

Flexible principles and fuzzy boundaries in semantics-pragmatics

Choonkyu Lee Universität Potsdam
chlee@uni-potsdam.de

Despite common assumptions of hard-and-fast principles and categorical constructs in many areas of theoretical linguistics, empirical data often present a gradient pattern and individual and item variability. In syntax, some (e.g., Wasow, 2009) argue against binary grammaticality in favor of a probabilistic approach. At the interface between lexical and compositional semantics, typicality effects have cast doubt on traditional set theory and two-valued logic as bases for conceptual representations (e.g., Hampton, 2007). In pragmatics, discourse givenness of a discourse entity or referent also requires a fine-grained account that consists of multiple levels of referential accessibility and captures a wide range of factors that affect a speaker's referential choice (e.g., Ariel, 2001; Gundel et al. 1993; Lee, 2012). These similar phenomena of gradience in various domains of linguistic behavior reflect a complex system sensitive to multiple factors in interaction, which include salience in the perceptual environment and mental models of interlocutors. An adequate understanding of them requires attention to usage frequencies and processing costs.

In our project on the development of referential production and processing, we use quantitative methods such as eye tracking in order to examine the assumption of Grice's cooperative principle, which has often been assumed for ideal interlocutors. Many recent experimental findings have revealed much 'egocentric' production and comprehension in interlocutors, beyond what would be expected based on Gricean assumptions and intentional flouting of maxims for communicative effects. In our study, we conduct a referential communication game (Keysar et al., 2000) with four- and five-year-olds, in which some objects are visible only from the child participant's view, but not from the speaker's view. We track children's eye-movements in response to requests such as "Pick up the small horse." in a situation where the best-fitting object (the smallest horse) is hidden from the speaker. We will compare methodological aspects of our study with those of previous studies, and discuss multiple factors that may play a role in referential communication, such as Theory of Mind, working memory, and object representation.

- Ariel, M. 2001. Accessibility theory: An overview. In T. Sanders, J. Schliperoord., & W. Spooren (eds.), *Text representation*, 29-87. John Benjamins.
- Bard, E.G., A.H. Anderson, C. Sotillo, M. Aylett, G. Doherty-Sneddon & A. Newlands. 2000. Controlling the intelligibility of referring expressions in dialogue. *Journal of Memory and Language* 42, 1-22.
- Engelhardt, P. E., Bailey, K. G. D., & Ferreira, F. (2006). Do speakers and listeners observe the Gricean maxim of quantity? *Journal of Memory and Language*, 54, 554-573.
- Fukumura, K., & Gompel, R. P. G. van. (2012). Producing pronouns and definite noun phrases: Do speakers use the addressee's discourse model? *Cognitive Science*, 36, 1289-1311.
- Grice, P. (1975). Logic and conversation. In Cole, P.; Morgan, J. *Syntax and semantics*. 3: Speech acts. New York: Academic Press. 41-58.
- Gundel, J. K., N. Hedberg & R. Zacharski. (1993). Cognitive status and the form of referring expressions in discourse. *Language*, 69(2), 274-307.
- Hampton, J.A. (2007). Typicality, graded membership and vagueness. *Cognitive Science*, 31, 355-383.
- Keysar, B., Barr, D. J., Balin, J. A., & Brauner, J. S. (2000). Taking perspective in conversation: The role of mutual knowledge in comprehension. *Psychological Science*, 11, 32-38.
- Lee, C. (2012). The mental timeline in discourse organization and processing. Rutgers University – New Brunswick. Doctoral dissertation. <https://rucore.libraries.rutgers.edu/rutgers-lib/38901/>
- Wasow, T. (2009). Gradient data and gradient grammars. In *Proceedings of the 43rd Annual Meeting of the Chicago Linguistics Society*, 255-271.