 10-12: Historical linguistics (history of language)
- Week 10-12: Socio-linguistics (language in society)
- Week 10-12: Neuro-linguistics (the brain and language)
- Week 10-12: Computational linguistics (computer and language)
- Week 10-12: Evolutional linguistics (how language evolved in human history)

# Evolutional linguistics I

- Yule (2010) introduces a couple of (folk-tale) theories about the origin of language

## Divine source theory

Adam received the ability to speak from God – “whatever Adam called every living creature, that was the name thereof” (Genesis 2:19); The origin of language myth exists in many other cultures and religions.

## Bow-wow theory

Onomatopoeia (imitation of natural sounds) enabled more elaborate and complex communication, which developed into a language

# Evolutional linguistics II

## Yo-heave-ho theory

The grunting and groaning (also crying, sobbing, laughing etc.) sounds developed into a language

## Oral-gesture source theory

Physiological differences between the human vocal tracts and non-human vocal tracts

## Innateness hypothesis

- Children learn language so fast and so effortlessly → it is different from other cognitive skills such as opening a jar of jam and sorting objects by shape and color.
- "Human offspring are born with a special capacity for language" (Yule, 2010); the language capacity is "hard-wired" and "innate"

# Evolutional linguistics

- A lot of studies on the evolutional linguistics were carried out in the last decade (cf. "The First Word" (Kenneally, 2008), a great summary of evolutional linguistics)
  - Noam Chomsky, Sue-Savage-Rumbaugh, Steven Pinker, Philip Liverman, Paul Bloom and many more

## the innateness/nature theory

language is a uniquely human phenomenon; language is given to human beings; a genetic big bang that happened in the human genome at some point of human evolution

## the empirical/nurture theory

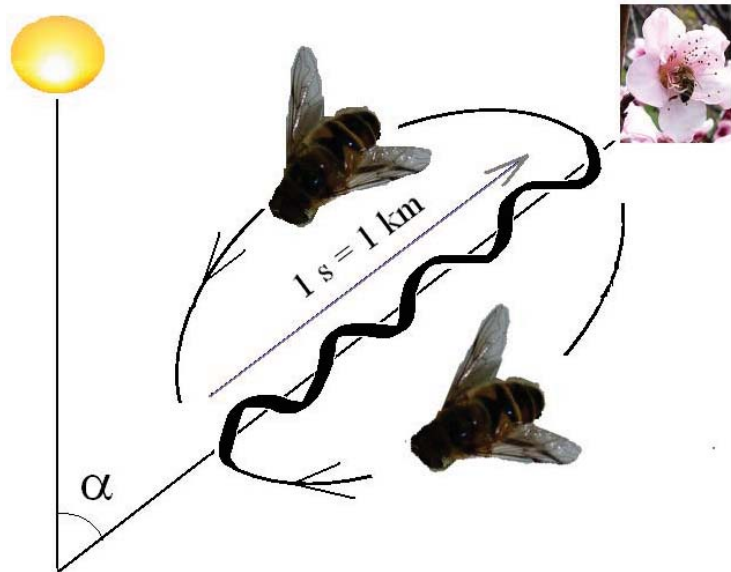
language is interdependent and interconnected with other cognitive skills; human should learn language; humans are not so much unique



## The human language can

- convey communicative and informative signal (communicative)
  - talk about beyond "here and now" (displacement)
  - use arbitrary symbols or signals (arbitrariness)
  - generate new words and sentences (productiveness)
  - have multiple levels of system (duality)
- 
- Can animals have a communication system with those qualities?
    - Bee dance
    - *Alex*, an African Gray Parrot, can identify and talk about number, color, and shape
    - Primates (mostly, chimps) trained for language

# Evolutional linguistics: Bee dance



# Evolutional linguistics: Chimps



# Evolutional linguistics I

- *Gua*, a chimpanzee raised with a human infant, was able to understand about a hundred words (but didn't speak at all)
- *Viki*, another chimp raised as if a human baby, were able to produce a few words such as *mama*, *papa*, and *cup* → it turned out that non-human primates do not have the vocal tracts suitable for generating human speech sounds
- *Washoe*, a chimp who was taught American Sign Language, were able to use more than a hundred signs (e.g., *airplane*, *baby*, *banana*, *you* etc) and productively combine those signs (e.g., *more fruit*, *open food drink*)
- *Koko*, a Western gorilla, also performed a similar level of language use to that of Washoe

## Evolutional linguistics II

- A study on *Nim Chimpsky*, a chimp raised like Washoe by Herb Terrace, showed that Washoe, Koko, and Nim were simply repeating what they have heard earlier (not truly productive)
  - The article about Nim on *Science* in 1979 had an enormous impact on the evolutional linguistic research (basically shutting down all projects)
- *Sarah* and *Lana*, chimps who were taught a made-up language using plastic shapes, showed some productive use of their language (e.g., "Mary-Give-Chocolate-Sarah" vs. "Sara-Give-Chocolate-Mary")
- Sue Savage-Rumbaugh was training *Matata*, a bonobo (a pygmy chimpanzee), on an artificial language. Accidentally, *Kanzi*, a baby bonobo who was sitting by Matata, developed a large symbol vocabulary (more than 250 forms) and able to communicate at a level comparable to a 2.5 year-old human child.

# Evolutional linguistics III

- But, all human beings learn at least one language no matter what.
- Acquiring the first language is quick, easy, and consistent, but almost no one successfully achieves a native-like proficiency in the second language  
→ Why is it so difficult to learn a second language as an adult?

# Language acquisition

- Expected learning time for English speakers (from the Foreign Service Institute of the US Department of State (Jackson and Kaplan, 1999))

LANGUAGE CATEGORIES	WEEKS	HOURS
<b>Category I:</b> Languages closely cognate with English: <i>French, German, Italian, Portuguese, Romanian, Spanish, Swedish, Dutch, Norwegian, Afrikaans, etc.</i>	23-24	575-600
<b>Category II:</b> Languages with significant linguistic and/or cultural differences from English: <i>Albanian, Amharic, Azerbaijani, Bulgarian, Finnish, Greek, Hebrew, Hindi, Hungarian, Icelandic, Khmer, Latvian, Nepali, Polish, Russian, Serbian, Tagalog, Thai, Turkish, Urdu, Vietnamese, Zulu, etc.</i>	44	1100
<b>Category III:</b> Languages that are exceptionally difficult for native English: <i>Arabic, Chinese, Japanese, and Korean</i>	88	2200

# Language acquisition

- However, children can learn the language used in their environment (no matter what language it is) by the time they reach at three years old.

## The ultimate question in linguistics

What makes human beings so special in terms of language? Why cannot chimps learn the human language? Why does an adult have hard time in learning his/her second language?



# Sociolinguistics

- We also talk about social and geographical differences in language
- How do you call this?

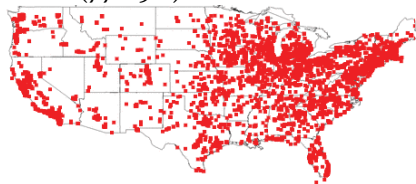


- From *Dialect Survey* by Dr. Bert Vaux  
<http://www4.uwm.edu/FLL/linguistics/dialect/maps.html>
  - a. sub (77.15%)
  - b. grinder (2.87%)
  - c. hoagie (6.98%)
  - d. hero (5.18%)
  - e. poor boy (1.77%)
  - f. bomber (0.01%)
  - g. Italian sandwich (0.46%)
  - h. baguette (0.25%)
  - i. sarney (0.03%)
  - j. I have no word for this (0.91%)
  - k. other (4.41%)
  - (10708 respondents)

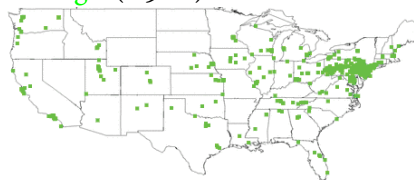
# Sociolinguistics

- From *Dialect Survey* by Dr. Bert Vaux

a. **sub** (77.15%)



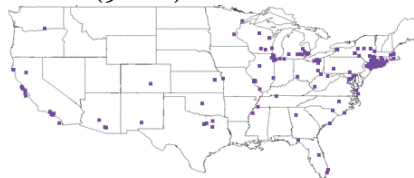
c. **hoagie** (6.98%)



b. **grinder** (2.87%)

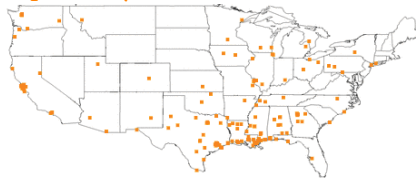


d. **hero** (5.18%)



# Sociolinguistics

e. poor boy (1.77%)



g. Italian sandwich (0.46%)



f. bomber (0.01%)



h. baguette (0.25%)



- Language and identity
  - How do you talk with your grand parents?
  - How do you talk to your parents?
  - How do you talk to your siblings?
  - How do you talk to your boyfriend or girlfriends?
- In many languages, there are many 2nd person pronouns
  - Many languages have different 2nd-person
    - French: *tu* and *vous*
    - Spanish: *tu* and *usted*
    - Italian: *tu*, *lei*, and *voi*
    - German: *du* and *sie*
    - Japanese: *anata*, *kimi*, *omae*, *kisama* etc..
  - In fact, in some languages (e.g., Korean and Japanese), there are more than dozens of different ways to say "I", "you", "she/he"

# Sociolinguistics

- Language and Power (i.e., "the official or standard language")
- What is the correct English?



- What factors affect (and more importantly do not affect) the use of language?
  - gender
  - nationality
  - ethnicity
  - age
  - political view
  - personality
  - income
  - educational background
  - social/community affiliation
  - formality
  - familiarity with the listeners
  - and more...

# prescriptive vs. descriptive

- In order to study language, we need to refine what we mean by a "correct" or "grammatical" sentence.
- Which sentence is "grammatical"?
  - (1) a. If I were you, I would maintain a healthy diet.  
b. If I was you, I would maintain a healthy diet.  
c. If I am you, I would maintain a healthy diet.
- Your 6th-grade grammar teacher said only (1a) (possibly also (1b)) was grammatical.



# prescriptive vs. descriptive

## Prescriptive grammar

A prescribed (previously described) set of grammar rules that tells which rule is "good" and which one is "bad"

## Descriptive grammar

The native speakers' knowledge about the language. How the native speakers use the language. Descriptions of the actual language use.

- Thus, if a native speaker (of some dialect of English) uses Sentence (1c) (maybe, in some regional dialect of English), it is grammatically correct from a descriptive grammar perspective.

## prescriptive vs. descriptive

- Are the following sentences prescriptively grammatical or descriptively grammatical (or neither)?
  - (2) a. I'm older than him.  
b. I'm older than he.
  - (3) a. To whom did you send the package?  
b. Who did you send the package to?
  - (4) a. All of us are responsible for the mistake.  
b. All of we are responsible for the mistake.

# Bibliography I

- Jackson, F. and Kaplan, M. A. (1999). Lessons learned from fifty years of theory and practice in government language teaching. In Altis, J. and Tan, A.-H., editors, *Proceedings of Georgetown University Round Table on Language and Linguistics*, pages 71–87, Washington, D.C. Georgetown University, Georgetown University Press.
- Kenneally, C. (2008). *The First Word: The Search for the Origin of Language*. Penguin, New York, NY. ISBN: 9780143113744.
- Yule, G. (2010). *The Study of Language*. Cambridge University Press, New York, NY, 4th edition. ISBN: 9780521749220; Course: ELL101 (textbook); Price: \$29.99.

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