3.   Implicating

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1.   Introduction: before Grice

Implicating, as it is conceived in recent pragmatics, amounts to conveying a (propositional) content without saying it – a content providing no contribution to the truth-conditions of the proposition expressed by the sentence uttered. In this sense, implicating is a notion closely related to the work of Paul Grice (1913–1988) and of his precursors, followers and critics. Hence, the task of this article is to introduce and critically examine the explicit/implicit distinction, the Gricean notion of implicature (conventional and conversational) and its recent developments and connections with the speaker's intentions, communicative responsibility and rationality.

The classical starting point is the Gricean distinction between "what is said" and "what is implicated" – namely the distinction between the proposition expressed by an utterance (the truth-conditions of the sentence uttered) and the implicit meaning of the utterance (Grice [1975] 1989e). "What is implicated" by a speaker using a sentence in a given context represents an inference licensed in context which cannot be identified with logical implication, logical consequence or entailment (inferences derived solely from semantic content). Many scholars stress that the distinction dates back as far as *Categoriae* – where, in relation to numerals and expressions like *toothless*, Aristotle distinguishes between logical meaning and regularities of use (Aristotle 1963: ch. 12, 14a; ch. 10, 12a). Likewise, John Stuart Mill underlines the distinction between logic and use concerning quantifiers: understanding *some* as meaning 'some but not all' amounts to claiming that *some* and *all* are incompatible, mistaking logic with features of use and conversation – i.e. confusing what the speaker says and what the audience may infer from what is said (Mill 1867: 501; cf. De Morgan 1847; Horn 1989, 1996, 2010; Chapman 2005: 87–89).

The distinction between facts of semantics and facts pertaining to the rules of conversation puts Grice in a peculiar position among ordinary language philosophers like John Austin or Peter Strawson. Strawson, in particular, holds that the semantics of natural language expressions cannot be expressed by logic; as he puts it, "Neither Aristotelian nor Russellian rules gives the exact logic of any expression of ordinary language; for ordinary language has no exact logic" (Strawson [1950] 1971b: 20). In *Introduction to Logical Theory,* he stresses that the meanings of the logical particles $\land$, $\lor$, $\rightarrow$, $\forall$, $\exists$, do not give the meanings of their counterparts in natural language (*and*, *or*, *if … then*, *all*, *some*) (Strawson 1952: ch. 3, pt. II). He examines the following sentence:

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(1) He went to bed and took off his trousers,

having the form

(2) p ∧ q.

The meaning of (2) is given by the truth-table for ∧: in logic, conjunction is commutative and (2) is equivalent to

(3) q ∧ p.

Intuitively things are different for (1) and

(4) He took off his trousers and went to bed;

(1) would be inappropriate, if uttered concerning someone who first took off his trousers and then went to bed. According to Strawson, it follows that the temporal sequence between the two events is *part of the meaning* of *and*, while it is not part of the meaning of its logical counterpart. In a similar vein, the sentence

(5) My wife is in London or in Oxford,

having the form

(6) p ∨ q,

would be inappropriate if the speaker knew that his wife was in London: the utterer of (5) is generally interpreted as if he doesn't know which of the two disjuncts *p* or *q* is true. For Strawson, it follows that it is part of the meaning of (5) that the speaker S does not know if *p* is true and does not know if *q* is true.

Strawson holds that the semantics of *and*, *or*, *if … then*, and so on, is determined by linguistic practice – namely by *use*. The same analysis holds for other terms with epistemological implications, like *look*, *believe* or *know*. Ordinary language philosophers claim that

(7) *x* looks red to me

is acceptable only if S knows or thinks that *x* isn't red, or thinks that someone may doubt or deny that *x* is red; otherwise (7) is false: those conditions are part of the meaning of (7). Likewise, the sentence

(8) I believe that *p*

is appropriate only if S knows that *not p* or does not know that *p*; otherwise S would have said "*p*", or "I know that *p*".

2.   Grice: what is said and what is implicated

On this point Grice disagrees with the ordinary language tradition: he maintains that use is the key notion, but underlines the difference between those features of language that should be ascribed to meaning and those that should be ascribed to communicative interaction.[1] Sentences (1), (5), (7) and (8) may well be inappropriate in the contexts specified, but one must distinguish between sentences that are inappropriate because they are false (a semantic fact) and sentences that are inappropriate for reasons related to general principles of discourse and rational behaviour (Grice [1975] 1989e: 24). Grice admits that it would be "baffling" to utter (7) if no one has doubts concerning the colour of x; but this does not make (7) false, illformed or lacking a truth-value. (7) is true but misleading: "while admitting that, though true, it might be very misleading and that its truth might be very boring and its misleadingness very important, one might still hold that its *suggestio falsi* is perfectly compatible with its literal truth" (Grice [1961] 1989b: 228).

The main task of semantics is to characterize in a systematic way our intuitions about truth, falsity, meaning, contradiction and implication: some distinctions are then valuable instruments of philosophical analysis. In the "Homeric struggle" (Strawson [1969] 1971a: 132) between formalists, dealing with the structural and compositional aspects of language (ideal language philosophers such as Frege, Russell, Tarski, Carnap, the early Wittgenstein) and informalists (ordinary language philosophers such as the later Wittgenstein, Austin, Strawson), Grice tries to reconcile the two opposite camps. Both are mistaken in claiming that formal devices and their counterparts in natural languages diverge in meaning: formalists and informalists consider part of the meaning of natural language sentences what are just implicit contents communicated by uttering those sentences. Grice draws the crucial distinction between logical consequence and *implicature* – between what belongs to the meaning, for example, of (1) or (5) and what S conveys using those very sentences.

More generally, the distinction between what is said and what is implicated allows Grice to explain how simple, schematic and univocal linguistic meanings may be used in context to communicate far richer contents, without positing ambiguities and multiple senses. It is the rationale of Modified Occam's Razor: "*Senses are not to be multiplied beyond necessity*" (Grice [1978] 1989f: 47); implicatures can be derived from independently motivated principles.

Therefore, according to Grice, in (1) the temporal sequence of the two events is neither part of the meaning of *and*, nor one of the different meanings associated to *and*: it is an implicature generated by the expectation that S is expressing herself in an orderly manner. Similarly in

(9) Tom ate the shrimp and got food poisoning,

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the causal relation between the two events (Tom got food poisoning because he ate the shrimp) isn't part of the meaning of (9): it is an implicature generated by the expectation that S is orderly and relevant.

Therefore, Grice's main task is to draw a distinction

> within the total signification of a remark: a distinction between what the speaker has *said* (in a certain favored, and maybe in some degree artificial, sense of 'said'), and what he has *implicated* (e.g. implied, indicated, suggested), taking into account the fact that what he has implicated may be either conventionally implicated (implicated by virtue of the meaning of some word or phrase which he has used) or nonconventionally implicated (in which case the specification of the implicature falls outside the specification of the conventional meaning of the words used) (Grice [1968] 1989c: 118).

In other words, Grice tries to fully characterise

(a) what an expression E means;
(b) what a speaker S explicitly says (in Grice's "favored", technical sense) using E on a given occasion;
(c) what S implicitly conveys (implicates, implies, indicates, suggests) using E on that given occasion.

According to Grice, what is said, that is (b), is "closely related to the conventional meaning of the (…) sentence (…) uttered", that is (a), and must correspond to "the elements of the [sentence], their order, and their syntactic character" (Grice [1969] 1989d: 87).[2] It is closely related but not identical to what the sentence means, because the sentence may contain ambiguities or indexicals.[3]

Both (b) and (c) amount to *speaker's meaning* (see Kemmerling, this volume). Hence, an implicature is a non-truth-conditional aspect of speaker meaning – part of what is meant when S utters E in context C, without being part of what is said by S with E.

3.   Grice: Cooperation and Maxims

Grice's theory is meant to provide a framework that allows an explanation and prediction of implicatures. The gap between expression meaning, (a), and speaker's meaning, (b) + (c), and between saying, (b), and implying, (c), is filled by exploiting a set of expectations which both speaker S and addressee A share. Those expectations are based on an assumption: language use is a form of rational and cooperative behaviour, characterised by a high level of coordination: "Our talk exchanges do not normally consist of a succession of disconnected remarks, and would not be rational if they did. They are characteristically, to some degree at least, cooperative efforts; and each participant recognizes in them, to some extent, a common purpose or set of purposes, or at least a mutually accepted direction" (Grice [1975] 1989e: 26). Conversation, then, is a rational, cooperative, goal-

oriented activity – governed by a 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 in which you are engaged" (Grice 1989e: 26). If both S and A are rational and cooperative, they share, at least partially, a common goal, even if "their ultimate aims may (…) be independent and even in conflict" (Grice 1989e: 29). In order to understand the speaker's meaning, A is guided by certain expectations concerning S's behaviour: namely the expectation that S's utterance will satisfy certain standards – being informative, sincere, relevant and clear.

The Cooperative Principle is specified by four categories, called Quantity, Quality, Relation and Manner, under which fall more specific maxims.

The Quantity Maxims reflect the expectation that speakers are reasonably informative:

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.

The Quality Maxims reflect the expectation that speakers are sincere and justified in their utterances; there is a supermaxim "Try to make your contribution one that is true" and two maxims:

1. Do not say what you believe to be false.
2. Do not say that for which you lack adequate evidence.

The Relation Maxim reflects the expectation that speakers are relevant: "Be relevant".[4]

The Manner Maxims reflect the expectation that speakers are clear: "Be perspicuous":

1. Avoid obscurity of expression.
2. Avoid ambiguity.
3. Be brief (avoid unnecessary prolixity).
4. Be orderly (Grice 1989e: 26–27).

Conversational maxims "are such that, in paradigmatic cases, their observance promotes and their violation dispromotes conversational rationality" (Grice 1989a: 370); but they have the interesting feature of being effective even when they are violated. As a matter of fact, speakers sometimes "flout" the maxims – i.e. violate the maxims intentionally and overtly: the addressee will then try to reconcile the violations with the assumption that speakers are generally cooperative. Cases of blatant violation typically give rise to conversational implicatures: a maxim is then *exploited* in order to obtain particular communicative effects and more specifically in order to convey an additional proposition.

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4.   Implicatures

Sometimes what S says fails to be plausible (Quality), informative (Quantity), relevant (Relation), or clear (Manner). A, when she has no reason to think that S is no longer cooperative, may infer additional propositions either amplifying ("standard implicatures" in Levinson's (1983: 104) terminology) or revising and correcting what S says.[5] According to Grice, then, in our linguistic interactions a speaker may often communicate much more than what she says explicitly. The proposition S communicates by uttering a particular sentence in a particular context without saying it Grice dubs *implicature*: this proposition is not part of the meaning of the sentence uttered – it does not contribute to its truth-conditions.[6] The general idea is that A's expectations may be exploited by S in order to generate further communicative effects. Uttering a sentence is an action that A takes as meaningful: she may then infer S's communicative intention (what is implicated) by taking into account S's utterance (what is said) and contextual factors that A (supposedly) shares with S. If, for example, S says

(10) Tom is the cream of my coffee,

S blatantly violates the first maxim of Quality; she may however communicate a similitude (TOM IS LIKE THE CREAM OF MY COFFEE). (10) is an example of metaphor: it expresses literally a categorical falsity, but S may use it in order to implicitly communicate a true proposition (TOM IS MY PRIDE AND JOY). The same goes for cases of irony, meiosis and hyperbole, where S intentionally and blatantly violates the maxim of Quality. In every case the supermaxim ("Try to make your contribution one that is true") is still effective: even if S does not commit herself to the truth of the proposition explicitly expressed, her overall contribution is sincere (cf. below, Section 9.2.).

In a similar vein, if S utters

(11) War is war,

she is blatantly flouting the first maxim of Quantity: (11) is a tautology, therefore uninformative. By overtly violating a maxim, S implicates something more informative than what is literally said (something like WAR IS ALWAYS A HORRIBLE EVENT, or WAR IS A NECESSARY EVIL, etc.).

Let's take stock. Conversational implicatures aren't generated by what is said, but by the *act* of saying it – by the fact that S said what she said. Implicatures are propositions (that are not part of the truth-conditional content of what S said) that are available to A thanks to a complex system of expectations about S's utterance. In this perspective, implicatures have a propositional format, namely they are evaluable as true or false; of course their truth-conditions are completely independent from the truth-conditions of what is said.[7]

The next section examines the distinction between conventional and conversa-

tional implicatures – drawing on Grice's brief remarks (Grice 1989e: 31–40) and showing the role of the Cooperative Principle and the conversational maxims.

5.   Conventional implicatures

Grice distinguishes two varieties of implicatures:

(i)   conventional implicatures;
(ii)   conversational implicatures (particularised and generalised).

The notion of conventional implicature dates back to Frege (1892, 1918): the conventional meanings of certain terms (like *but* or *still*) do not make any contribution to the truth-conditions of a sentence, but only to its tone or connotation (for example the expression *but* in "*p* but *q*" signals that it may be unexpected to say *q* after having said *p*). In the same line of thought, Grice claims that if S utters

(12) He is an Englishman; he is, therefore, brave,

she *says* of someone that he is an Englishman and he is brave (in other words (12) is equivalent to

(13) He is an Englishman; he is brave),

and only *conveys* that his being brave is a consequence of his being an Englishman. The falsity of the correlation (if being brave doesn't follow from being an Englishman) does not imply the falsity of (12): therefore the correlation isn't part of the truth-conditional content of (12) – it is a *conventional implicature*. A conventional implicature is a proposition communicated by uttering a sentence and generated because of the conventional features attached to particular lexical items (like *but*, *therefore*, *even*, *not yet*) or linguistic constructions. The sentence

(14) Mary is poor but she is honest

has the same truth-conditions as

(15) Mary is poor and she is honest:

both sentences are true if Mary has the property of being poor and the property of being honest. (14) conventionally implicates that there is a contrast between being poor and being honest. The same goes for

(16) Even Paul came to the party:
(16) has the same truth-conditions as
(17) Paul came to the party.

The expression *even* in (16) invites A to infer that Paul came to the party contrary to S's expectation.

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According to Grice, conventional implicatures – as opposed to conversational implicatures – are detachable, non-cancellable, non-calculable propositions that are not part of what is said.

1. They are detachable: S can express *p* uttering a different sentence (with the same truth-conditional content) without conventionally implying *q* (like (12) and (13), or (14) and (15)).
2. They cannot be cancelled, either contextually, by changing the context of utterance, or explicitly, by adding material inconsistent with the alleged implicature. In other words, S cannot say without contradiction,

(18*) Mary is poor but she is honest, and there is no contrast between being poor and being honest.

3. They are intuitively grasped and not calculated or "worked out", namely there is no argumentative path leading A to their derivation: their derivation is automatic.
4. Contextual information plays no role in their derivation: therefore, they are derived in all contexts, being generated by the use of a particular expression or construction.
5. They don't affect the truth-conditions of the sentence they are associated with; they aren't part of its meaning, or part of "what is said".

In the next section, we will see that this last is the only feature conventional implicatures have in common with conversational implicatures: it is this very characteristic that makes conventional implicatures a pragmatic phenomenon, and not a semantic one.

In his "Retrospective Epilogue" (written in 1987) Grice claims that, in all cases of conventional implicature, S is making a ground-floor statement (the statements in (13), (15) and (17)) and performing

> a higher-order speech-act of commenting in a certain way on the lower order speech-acts (…) The truth or falsity (…) of his words is determined by the relation of his ground-floor speech-acts to the world; consequently, while a certain kind of misperformance of the higher-order speech-act may constitute a semantic offense, it will not touch the truth-value (…) of the speaker's words (Grice 1989a: 362).

We will return to this point in Section 9.7. (cf. Carston 2002: 107–108).

6.   Particularized conversational implicatures

As we have said, contextual information plays no role in the derivation of conventional implicatures. In contrast it is only in a specific context, possessing specific features, that S may succeed in communicating a particularized conversational implicature. Consider the following dialogue. Mary asks Peter: "Would you like a slice of cake?"; and he replies

(19) I'm on diet.

(19), uttered by Peter in context C, expresses the proposition PETER IS ON DIET. (19) is true in C if a particular individual (Peter) possesses a certain property (BEING ON DIET). (19) apparently violates the Relation Maxim, providing no explicit answer to Mary's offer. Context C contains encyclopaedic information about cakes, calories, diets, overweight people, etc. – information that Peter and Mary assume as mutually shared. Using this information and (19), Peter may communicate a conversational implicature (PETER DOESN'T WANT A SLICE OF CAKE). The implicature is a proposition which is not part of the truth-conditional content of (19) – it isn't said by Peter: it becomes accessible to Mary thanks to a complex system of expectations (Cooperative Principle, conversational maxims, contextual information). The truth-conditions of the implicature are completely independent from the truth-conditions of (19). We speak of "particularized" implicatures for the crucial role played by contextual information – especially encyclopaedic information: in a different context, an utterance of (19) would allow Peter to convey a different implicature (just imagine (19) uttered as an answer to "Have you been to the new French restaurant?").

Let's summarize some of the features characterizing particularized conversational implicatures.

1. Particularized conversational implicatures don't affect the truth-conditions of the sentence they are associated with; they aren't part of their meaning, or part of "what is said": hence they aren't a semantic phenomenon.
2. They are not communicated by what is said but only by the saying of what is said: it is the speaker, not the sentence, who conversationally implicates a proposition.
3. They are not detachable: S cannot express p uttering a different sentence with the same truth-conditional content without conversationally implicating q. Indeed their calculation requires taking into consideration the semantic content of the sentence uttered, not its linguistic form (except for the implicatures generated by the violation of the Maxims of Manner).
4. They may be cancelled, contextually, by suitably modifying the context of utterance, or explicitly, by adding material inconsistent with the alleged implicature. Peter can indeed reply to Mary's offer, without contradiction:

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(20) I'm on diet, but I'll have one.

5. They are calculable, namely there is an argumentative path leading A to their derivation, by taking into account what is said, the Cooperative Principle and the maxims of conversation, and contextual factors (Grice (1989e: 31; cf. below, Sections 9.4. and 9.6).[8]
6. They may not be completely determined: "Since, to calculate a conversational implicature is to calculate what has to be supposed in order to preserve the supposition that the Cooperative Principle is being observed, and since there may be various possible specific explanations, a list of which may be open, the conversational implicatum in such cases will be disjunction of such specific explications" (Grice 1989e: 39–40).
7. Since contextual information (and especially encyclopaedic information) plays a crucial role in their derivation, they are generated only in particular contexts. As shown in Section 4., the violation of the first maxim of Quantity gives a clear example. In different contexts, the sentence

(11) War is war

may be uttered by a pacifist or a warmonger to convey completely different implicatures.

7.   Generalized conversational implicatures

The distinction between particularized and generalized conversational implicatures depends on the generality of the circumstances allowing a speaker to generate (and an addressee to recognize) the proposition implicitly communicated.[9] Some conversational implicatures are more or less independent from the details of the particular occasion of use: "Sometimes one can say that the use of a certain form of words in an utterance would normally (in the absence of special circumstances) carry such-and-such an implicature or type of implicature" (Grice 1989e: 37). The utterance of

(21) X is meeting a woman this evening

would normally implicate that the woman to be met isn't X's wife, mother, sister, "or perhaps even close platonic friend" (Grice 1989e: 37). Similarly

(22) X went into a house yesterday and found a tortoise inside the front door

would normally implicate that neither the house nor the tortoise was X's own. The use of *an X* would normally communicate that the X doesn't belong to or isn't closely connected with S or with A. The implicature is generated by the expectation of the observance of the first Quantity Maxim: since S has failed to be more

specific, A infers that S wasn't in a position to be specific – *an X* (instead of *the X*, or *my X*) was the most informative expression S could utter in that context.

Grice says that generalized implicatures are "normally" communicated by the saying of what is said; there are however some important differences between generalized and conventional implicatures, namely:

(a)   generalized implicatures are generated in most, but not in all, contexts, as happens with conventional ones. An utterance of

(23) I have been sitting in a car all morning

does not convey the implicature that the car does not belong to the speaker; furthermore an utterance of

(24) I broke a finger yesterday

conveys a reverse implicature (Leech 1983: 91);

(b)   generalized implicatures (but not conventional ones) may be cancelled – explicitly, as in

(25) X is meeting a woman this evening: his wife;

or contextually. If I say

(26) The cat is in the kitchen or under the bed,

I generally implicate that I do not know where the cat is (otherwise I would have said so, in observance of the Quantity Maxim); but if I'm giving you clues for a treasure hunt, the derivation of the implicature is cancelled.

According to Grice, generalized implicatures are the most interesting phenomenon from a philosophical point of view: it is in terms of generalized implicatures that one may give a satisfactory account of the differences in meaning between logical constants and their counterparts in natural languages. As we said in Section 1., according to Strawson the temporal sequence between the two events in (1) is part of the meaning of *and*, while it is not part of the meaning of its logical counterpart in (2). Likewise, it is part of the meaning of (5) that S doesn't know which of the two disjuncts *p* or *q* is true. Using the notion of generalized implicature as a powerful tool of philosophical analysis, Grice contrasts the conception of meaning underlying Strawson's proposal: it is crucial to keep logical consequences (what is part of the meaning of logical constants) and implicatures (what is implicitly conveyed by a use of a logical constant, without being part of its conventional meaning) distinct. Hence, the temporal sequence between the two events in (1) (HE WENT TO BED [FIRST] AND [THEN] TOOK OFF HIS TROUSERS) is a generalized conversational implicature generated by the expectation of the observance of the Maxim of Manner ("Be orderly"). In (5), S DOES NOT KNOW IF HIS WIFE IS IN LONDON and S DOES NOT KNOW IF HIS WIFE IS IN OXFORD are implicatures generated by

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the expectation of the observance of the first Maxim of Quantity. It is the distinction between propositions expressed and propositions conversationally implicated that allows Grice to explain how to convey, in context, opulent meanings, without positing ambiguities and multiple senses (according to his Modified Occam's Razor).

8.   Scalar implicatures

Scalar implicatures represent an important subset of the generalized implicatures: they are derived from the expectation of the observance of the first Maxim of Quantity.[10] Let's look at some examples. By uttering

(27) Some of the boys went to the party (Levinson 1983: 133),

S implicitly conveys

(28) Not all of the boys went to the party.

A can recognize the implicature by relying on expectations about S's behaviour, and in particular about the informative content of S's utterance. If S thought that

(29) All of the boys went to the party.

she should have said so. On the contrary, she uttered (27), a less informative sentence: A must then suppose that S was not in a position to utter the more informative (29). Notice that the truth of (27) is compatible with the truth of (29). S may utter without contradiction

(30) Some of the boys went to the party, in fact all:

in other words the implicature may be cancelled. Furthermore, the truth of (29) implies the truth of (27) (but, of course, not *vice versa*): if all of the boys went to the party, *a fortiori* some of them went to the party – *some* is semantically compatible with *all*. (28), the negation of (29), is not part of the meaning of (27): it is only a proposition implicitly conveyed, that is a generalized conversational implicature.

The appellation "scalar" is due to the fact that the expressions *all*, *most*, *many*, *some*, *few* are ranged in a linear order of informativeness or semantic strength (Levinson 1983: 133). Following the Gricean model proposed in "Logic and conversation", Levinson states the inferential steps allowing S to generate and A to derive a scalar implicature:

1. S has said *p*;
2. There is an expression *q*, more informative than *p* (and thus *q* entails *p*), which might be desirable as a contribution to the current purposes of the exchange (…);
3. *q* is of roughly equal brevity to *p* (…);

4. Since if S knew that q holds but nevertheless uttered p he would be in breach of the injunction to make his contribution as informative as is required, S must mean me, the addressee, to infer that S knows that q is not the case (K $\neg q$), or at least that he does not know that q is the case ($\neg$K q) (Levinson 1983: 135).

The same phenomenon arises for the following scales (for each scale, if S asserts that a weaker point on a scale obtains, then she implicates that a stronger point on that scale does not obtain):

<all, most, many, some, few>
<and, or>
<n … 5, 4, 3, 2, 1>
<excellent, good>
<hot, warm>
<always, often, sometimes>
<succeed in Ving, try to V, want to V>
<necessarily p, p, possibly p>
<certain that p, probable that p, possible that p>
<must, should, may>
<cold, cool>
<love, like>
<none, not all> (Horn 1972).

In recent times, scalar implicatures have become an interesting case-study in experimental and cognitive pragmatics, a discipline aiming to explain human communication in a theoretically and empirically plausible framework. Researchers working in this framework focus not only on foundational issues concerning communication, but also on questions concerning mental processes underlying comprehension, cognitive modules involved in communication and their interaction, and hypotheses about the nature of mental architecture (on scalars and quantity implicatures see Hirschberg 1991; Noveck 2001, 2004; Bott and Noveck 2004; Chierchia *et al.* 2004; Noveck and Sperber 2007; Pouscoulos *et al.* 2007; Geurts 2010). We will return to scalar implicatures below, Section 12.1.

9.   Some critical issues

Let's now consider some of the issues the notion of implicature (conventional or conversational) raises, namely:

(i)   the alleged distinction between implicatures that supplement the content of the utterance and implicatures triggered by the overt violation of a conversational maxim;
(ii)   the distinction between "saying" and "making as if to say";
(iii)   the distinction between indirectness and non-literality;
(iv)   the relation between implicature and rationality;

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(v)   the overgeneration of implicatures;
(vi)   the relation between implicatures and intentions;
(vii) the notion of conventional implicature.

9.1.   Enriching vs. correcting

Grice distinguishes two categories of conversational implicatures:

(a)   implicatures arising from the assumption that the speaker is observing the maxims;
(b)   implicatures arising when the speaker overtly violates or flouts the maxims.[11]

The implicatures of the first kind supplement or amplify the content of the utterance, as in Grice's famous example:

(31) A: I am out of petrol.
     B: There is a garage round the corner (Grice 1989e: 32).

Here B is observing the Relevance Maxim, but she relies on A to supplement what she says with some straightforward inferences (e.g. that the garage is open, and has petrol to sell).

The implicatures of the second kind *modify* or correct what is said, as in the following dialogue:

(32) A: Let's get the kids something.
     B: Okay, but I veto I-C-E C-R-E-A-M-S (Levinson 1983: 104).

Here B, by spelling out the word *ice-creams*, is deliberately and overtly violating the Manner Maxim, therefore conveying to A that it is better not to mention ice-creams in the presence of the kids.

To many, the distinction is not completely satisfactory. In the example

(11) War is war

of overt violation of the first maxim of Quantity examined in Section 4, S is implicating something more informative than what is said: in which sense do the propositions generated by an utterance of (11) in context (e.g. WAR IS ALWAYS A HORRIBLE EVENT, or WAR IS A NECESSARY EVIL) correct rather than enrich or supplement what is said? The determination of whether an implicature is generated as enrichment or correction of what is said is far from obvious, and it is therefore better to think of the two alleged kinds of implicatures as extending on a continuum.[12]

9.2.   "Saying" vs. "making as if to say"

Grice posits another controversial distinction – the one between "saying" and "making as if to say". The implicatures arising when the speaker overtly flouts a maxim are derived by taking into account not what S says, but what she makes as if to say. Let's re-examine example (10) introduced in Section 4. If S utters

(10) Tom is the cream of my coffee,

she does not say that Tom is the cream of her coffee, she only makes as if to say that Tom is the cream of her coffee. In other words, in cases of metaphor or irony, S is not asserting a categorical falsity: only the implicitly conveyed proposition (TOM IS MY PRIDE AND JOY) is intended. Therefore the first Maxim of Quality is manifestly flouted, but the supermaxim ("Try to make your contribution one that is true") is operative: S does not commit herself to the truth of the proposition explicitly expressed, but her global contribution is sincere. Stephen Neale applies the controversial distinction between "saying" and "making as if to say" even to Grice's letter of recommendation:

> it might well be the case that only what is implicated is meant (i.e., backed by U's communicative intentions) (…) U has only *made as if to say* that Mr X has excellent handwriting and is always very punctual because U had no intention of inducing (or activating) in his audience the belief (U thinks that) Mr X has excellent handwriting and is always very punctual (…). The primary message is to be found at the level of what is conversationally implicated (Neale 1992: 525).

In contrast, recent critics of the Gricean perspective deny the significance of the distinction between "saying" and "making as if to say". According to Kent Bach, Grice seems to conflate the locutionary act of saying with the illocutionary act of stating (Bach 2006a: 165n): when speaking metaphorically, S does not make as if to say, but really says something, and means (in the sense of trying to convey) something else instead (Bach 2006a: 150. Cf. Bach 2006b: § 8; Wilson and Sperber 2002: § 2). In the next section we will come back to Bach's position.

9.3.   Indirectness vs. non-literality

Grice's theory has been extended to the analysis of speech acts, in particular indirect speech acts. A speech act is direct when there is a match between a sentence type (the three basic sentence types being declarative, interrogative, and imperative) and an illocutionary force (the three corresponding basic illocutionary forces being asserting/stating, asking/questioning, and ordering/requesting); otherwise it is an indirect speech act. For example, S can give an order or make a request as

(33) Open the window

by making a statement like

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(34) It's hot in here

or by asking a question like

(35) Can you open the window?

According to Searle, indirect speech acts have two illocutionary forces, one literal (the secondary force) and the other non-literal (the primary force). In order to understand an indirect speech act, A must infer the non-literal illocutionary force of the speech act; for Searle, this computation involves the same kind of inferential processes postulated by the communicative model articulated by Grice (Searle [1975] 1979; Bach and Harnish 1979: Ch. 4 and 9). However, many scholars note that indirect speech acts are frequently conventionalized: one may make a request with (35) but not with

(36) Are you able to open the window?

despite the fact that (35) and (36) are apparently synonymous. In order to account for conventionalized cases, Morgan introduces the notion of "short-circuited implicature": the conversational implicature involved in (35), in principle calculable, is not in practice calculated (Morgan 1978; cf. also the notion of "standardization" in Bach and Harnish 1979: 192–202).

Furthermore, implicating itself may be interpreted as an indirect speech act, where a speaker performs a speech act (in example (19), meaning that PETER DOESN'T WANT A SLICE OF CAKE) by performing another (meaning that PETER IS ON DIET).[13] In Grice's theory saying something entails meaning it: implicating is then saying (i.e. stating or meaning) one thing (PETER IS ON DIET) and saying (i.e. meaning) something else as well (PETER DOESN'T WANT A SLICE OF CAKE). We said earlier that in analysing cases of metaphor and irony, Grice introduces the notion of "making as if to say": in (10) S does not mean that Tom is the cream of her coffee – hence, in Grice's terms, S does not say it but only make as if to say. According to Bach, Grice should have distinguished between indirectness (conversational implicatures as (19)) and non-literality (metaphors as (10)) – and should not have classified metaphor and irony as implicatures. Bach claims that there is a difference between saying one thing and meaning something else in addition, and saying one thing and meaning something else instead, i.e. between speaking indirectly and speaking nonliterally: "Since implicature is a kind of indirect speech act whereas irony and metaphor are species of nonliteral but direct speech act (…) the latter should not be classified as implicature" (Bach 1994a: 144; cf. Bach 1994b). Bach, then, suggests that Grice's distinction between saying and making as if to say be abandoned, and that the distinction between explicitly stating and saying in Austin's locutionary sense be introduced: "we have a notion of what is said that applies uniformly to three situations: 1) where the speaker means what he says and something else as well (implicature and indirect speech acts generally); 2) where the

speaker (intentionally) says one thing and means something else instead (nonliteral utterances), and 3) where the speaker says something and doesn't mean anything" (as in cases of translating, reciting, or rehearsing: Bach 1994a: 144).

9.4.   Deriving implicatures

In "Logic and conversation", Grice offers a definition of conversational implicature:

> A man who, by (in, when) saying (or making as if to say) that *p* has implicated that *q*, may be said to have conversationally implicated that *q*, provided that (1) he is to be presumed to be observing the conversational maxims, or at least the Cooperative Principle; (2) the supposition that he is aware that, or thinks that, *q* is required in order to make his saying or making as if to say *p* (or doing so in *those* terms) consistent with this presumption; and (3) the speaker thinks (and would expect the hearer to think that the speaker thinks) that it is within the competence of the hearer to work out, or grasp intuitively, that the supposition mentioned in (2) is required (Grice 1989e: 30–31).

In order to calculate a conversational implicature, then, A takes into consideration the conventional meaning of the sentence uttered by S (after fixing the reference of the indexicals and disambiguating homonymous expressions in the sentence), the linguistic context and the background information – plus two crucial assumptions: a) the hypothesis that S is observing the Cooperative Principle and the conversational maxims; b) the fact (or supposed fact) that conventional meaning and contextual information are available to S and A, and that they both know that it is so. The calculus leading A to infer a particular conversational implicature will go along the following steps:

> He has said that *p*; there is no reason to suppose that he is not observing the maxims, or at least the Cooperative Principle; he could not be doing this unless he thought that *q*; he knows (and knows that I know that he knows) that I can see that the supposition that he thinks that *q* is required; he has done nothing to stop me thinking that *q*; he intends me to think, or is at least willing to allow me to think, that *q*; and so he has implicated that *q* (Grice 1989e: 31).

This description has caused many perplexities, especially from a cognitive perspective. Relevance theorists criticize the psychological implausibility of those painstaking inferential chains. The objection has already been raised by Evans and McDowell: in real situations, it is questionable or even impossible that speakers could hold such complex set of intentions (X's beliefs about Y's beliefs about X's beliefs, etc.); Grice seems to characterize "communication between ideally rational superhumans" (Evans and McDowell 1976: xx). However, it should be clear that the inferential steps that Grice is describing are not meant to represent the real psychological processes allowing S to generate, and A to derive, an implicature. Those steps are not (or at least not necessarily) explicit, nor are the corresponding mental states: Grice claims overtly that an implicature may be grasped

intuitively. According to Grice implicatures are calculable: their derivation must be justified by an argumentative path – including, as inputs, what is said, the Cooperative Principle and contextual factors. What Grice is proposing in "Logic and conversation" may then be conceived as a rational reconstruction of the justification S and A could offer for their generation/derivation of an implicature, namely the information they take into account, and its logical organisation.[14] The Gricean argumentative paths are not meant to reproduce real cognitive comprehension processes: we must maintain a distinction between the two projects, namely psychological processing description and ideal justification (cf. Grice 1991, 2001).

9.5.   Overgeneration

Critics of Grice often emphasize another point concerning implicatures: their overgeneration. The argumentative path justifying the derivation of an implicature may well be used to derive other alleged implicatures, only weakly intended by the speaker, or not intended at all. In other words, Grice's theory seems too unconstrained: the Cooperative Principle and the maxims apparently allow the generation of almost any hypothetical implicature (Levinson (1983: 122; Carston 2002). As Sperber and Wilson note:

> When a certain inference or implicature is drawn, it can be shown *ex post facto* how the hearer could have derived it from premises available at that point in the conversation by the use of available deductive rules. However, it would almost invariably have been possible, from the same set of premises, using the same set of rules, to derive quite different conclusions, which would not in practice have been either intended or drawn (Sperber and Wilson [1986] 1995: 93).

Davis, Harnish and Leech, among others, criticize Grice on this aspect, pointing out that conversational maxims predict for example, that

(37) John cut someone

implicates (as a Quantity implicature)

(38) John did not cut himself

while

(39) John broke an arm

fails to implicate

(40) John did not break his own arm,

and on the contrary implicates

(41) John did break his own arm.

Likewise

(42) Bill and Tom moved the piano

implicates that Bill and Tom moved the piano together (because S did not make the stronger statement that they moved the piano separately): but, following a similar inferential path, the Quantity Maxim allows the derivation of the opposite implicature that Bill and Tom moved the piano separately, because S did not make the stronger statement that they moved the piano together (Davis 2005: 8; cf. Harnish 1976; Leech 1983; Davis 1998: Ch. 2).

However this very point is far from uncontroversial; it is closely related to the attribution of more or less weight to the normative (vs. the psychological) side of implicatures – which is the object of the following section.

9.6.   Intentional vs. normative

According to Grice, implicatures are part of what S communicates, hence part of speaker meaning – and speaker meaning is a matter of speaker intentions. Some scholars stress the normative character of conversational implicatures, more than their psychological dimension (Gauker 2001; Green 2002; Saul 2002a; Sbisà 2006, 2007). In this perspective, conversational implicatures don't correspond to what the speaker intends to implicate, or to what the addressee successfully infers: conversational implicatures should be interpreted as enriching or correcting inferences licensed by the text. This means not only that the addressee is capable of working out the implicature, but also that she *should* have worked it out – that she may rightfully attribute to the speaker the intention of conveying it.[15] Implicatures therefore have a normative status as integration or correction of an utterance, justified by an appropriate argumentative path. Sbisà goes even further: a conversational implicature isn't necessarily a proposition believed by the speaker, but a proposition that should be accepted by the speaker. This means that the speaker may be wrong about an implicature: even if she does not intend to convey a particular implicature, there are cases in which this should in any case be worked out by the addressee. In Sbisà's framework, implicatures are normative virtual objects. The alleged implicature does not count as conveyed meaning only if to attribute that communicative intention to the speaker would be absurd or contradictory: but if the text licenses it, the derivation of a particular implicature will be legitimate, even if S has no intention of conveying it.[16]

Saul, in particular, argues against a common understanding of Grice according to which speaker meaning divides exhaustively into what is said and what is implicated; she distinguishes between utterer-implicature (intended by the speaker, but not recognized by the addressee), audience-implicature (recognized by the addressee but not intended by the speaker) and conversational implicature. In addition, conversational implicatures are more than merely intended by the speaker and

recognized by the addressee: implicating (conversationally) amounts to making available to the addressee the implicit message S wants to communicate: "conversationally implicating something (…) fails to guarantee audience uptake but does mean that the speaker has fulfilled her communicative responsibilities with regard to what she wants to communicate (…) she may not have communicated her intended message, but she has *made it available*" (Saul 2002a: 245).

The idea of an implicature that the speaker does not intend to convey is not completely persuasive. In Grice's theory conversational implicatures are speaker-meant – conscious and even "designed" (Grice 1989e: 34). This means that inferences derived by the addressee but not intended by the speaker should not count as conversational implicatures (cf. Neale 1992: 528; Saul 2002a: 244–245). On the contrary, propositions intended by S and not recognized by A should count as implicatures, if S has made her communicative intention available to her audience (on the notion of availability, see Bianchi 2006). In this latter case, as Saul rightly remarks, we are facing a communicative failure: the implicature exists (an ontological matter) but is not recognized (an epistemological matter). In a different perspective, Davis resorts to the same distinction: the existence of the implicature does not depend on the Cooperation Principle or the maxims, but the possibility of being recognized does depend on the Cooperation Principle and the maxims. Of course, in cases of communicative success, the two issues are connected: the implicature exists (ontological assumption) if it is intended by S and if S achieves reception (epistemological assumption) (see Davis 2005: 12–13; cf. Bianchi 2012).

9.7.   Conventional implicatures: myth or reality?

There is a range of serious problems affecting the notion of conventional implicature and supporting the claim that "apparent cases of conventional implicature are really instances of something else"[17] – only a "myth" (Bach 1999) or instances of pragmatic presuppositions (including the traditional particles *but*, *even*, *too*, but also syntactic constructions like clefts, verbs like *manage to*; Stalnaker 1974; Karttunen 1974; Karttunen and Peters 1979).

As we said in Section 5., in his "Retrospective Epilogue" Grice argues that in the cases he labelled as conventional implicatures, S is making a ground-floor statement and performing a higher-order speech-act of commenting on the lower order speech-act (Grice 1989a: 362). Following this suggestion, Bach claims that we must abandon the assumption that every well-formed sentence expresses only one proposition; uttering

(43) Frankly, the dean is a moron

S is not *implying* that she is speaking frankly, but she is *saying* something about her utterance.

In a similar vein, a sentence like

(44) Mary is poor but she is honest

expresses a main proposition (MARY IS POOR AND SHE IS HONEST) and an additional proposition (BEING POOR GENERALLY PRECLUDES BEING HONEST) (Bach 2006a: 157). According to Bach, our truth-conditional intuitions are sensitive only to the main proposition: as a result, we tend to consider (44) true even if the additional proposition is false. Nevertheless, the propositions yielded by *but* and the other traditional candidates to the role of conventional implicature seem to Bach equally asserted as the propositions expressed by the main clauses (Bach 1999: 350–351). Many scholars draw, with Horn, the conclusion that the notion of conventional implicature "tends to constitute an admission of analytic failure, a label rather than true explanation of the phenomenon in question" (Horn 2004: 6; cf. Levinson 1983: 128).

Against this sceptic conclusion, Christopher Potts has recently proposed a four-part definition of conventional implicatures: (i) they arise from conventional meaning (hence they are not calculable); (ii) they are not cancellable (they give rise to entailments); (iii) they are speaker-oriented commitments (i.e. obligations undertaken by the speaker of the utterance); (iv) they are logically and compositionally independent of what is said. The distinction allows us to distinguish conventional implicatures from conversational implicatures and presuppositions (cf. Karttunen and Peters 1979; Levinson 1983: 128–131) – and to identify a more general class of expressions ("supplements") having features analogous to conventional implicatures. Like conventional implicatures, supplements (non-restrictive relative clauses, as-parentheticals, and appositives) don't affect the truth-conditions of the entire utterance, as in

(45) The agency interviewed Chuck, a confirmed psychopath, just after his release from prison.

Like (44), (45) does not express a conjunction but two propositions: the *at-issue* proposition THE AGENCY INTERVIEWED CHUCK JUST AFTER HIS RELEASE FROM PRISON and the *supplementary* proposition CHUCK IS A CONFIRMED PSYCHOPATH. Hence conventional implicatures, and more generally supplements, are dealt with in a multi-dimensional semantic framework, granting that the truth-values of the at-issue and supplementary propositions are independent of each other (unlike presuppositions, whose truth-value affects the truth-value of the main clause). According to Potts, the supplementary proposition is used to make a speaker-oriented comment on the main clause, as in

(46) Sheila says that the agency interviewed Chuck, a confirmed psychopath, just after his release from prison,

where the content of the supplement is understood not as Sheila's but as the reporter's own comment (Potts 2005).

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Bach rightly notes that in this respect, supplements actually differ from traditional conventional implicatures: in reporting (44) with

(47) Bob said that Mary is poor but honest

the additional proposition could be understood as Bob's rather than the speaker's comment (Bach 2006c: 492; cf. Bach 1999).

In the next section, we'll have a look at some main current developments and criticisms of the Gricean view on implicating.

10.   After Grice

Beginning in the Seventies, Grice's legacy has been variously challenged by two groups of philosophers and linguists: neo-Griceans such as Stephen Levinson, Laurence Horn, Jay Atlas and Kent Bach, and post-Griceans such as relevance theorists (Dan Sperber, Deirdre Wilson and Robyn Carston) and contextualists (François Recanati).[18] Actually, Grice and his followers or critics may be seen as working on three different research projects, only partially intersecting, and belonging to distinct disciplines. Grice's project is philosophical, accounting for the nature and conditions of the possibility of communication; the neo-Gricean project belongs to linguistics, focusing on the stable aspects of meaning which are related to lexical and structural features of sentences; the post-Gricean project is cognitive in character, and concerned with the mental processes underlying comprehension. Some scholars conceive the three projects as complementary,[19] whilst relevance theorists claim that they are radically conflicting.[20]

The three projects diverge mainly on two points, both affecting their account of implicating.

(a) The extension of the inferential model: unlike Grice, neo-Griceans focus largely on the conventional aspects of meaning, trying to combine an inferential perspective on communication and a point of view on language rooted in formal semantics and generative grammar. Relevance Theory develops a symmetrical perspective, leaving aside the semantic or conventional aspects of meaning and emphasizing the inferential ones, even at the explicit level (according to their contextualist perspective).

(b) The expectations guiding the interpretation: in order to solve some of the inadequacies of the Gricean maxims, various reductionist attempts have been proposed both by neo- and post-Griceans. While neo-Gricean principles may be seen in continuity with the original Gricean project, relevance theoretic mechanisms represent a radical fracture with Grice: expectations of relevance – and not of cooperation and rationality – constrain the interpretation.

In Section 11 we will focus on the neo-Gricean project and in Section 12 on the post-Gricean framework.

11.   Neo-Griceans

11.1.   Extension of the inferential model

In Grice's framework, what is said is determined by the syntax and the semantics of the sentence together with the mandatory *semantic* processes of disambiguation and saturation of indexicals and other context-sensitive expressions. Any further (optional) enrichment of what is said occurs at the implicit level: this is the literalist perspective.

Neo-Griceans (Atlas 2005; Bach 2001, 2004, 2010; Horn 2004, 2005, 2010; Levinson 2000) claim that we should postulate pragmatic effects at the semantic level – construed as a form of generalised implicature, acting locally and by default: these inferential processes are *pragmatic*, but triggered by particular lexical expressions or constructions, such as *some*, *and*, *if*, *not*, etc. and play a systematic role in the derivation of the overall meaning conveyed by the utterance. Examples of default inferences are scalar implicatures like (27), or

(48) John has three cars,

licensing the implicature JOHN HAS EXACTLY THREE CARS, or the temporal understanding of the conjunction, as in (1). Another example is the inference to stereotypical understanding in

(49) John is a bachelor:

(49) licenses the inferences that John is not the Pope, or a three year old child, or gay, and so on. Default inferences form "a third layer, what we may call the level of *statement* or *utterance-meaning* (…) or *utterance-type meaning*. This third layer is a level of systematic pragmatic inference based *not* on direct computations about speaker-intentions but rather on general expectations about how language is normally used" (Levinson 2000: 22). This layer is intermediate between the semantic layer of what is said and the pragmatic layer of what is implicated,[21] and is given different names in different frameworks: "impliciture" (Bach 1994a), utterance-type meaning or "presumptive meaning" (Levinson 2000), "maximal proposition" (Recanati 2004a).

In a similar vein, Bach points out two phenomena overlooked by Grice. There are cases where what S means is an *expansion* of what she says, as in

(50) I will be home later [today],
(51) You're not going to die [from this cut];

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and there are cases where what S means is a *completion* of what she says, like:

(52) Jack is ready [for what?],
(53) Jill is late [for what?].

Unlike (50) and (51), (52) and (53) – though syntactically complete – are semantically incomplete, i.e. do not express complete propositions (Bach 1994a). Standard uses of (50)-(53) "are not strictly determined by their meanings but are not oblique (implicature-producing) or figurative uses either" (Bach 2006a: 156). Minimalists *à la* Grice, on one hand, would consider them as conversational implicatures: in Bach's perspective they are cases of conversational implicitures – where part of what is meant is communicated implicitly, without implicating anything or using any expressions figuratively. Relevance theorists, on the other hand, extend the notion of what is said to those cases, as examples of *explicatures*:[22] according to Bach, however, this would be a violation of the syntactic correlation constraint (cf. above, Section 2.). Completion and expansion are part of what S asserts (an illocutionary notion) – not of what S says (a locutionary notion) (Bach 2006a: 166n; cf. above Section 9.3.).

11.2.   Expectations guiding the interpretation

To many, Gricean maxims present serious inadequacies, both from a descriptive and an explanatory point of view. The examples proposed in Section 9.5 seem to call for a principle of informativeness licensing the enrichment of an utterance like

(42) Bill and Tom moved the piano

in the maximal way allowed by the encyclopaedic knowledge of A, and this in contrast with the Quantity Maxim – licensing the scalar implicature according to which S wasn't in a position to make a stronger statement, hence preventing any informative strengthening of the utterance. More generally, we face a conflict (crucial also for RT) between interpretative effort and communicative effects, and between speaker's and addressee's interests. Various reductionist attempts have been proposed by neo-Griceans, in continuity with the original Gricean framework: the most influential projects are Horn's and Levinson's.

   According to Horn, all the Gricean maxims (except Quality, which is "unreducible" – Horn 2004: 13; cf. Horn 1984, 1989) may be reduced to two symmetrical principles – the Q and the R principles. The Q principle (hearer-oriented) guarantees the sufficiency of informative content ("Say as much as you can (modulo Quality and R)"), while the R principle (speaker-oriented) guarantees the minimization of speaker's effort ("Say no more than you must (modulo Q)"). The Q principle collects the first Quantity Maxim and the first two Manner Maxims and licenses scalar implicatures. It refers crucially to what S could have said but hasn't: from the fact that S didn't use a stronger expression, A infers that S wasn't in a

position to do it. The R principle collects the second Quantity Maxim, the Relation Maxim and the last two Manner Maxims: it licenses phenomena of enrichment and strengthening, with social and politeness motivations – as in indirect speech acts ("Can you close the door?" enriched as 'Please, close the door'), euphemisms, neg-raising ("I don't think that p" enriched as 'I think that not p'), the inferential strategy *post hoc ergo propter hoc* involved in

(9) Tom ate the shrimp and got food poisoning.

Levinson proposes to reduce Gricean maxims to three heuristics, allowing the enrichment of the content of an utterance along standard lines, and the deletion of those interpretations which are compatible with the coded meaning but are not intended by the speaker. The three heuristics are called Q-principle, I-principle and M-principle.

(i)   Q-principle (replacing the first Quantity Maxim and licensing scalar inferences):
      What isn't said, isn't (Levinson 2000: 35; cf. Huang 2007: 41).
(ii) I-principle (replacing the second Quantity Maxim and licensing stereotypical interpretations):
      What is expressed simply, is stereotypically exemplified (Levinson 2000: 37; cf. Huang 2007: 46).
(iii) M-principle (replacing the first and fourth Manner Maxims and licensing interpretations of marked expressions as implicating the negation of the stereotypical interpretation associated with the unmarked expression):
      What's said in an abnormal way isn't normal (Levinson 2000: 38; cf. Huang 2007: 50).

Each heuristic is two-sided – S-oriented (what S should say) and A-oriented (what A should infer); the principles could be phrased more neutrally as heuristics to which both S and A are mutually oriented, but Levinson notes that there is "a special onus on the speaker: he or she will be understood *ceteris paribus* to have meant what (to employ the legal jargon) 'any reasonable man' would have meant by the choice of expression that he or she used under these heuristics" (Levinson 2000: 387n).

   Any conflict between the three heuristics is settled by a priority order: *Q>M>I*. In other words, Q-principle and M-principle have priority over I-principle: this last licenses inferences based on stereotypical knowledge of the world – inferences which can be blocked by Q and M.

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12.   Post-Griceans

12.1.   Extension of the inferential model

Unlike neo-Griceans, who focus largely on the conventional aspects of meaning, Relevance theorists leave aside the semantic or conventional aspects of meaning and emphasize the inferential ones, both at the explicit and implicit level.

In Section 11.1. we said that, in Grice's literalist perspective, "what is said" by a sentence is closely related to the conventional meaning of the linguistic expressions employed in it and departs from that meaning only in cases of ellipsis, ambiguity and indexicality strictly understood (i.e. concerning only indexicals and demonstratives). We must then distinguish between the proposition literally expressed by a sentence and the implicit meaning of the sentence ("what is implicated" by a speaker uttering that sentence). In contrast, post-Griceans underline the phenomenon of semantic underdetermination: the encoded meaning of the sentence employed by a speaker underdetermines the proposition explicitly expressed by an utterance of that sentence. According to the contextualist perspective defended by Relevance Theory and Recanati, no sentence of a natural language expresses a complete proposition, or has fixed truth-conditions, even when unambiguous and devoid of indexicals. A sentence expresses a proposition only when completed and enriched with pragmatic constituents that do not correspond to any syntactic element of the sentence and yet are part of its semantic interpretation. As a consequence, many types of Gricean implicatures are reduced to explicatures (for example, conjunction buttressing, narrowing, approximation, metaphor).

In other words, according to Grice, if we abstract from cases of indexicality and ambiguity, we need inferential processes only for implicit communication (conversational implicatures); post-Griceans claim that even the explicit level must be enriched and completed by context-sensitive pragmatic processes – S's utterance being only a piece of evidence allowing A to derive the speaker's meaning. Post-Griceans opt then for a "deflationary" philosophy of language, in which conventional meanings are given no crucial role. Grice and neo-Griceans assign meaning to types of sentences, while post-Griceans only to occurrences of sentences. As a consequence, this last perspective is at risk of losing its explanatory and predictive power – and must account for the stronger role of the contextual information versus the invariant aspects of syntax and semantics. More generally, it is at risk of undermining systematic theorizing about language and communication. To this objection, Relevance theorists and contextualists reply that a sentence expresses a content only in the context of a speech act. Therefore the truth-conditional content of an utterance is jointly determined by semantics and pragmatics: semantics studies linguistic meaning (a property of expression-types), while truth-conditions are determined by pragmatics, or, better, truth-conditional pragmatics (Recanati 1993, 2001, 2010; Carston 2002, 2004a, 2004b; Bianchi 2010).

Furthermore, Relevance theorists (drawing not only on intuitions and linguistic data, but also on experimental evidence) abandon the traditional distinction between generalised and particularised implicatures, and argue that all implicatures are triggered as a matter of contextual relevance – neither by default nor by the presence of certain lexical items (Carston 2002, 2004a; Noveck 2001, 2004). In particular, there are two different approaches to scalar inferences: the neo-Gricean approach, taking scalar inferences to be generalized implicatures, hence automatically triggered, and the post-Gricean approach, taking scalar inferences to be ordinary inferences, triggered only in particular contexts in order to satisfy the audience's expectations of relevance. The two approaches are committed to different empirical predictions about the nature and time-course of comprehension of under-informative statements such as "Some elephants are mammals". Against neo-Griceans (particularly Levinson), Ira Noveck, Dan Sperber and their colleagues show with their experimental work that subjects do not first automatically derive alleged generalized implicatures (as the interpretation SOME BUT NOT ALL for *some*) and then, when the "default" interpretation is seen to be inconsistent with the local context, revert to the minimal logical interpretation (SOME AND MAYBE ALL) (Noveck 2001, 2004; Bott and Noveck 2004; Chierchia *et al.* 2004; Noveck and Sperber 2007; Pouscoulos *et al.* 2007).[23]

12.2.   Expectations guiding the interpretation

While neo-Gricean principles may be seen in continuity with the original Gricean project, Relevance theoretic mechanisms represent a radical fracture with Grice: utterance interpretation is driven by expectations of relevance – and not of cooperation and rationality. In Section 10, we pointed out that Grice and the Relevance Theory projects are not completely commensurable – the motivation of the former is philosophical while that of the latter is cognitive. One of Relevance Theory's main aims is then to provide an empirical account of the processes of on-line utterance comprehension, introducing a psychological concern which is extraneous to Grice's analysis. Moreover, Relevance Theory provides a general vision of human cognition – characterized by the search for optimal relevance. Linguistic utterances are a valuable source of information, because they carry a presumption of optimal relevance, i.e. of a satisfactory balance between cognitive effects and processing effort. According to Relevance Theory, in its most recent version, the comprehension procedure is a variety of mind-reading. More specifically, inferential processes are automatic, non-reflexive, unconscious, working at sub-personal level and performed by a modular system with its own idiosyncratic principles and mechanisms dedicated to interpreting linguistic utterances – a distinct comprehension sub-module of the theory of mind (Sperber and Wilson 2002).

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13.   Conclusion

The task of this article was to introduce and critically examine the explicit/implicit distinction, the Gricean notion of implicature (conventional and conversational), its recent developments and connection with the speaker's intentions, communicative responsibility and rationality. Our starting point was the Gricean distinction between "what is said" and "what is implicated" – between the proposition expressed by an utterance and the implicit meaning of the utterance. What is implicated is an aspect of speaker meaning distinct from what is said, providing no contribution to the truth-conditions of the sentence uttered.

Next we introduced the Gricean distinction between conventional and conversational implicatures and between particularized and generalized implicatures – showing the role of the Cooperative Principle and the conversational maxims. Furthermore, we considered the main issues raised by the notion of implicature, namely the alleged distinction between implicatures that supplement the content of the utterance and implicatures triggered by the overt violation of a conversational maxim; the distinction between "saying" and "making as if to say" and between indirectness and non-literality; the relation between implicatures and rationality, and between implicatures and intentions; the overgeneration of implicatures; and the problems affecting the notion of conventional implicature.

We then examined two main current developments of the Gricean framework – the neo-Gricean perspective and the post-Gricean perspective – showing that the different projects diverge mainly on two points, affecting their account of implicating:

(a) the extension of the inferential model: unlike Grice, neo-Griceans focus largely on the conventional aspects of meaning, trying to combine an inferential perspective on communication and a point of view on language rooted in formal semantics and generative grammar. Post-Griceans develop a symmetrical perspective, leaving aside the semantic or conventional aspects of meaning and emphasizing the inferential ones, even at the explicit level (according to their contextualist perspective);

(b) the expectations guiding the interpretation: in order to solve some of the Gricean Maxims' inadequacies, various reductionist attempts have been proposed both by neo- and post-Griceans. While neo-Gricean principles may be seen in continuity with the original Gricean project, Relevance theoretic mechanisms represent a radical fracture with Grice: utterance interpretation is driven by expectations of relevance – and not of cooperation and rationality.

Notes

1. The distinction is presented in Grice ([1961] 1989b) and then in Grice ([1975] 1989e); cf. Carston (2002: 101–102).
2. Bach (2006a: 150) dubs this the "syntactic correlation" constraint.
3. Cf. Bach (2006a: 151): "So, along with linguistic information, the speaker's semantic (disambiguating and referential) intentions are often needed to determine what is said".
4. Cf. Grice (1989e: 27): "Though the maxim itself is terse, its formulation conceals a number of problems that exercise me a good deal: questions about what different kinds and focuses of relevance there may be, how these shift in the course of a talk exchange, how to allow for the fact that subjects of conversation are legitimately changed, and so on".
5. On the distinction between implicatures amplifying or supplementing and implicatures revising or correcting the content of the utterance, see below, Section 9.1.
6. Cf. Horn (2004: 3): "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*". The notion of implicature is already present in Grice (1989b) – although the term used is "implication".
7. According to Bach (2006b) implicatures are part of the truth-conditional content of the utterance.
8. On the derivability of conversational implicatures see Grice (1981: 187): "the final test for the presence of a conversational implicature had to be, as far as I could see, a derivation of it. One has to produce an account of how it could have arisen and why it is there. And I am very much opposed to any kind of sloppy use of this philosophical tool, in which one does not fulfil this condition".
9. See Huang (2007: 205): "Alternatively, one can argue that there is only one type of conversational implicature but two types of context: default and specific"; cf. Horn (2010).
10. Grice points out the phenomenon but does not use the term "scalar implicature". Bach argues that scalar implicatures should be classified as cases of impliciatures: cf. Bach (2006b).
11. For (i), Levinson (1983: 104) uses the term "standard implicatures"; Sbisà (2007: 99) prefers the term "preventive implicatures". For (ii) Sbisà's term is "repairing implicatures": Sbisà (2007: 100). Cf. Sbisà (2006: 235).
12. Cf. Sbisà (2007: 109): "We may then conclude that the distinction between preventive and repairing implicatures is less clear-cut than what Grice thought".
13. Searle (1975: 265–266). Cf. Bach (2006a: 156): "With *indirection* a single utterance is the performance of one illocutionary act by way of performing another".
14. Sbisà (2007: 122) speaks of "proposals of rational reconstruction, meant to justify the attribution of implicit meanings, independently of how this attribution takes place"; cf. Glüer and Pagin (2003: 24). On the distinction between "instrumental" and "argumentative" rationality, and the two different senses in which conversational implicatures may be deemed to be rational, see Sbisà (2006).
15. Cf. Saul (2002a: 244): "There are, then, cases in which we can reasonably say that the audience *should* have worked out the conversational implicature, even if they failed to do so".

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16. Cf. Sbisà (2006: 239): "claims about how conversational implicature is derived are in fact claims about how hearers approximating ideal rational hearers derive it and, therefore, are deprived of any empirical character. They are claims about how the implicature *should* be derived"; cf. Sbisà (2007: 122, 126, 192).
17. Bach (2006a: 157). Grice himself was sort of sceptical about conventional implicatures: cf. Grice ([1978] 1989f: 46): "the nature of conventional implicature needs to be examined before any free use of it, for explanatory purposes, can be indulged in".
18. For a taxonomy of the contextualist positions, see Recanati (2004a) and (2004b); cf. Bianchi 2010.
19. Cf. Horn (2004) and (2006), and Saul (2002b): Saul claims that Grice's theory is a theory of saying and implicating, while Relevance Theory, by aiming to making sense of the psychological processes by which we interpret utterances, focuses too much on the audience's perspective.
20. Cf. Carston (2005: § 1): "we have three rather distinct projects, the Gricean, the neo-Gricean (…) and the relevance theoretic, each with its own goals and orientation, but all intersecting with each other at certain points. Their differences can, at least to some extent, be laid at the door of the disciplines they each ally with: Grice with philosophical analysis, Horn with linguistics, in particular lexis, and RT with cognitive processing. However, even given their different perspectives, it seems unlikely that they are simply complementary in all respects". For a response to Carston, see Horn (2006).
21. Cf. Levinson (2000: 25): "that layer is constantly under attack by reductionists seeking to assimilate it either to the level of sentence-meaning or to the level of speaker-meaning; thus, for example, in the case of GCIs, Kamp, Peters, Kempson, van Kuppevelt, and others have all suggested that they should be in effect semanticized, whereas Sperber and Wilson and artificial intelligence local-pragmatics theorists have presumed that on the contrary they should be assimilated to matters of nonce inference at the level of speaker-intention".
22. Against Relevance theorists, Bach maintains that the neologism *impliciture* is less misleading than their term *explicature*: it is the content of an utterance that has been made explicit, but is communicated only implicitly; cf. Bach 2006b and 2010.
23. Those findings seem robust and compelling; *contra* Levinson, even a neo-Gricean like Horn claims that "any 'automatic' enrichment or default interpretation accounts threatened by such work are not those of the actual Gricean tradition. I see no reason to revisit the distinction between generalized and particularized implicature as Grice originally formulated it (…) An implicature may arise in a default context without thereby constituting a default or automatic inference" (Horn 2010:15). Cf. Horn (2010: 14): "In any case, *pace* Levinson (2000), GCI cannot be default inferences, both because they are not inferences – by definition an implicature is an aspect of speaker's meaning, not hearer's interpretation … and because they are not defaults".

References

Aristotle
  1963   *Categories and De Interpretatione*. Transl. by John L. Ackrill. Oxford, Clarendon Press.
Atlas, Jay D.
  2005   *Logic, Meaning and Conversation: Semantical underdeterminacy, implicature, and their interface.* Oxford: Oxford University Press.
Bach, Kent
  1994a   Conversational impliciture. *Mind and Language* 9: 124–162.
Bach, Kent
  1994b   Semantic slack: What is said and more. In: Savas L. Tsohatzidis (ed.), *Foundations of Speech Act Theory. Philosophical and Linguistic Perspectives,* 267–291. London: Routledge.
Bach, Kent
  1999   The myth of conventional implicature. *Linguistics and Philosophy* 22: 327–366.
Bach, Kent
  2001   You don't say? *Synthèse* 128: 15–44.
Bach, Kent
  2004   Minding the gap. In: Bianchi (ed.) 2004, 27–43.
Bach, Kent
  2006a   Speech acts and pragmatics. In: Michael Devitt and Richard Hanley (eds.), *The Blackwell Guide to the Philosophy of Language*, 147–167. Oxford: Blackwell.
Bach, Kent
  2006b   The top 10 misconceptions about implicature. In: Betty Birner and Gregory Ward (eds.), *Drawing the Boundaries of Meaning: Neo-Gricean studies in pragmatics and semantics in honor of Laurence R. Horn*, 21–30. Amsterdam: John Benjamins.
Bach, Kent
  2006c   Review of "Christopher Potts, *The logic of conventional implicatures* (Oxford Studies in Theoretical Linguistics 7). Oxford: Oxford University Press, 2005. Pp. xii + 246. *Journal of Linguistics* 42(2): 490–495.
Bach, Kent
  2010   Impliciture vs explicature: What's the difference? In: Belén Soria and Esther Romero (eds.), *Explicit Communication: Robyn Carston's Pragmatics*. Palgrave Macmillan.
Bach, Kent and Robert M. Harnish
  1979   *Linguistic Communication and Speech Acts*. Cambridge (MA): MIT Press.
Bianchi, Claudia
  2006   'Nobody loves me': Quantification and Context. *Philosophical Studies* 130: 377–397.
Bianchi, Claudia
  2010   Contextualism. In: Jan-Ola Östman and Jef Verschueren (eds.), *Handbook of Pragmatics. 2010 Installment*, x–xx. Amsterdam: John Benjamins Publishing Company.

114   Claudia Bianchi

Bianchi, Claudia
  2012   Writing letters in the age of Grice. In: Alessandro Capone, Marco Carapezza
            and Franco Lo Piparo (eds.), *Perspectives on Pragmatics and Philosophy*. Ber-
            lin: Springer.
Bianchi, Claudia (ed.)
  2004   *The Semantics/Pragmatics Distinction*. Stanford: CSLI Publications.
Bott, Lewis and Ira Noveck
  2004   Some utterances are underinformative: The onset and time course of scalar
            inferences. *Journal of Memory and Language* 51: 437–457.
Carston, Robyn
  2002   *Thoughts and Utterances: the pragmatics of explicit communication*. Oxford:
            Blackwell.
Carston, Robyn
  2004a   Relevance theory and the saying/implicating distinction. In: Horn and Ward
            2004, 633–656.
Carston, Robyn
  2004b   Truth-conditional content and conversational implicature. In: Bianchi (ed.)
            2004, 65–100.
Carston, Robyn
  2005   Relevance theory, Grice and the neo-Griceans: a response to Laurence Horn's.
            "Current issues in neo-Gricean pragmatics". *Intercultural Pragmatics* 2 (3):
            303–319.
Chapman, Siobahn
  2005   *Paul Grice, Philosopher and Linguist*. New York: Palgrave Macmillan.
Chierchia, Gennaro *et al.*
  2004   Adults and children's semantic and pragmatic competence in interaction. In:
            Noveck and Sperber (eds.) 2004, 283–300.
Davis, Wayne
  1998   *Implicature: Intention, Convention, and Principle in the Failure of Gricean
            Theory*. Cambridge: Cambridge University Press.
Davis, Wayne
  2005   Implicature. In: E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy
            (Winter 2008 Edition)*, URL = <http://plato.stanford.edu/archives/win2008/
            entries/implicature/>. Accessed on date ▮▮.
De Morgan, Augustus
  1847   *Formal logic*. London: Taylor and Walton.
Evans, Gareth and John McDowell
  1976   Introduction. In: G. Evans and J. McDowell (eds.), *Truth and Meaning: Essays
            in Semantics*, vii-xxiii. Oxford: Clarendon Press.
Frege, Gottlob
  1980   On sense and meaning. In: P. Geach and M. Black (eds.), *Translations from
            the Philosophical Writings of Gottlob Frege*, 56–78. Oxford: Blackwell. [First
            published 1952. Original edition 1892].
Frege, Gottlob
  1997   The thought: a logical inquiry. Translated from German. In: M. Beaney (ed.),
            The Frege Reader, 325–345. Oxford: Blackwell. [Original edition 1918].

Gauker Christopher
  2001   Situated inference versus conversational implicature. *Nous* 35: 163–189.
Glüer, Kathrin and Peter Pagin
  2003   Meaning theory and autistic speakers. *Mind and Language* 18: 23–51.
Green, Mitchell
  2002   Review of *Implicature: Intention, Convention, and Principle in the Failure of
              Gricean Theory*, by Wayne Davis. *Philosophy and Phenomenological Re-
              search* 65: 241–244.
Grice, Herbert Paul
  1981   Presupposition and conversational implicature. In: Peter Cole (ed.), *Radical
              Pragmatics*, x–xx. New York: Academic Press.
Grice, Herbert Paul
  1986   Reply to Richards. In: Richard Grandy and Richard Warner (eds.), *Philosophi-
              cal Grounds of Rationality*, 45–106. Oxford and New York: Oxford University
              Press.
Grice, Herbert Paul
  1989a   *Studies in the Way of Words*, Cambridge: Harvard University Press.
Grice, Herbert Paul
  1989b   The causal theory of perception. In: H. Paul Grice 1989a, 224–247. [First pub-
              lished in: *The Aristotelian Society: Proceedings, Supplementary Volume* 35:
              121–152, 1961].
Grice, Herbert Paul
  1989c   Utterer's meaning, sentence meaning and word meaning. In: H. Paul Grice
              1989a, 117–137. [First published in: *Foundations of Language* 4: 225–242,
              1968].
Grice, Herbert Paul
  1989d   Utterer's meaning and intentions. In: H. Paul Grice 1989a, 86–116. [First pub-
              lished in: *Philosophical Review* 68: 147–177, 1969].
Grice, Herbert Paul
  1989e   Logic and conversation. Chapter 2. In: H. Paul Grice 1989a, 22–40. [First pub-
              lished in: Peter Cole and Jerry L. Morgan (eds.), *Syntax and Semantics 3:
              Speech Acts*, 41–58. New York: Academic Press 1975].
Grice, Herbert Paul
  1989f   Further notes on logic and conversation. In: H. Paul Grice 1989a, 41–57. [First
              published in: Peter Cole (ed.), *Syntax and Semantics 9: Pragmatics*, 113–127.
              New York: Academic Press 1978].
Grice, Herbert Paul
  1991   *The Conception of Value*. Oxford: Oxford University Press.
Grice, Herbert Paul
  2001   *Aspects of Reason*. Oxford: Oxford University Press.
Geurts, Bart
  2010   *Quantity Implicatures*. Cambridge: Cambridge University Press.
Harnish, Robert
  1976   Logical form and implicature. In: Thomas G. Bever, Jerrold J. Katz and D. Ter-
              ence Langendoen (eds.), *An integrated theory of linguistic ability*, 313–392.
              New York: Crowell.

116   Claudia Bianchi

Hirschberg, Julia
   1991   *A Theory of Scalar Implicature*. New York: Garland Publishing Company.
Horn, Laurence
   1984   Towards a new taxonomy for pragmatic inference: Q- and R-based implica-
             ture. In: Deborah Schiffrin (ed.), *Meaning, Form, and Use in Context*, 11–42.
             Washington: Georgetown University Press.
Horn, Laurence
   1989   *A Natural History of Negation*. Chicago: University of Chicago Press.
Horn, Laurence
   1996   Presupposition and implicature. In: Shalom Lappin (ed.), *Handbook of Con-
             temporary Semantic Theory*, 299–319. Oxford: Blackwell.
Horn, Laurence
   2004   Implicature. In: Horn and Ward (eds.) 2004, 3–28.
Horn, Laurence
   2005   Current issues in neo-Gricean pragmatics. *Intercultural Pragmatics* 2: 191–204.
Horn, Laurence
   2006   More issues in neo- and post-Gricean pragmatics: A response to Robyn Car-
             ston's response. *Intercultural Pragmatics* 3: 81–93.
Horn, Laurence
   2010   William James + 40: Issues in the investigation of implicature. In: Klaus Petrus
             (ed.), *Meaning and Analysis. New Essays on Grice*, 310–339. New York: Pal-
             grave.
Horn, Laurence and Gregory Ward (eds.)
   2004   *The Handbook of Pragmatics*. Oxford: Blackwell.
Huang, Yan
   2007   *Pragmatics*. Oxford: Oxford University Press.
Karttunen, Lauri
   1974   Presupposition and linguistic context. *Theoretical Linguistics* 1: 181–193.
Karttunen, Lauri and Stanley Peters
   1979   Conventional implicature. In: Choon-Kyu Oh and David Dinnen (eds.), *Syntax
             and Semantics 11: Presupposition*, 1–56. New York: Academic Press.
Leech, Geoffrey
   1983   *Principles of Pragmatics*. London/New York: Longman.
Levinson, Stephen
   1983   *Pragmatics*. Cambridge: Cambridge University Press.
Levinson, Stephen
   2000   *Presumptive Meanings: the theory of generalized conversational implicature*.
             Cambridge (Mass.): MIT Press.
Mill, John Stuart
   1867   An examination of Sir William Hamilton's Philosophy. 3rd edition. London:
             Longman.
Morgan, Jerry
   1978   Two types of convention in indirect speech acts. In: Peter Cole (ed.), *Syntax
             and Semantics 9: Pragmatics*, 261–280. New York: Academic Press.
Neale, Stephen
   1992   Paul Grice and the philosophy of language. *Linguistics and Philosophy* 15:
             509–95.

Noveck, Ira
  2001   When children are more logical than adults: Investigations of scalar implica-
             ture. *Cognition* 78: 165–188.
Noveck, Ira
  2004   Pragmatic inferences related to logical terms. In: Noveck and Sperber (eds.)
             2004, 301–321.
Noveck, Ira and Sperber, Dan
  2007   The why and how of experimental pragmatics: The case of 'scalar inferences'.
             In: Noel Burton-Roberts (ed.), *Pragmatics*, 184–212. Basingstoke: Palgrave.
Noveck, Ira and Dan Sperber (eds.)
  2004   *Experimental Pragmatics*. New York: Palgrave.
Potts, Christopher
  2005   *The Logic of Conventional Implicatures*. Oxford: Oxford University Press.
Pouscoulous, Nausicaa, Ira Noveck, Guy Politzer, and Anne Bastide
  2007   A developmental investigation of processing costs in implicature production.
             Language Acquisition 14: 347–375.
Recanati, François
  1993   *Direct Reference: From Language to Thought*. Oxford: Blackwell.
Recanati, François
  2001   What is said. *Synthese* 128: 75–91.
Recanati, François
  2004a   *Literal Meaning*. Cambridge: Cambridge University Press.
Recanati, François
  2004b   'What is said' and the semantics/pragmatics distinction. In: Bianchi (ed.)
             2004, 45–64.
Recanati, François
  2010   *Truth-Conditional Pragmatics*. Oxford: Oxford University Press.
Saul, Jennifer
  2002a   Speaker meaning, what is said, and what is implicated. *Nous* 36: 228–248.
Saul, Jennifer
  2002b   What is said and psychological reality: Grice's project and relevance theorists'
             criticisms. *Linguistics and Philosophy* 25: 347–372.
Sbisà, Marina
  2006   Two conceptions of rationality in Grice's theory of implicature. In: Elvio Bac-
             carini and Snjezana Prijic-Samarzija (eds.), *Rationality of Belief and Action*,
             233–247. Rijeka: University of Rijeka.
Sbisà, Marina
  2007   *Detto non detto. Le forme della comunicazione implicita*. Roma-Bari: Laterza.
Searle, John
  1979   Indirect speech acts. In: John Searle, *Expression and meaning*, 30–57. [First
             published in: Peter Cole and Jerry L. Morgan (eds.), *Syntax and Semantics 3.
             Speech Acts*, 59–82. New York: Academic Press 1975].
Sperber, Dan and Deirdre Wilson
  1995   *Relevance. Communication and Cognition*. Oxford: Blackwell. [1986]
Sperber, Dan and Deirdre Wilson
  2002   Pragmatics, modularity and mind-reading. *Mind and Language* 17: 3–23.

118   Claudia Bianchi

Stalnaker, Robert
  1974   Pragmatic presuppositions. In: Milton Munitz and Peter Unger (eds.), *Semantics and Philosophy*, 197–214. New York: New York University Press.
Strawson, Peter
  1952   *Introduction to Logical Theory*. London: Methuen.
Strawson, Peter
  1971a   *Logico-Linguistic Papers*. London: Methuen. 2nd edition. London: Ashgate, 2004.
Strawson, Peter
  1971b   On referring. In: Peter Strawson 1971a, 1–20. [First published in: *Mind* 59: 320–344, 1950].
Wilson, Deirdre and Dan Sperber
  2002   Truthfulness and relevance. *Mind* 111: 583–632.