

PSY-420 Language Acquisition and Multilingualism (3 CHs)

Prerequisite: Cognitive Neuroscience

Course Description:

This course will address some fundamental questions regarding human language that how language is represented in our minds; how language is acquired by children; how language is processed by adults; the relationship between language and thought, exploring how language is represented and processed using brain imaging methods; and computational modeling of human language acquisition and processing; and the linguistic and psycholinguistic underpinnings of the bilingual brain. Different models of bilingualism, issues concerning bilingualism for bilingual education, language planning and policy among many will also be discussed.

Course Objectives:

This course will facilitate students to:

- Understand the fundamental theories, concepts, processes, and factors involved in language acquisition and multilingualism.
- Examine the effects of multilingualism on cognitive processes, linguistic abilities, and cultural identity.
- Analyze the practical implications of language acquisition research in educational, clinical, and societal contexts.
- Familiarize students with the overlap of Artificial Intelligence and Language Learning
- Develop critical thinking skills in evaluating and synthesizing current literature and empirical findings in the field.
- Promote awareness and understanding of language diversity and the benefits of multilingualism in a globalized world.

Course Learning Outcomes:

Students will be able to:

- Explain and analyze various theoretical perspectives and influences related to language acquisition and multilingualism.
- Apply knowledge of language acquisition to practical contexts, such as language instruction, clinical assessment, and policy development.
- Communicate effectively, both orally and in writing, about language acquisition and multilingualism, using appropriate terminology and evidence-based arguments.
- Demonstrate cultural competence and an appreciation for linguistic diversity, recognizing the value of multilingualism in personal and societal contexts.

- Analyze how artificial intelligence makes use of research on language acquisition.

Course Contents:

- Biological Bases of Language Development.
Exploring the 'human language faculty'. Animal vs human language.
- Theories of Language Acquisition (Piaget, Vygotsky, and Chomsky)
- Acquiring a First Language:
Defining the Task and Main Milestones
- Acquiring a first language: phonological, syntactic, and lexical development
- Innate vs. the Role of Social Interaction and Gesture.
- The Critical Period Hypothesis.
- Neural Bases of Language Development Atypical Language Development
- Structure & Acquisition of Signed Languages
- Bilingualism
- Child Bilingual Acquisition: Exploring the Role of Input.
- Child bilingual acquisition: biological foundations and lifelong consequences.
- Incomplete Language Acquisition: Exploring Heritage Language Acquisition.
- Adult Bilingualism: Exploring Native Language Attrition.
- Language Acquisition and Artificial Intelligence

Textbooks:

- Hoff, E. (2004) *Language Development* (3ed) Wadsworth/Thomson Learning Press. (ii) Lightbown, P. & Spada, N. *How Languages are Learned* (revised). Oxford University Press.
- Wei, Li, ed. *The Bilingualism Reader*. 2nd ed. Routledge, 2007. ISBN: 9780415355551
- Byrne, Alex and David R. Hilbert. (2003). Color Realism and Color Science. *Behavioral and Brain Sciences* 26, 1, 3–21.

Reference Books:

- Stanford Encyclopedia of Philosophy: Mental Imagery, The Problem of Perception.
- Pylyshyn, Zenon W. "Mental Imagery: In search of a Theory." *Behavioral and Brain Sciences* 25 (2002): 157–238.
- Gallagher, Shaun. "Neurons and Neonates: Reflections on the Molyneux Problem." In *How the Body Shapes The Mind*. Oxford University Press, 2006. ISBN: 9780199204168.
- Stanford Encyclopedia of Philosophy: Molyneux's Problem.

- Searle, John R. "Perception." In *Mind: A Brief Introduction (Fundamentals of Philosophy)*. Oxford University Press, 2005, 259–78. ISBN: 9780195157345.
- "Consciousness, Accessibility, and the Mesh Between Psychology and Neuroscience." *Behavioral and Brain Sciences* 30 (2007): 481–548.
- Evans, Nicholas and Stephen Levinson. (2009). "The Myth of Language Universals: Language Diversity and its Importance for Cognitive Science." *Behavioral and Brain Sciences* 32, 5 429–48.
- Block, Ned and MacDonald. "Phenomenal and Access Consciousness." *Proceedings of the Aristotelian Society* cviii, part 3 (2008): 1467–9264.