

# What is linguistics?

Unit 1, Class 6

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# Linguistics

- Scientific study of human language
- Not just the study of one language, but human *language* broadly
  - Linguists study individual languages as a tool to answer larger questions

# Questions in linguistics

- Are there any linguistic universals? Why/why not?
- How many languages are spoken in Nepal/globally/Kathmandu?
- What determines the critical age of language acquisition? Can it be extended?
- When/why do people misunderstand written/spoken utterances?
- How can a robot sound more humane-like?
- Where does meaning arise from?
- Does speaking *Munda* or *Nepali* or *Tamang* change the way you view the world?
- How is second language acquired? How does it help in acquiring the third language?
- Will an alien have a similar language (grammar, meaning) like ours?

# Descriptive vs Prescriptive

## Descriptive

- Linguistics *describes* what is and was.
- Rules follow what people say.
- Concerned with linguistic knowledge.

## Prescriptive

- Some forms deemed inappropriate or wrong.
- People should follow what the *rules* say.
- Current usage is generally condemned.

# Methods in linguistics

- Fieldwork
- Formal analysis of patterns in data sets
- Psycholinguistic experiments
- Computational modelling
- Corpus analysis





# Phonetics

Study of speech sounds (production and perception) as physical entities

- Aspiration:  $[t]$  vs  $[t^h]$
- Voicing:  $[b]$  vs  $[b^h]$

$[v]$  is pronounced by

- bringing the lower lip into contact with upper teeth and
- forcing air out of the mouth while
- the vocal folds vibrate and
- nasal cavity is closed off

# Phonology

Study of sound system/patterns of a particular language, language sounds as abstract entities

- English: a word never starts with  $[kn]$  while in German it is possible (e.g., *Knabe*='boy')

# Morphology

Study of word structure and systematic relations between words.

- missile: 'ICBM'
- anti-tank-missile: 'missile targetting tanks'
- anti-aircraft-missile: 'missile targetting aircraft'
- anti-missile-missile: 'missile targetting ICBMs'

# Morphological Rules

**Rule:** Anti-X-missile is a missile targetting Xs.

- What kind of missile targets anti-missile-missiles?
- anti-anti-missile-missile-missile
- anti-anti-anti-missile-missile-missile-missile: 'missile targetting anti-anti-missile-missile-missiles'

# Syntax

## Study of phrase and sentence structure

- word order: The book is on the table vs Table is on the book.
  - agreement: I am here vs I are here.
  - cases: I like her vs I like she.
- 
- I [saw [the woman] [with the telescope]].
  - I [saw [[the woman] [with the telescope]]].

# Semantics

Study of linguistic meaning, i.e., meaning of sentences, phrases, words and morphemes

- What is the meaning of “I shot an elephat in a Navy with a Canon”?

Syntactically well-formed, semantically nonsensical: *Colorless green ideas sleep furiously.*

# Pragmatics

Study of language use

- Context influences the interpretation of utterances – the same sentence can have different meanings across different situations.

Simply put:

- semantics: *literal* meaning and
- pragmatics: *intended* meaning.

# Linguistics beyond grammar



# Historical Linguistics

- How languages change over time.

# Sociolinguistics

- How languages vary socially.
- How language is used as a social resource.

# Psycholinguistics

- How language is represented and processed in people's mind and brain.
- Psychological and neurobiological factors associated with language acquisition and use (production, comprehension).

# Language Acquisition

- How people learn language (e.g., first language acquisition).

# Computational Linguistics

- Making computers process (generate/'understand'/translate...) human languages.
- Mathematical representation of natural language to understand the properties of language and how humans process language

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