Cukier-Goldstein-Goren Center for Mind, Cognition and Language,
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THURSDAY INTERDISCIPLINARY COLLOQUIUM

Thursday 18/01/2024

16:15-17:45

Émile Enguehard, University of Amsterdam

Towards a pragmatic explanation for the prevalence of upward-monotonic operators in natural language

The topic of this talk is what I will term the upward-monotonic bias, the preference towards logical functions that have a formal property called upward-monotonicity in natural language. This bias is most visible in the prevalence of upward-monotonic operators in the logical lexicon, as noted in particular by Horn in his 1972 dissertation — the most famous reflect of the bias is the fact that the logical operators “all” and “and” lack a one-word negated counterpart “*nall” or “*nand”, and this across languages. We will see that this bias has important consequences for the composition of the alternative sets used in formal pragmatics theories. This leads us to the hypothesis that the function of the bias is to guarantee that alternative sets have certain properties. I will present a number of formal results in support of this hypothesis. First, the bias is predicted by a strongest-answer condition on alternative sets (at least in certain formal settings). Second, the strongest-answer condition is equivalent to the condition that the exhaustification algorithms which have been proposed in the literature to derive scalar implicatures should turn the alternative set into a partition of logical space; thus the bias lets speakers be maximally informative for a given set of alternatives. Finally, the strongest answer condition is also equivalent to Bar-Lev and Katzir's (2022) stability condition, defined in the context or probabilistic models of pragmatics, which arguably provides independent motivation for the pragmatic desirability of the condition.

Click here to see the colloquium program.