Psychology P747

"Voice Recognition and Perception"

Course Description:

This graduate seminar will be concerned with the topic of “Voice Recognition and Perception,” an important and neglected area of study that has traditionally been confined to the periphery of the mainstream of research in the field of speech perception and spoken language processing. Fortunately, this has now changed with the forthcoming publication in 2011 of a new comprehensive research monograph written by Jody Kreiman and Diana Sidtis entitled “**Foundations of Voice Studies: An Interdisciplinary Approach to Voice Production and Perception**.” We will be reading copies of the proofs of selected chapters from this new monograph before it is actually published under a special one-time arrangement with the authors and publisher of the book. Our objective in this seminar is to survey and review some of the relevant literature in the field of voice perception and recognition and consider theoretical and conceptual efforts to unify and understand the perception and recognition of the indexical properties of speech, attributes of the speech signal that provide important information about the talker’s gender, dialect, speaking style, as well as their mental, emotional, and physical states. These so-called “extralinguistic” properties of spoken language are encoded in the speech waveform by talkers and are transmitted in parallel in the time-varying speech waveform along with the abstract symbolic linguistic properties of speech that are used to convey the talkers’ intended message. There is now a growing body of literature demonstrating that these source attributes are also used by listeners in speech perception and spoken language processing and that information about the vocal source may be responsible for the robustness of speech perception under challenging and adverse listening conditions.

The organization of the seminar will be structured to encourage high-level discussions and intellectual exchanges among graduate students, postdocs and faculty from several different disciplines that investigate different aspects of voice recognition and perception. This is the first time a seminar on this topic has been offered at IU and I expect the issues to be discussed with have direct relevance to many research scientists who work on some aspect of spoken language processing in both normal-hearing typical-developing populations of adults and children as well as clinical populations that have hearing, speech and/or language delays or disorders. Work on voice recognition and perception is also highly relevant to researchers who study cognitive development, especially language development, second language learning, memory processes, social cognition, and human as well as animal communication systems more generally.

Requirements of P747:

1. Attend seminar, read all assigned reading materials each week and contribute actively to class discussions and intellectual exchange among participants.
2. Present summary of one chapter of the book to the seminar group and serve as a discussant on a second chapter to facilitate interactions, generate questions and promote high-level discussions about the theoretical significance of the research findings and conclusions in each chapter.
3. Research Projects: Each student will be required to develop and generate an original research project based on the discussions and interactions in the seminar and write up their ideas in the form of a research proposal which is to be handed in to me at the end of the seminar.
4. Research Presentation: Each student in the seminar will also present a 20 minute concise summary of their research project to the seminar for discussion and questions.