

HSS321/621: Psycholinguistics (4 credits)

Learning Objectives

This course will introduce students to psycholinguistics, the scientific study of how language is processed by the mind. The specific objectives of the course are to learn about:

1. Language comprehension and production
2. Influential computational theories of working memory in the context of language comprehension and production

Course Contents

- Brief history of psycholinguistics
- Basics of speech production: Levelt's model of speech production, Lemma theory.
- Basics of speech perception: Motor theory of speech perception
- Spoken word comprehension: Lexical access and lexical ambiguity resolution
- Sentence comprehension: Introduction to sentence structure, Models of parsing, Parsing long-distance dependencies
- Reading processes and their relation to human comprehension
- Dependency locality theory of language comprehension, locality and syntactic choice
- Surprisal Theory of language comprehension
- Nature of intelligence: Computational theory of the mind, Connectionism

Selected Readings

- An Introduction to Language, 9th Edition by Victoria Fromkin, Robert Rodman and Nina Hymis, 2012
- Fundamentals of Psycholinguistics, Eva Fernandez and Helen Smith Cairns, WileyBlackwell, 2012
- Introduction to Psycholinguistics: Understanding Language Science, Matthew J. Traxler. John Wiley and Sons Ltd., 2012
- Gibson, Edward. 1998. Linguistic complexity: Locality of syntactic dependencies. *Cognition* 68.1–76.
- Levy, Roger. (2008). Expectation-based syntactic comprehension. *Cognition*, 106(3): 1126 – 1177
- Hale, J. (2001). A probabilistic Earley parser as a psycholinguistic model. In *Proceedings of the*

second meeting of the North American Chapter of the Association for Computational Linguistics on Language technologies, NAACL '01, pages 1–8, Pittsburgh, Pennsylvania. Association for Computational Linguistics.