

The Handbook of Pragmatics

Edited by

*Laurence R. Horn and
Gregory Ward*

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Contributors

- Barbara Abbott** Michigan State University, East Lansing, Michigan
Jay David Atlas Pomona College, Claremont, California
Kent Bach San Francisco State University, San Francisco, California
Betty Birner Northern Illinois University De Kalb, Illinois
Diane Blakemore University of Salford, Salford, UK
Reinhard Blutner Humboldt University, Berlin Germany
Gregory Carlson University of Rochester, Rochester, New York
Robyn Carston University College, London, UK
Eve V. Clark Stanford University, Stanford, California
Herbert H. Clark Stanford University, Stanford, California
Gilles Fauconnier University of California, San Diego, California
Thorstein Fretheim Norwegian University of Science and Technology, Trondheim, Norway
Adele E. Goldberg Princeton University, Princeton, New Jersey
Georgia M. Green University of Illinois, Urbana, Illinois
Jeanette K. Gundel University of Minnesota, Minneapolis, Minnesota
Julia Hirschberg Columbia University, New York
Jerry R. Hobbs Information Sciences Institute, University of Southern California, Los Angeles, California
Laurence R. Horn Yale University, New Haven, Connecticut
Yan Huang University of Reading, Reading, UK

- Michael Israel** University of Maryland, College Park, Maryland
Daniel Jurafsky Stanford University, Stanford, California
Paul Kay University of California, Berkeley, California
Andrew Kehler University of California, San Diego, California
Susumu Kuno Harvard University, Cambridge, Massachusetts
Stephen C. Levinson Max-Planck Institute, Nijmegen, the Netherlands
Geoffrey Nunberg Stanford University, Stanford, California
François Recanati Institut Jean Nicod (CNRS), Paris, France
Craige Roberts Ohio State University, Columbus, Ohio
Jerrold Sadock University of Chicago, Chicago, Illinois
Dan Sperber CREA, Paris, France
Robert J. Stainton University of Western Ontario, London, Ontario
Elizabeth Closs Traugott Stanford University, Stanford, California
Gregory Ward Northwestern University, Evanston, Illinois
Deirdre Wilson University College, London, UK

Introduction

Pragmatics as a field of linguistic inquiry was initiated in the 1930s by Morris, Carnap, and Peirce, for whom syntax addressed the formal relations of signs to one another, semantics the relation of signs to what they denote, and pragmatics the relation of signs to their users and interpreters (Morris 1938). In this program, pragmatics is the study of those context-dependent aspects of meaning which are systematically abstracted away from in the construction of content or logical form.

The landmark event in the development of a systematic framework for pragmatics was the delivery of Grice's (1967) William James lectures, a masterful (if incomplete) program that showed how a regimented account of language use facilitates a simpler, more elegant description of language structure. Since then, a primary goal of pragmatics has been the one reflected in Bar-Hillel's celebrated warning (1971: 405): "Be careful with forcing bits and pieces you find in the pragmatic wastebasket into your favorite syntactico-semantic theory. It would perhaps be preferable to first bring some order into the contents of this wastebasket." More recently, work in pragmatic theory has extended from the attempt to rescue syntax and semantics from their own unnecessary complexities to other domains of linguistic inquiry, ranging from historical linguistics to the lexicon, from language acquisition to computational linguistics, from intonational structure to cognitive science.

In this Handbook, we have attempted to address both the traditional and the extended goals of theoretical and empirical pragmatics. It should be noted, however, that other traditions – especially among European scholars – tend to employ a broader and more sociological conception of pragmatics that encompasses all aspects of language use not falling strictly within formal linguistic theory; see for example the entries in Verschuere et al. (1995) and Mey (1998) and, for a more restricted view, Moeschler and Reboul (1994). For reasons of space and coherence of presentation, we have largely restricted our coverage to the more narrowly circumscribed, mainly Anglo-American conception of linguistic and philosophical pragmatics and its applications.

The Handbook is divided into four parts. Part I contains overviews of the basic subfields within pragmatic theory: implicature, presupposition, speech acts, reference, deixis, and (in)definiteness. The domain of discourse, and in particular the structuring of information within and across sentences, is the focus of the chapters in part II. The chapters in part III concentrate on the interfaces between pragmatics and other areas of study, while those in part IV examine the role of pragmatics in cognitive theory.

For centuries before the field had a label or identity, pragmatics as we now understand it has radiated outward from that aspect of human inferential behavior Grice calls implicature, the aspect of speaker meaning that distinguishes what is (strictly) said from what is (more broadly) meant. The character of conversational implicature is surveyed in Larry Horn's chapter, which explores the relation of implicature to propositional content and linguistic form.

In addition to implicature, the realm of pragmatic inference notably encompasses presupposition. While a semantic presupposition is a necessary condition on the truth or falsity of statements (Frege 1892, Strawson 1950; see also Beaver 1997 and Soames 1989), a pragmatic presupposition is a restriction on the common ground, the set of propositions constituting the ongoing discourse context. Its non-satisfaction results not in the emergence of truth-value gaps but in the inappropriateness of a given utterance in a given context (Karttunen 1974, Stalnaker 1974). In asserting p , I propose adding the propositional content of p to the common ground; in presupposing q , I treat q as already (and non-controversially) part of the common ground. But, as observed by Stalnaker (1974) and Lewis (1979), a speaker may treat q as part of the common ground even when it actually isn't, through the principle of accommodation. In his contribution to this volume, Jay Atlas focuses on accommodation and non-controversiality as the keys to the neo-Gricean theory of presupposition.

If pragmatics is "the study of linguistic acts and the contexts in which they are performed" (Stalnaker 1972: 383), speech act theory – elaborating the distinction between the propositional content and the illocutionary force of a given utterance – constitutes a central subdomain, along with the analysis of explicit performative utterances and indirect speech acts. Speech act theory has evolved considerably from the early work initiated by Austin and Searle, as is discussed in Jerry Sadock's chapter.

While speech acts and presuppositions operate primarily on the propositional level, reference operates on the phrasal level. Reference involves a speaker's use of linguistic expressions (typically NPs) to induce a hearer to access or create some entity in his mental model of the discourse. A discourse entity represents the referent of a linguistic expression, i.e. the actual individual (or event, property, relation, situation, etc.) that the speaker has in mind and is saying something about. The relation between the expressions uttered by a speaker (and the demonstrative gestures that may accompany them) and what they do or can denote presents a range of problems for semantics, pragmatics, and psychology. Greg Carlson's chapter on reference surveys this important

domain, while other contributions to the Handbook (cf., for example, the chapters by Nunberg and by Kehler and Ward in part II) revisit specific aspects of the issues raised here.

One persistent complication for any theory of reference is the ubiquity of deictic or indexical expressions. From its inception, a central goal of pragmatics has been to “characterize the features of the speech context which help determine which proposition is expressed by a given sentence” (Stalnaker 1972: 383). The meaning of a sentence can be regarded as a function from a context into a proposition, where a proposition is a function from a possible world into a truth value; pragmatic aspects of meaning include the relation between the context in which an utterance is made and the proposition expressed by that utterance. Deixis characterizes the properties of expressions like *I, you, here, there, now, hereby*, tense/aspect markers, etc., whose meanings are constant but whose referents vary with the speaker and hearer, the time and place of utterance, and the style, register, or purpose of the speech act. This is explored in the chapter contributed by Steve Levinson, which examines in detail the nature of cross-linguistic variation within the deictic domain.

Another issue within the overall account of reference is the choice among referring expressions and in particular the notion of definiteness, which has been defined both as a formal marking of NPs and as an information status (see chapters in part II). The felicitous use of definite expressions has been pegged to the requirement that the referent of the NP be either familiar within the discourse or uniquely identifiable to the hearer. The other side of this coin is indefiniteness, which has typically been associated with novelty (as opposed to familiarity) or with non-uniqueness. These issues are investigated in Barbara Abbott’s chapter, which concludes part I of the Handbook.

The chapters in part II focus on context-dependent aspects of meaning that arise within discourse, in particular the structuring of information within and across sentences. The starting point for work in this area is the now well-established principle that speakers structure their discourse by taking into account both the (assumed) belief states and attentional states of their addressees.

The lead-off chapter by Gregory Ward and Betty Birner examines the role that non-canonical syntactic constructions play in the construction and processing of a coherent discourse. One of the key factors contributing to the coherence of a discourse is the existence of informational links among utterances within the discourse. Ward and Birner show how speakers’ use of non-canonical word order marks the information status of these links across sentences while at the same time facilitating discourse processing through the strategic placement of information in different syntactic positions.

At the heart of information structure since the seminal work of the Prague School in the 1930s are the interrelated notions of topic or theme (what a given statement is about) and focus or rheme (what is predicated about the topic). In their chapter, Jeanette Gundel and Thorstein Fretheim review the vast and often confusing literature on these notions across various frameworks. They

take topic and focus to be essentially linguistic categories, irreducible to more general cognitive or social principles. Moreover, they argue, a crucial distinction must be made between those properties of topic and focus that are directly attributable to the grammar and those that follow from purely pragmatic principles. Distinguishing between the grammatical and extragrammatical properties of topic and focus is crucial to the formulation of theories of discourse and information structure and to a more adequate account of how the language system interacts with general pragmatic principles governing language production and understanding.

At the heart of any comprehensive theory of the relation of an utterance's meaning to its context is a precise characterization of the very notion of context itself. As Craig Roberts points out in her chapter, an adequate theory of discourse and discourse coherence requires that the relation holding between a linguistic expression and its context of utterance be appropriately modeled and continuously updated as the discourse unfolds. For Roberts, what is necessary in order to model and track this relation is information about the mutual intentions of the co-participants and how these intentions are inter-related. This information, coupled with an appropriate semantics and inference engine, provides the basis for our understanding how context affects (i.e. induces or constrains) utterance interpretation.

Diane Blakemore's chapter focuses on discourse markers (DMs), also known as discourse connectives or particles (*well, so, but*, and the like). DMs have been characterized both negatively, by the non-truth-conditionality of their contribution to meaning, and positively, by their role in highlighting coherence and connectivity among the units of a discourse. Blakemore sees the distribution and interpretation of such markers as informing our understanding of the semantics–pragmatics interface and of the distinction between conceptual and procedural meaning. After evaluating the accounts of DMs offered by speech act theory, traditional Gricean pragmatics, and argumentation theory, Blakemore argues for a relevance-theoretic analysis of the contribution of these expressions.

While Blakemore's chapter outlines the role that discourse markers play in establishing coherence, Andy Kehler's chapter analyzes discourse coherence in its own right. As Kehler observes, hearers do not generally interpret adjacent sentences within a discourse segment as independent and unrelated utterances. Rather, there is an expectation that statements are related in one of several ways that can be captured by a small number of coherence relations. Kehler categorizes these relations into three broad classes defined by basic cognitive principles: cause–effect, contiguity, and resemblance. Kehler illustrates the crucial role that coherence relations play in language by examining their influence on the interpretation of a wide range of disparate linguistic phenomena, including VP-ellipsis, gapping, extraction from conjoined clauses, and pronominal reference.

A long-standing challenge to sentence-based approaches to interpretation is the fact that a speaker whose utterances are syntactically and semantically

subsentential may nevertheless manage to express complete propositions and perform fully felicitous speech acts by means of such expressions. The chapter by Rob Stainton on the pragmatics of non-sentences provides a cognitive-pragmatic analysis consisting of two processes: decoding and unencapsulated inference. According to Stainton, non-sentential utterances are first interpreted by the linguistic decoder, which produces a subsentential mental representation. This representation, in turn, is combined with another (non-decoder-derived) mental representation to yield a fully sentential mental representation, which, while not part of any natural language, nonetheless encodes the complete message as intended by the speaker.

Yan Huang's chapter investigates the extent to which the formal conditions of classical binding theory can be supplanted by pragmatic principles. Following earlier work by Reinhart, Dowty, and especially Levinson, he argues that the near-complementary distribution of pronominals and anaphors (i.e. reflexives and reciprocals) and the cross-linguistic patterns of long-distance anaphora and logophoric reference can best be accounted for if the syntax and semantics of binding interacts with neo-Gricean pragmatic theory. As Huang observes, the "soft constraints" built into the neo-Gricean analysis anticipates recent Optimality-theoretic approaches to anaphora.

Another challenge to the self-sufficiency of grammatical theory for explaining linguistic phenomena is offered in Susumu Kuno's chapter on empathy and perspective. Empathy is the degree to which a speaker identifies with, or takes the perspective of, a particular individual or entity referenced in a given utterance. In this way, the same propositional content can be presented from different points of view. Many apparently mysterious phenomena assumed to be purely syntactic can be successfully accounted for only by appeal to these quintessentially pragmatic notions. Kuno proposes that such perspectives interact with syntactic principles in predictable ways and that it is only through such an interaction of pragmatic and grammatical modes of explanation that a full account of such linguistic phenomena as anaphora, logophoricity, and passivization is possible.

Among the most creative but least well understood traits of colloquial discourse is the possibility of deferred reference, which occurs when an expression that conventionally picks out a given referent is used in a sufficiently rich context to refer instead to a discourse entity associated with that referent, as when a bartender refers to his customer as "the gin and tonic" or a doctor to her patient as "the kidney transplant in 317." In his chapter, Geoff Nunberg treats deferred reference as an instance of meaning transfer applied to the properties which linguistic expressions (NPs and predicates) supply. Nunberg explores some of the pragmatic and non-pragmatic factors that constrain and affect such transfers and figurative language more generally.

Herb Clark develops the (now uncontroversial) idea advanced by Grice, Lewis, and others that language is a fundamentally cooperative venture. In this chapter, Clark argues for a pragmatic theory of language performance drawing on two interrelated systems: a primary system of linguistic communication and

a collateral system that draws heavily on Clark's notion of display. Speakers display various signals to addressees that serve to indicate the speaker, addressee, time, place, and content of the signal. The addressee, in turn, signals receipt of the display by conveying acceptance of these indications. Such feedback mechanisms are shown to be crucial to our understanding of the communicative process.

Rounding out part II is Andy Kehler's and Gregory Ward's chapter on event reference. Whereas most pragmatic accounts of the constraints associated with particular referring expressions focus on reference to entities (see e.g. Carlson's chapter in part I), Kehler and Ward argue that such accounts need to be revised and extended to account for event-level ellipsis and reference. Their examination of four different event-referring constructions suggests that an adequate model must ultimately appeal to a diverse set of properties that govern natural language syntax, semantics, and pragmatics.

Part III offers varied perspectives on the major interfaces of pragmatics. Linguists have long sought to rely on pragmatic theory to render their accounts of grammatical phenomena both simpler and more explanatory. In the early years of generative grammar, any appeal to pragmatics was seen as hand-waving, less of an explanation of the phenomenon in question than an excuse to avoid dealing with it. As our understanding of pragmatics has deepened, so has our recognition of the ways in which it interacts with other aspects of linguistic competence. Georgia Green's chapter addresses some of the more significant properties of the syntax-pragmatics interface, including the role of context (encompassing speakers' beliefs and intentions) in the description of grammatical constructions and in the formulation of constraints on grammatical processes.

Another investigation of the syntax-pragmatics interface is the chapter by Adele Goldberg on argument structure. Goldberg shows that pragmatic factors such as topic, focus, and information structure all play a crucial role in determining whether a particular argument (or adjunct) is realized in the syntax and, if so, where and in what form that argument appears. These pragmatic factors interact with language-specific grammatical principles to produce the variation in argument structure found cross-linguistically.

From the inception of the Peirce-Carnap-Morris trichotomy, one central issue in the study of meaning has been the semantics/pragmatics distinction and the proper treatment of the borderline defined by their interaction. This territory is explored in the chapters by François Recanati and Kent Bach. Recanati provides an overview of the domain, concentrating on the emergence of modern pragmatics from the crucible of the conflict between formal semanticists and ordinary language philosophers in the second half of the twentieth century. As Recanati shows, current disputes on the role of pragmatic processes in the determination of truth-conditional content and the treatment of unarticulated constituents can be traced to the different responses urged by Griceans and relevance theorists to the division of labor between semantics and pragmatics in the treatment of meaning in natural language.

Bach's chapter addresses two sets of problems: those for which the philosophy of language informs the study of pragmatics (e.g. the treatment of performatives, speech acts, and implicature) and those for which pragmatics informs the philosophy of language. In keeping with the Bar-Hillel wastebasket apothegm, Bach repositions the line of demarcation between semantics and pragmatics in a way that allows a significant range of traditional semantic problems in the areas of reference, presupposition, quantification, and ambiguity to be resolved – or at least clarified – by the application of independently motivated pragmatic, i.e. communication- or use-based, principles and processes.

The traditional syntax/semantics/pragmatics trichotomy extends from the analysis of sentences and discourse into the lexicon. While the study of the syntax and semantics of words (morphology and lexical semantics, respectively) are well-established disciplines, the last quarter century has witnessed the development of the new field of lexical pragmatics. Reinhard Blutner's chapter is devoted to this field, focusing on pragmatically based constraints on lexicalization (see also Horn's implicature chapter), the role of pragmatic strengthening, markedness asymmetries, and the non-monotonic character of word meaning. (The diachronic aspects of these questions are treated in Traugott's chapter.) As Blutner shows, there is a natural kinship between a neo-Gricean approach to the mental lexicon (dating back to McCawley 1978) and current developments in bidirectional Optimality Theory, in which the dialectic of speaker and hearer receives a natural representation.

As Julia Hirschberg points out in her chapter, intonational meaning is essentially pragmatic in nature, as its interpretation crucially depends on contextual factors. Hirschberg brings together research from linguistics, speech, computational linguistics, and psycholinguistics, applying a uniform notation to describe the prosodic variation discussed in this work. Intonation is shown to interact with syntax (attachment ambiguities), semantics (scope ambiguities, focus), and of course pragmatics (discourse and information structure, pronominal reference, and speech act interpretation).

The last quarter century has seen the study of pragmatic aspects of meaning change and lexicalization play an increasingly significant role within diachronic linguistics. Both corpus-based and theoretical investigations have been enriched by the recognition of the role of implicature in facilitating and constraining the set of possible and likely varieties of change. The application of neo-Gricean inference to lexical change is the focus of Elizabeth Traugott's chapter on historical pragmatics, which also explores the ways in which polysemy arises and the routes by which non-literal aspects of meaning tend to become frozen into the conventional value of a lexical expression.

Pragmatics plays a central role in ontogeny as well as phylogeny, as Eve Clark's chapter demonstrates. Clark explores the language learner's acquisition of the ability to tailor the form of utterances to the assumed requirements of one's conversational partners. In their application and eventual refinement of the principle of contrast, their familiarization with the interactional principles

of politeness and common ground, and their first steps toward the development of a working knowledge of implicature from both speaker's and hearer's perspectives, children have set out on the road that will lead to full pragmatic competence.

No survey of the interfaces of pragmatics would be complete without a look at attempts to build machines that have the capacity to emulate human pragmatic competence. As Dan Jurafsky notes in his chapter, computational pragmatics is largely concerned with the modeling of the ability of humans to infer information not explicitly realized in an utterance. Jurafsky focuses on the interpretation and generation of speech acts as a case study of recent work in this area.

In keeping with other sections of the Handbook, part IV is organized thematically rather than doctrinally; the six papers it collects all deal with the relation between pragmatics and cognition, while encompassing a variety of distinct theoretical approaches. Deirdre Wilson, Dan Sperber, and Robyn Carston have been major advocates of relevance theory, an influential revision of the Gricean paradigm (Sperber and Wilson 1986a, Carston 2002b). Wilson and Sperber present a state-of-the-art overview of RT, focusing on the implications of this approach for communication, utterance interpretation, and the modular view of mental architecture, while also touching on the analysis of irony and metarepresentation more generally. In her chapter, Carston re-examines the classic Gricean distinction between what is said and what is implicated in the light of current developments in RT. She argues for a position in which "what is said," a central construct in neo-Gricean work, in fact plays no role within pragmatic theory, and in which the implicit/explicit distinction is reconstructed in terms of the relevance-theoretic notion of explicature, a pragmatically determined aspect of propositional content that (contrary to implicature) is germane to the determination of truth conditions.

A different model of the pragmatics of cognition underlies work by Gilles Fauconnier, the originator of the theory of mental spaces. In his chapter, Fauconnier examines the relation between literal and metaphorical interpretation, and concludes that a direct assignment of meaning to grammatical constructions offers a more insightful approach than one mediated by a two-stage Gricean analysis in which literal meaning serves as the input to metaphorical reanalysis. Fauconnier extends the theory of mental spaces to the analysis of opacity, presupposition, performatives, and scalar predication, surveying a variety of ways in which recent developments in cognitive science are relevant for research in pragmatics.

Another perspective on cognitive pragmatics is offered by Paul Kay, one of the founders of Construction Grammar. After demonstrating the complexity of the issues the hearer must sort out in the interaction of grammatical structure and context or common ground as a prerequisite to interpretation, Kay surveys a variety of domains in which pragmatic information influences grammatical constructions, including indexicals, scalar models, metalinguistic operators, hedges (*kinda, sorta, technically*), and speech acts.

In his chapter, Michael Israel investigates one such class of constructions, that comprising negative and positive polarity items. He shows how the lexical properties and grammatical distribution of such items are intricately tied to Kay's notion of scalar model and to the pragmatic asymmetry of negation and affirmation (Horn 1989). Like other essays in the volume, Israel's discussion also explores the important issue of how inherently pragmatic conditions become conventionalized into the lexicon and grammar.

A final look at the pragmatics/cognition interface is presented in the chapter by Jerry Hobbs on abductive reasoning. Abduction, originally identified by C. S. Peirce and more recently developed by researchers in artificial intelligence dealing with the non-monotonic nature of natural language inference, is applied by Hobbs to a variety of problems of a pragmatic nature, ranging from disambiguation and reference resolution to the interpretation of compound nominals and the nature of discourse structure.

We conclude our introductory remarks with a heartfelt appreciation for the efforts and perseverance of our contributors through the difficulties of the editorial process; without them there would be no *Handbook of Pragmatics*. In addition, we would like to thank Sarah Coleman and Tami Kaplan at Blackwell for their support and hard work on our behalf. Finally, we extend a special note of thanks to Kent Bach, Ann Burger, and Bill Lachman for their editorial assistance.

Part I The Domain of Pragmatics

1 Implicature

LAURENCE R. HORN

1 Implicature: Some Basic Oppositions

IMPLICATURE is a component of speaker meaning that constitutes an aspect of what is **meant** in a speaker's utterance without being part of what is **said**. What a speaker intends to communicate is characteristically far richer than what she directly expresses; linguistic meaning radically underdetermines the message conveyed and understood. Speaker S tacitly exploits pragmatic principles to bridge this gap and counts on hearer H to invoke the same principles for the purposes of utterance interpretation.

The contrast between the said and the meant, and derivatively between the said and the implicated (the meant-but-unsaid), dates back to the fourth-century rhetoricians Servius and Donatus, who characterized litotes – pragmatic understatement – as a figure in which we say less but mean more (“minus dicimus et plus significamus”; see Hoffmann 1987 and Horn 1991a). In the Gricean model, the bridge from what is said (the literal content of the uttered sentence, determined by its grammatical structure with the reference of indexicals resolved) to what is communicated is built through implicature. As an aspect of speaker meaning, implicatures are distinct from the non-logical inferences the hearer draws; it is a category mistake to attribute implicatures either to hearers or to sentences (e.g. *P and Q*) and subsentential expressions (e.g. *some*). But we can systematically (at least for generalized implicatures; see below) correlate the speaker's intention to implicate *q* (in uttering *p* in context *C*), the expression *p* that carries the implicature in *C*, and the inference of *q* induced by the speaker's utterance of *p* in *C*.

Subtypes of implicature are illustrated by (1a–c) (after Grice 1961: §3); the primed member of each pair is (in certain contexts) deducible from its unprimed counterpart:

- (1)a. Even KEN knows it's unethical.
a'. Ken is the least likely [of a contextually invoked set] to know it's unethical.

- b. [in a recommendation letter for a philosophy position]
Jones dresses well and writes grammatical English.
- b'. Jones is no good at philosophy.
- c. The cat is in the hamper or under the bed.
- c'. I don't know for a fact that the cat is under the bed.

Unlike an entailment or logical presupposition, the inference induced by *even* in (1a, a') is irrelevant to the truth conditions of the proposition: (1a) is true if and only if Ken knows it's unethical. The inference is not CANCELABLE without contradiction (*#Even Ken knows it's unethical, but that's not surprising*), but it is DETACHABLE, in the sense that the same truth-conditional content is expressible in a way that removes (detaches) the inference: *KEN knows it's unethical (too)*. Such detachable but non-cancelable aspects of meaning that are neither part of, nor calculable from, what is said are CONVENTIONAL implicatures, akin to pragmatic presuppositions (Stalnaker 1974). Indeed, along with connectives like *but*, the now classic instances of conventional implicature involve precisely those particles traditionally analyzed as instances of pragmatic presupposition: the additive component of adverbial particles like *even* and *too*, the "effortful" component of truth-conditionally transparent "implicatives" like *manage* and *bother*, and the existential component of focus constructions like clefts.

But in contrast with these non-truth-conditional components of an expression's conventional lexical meaning,¹ the inferences induced by (1b, c) are NON-conventional, i.e. calculable from the utterance of such sentences in a particular context, given the nature of conversation as a shared goal-oriented enterprise. In both cases, the speaker's implicature of the corresponding primed proposition is cancelable (either explicitly by appending material inconsistent with it – "*but I don't mean to suggest that . . .*" – or by altering the context of utterance) but non-detachable (given that any other way of expressing the literal content of (1b, c) in the same context would license the same inference).² What distinguishes (1b) from (1c) is the generality of the circumstances in which the inference is ordinarily licensed. Only when the speaker of (1b) is evaluating the competence of the referent for a philosophy position will the addressee normally be expected to infer that the speaker had intended to convey the content of (1b'); this is an instance of PARTICULARIZED conversational implicature.³ In (1c), on the other hand, the inference – that the speaker does not know in which of the two locations the cat can be found – is induced in the absence of a special or marked context. The default nature of the triggering in (1c) represents the linguistically significant concept of GENERALIZED conversational implicature. But in both cases, as with conventional implicature, it is crucially not the proposition or sentence, but the speaker or utterance, that induces the relevant implicatum.

The significance of the generalized/particularized dichotomy has been much debated; cf. Hirschberg (1991) and Carston (1995) for skepticism and Levinson (2000a) for a spirited defense.⁴ Whatever the theoretical status of the distinction,

it is apparent that some implicatures are induced **only** in a special context (if Mr. Jones had been applying for a job as a personal secretary, Grice's remark in (1b) would have helped, rather than torpedoed, his candidacy), while others go through **unless** a special context is present (as in the utterance of (1c) as a clue in a treasure hunt). The contrast between particularized and generalized implicature emerges clearly in this scene from *When Harry Met Sally* (1989 screenplay by Nora Ephron). Harry (Billy Crystal) is setting up a blind date between his buddy Jess (Bruno Kirby) and his woman friend – but not (yet) girlfriend – Sally (Meg Ryan):

- (2) Jess: *If she's so great why aren't YOU taking her out?*
 Harry: *How many times do I have to tell you, we're just friends.*
 Jess: *So you're saying she's not that attractive.*
 Harry: *No, I told you she IS attractive.*
 Jess: *But you also said she has a good personality.*
 Harry: *She HAS a good personality.*
 Jess: *[Stops walking, turns around, throws up hands, as if to say "Aha!"]*
 Harry: *What?*
 → Jess: *When someone's not that attractive they're ALWAYS described as having a good personality.*
 Harry: *Look, if you were to ask me what does she look like and I said she has a good personality, that means she's not attractive. But just because I happen to mention that she has a good personality, she could be either. She could be attractive with a good personality or not attractive with a good personality.*
 Jess: *So which one is she?*
 Harry: *Attractive.*
 ⇒ Jess: *But not beautiful, right?*

Jess's first arrowed observation incorrectly reanalyzes a particularized implicature (S, in describing X to H as having a good personality implicates that X is not attractive) as generalized, to which Harry responds by patiently pointing out the strongly context-dependent nature of the inference in question. To see that this is no isolated example, consider a parallel dialogue from an earlier film, *The Shop Around the Corner* (1940 Ernst Lubitsch screenplay). Kralik (James Stewart) is describing his epistolary innamorata to his colleague Pirovitch (Felix Bressart):

- (3) Kralik: *She is the most wonderful girl in the world.*
 Pirovitch: *Is she pretty?*
 Kralik: *She has such ideals, and such a viewpoint of things that she's so far above all the other girls that you meet nowadays that there's no comparison.*
 → Pirovitch: *So she's not very pretty.*

Like Jess, Pirovitch (who, like Jess above, employs *so* to mark his pragmatic inference) misapplies the (here, tacit) inferential strategy to conclude from Kralik's impassioned (if unparsable) tribute to his love's virtues that she must be physically unprepossessing; in fact, Kralik believes (falsely) that he hasn't yet met her in the flesh, so no such implicature could have been made.

While the inferential step marked by the single arrows is indeed particularized and therefore context-dependent in the strong sense, the inference drawn by Jess at the double arrow is generalized, instantiating SCALAR IMPLICATURE, the upper-bounding of a weak predication ("X is attractive") to convey that the speaker was not in a position to assert any stronger counterpart ("X is beautiful"). The pattern exemplified by Jess's inference, and the reason why Jess is once again wrong to draw it, follow from our later discussion.

To conclude our brief taxonomy of implicature, we should note that despite extensive investigation in work culminating with Karttunen and Peters (1979), conventional implicature remains a controversial domain. While it continues to be invoked to handle non-truth-conditional aspects of lexical meaning, this tends to constitute an admission of analytic failure, a label rather than true explanation of the phenomenon in question. It has on occasion been maintained that conventional implicature is a myth (Bach 1999b), and even for the true believers, the domain in which such implicatures have been posited continues to shrink, eaten away on one side by an increasingly fine-grained understanding of truth-conditional meaning and entailment⁵ (a trend begun in Wilson and Sperber 1979; see also Blakemore and Carston, this volume) and on the other by a more sophisticated employment of the tools of conversational implicature. While conventional implicature remains a plausible *faute de mieux* account of particles like *even* and *too*, whose contribution has not convincingly been shown to affect the truth conditions of a given utterance but is not derivable from general considerations of rationality or cooperation, the role played by conventional implicature within the general theory of meaning is increasingly shaky.

2 Speaker Meaning, Inference, and the Role of the Maxims

Whether generalized or particularized, conversational implicature derives from the shared presumption that S and H are interacting rationally and cooperatively to reach a common goal. A speaker S saying *p* and implicating *q* can count on her interlocutor to figure out what S meant (in uttering *p* at a given point in the interaction) from what was said, based on the assumption that both S and H are rational agents. Speakers implicate, hearers infer. While work as distinct as that of Levinson (2000a) and Sperber & Wilson (1986a) often appears to assimilate implicature to non-logical inference, the two phenomena were quite distinct for Grice (1989) (see Bach 2001a and Saul 2002 for discussion). While successful communication commonly relies on implicature,

what a speaker implicates is often quite distinct from what her words imply or from what a hearer may be expected to take from them.

But it is *S*'s assumption that *H* will draw the appropriate inference from what is said that makes implicature a rational possibility. The governing dictum is the Cooperative Principle: "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange" (Grice [1967]1989: 26).⁶ This general principle is instantiated by general maxims of conversation governing rational interchange (1989: 26–7):

- (4) **QUALITY:** Try to make your contribution one that is true.
1. Do not say what you believe to be false.
 2. Do not say that for which you lack evidence.
- QUANTITY:**
1. Make your contribution as informative as is required (for the current purposes of the exchange).
 2. Do not make your contribution more informative than is required.
- RELATION:** Be relevant.
- MANNER:** Be perspicuous.
1. Avoid obscurity of expression.
 2. Avoid ambiguity.
 3. Be brief. (Avoid unnecessary prolixity.)
 4. Be orderly.

The fourfold set of macroprinciples has no privileged status, except as a nod to Kant's own categorical tetralogy. Note in particular that all maxims are not created equal. Following Grice himself –

The maxims do not seem to be coordinate. The maxim of Quality, enjoining the provision of contributions which are genuine rather than spurious (truthful rather than mendacious), does not seem to be just one among a number of recipes for producing contributions; it seems rather to spell out the difference between something's being, and (strictly speaking) failing to be, any kind of contribution at all. False information is not an inferior kind of information; it just is not information. (Grice 1989: 371)

– many (e.g. Levinson 1983, Horn 1984a) have accorded a privileged status to Quality, since without the observation of Quality, or what Lewis (1969) calls the convention of truthfulness, it is hard to see how any of the other maxims can be satisfied (though see Sperber and Wilson 1986a for a dissenting view).

But the role of the maxims is a more central problem. It is chastening to realize that for all the work inspired by the Gricean paradigm since the William James lectures first circulated in mimeo form among linguists and philosophers in the late 1960s, the nature of the enterprise stubbornly continues to be misunderstood. (See Green 1990 for an inventory of such misunderstandings.) Here is Exhibit A:

Communication is a cooperative effort, and as such should conform to certain definite rules, or maxims of conversation, which Grice enumerates. The maxims presuppose an almost Utopian level of gentlemanly conduct on the part of a speaker and an old-fashioned standard of truthfulness that George Washington might have found irksome.⁷ They remind one of the early Puritanism of the Royal Society. A speaker should give not too much but just enough information, hold his tongue about what he believes to be false, or for which he has insufficient evidence, be relevant, be brief and orderly, avoid obscurity of expressions and ambiguity. . . . Would we want to have dinner with such a person, such an impeccably polite maxim observer? (Campbell 2001: 256)

This passage is taken from Jeremy Campbell's natural history of falsehood, a treatise hailed by reviewers as "carefully researched," "enlightening," and "thought-provoking," an "almost breathless exercise in intellectual synthesis." But it is not just the laity who are at fault; professional linguists and ethnographers, following Keenan (1976), have at times concluded that Grice's maxims are trivial, naïve to the point of simple-mindedness, and/or culture-dependent (if not downright ethnocentric), and that they fail to apply to phatic and other non-information-based exchanges.

But neither the Cooperative Principle nor the attendant maxims are designed as prescriptions for ethical actions or as ethnographic observations.⁸ A more accurate approximation is to view them as default settings (or presumptions, à la Bach and Harnish 1979), the mutual awareness of which, shared by speech participants, generates the implicatures that lie at the heart of the pragmatic enterprise. Only if the speaker is operating, and presumes the hearer is operating, with such principles as defaults can she expect the hearer to recognize the apparent violation of the maxims as a source of contextual inference (see Grice 1989, Green 1996a, Levinson 2000a for elaboration). Further, as with presupposition (on the pragmatic account of Stalnaker 1974), conversational implicature operates through the mechanism of EXPLOITATION. Unlike syntactic and semantic rules, pragmatic principles and conventions do as much work when they are apparently violated – when speaker S counts on hearer H to recognize the apparent violation and to perform the appropriate contextual adjustment – as when they are observed or ostentatiously violated.

3 Scalar Implicature and Constraints on Lexicalization

For linguistic pragmatics, the core of the Gricean system is the first Quantity submaxim, which is systematically exploited to yield upper-bounding generalized conversational implicatures associated with scalar values (Horn 1972, 1989; Gazdar 1979; Hirschberg 1991). Under a variety of formulations, this principle and its explanatory potential have long been tacitly recognized,