

CLASS 2022 Advanced Methods School

LT Seminar Talks

Speaker 1: Professor Roumyana Slabakova

Title of talk: **Why do we need a native speaker control group in our experimental studies?**

Date and time: **Wednesday, June 8, 2022, 4 PM (HKT) /10 AM Spain time**

Abstract

There has been renewed debate recently (see <https://www.frontiersin.org/research-topics/13914/the-notion-of-the-native-speaker-put-to-the-test-recent-research-advances>) on whether we need control groups of native speakers in second language acquisition research, and what purposes they serve. In my presentation, I will review some opposing viewpoints and focus on the view from generative SLA. I will provide an extended example from an unpublished study on L2 Mandarin, which supports the view that control groups are necessary for two purposes: to validate the property under discussion and the test instrument.

Bio

Professor Roumyana Slabakova is the Chair of Applied Linguistics and Director of the Center for Linguistics, Language Education and Acquisition Research (CLLEAR) in Modern Languages and Linguistics at the University of Southampton. She is also adjunct Research Professor at the Department of Language and Literature, the Norwegian University of Science and Technology. Her research is grounded in generative linguistic theory and explores the second language (L2) acquisition process, with a theoretical focus on the acquisition of grammatical structure and its interaction with meaning.

Speaker 2: Professor Edward Gibson

Title of talk: **Language processing over a noisy channel**

Date and time: **Thursday, June 9, 2022, 9 AM (HKT) / Wednesday, June 8, 9 PM (US east coast)**

Abstract

Traditional linguistic models of syntax and language processing have assumed an error-free process of language transmission. But we know that this is not the case: people often make errors in both

language production and comprehension. This has important ramifications for models of language processing and language structure. I first show that language comprehension appears to function as a noisy channel process, in line with communication theory. I show how this simple formulation can explain a wide range of language processing phenomena, such as people's interpretations of simple sentences, across languages. I will also discuss how thinking of language as communication in this way can explain aspects of the origin of word order, most notably that most human languages are SOV with case-marking, or SVO without case-marking.

Bio

Edward (Ted) Gibson received a B. Sc. from Queens University (1985), an M. Phil. from Cambridge (1986) and a PhD (computational linguistics, 1991) from Carnegie Mellon University. He joined the faculty at MIT in the Department of Brain and Cognitive Sciences in 1993, where he has been a full professor since 2004. He was elected a fellow of the Cognitive Science Society in 2017. In his youth, he competed for Canada at the 1981-1985 World Championships and the 1984 Olympics (7th), and for Cambridge in 1986 in the Oxford-Cambridge boat race (won by 7 lengths).

Gibson's research examines how language is processed, and how language processing constraints constrain language structure (words and sentences). One constraint is that language is processed over a noisy-channel, leading to systematic misunderstandings in particular contexts (Gibson et al. 2013, PNAS). This approach may lead to a better understanding of language deficits such as aphasia (Gibson et al. 2015, Aphasiology). In recent projects exploring language universals (Gibson et al., 2019, Trends in Cognitive Science), Gibson's group has shown that all the world's languages minimize syntactic dependency lengths (Futrell, Mahowald & Gibson, 2015, PNAS) and that information-theory can explain how different cultures divide the visual color space into different sets of color terms (Gibson et al., 2017, PNAS).

Speaker 3: Professor Li Xingshan

Title of talk: **CRM: A computational model of Chinese reading**

Date and time: **Thursday, June 9, 2022, 4 PM (HKT)**

Abstract

In the Chinese writing system, there are no interword spaces to mark word boundaries. To understand how Chinese readers conquer this challenge, we constructed an integrated model of word processing and eye-movement control during Chinese reading (CRM). The model successfully simulated important findings on the relation between word processing and eye-movement control, how Chinese readers choose saccade targets, how Chinese readers segment words with ambiguous boundaries, and how Chinese readers process information with parafoveal vision during Chinese sentence reading. The current model thus provides insights on how Chinese readers address some important challenges, such as word segmentation and saccade-target selection.

Bio

Xingshan Li is a Professor of Psychology at the Institute of Psychology, Chinese Academy of Sciences. He acquired his Phd degree in Psychology at University of Massachusetts Amherst in 2007. His research interest focuses on Chinese reading and language processing. In the last few years, he has tried to understand how Chinese readers deal with some unique properties of Chinese text during reading. He has published more than 80 journal articles on journals such as Psychological Review, Nature Reviews Psychology, JEP: General, Cognitive Psychology. He is an Associate Editor of Quarterly Journal of Experimental Psychology.