The Price of Linguistic Productivity: Language and Cognition

2018年 1月8日[月] ▶10日[水]

13:00~18:30



- 場 所 慶應義塾大学三田キャンパス 北館 3 階 大会議室
- 定員 80名・会場にて参加者カード記入必要
- [主催] 慶應義塾大学言語文化研究所 The Keio Institute of Cultural & Linguistic Studies
- [協力] 慶應義塾大学次世代研究プロジェクト推進プログラム 基礎学術研究型 The Program for the Advancement of Next Generation Research Project, Keio University



講師 Charles Yang 氏



Charles Yang received his PhD in computer science at MIT and is Professor of Linguistics, Computer Science, and Psychology, and the Director of the Program in Cognitive Science at the University of Pennsylvania. He is interested in theories of language acquisition, variation, and change, and the place of language in the broad cognitive system. He is the author of three books and is writing a new one on evolutionary models of language change.

お問い合わせ先

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Day 1 1/8

Rules and Exceptions

While it is obvious that language has both rules and exceptions, the absence of a principled boundary between them has been the source of endless anxiety and controversy. Taking inspirations from language acquisition, that children unfailingly succeed at teasing them apart, I introduce a formal model of productivity, dubbed the Tolerance Principle. Following the general design principle of computational efficiency, I suggest that children postulate a productive rule only if the number of exceptions falls below a precise threshold; otherwise lexicalization ensues. Psycholinguistic evidence for the Tolerance Principle, including artificial language studies with young children, will be reviewed.

Day 2 1/9 Productivity and the Architecture of the Grammar

Most modern theories postulate, as primitives, distinct mechanisms and representations for encoding general and idiosyncractic processes in language. Focusing primarily on morphology and its interface between phonology and syntax, I suggest that these formal devices have little explanatory power, as long as children can discover the scope of linguistic generalizations with independent means. I will examine several long-standing puzzles in theoretical and experimental research, including English nominalization, German noun inflections, and paradigmatic gaps in a variety of languages. Along the way, I will familiarize the audience with the quantitative methods to analyze these problems can be approached and analyzed, and I especially welcome applications to similar problems in Japanese linguistics.

Day 3 1/10

Merge, Infinity, and Numbers

At a most fundamental level, Merge is the creative source of infinity: the composition of two categories entails that all members of the categories can be combined. I first review evidence from home signs that Merge is spontaneously available to children without an input linguistic model. I then provide a detailed analysis of the English dative constructions ("Baker's Paradox") to show that the scope of language-specific generalizations can, and must, be established on the basis of a finite sample of experience. Finally, I turn to the cognitive domain of natural number, which has long been thought as a derivative of the language system. Examining children's counting and associated numerical abilities in several languages, I suggest that the natural number system is entirely linguistic and its infinity derives from the productive application of Merge, and is thus expected to be subject to cross-linguistic variation and learning.