

0. Study of language – Linguistics

Areas of linguistics

Components of Language: phonology, morphology, syntax, semantics, pragmatics, lexicology

← Theoretical vs Computational approaches

Branches of linguistics:

0.1. Theoretical linguistics, historical linguistics, sociolinguistics

0.2. Computational linguistics: corpus linguistics (method!), machine translation, natural language processing

1. Applied linguistics (narrow sense), language teaching

2. Psycholinguistics, developmental linguistics – language acquisition (L1, L2, bilingualism), neurolinguistics, cognitive linguistics, clinical linguistics

3. Language revitalisation, maintenance, documentation

4. Forensic linguistics

1. Language

Language is the human capacity for acquiring and using complex systems of communication, and a **language** is any specific example of such a system. (Wikipedia)

System of signs →

a sign = signifier (shape) + signified (mental concept) (*Ferdinand de Saussure*)

a sign = symbol (exponent) + referent (real object; denotation, denotata) + thought of reference (meaning) (*triangle of reference, C.K. Ogden & I.A. Richards*)

a sign = Form + Bedeutung + Sinn (*Friedrich Frege*)

Signs: proper symbols, icons, symptoms (indexes).

How do we decide to pair a meaning and a symbol? → **Naming problem** (cf. Cratylus dialogue, Plato) → convention, arbitrariness (for symbols) vs. nature (for icons, indexes)

2. Language is not only **words**. We need **rules** to combine them into larger constituents.

Syntactic rules + rules of interpretation, semantic rules.

Syntactic rules = grammar

Chomsky's hierarchy of formal grammars

Examples of rules: $S \rightarrow AB$, $S \rightarrow aBc$, $aBc \rightarrow aCPc$, $aBc \rightarrow abc$

S – non-terminal nodes, categories; s – terminal nodes, words.

0. **Unrestricted** grammars, 1. **Context-free** grammars (no non-terminal nodes on the left-hand side), 2. **Context-dependent** (sensitive) grammars, 3. **Regular** grammars (restricts its rules to a single nonterminal on the left-hand side and a right-hand side consisting of a single terminal, possibly followed / preceded by a single nonterminal (right/left regular)).

Syntax and Lexicon – not only Human languages (context-free/sensitive); also programming languages (context-free), maths, etc.

Animal languages: Campbell's monkey alarm calls (apparently, they use separate 'words' and syntactic/semantic rules to combine them together and to interpret 'phrases').

3. Speaking a language

Language acquisition: all children inherent language abilities, they share the **universal grammar**.

Universal grammar: Principles and parameters (see M. Baker 'Atoms of language')

Principles: general principles concerning language, universal

Parameters: different options given by the principles. Different parameter-settings lead to differences between languages.

Examples: English prepositions vs Hungarian location affixes

Children make mistakes: goed, etc.

Competence vs. performance:

Linguistic competence is the system of linguistic knowledge possessed by native speakers of a language. It is distinguished from **linguistic performance**, which is the way a language system is used in communication.