

Presumptive Meanings: The theory of generalized conversational implicature

Stephen C. Levinson

(Max Planck Institute for Psycholinguistics, Nijmegen)

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Reviewed by

Nancy Green

University of North Carolina at Greensboro

Levinson's book presents a theory of generalized conversational implicature (GCI), and makes the central claim that this theory necessitates a "new view of the architecture of the theory of meaning" (p. 9). Levinson claims that to account for GCI (and other types of **presumptive meanings**, or preferred interpretations), it is necessary to distinguish a new level of utterance-type meaning from sentence-meaning and speaker-meaning: "This level is to capture the suggestions that the use of an expression of a certain type generally or normally carries, by default" (p. 71). The book belongs to the genre of linguistic argumentation. Expanding upon the Gricean notion of GCI (Grice 1975), the author provides numerous examples of GCI and classifies them into three categories, each category representing a different licensing heuristic. Then he discusses the implications of the theory: first, for the interface between semantics and pragmatics, and second, for syntactic theory. Throughout the presentation, the author addresses in great detail potential objections and counterarguments from alternative theories of meaning.

According to the author, GCIs are defeasible inferences triggered by the speaker's choice of utterance form and lexical items because of three heuristics mutually assumed by speaker and hearer. The heuristics, which can be related to Grice's maxims, are these:

- The First (Q) Heuristic: "What isn't said, isn't." For example, in the context of a blocks world where there are salient oppositions of objects {cones, pyramids, cubes} and colors {red, blue}, from the assertion "There's a blue pyramid on the red cube", this heuristic triggers the following inferences: 'There is not a cone on the red cube'; 'There is not a red pyramid on the red cube' (p. 31).
- The Second (I) Heuristic: "What is simply described is stereotypically exemplified." For example, from the assertion "The blue pyramid is on the red cube," in the context described above one is licensed to infer 'The pyramid is a stereotypical one . . .,' 'The pyramid is directly supported by the cube . . .,' etc. (p. 32).
- The Third (M) Heuristic: "What's said in an abnormal way, isn't normal; or Marked message indicates marked situation." For example, from the assertion "The blue cuboid block is supported by the red cube," in the context described above one is licensed to infer 'The blue block is not, strictly, a cube,' 'The blue block is not directly or centrally or stably supported by the red cube,' etc. (p. 33).

In addition, the theory provides a refinement to Gazdar's (1979) projection mechanism; GCIs licensed by Heuristic 1 are preferred to those licensed by Heuristic 3, which in turn are preferred to those licensed by Heuristic 2.

The book argues against the traditional view of the roles of semantics and pragmatics, according to which the output of semantics is the input to pragmatics. Instead, it argues for a more complex relationship in which GCI can play a role in truth conditions. In this model, two distinct types of semantic processes and two distinct types of pragmatic processes are involved. First, the semantic representation derived from the syntactic structure and lexical items of a sentence may be underspecified. The output of this semantic process is the input to a pragmatic process ("Gricean pragmatics I"), in which default, defeasible pragmatic inferences such as GCIs may contribute to determining the proposition expressed, for example, by helping to disambiguate lexical ambiguity, "generality narrowing" (i.e., narrowing word sense), and determining reference. The output of this process is the input to model-theoretic semantics. After sentence meaning has been determined by this semantic process, another pragmatic process ("Gricean pragmatics II") is responsible for deriving other inferences such as particularized conversational implicatures; this final process yields speaker meaning.

Certainly, the debate on the role of pragmatics in the linguistic "architecture" is of significance to computational linguistics. In addition, the book provides a wealth of descriptive information on GCI as well as many pointers to related work in theoretical linguistics. However, unfortunately, the book lacks a computational or formal orientation. For example, much theoretical work would remain to build a computational model of GCI based just upon the information presented in the book. Also, its coverage of potentially relevant work in computational linguistics is not up to date; for example, there is no discussion of recent lexical-pragmatics-oriented approaches such as those of Di Eugenio and Webber (1996), Elhadad, McKeown, and Robin (1997), and Stone and Webber (1998). Despite these limitations, this book will be of interest to language researchers, computationally-oriented or not, with an interest in theories of meaning.

References

- Di Eugenio, Barbara and Bonnie Webber. 1996. Pragmatic overloading in natural language instructions. *International Journal of Expert Systems*, 9(2): 53–84.
- Elhadad, Michael, Kathleen McKeown, and Jacques Robin. 1997. Floating constraints in lexical choice. *Computational Linguistics*, 23(2): 195–239.
- Gazdar, Gerald. 1979. *Pragmatics: Implicature, presupposition, and logical form*. Academic Press, New York, NY.
- Green, Nancy L. and Sandra Carberry. 1999. Interpreting and generating indirect answers. *Computational Linguistics*, 25(3): 389–435.
- Grice, H. Paul. 1975. Logic and conversation. In Peter Cole and Jerry L. Morgan, editors, *Syntax and Semantics III: Speech Acts*. Academic Press, New York, NY, pages 41–58.
- Stone, Matthew and Bonnie Webber. 1998. Textual economy through close coupling of syntax and semantics. *Proceedings of the Ninth International Workshop on Natural Language Generation*, Niagara-on-the-Lake, Canada, 5–7 August 1998, pages 178–187.

Nancy Green is an Assistant Professor of Computer Science at the University of North Carolina at Greensboro. Her dissertation research was on a computational model of conversational implicature for interpreting and generating indirect answers (Green and Carberry 1999). Green's address is: Department of Mathematical Sciences, 383 Bryan Building, University of North Carolina at Greensboro, Greensboro, NC 27402-6170; e-mail: nlgreen@uncg.edu.