



UCL

Knowledge of Language

Reading: FRH Ch. 1

PLIN0006: Introduction to Language



Fig. 1 "We'll start out by speaking in simple declarative sentences."

Linguistics

- **Definition:**

- The scientific study of language

- **Two questions:**

- 1) What aspects of language are we interested in?
- 2) What does it mean to study something scientifically?

What aspects of Language are we interested in?

- What do we know when we know a language?

(What is knowledge of language?)

- How is this knowledge acquired?
- How is this knowledge put to use?
- How is this knowledge implemented neurologically?

How can we study language scientifically?

- Direct observation
- Indirect observation
- Inductive reasoning
- Scientific method (*aka* “guess, check, try again”)
- Build and test models

Knowledge of Language: What is it?

- Language has some features which are:
 - **Universal:** Invariant across all languages
 - **Language-specific:** Vary within given parameters

Chomsky's Martian Thought Experiment



(Source: <http://bigthink.com/videos/noam-chomsky-on-languages-great-mysteries>)

Universal Features: Discreteness

- **Discreteness:**

- Sentences can be divided into discrete units (sounds, syllables, words, phrases).

Discreet

c|a|t|s| |a|n|d| |d|o|g|s

Not Discreet



Universal Features: Infinite Embedding

- **Infinite Embedding:**

- Sentences can be placed inside larger sentences, which can, in turn, be placed inside even larger sentences, **ad infinitum**.

- Example:

- [the world is round]_S
- [**Galileo said that** [the world is round]_S]_S
- [**Sue thinks that** [**Galileo said that** [the world is round]_S]_S]_S
- ...

Universal Features: Creativity

- **Creativity:**

- We can produce, understand, and judge sentences we have never heard before.

- **Examples:**

- *The astronaut that landed on Mercury sang a song.*
- **Which planet did the astronaut that landed on sing a song?*
- *Colorless green ideas sleep furiously.*
- **Furiously sleep ideas green colorless.*

Language-specific Features: Phonotactics

- **Phonotactics:**

- Permitted sequences of sounds in a language.
- Word-initially, English allows **sp**, but not ***ps**:
 - *spin*
 - **psin*
- Word-initially, Greek allows both **sp** and **ps**:
 - *σπανάκι* (*spanáki*) 'spinach'
 - *ψυχολογία* (*psychología*) 'psychology'

Language-specific Features: Word Order (1)

- **Word Order:**

- Permissible orderings of major word classes in a language, such as Subject–Verb–Object.

- Fixed vs ‘free’ word order:

- English declarative sentences have a fairly rigid S–V–O word order.
- Warlpiri allows a relatively free word order in declarative sentences.

Mary Laughren on Word Order in Warlpiri

Language-specific Features: Word Order (2)

- English allows, but does not require(!), **Preposition Stranding**.
 - No stranding:
 - ***With which*** pen did you write this letter?
 - Stranding:
 - ***Which*** pen did you write this letter ***with***?

Language-specific Features: Word Order (3)

- Portuguese does **not** allow **Preposition Stranding**.

- No stranding:

- **Com qual** *caneta* *ocê* *escreveu* *esta* *carta*?
with which pen you wrote this letter

- Stranding:

- ***Qual** *caneta* *ocê* *escreveu* *esta* *carta* **com**?
which pen you wrote this letter with

Language-specific Features: Word Meaning (1)

- **Word Meaning:**

- The meaning of individual words varies from language to language.

- **Example:**

- In English, the verb 'to be' expresses permanent states of affairs, as well as temporary states of affairs:

- **Permanent:** 'John is tall.'

- **Temporary:** 'John is here.'

Language-specific Features: Word Meaning (2)

- **Word Meaning:**

- The meaning of individual words varies from language to language.

- **Example:**

- In Spanish, permanent and temporary states are expressed by different verbs: 'ser' = permanent, 'estar' = temporary.

- **Permanent:** 'Juan es alto.' (*Juan está alto)

- **Temporary:** 'Juan está aquí.' (*Juan es aquí)

Knowledge of Language: Summary (1)

- The question:

“What do we know when we know a language?”

can be broken down into smaller questions:

- What do we know about the sound structure of our language?
- What do we know about the syntax of our language?
- ... about the semantics?
- ...

Each of these questions can in turn be broken down into smaller questions.

Knowledge of Language: Summary (2)

With respect to each question we can ask about **KoL**, linguists ask:

- Is this knowledge **universal** (i.e. common to the entire species)?
- Or is this knowledge **language-specific**?