Conversational Implicatures (and How to Spot Them)

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Abstract

In everyday conversations we often convey information that goes above and beyond what we strictly speaking say: exaggeration and irony are obvious examples. H.P. Grice introduced the technical notion of a *conversational implicature* in systematizing the phenomenon of meaning one thing by saying something else. In introducing the notion, Grice drew a line between *what is said*, which he understood as being closely related to the conventional meaning of the words uttered, and *what is conversationally implicated*, which can be inferred from the fact that an utterance has been made in context. Since Grice's seminal work, conversational implicatures have become one of the major research areas in pragmatics. This article introduces the notion of a conversational implicature, discusses some of the key issues that lie at the heart of the recent debate, and explicates tests that allow us to reliably distinguish between semantic entailments and conventional implicatures on the one hand and conversational implicatures on the other.[1]

Conversational Implicatures and their Cancellability

In everyday conversations our utterances often convey information that goes above and beyond the contents that we explicitly assert or—as Grice puts it—beyond *what is said* by our utterances. Consider the following examples:[2]

(1) A: Can I get petrol somewhere around here?
B: There's a garage around the corner.
[*A can get petrol at the garage around the corner*.]

(2) A: Is Karl a good philosopher?
B: He's got a beautiful handwriting.
[*Karl is not a good philosopher*.]

(3) A: Are you going to the party tonight?
B: I don't like parties.
[*B won't go to the party tonight*.]

In each of these examples B's utterance conveys a proposition—the proposition expressed by the italicized sentences—that differs from what B has intuitively said: while B in (3), for instance, merely says or asserts that B doesn't like parties, her utterance's main point is to convey the proposition that B won't go to the party. Analogous considerations hold for (1) and (2).

[1] I am indebted to Wayne Davis for providing extensive comments on a previous version of this paper.
[2] Examples (1) and (2) are Grice's (1975 [1989]), example (3) is from (Davis 2010).

In aiming to develop a systematic account of the above phenomenon, H.P. Grice introduced the notion of a *conversational implicature*, which either refers to the act of meaning one thing by saying something else or to the content itself that is conveyed by such speech acts.[3] Grice thus contrasts what is said with what is conversationally implicated and notes that while both are contents of utterances, they are conveyed in different ways: what is said by B's utterances in the above cases is, as Grice points out, closely related to the *semantic* or *literal* content of B's utterances—that is, to the content that is determined by the *conventional meanings* of the words that are used in the utterance and those meanings' interaction with context.[4] Usually, if an utterance semantically expresses a proposition *p*, then what the speaker says or asserts in making her utterance is the proposition *p*. However, as the above examples demonstrate, utterances often convey information that goes beyond what the speaker said. Utterances of this type carry what Grice calls *conversational implicatures*—a conversational implicature being a content that is conveyed by an utterance but that is not part of its literal, semantic content and thus largely independent of the conventional meanings of the words used in the utterance: conversational implicatures are determined by features of the context of utterance broadly construed rather than by the conventional meaning of words used in the utterance. Consequently, what is said by an utterance determines whether the utterance is *strictly speaking* true or false: intuitively, B's utterances in the above examples are strictly speaking true (or false) just in case what is said by the utterance is true (or false).[5]

Since conversationally implicated contents are only loosely related to utterances' literal contents, they are what Grice calls *cancellable*. Here is a quotation from Grice:

> [A] putative conversational implicature that *p* is explicitly cancellable if, to the form of words the utterance of which putatively implicates that *p*, it is admissible to add *but not p*, or *I do not mean to imply that p*, and it is contextually cancellable if one can find situations in which the utterance of the form of words would simply not carry the implicature. (Grice 1975: 44)

It is worthwhile formulating Grice's notion of cancellability more explicitly. If we let *P* and *Q* be sentences of English and *q* the proposition semantically expressed by *Q* in context *C*, then we can extract from this quotation what I shall call the *Principle of Explicit Cancellability* (EC) and the *Principle of Contextual Cancellability* (CC):

(EC) If an utterance of *P* conversationally implicates *q* in *C*, then utterances of ⌈*P*, but not *Q*⌉ or ⌈*P*, but I don't mean to imply that *Q*⌉ are admissible in *C* and they cancel the speaker's commitment to *q*.

[3] Grice (1975 [1989]) himself called an implicated content 'implicatum', reserving the term 'implicature' to the phenomenon as a whole. In the literature generated by Grice's work, the notion is usually used to refer to either the implicated content or the phenomenon as a whole. In this paper I shall use the term along these lines, too.

[4] See (Grice 1975 [1989], p. 25).

[5] It is sometimes (Levinson 1983, p. 10) said that conversational implicatures are inferences, but that formulation is misleading. The term 'conversational implicature' as used by Grice either refers to utterance contents or to the speech act of meaning something different from what one says.

(CC) If an utterance of *P* conversationally implicates *q* in *C*, then there is a context *C′* in which utterances of *P* do not commit the speaker to *q*.[6]

These two principles play a crucial role in the detection of conversational implicatures. Grice thought that since each of these two principles articulates a necessary condition on the presence of conversational implicatures, they provide us with a useful test for when such implicatures are *not* present: if the consequent of at least one of the two principles is not satisfied, Grice contended, then we can be sure that we are not dealing with a case of conversational implicature.

To illustrate further the claim that conversational implicatures are cancellable let us revisit the above examples. As can be seen easily, the conversational implicature in each of our examples is explicitly cancellable:

(1′) A: Can I get petrol somewhere around here?
B: There's a garage around the corner; but it's closed at this time of the day, so you won't get any petrol there.

(2′) A: Is Karl a good philosopher?
B: He's got a beautiful handwriting; but he's a brilliant philosopher, too!

(3′) A: Are you going to the party tonight?
B: I don't like parties; but I'll go to this one anyway.

Contrast these examples with attempts to cancel semantic entailments:

(4) #John is a bachelor, but he is married.

(5) #The PM was assassinated today, but she is not dead.

As the examples show, the Principle of Explicit Cancellability offers a useful tool to distinguish conversational implicatures from semantic entailments.

It is important to note at this point, however, that there are obvious (but harmless) exceptions to both cancellability tests. Consider the following examples:[7]

(6) A: Are you or your spouse 65 or older or blind?
B: I am 67.
[*Either B or her spouse is 65 or older or blind*.]

(7) A: Did you drive somewhere yesterday?
B: I drove to Ithaca.
[*B drove somewhere*.]

As (6) and (7) show, some conversational implicatures are also semantic entailments of an utterance: in (6), the proposition that is conversationally implicated is entailed by what

[6] Grice assumes here, of course, that *P* semantically expresses *p* in both *C* and *C′*, and thus that the literal meaning of *P* hasn't changed with context.

[7] The examples are borrowed from (Davis 1998, p. 6).

is said. Thus, conversational implicatures are in somewhat special and rare cases entailed by what we literally say, and in such cases the implicature is neither contextually nor explicitly cancellable without leading to contradiction. However, note that cases such as (6) do not challenge the usefulness of the cancellability test. The cancellability test is meant to establish that a given proposition is *merely* conversationally implicated and thus not semantically entailed by what is literally said. Cases like (6) and (7) can accordingly be accommodated by qualifying (EC) and (CC) as follows:

(EC*) If an utterance of *P* conversationally implicates *q* in *C* without semantically entailing it, then utterances of ⌈*P*, but not *Q*⌉ or ⌈*P*, but I don't mean to imply that *Q*⌉ are admissible in *C* and they cancel the speaker's commitment to *q*.

(CC*) If an utterance of *P* conversationally implicates *q* in *C* without semantically entailing it, then there is a context *C′* in which utterances of *P* do not commit the speaker to *q*.[8]

It might be objected at this point that such a fix of Grice's original tests comes at a cost, for the tests will now no longer be useful tools for distinguishing conversational implicatures from semantic entailments. That is, of course, correct, but note that the tests are still useful for distinguishing *mere* conversational implicatures from semantic entailments—that is for distinguishing conversational implicatures that are not also semantic entailments from semantic entailments. And since most cases of conversational implicatures in everyday language are cases of mere conversational implicature, the test is thus certainly rather useful.

While there has been some discussion recently as to whether all non-entailed cases of conversational implicature are cancellable, it is fair to say that the cancellability test is still widely considered to be a useful tool in determining whether a given utterance content is a mere conversational implicature. The test continues to find application across a wide variety of areas of linguistic and philosophical enquiry.[9]

Conventional Implicatures and Non-detachability

Grice contrasts conversational implicatures not only with semantic entailments but also with so-called *conventional implicatures*. While conversational implicatures are, as mentioned above, utterance contents that are conveyed in virtue of particular features of the utterance context, conventional implicatures are utterance contents that are grammatically encoded and thus triggered by the *conventional meaning* of (some of) the words used in the utterance. Consider the following examples:

(8) Marie is poor, but she's honest.
  a. Marie is poor and Marie is honest.
  b. Poor people are not usually honest.

[8] Note again the assumption that *P* semantically expresses *p* in both *C* and *C′*.
[9] See (Weiner 2006) and, for critical discussion, (Blome-Tillmann 2008).

(9) Even Bart passed the test.
   a. Bart passed the test.
   b. Bart was among the least likely to pass the test.[10]

On Grice's account, the a-sentences in these examples express *what is said* by utterances of (8) and (9) respectively, while the b-sentences express contents that are *conventionally implicated*. The reason why Grice categorizes the above utterances as cases of implicature is because sincere utterances of (8) and (9) appear true to competent speakers just in case their a-contents appear true—independently of our truth-value intuitions about their b-contents: the perceived truth-values of the conventionally implicated b-propositions seem largely irrelevant with respect to the truth-evaluation of utterances of (8) and (9), and are thus, on the Gricean approach, merely implicated rather than part of what is said.[11]

Another crucial feature of conventional implicatures that distinguishes them from conversational implicatures is, as Grice (1975 [1989], p. 44) notes, their non-cancellability. Consider the following attempts to cancel the conventional implicatures in (8) and (9)

(8′) Marie is poor, but she's honest. #And poor people are usually honest.

(9′) Even Bart passed the test. #And Bart was not among the least likely to pass.

Given the awkwardness of these examples, the cancellability test provides us with a useful means to distinguish between utterance contents that are determined by the conventional meanings of the sentences uttered, such as semantic entailments and conventional implicatures, and those that are mainly non-conventional and context-driven: conversational implicatures.[12]

A final important respect in which conventional implicatures differ from their conversational cousins is with respect to what Grice calls *detachability*. As Grice (1975: 39) puts it, with respect to utterances that carry conversational implicatures "it is not possible to find another way of saying the same thing, which simply lacks the implicature in question"—and this is so because conversational implicatures are not triggered by the use of particular lexical items in the sentence uttered ('even' or 'but' in the above examples) but are determined by features of the context of utterance. Call this the *Non-detachability Test* (ND):

Non-Detachability (ND):
If an utterance of *P* conversationally implicates *q* in *C*, then an utterance of *Q* conversationally implicates *q* in *C*, too, given that utterances of *P* in *C* and of *Q* in *C* say the same thing.

[10] Example (8) is from (Grice 1961, p. 234) and (9) is borrowed from (Potts 2007).

[11] Cp. also Bach's (1999, p. 331) definition of the notion of a conventional implicature. Bach disputes the claim that there is a theoretical need for the category of conventional implicature.

[12] Another type of conventional utterance content worth mentioning here are *semantic presuppositions*. For the purposes of this article we can treat them as special cases of conventional implicature.

According to (ND), choosing a form of words that preserves what is said—the literal content of the utterance—doesn't remove the conversational implicature. Here is an example to illustrate the phenomenon:

(3*) A: Are you going to the party tonight?
B: I'm not into parties.
[*B won't go to the party*.]

By contrast, it is very well possible to detach conventional implicatures from our utterances without changing what is said. Utterances of (8*) do not convey or conventionally implicate that poor people are not usually honest and utterances of (9*) do not convey that Bart was very unlikely to pass the test: the conventional implicatures in (8) and (9) have been detached.

(8*) Marie is poor and she's honest.

(9*) Bart passed the test.

Thus, taken together, the cancellability test and the non-detachability test provide us not only with a characterization but also with constitutive tests for the presence of conversational implicatures and allow us to distinguish reliably between semantic entailments and conventional implicatures on the one hand and conversational implicatures on the other.

However, just like the cancellability test, the non-detachability test is subject to exceptions. Consider the following example:[13]

(10) Frank produced a series of sounds that corresponded closely to the score of *Home Sweet Home*.
[*Frank sang badly*.]

Surely, the implicature in (10) can fairly easily be detached, which can be seen by noting that an utterance of (11), which says roughly the same thing as an utterance of (10), doesn't carry the implicature that Frank sang badly:

(11) Frank sang *Home Sweet Home*.

As Grice notes, conversational implicatures that are due to an unusual or obscure choice of words are detachable, for they depend on how one formulates what one says rather than on what one says itself (as we shall see below, conversational implicatures of this type exploit what Grice calls the *Maxim of Manner*).[14] However, given the obviousness of the mentioned type of conversational implicature, the non-detachability test is still a very useful tool that allows us to distinguish reliably between conventional and conversational implicatures.

Summing up this section, let us note that conventional implicatures are not cancellable but detachable, while conversational implicatures are usually both cancellable and non-detachable. Since the main focus of this paper is on conversational implicatures, we shall

[13] The examples is Grice's (1975 [1989], p. 37).
[14] See (Grice 1975 [1989], p. 39; 1989b, p. 43).

leave to one side the notion of a conventional implicature from now on. For further discussion of the notion the reader is referred to (Potts 2007).

Conversational Maxims and the Cooperative Principle

As we have seen above, conversationally implicated contents are utterance contents that are only loosely related to what is said by an utterance—they are not, it is often said, part of the *conventional meaning* of an utterance.[15] Due to this rather loose connection between conversational implicature and what is said, the former must, as Grice puts it, be *worked out* or *calculated* on the basis of contextual clues. Grice offers a detailed account of the phenomenon—an account that is meant to explain how conversational implicatures arise in particular conversational contexts by means of general principles governing rational communication. The main principle guiding Grice's account is the following:

> *Cooperative Principle* (CP):
> 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.[16]

We can follow Davis (1998) in paraphrasing the CP more handily as follows:

> *Cooperative Principle**:
> Contribute what is required by the accepted purpose of the conversation.

According to Grice, the CP thus formulated expresses a truism about rational communication, and it is due to this truism that we can calculate conversational implicatures. More specifically, Grice claims that the CP encompasses a set of conversational maxims governing rational communication. Here are Grice's original maxims:[17]

Quantity$_1$: Make your contribution as informative as is required.

Quantity$_2$: Do not make your contribution more informative than is required.

Quality$_1$: Do not say what you believe to be false.[18]

Quality$_2$: Do not say that for which you lack adequate evidence.

Relation: Be relevant.

Manner: Be perspicuous.[19]

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[15] Of course, such a formulation is strictly speaking misleading, for the conventional meaning of an utterance—what Kaplan (1989) calls the *character* of the linguistic expressions used in the utterance—does not determine a proposition independently of a context of utterance.

[16] This is a quote from (Grice 1975 [1989], p. 26).

[17] (Grice 1975 [1989], pp. 26-27).

[18] A better formulation of *Quality*$_1$ is as follows: do not say what you believe to be incompatible with the common ground. For the notion of common ground see (Stalnaker 2002).

[19] Grice (1975 [1989], p. 27) considers the *Maxim of Manner* a "supermaxim", that has the maxims 'Avoid obscurity of expression', 'Avoid ambiguity', 'Be brief', and 'Be orderly' as submaxims. There is no

Assuming that rational speakers comply with this set of general maxims, conversational implicatures can, according to Grice, be *derived* or *calculated* from what is said in conjunction with information about the conversational context broadly construed—including, for instance, the intentions, goals and presuppositions of the conversational participants. Thus, on Grice's view, it is a defining feature of conversational implicatures that they are *calculable*.

How is the Gricean calculation of conversational implicatures meant to work in our above examples?[20] Consider example (1) again, repeated here for convenience:

(1) A: Can I get petrol somewhere around here?
B: There's a garage around the corner.
[*A can get petrol at the garage around the corner*.]

According to Grice, B in (1) would violate the Maxim of Relation (*Be relevant!*) if she were to mean only what she says: B would, in such a case, be uncooperative. Thus, assuming that B adheres to the CP, we must interpret her utterance in (1) as carrying a conversational implicature: B means to convey more than what she says. More specifically, B must, in this particular case, be interpreted as conversationally implicating that A can get petrol around the corner, for otherwise she would convey irrelevant information. According to Grice, the implicature in (1) can thus be calculated as follows:

Calculation of Relation Implicature in (1):
B just said that there is a garage around the corner in response to my question whether I can get petrol somewhere around here. That information is irrelevant for my purposes, unless the garage is open and I can get petrol there. B is cooperative and wouldn't respond with irrelevant information to my question. Moreover, B has done nothing to prevent me from thinking that I can get petrol at the garage around the corner. So that must be what B meant to convey by her utterance.

It is important to note that Grice merely claims that conversational implicatures are calcul*able* along the above lines rather than that they are in fact so calculated. In other words, Grice merely claims that we can rationally reconstruct our implicit interpretative processes along the above lines, without committing to the claim that forms of reasoning similar to the one just explicated provide a more or less exact model of our actual cognitive operations in implicature interpretation: the actual processes underlying the interpretation of conversational implicatures may be rather different from the rational reconstruction offered by Grice.

While Grice's maxims and his approach to implicature calculation seem fruitful and instructive, much of the recent debate on conversational implicatures has focused on amending Grice's maxims and the CP. Neo-Griceans such as Horn and Levinson, for instance, have sought to reduce the number of Grice's maxims and to thereby reinterpret the CP. Horn (1984), for instance, defends an account that replaces Grice's six maxims with the following two:

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need to discuss these submaxims individually here, as they are epitomised in the maxim of manner as presented above.

[20] (Grice 1975 [1989], pp. 39-40).

Q-Principle:
Say as much as you can [given principle R].

R-Principle:
Say no more than you must [given principle Q].

Levinson (2000, p. 136) proposes a slightly more complex approach than Horn's, adding to Horn's Q-Principle and his R-Principle what Levinson calls the *M-Principle*, which is modelled on Grice's *Maxim of Manner*:[21]

M-Principle:
Indicate an abnormal, nonstereotypical situation by using marked expressions that contrast with those you would use to describe the corresponding normal, stereotypical situation.

Further criticism of Grice's approach that has received much attention in the recent literature stems from the proponents of so-called *Relevance Theory*, who claim that Grice's CP and his maxims can be reduced to one single principle—namely, what they call the *Principle of Relevance*:

Principle of Relevance:
Contribute that which is optimally relevant.[22]

Each of these accounts, however, has been met with criticism in the literature. Relevance theory, for instance, has been criticized for leaving its central notion—the notion of relevance—too vague for the view to have any real explanatory force and predictive power.[23] Moreover, it is worthwhile noting that, as Davis (1998) has prominently shown, the principles proposed by each of the above approaches do not only over-generate conversational implicatures, but also lead to problems of indeterminacy and clashes of maxims that are difficult—if not impossible—to resolve systematically.[24]

While the discussion of Grice's maxims has become rather complex in the recent literature, an important question arises as to its relevance. Remember that Grice initially proposed his maxims as mere rules of thumb that would help us in rationally reconstructing our implicit and intuitive interpretation of conversational implicatures. Grice did not intend his maxims to provide a model or an explanation of the actual cognitive processes underlying our interpretation of utterances that carry conversational implicatures. Far from offering a story about the psychology of implicature interpretation, Grice's maxims are meant to formulate an indicator or a test for the presence of conversational implicatures. We can formulate such a Gricean constraint on conversational implicatures as follows:

[21] Levinson (2000, p. 114) calls his version of Horn's *R principle* 'Informativeness' or the '*I-Principle*'.

[22] Here is Sperber and Wilson's—the main advocates of 'relevance theory'—original formulation of their *Principle of Relevance*: "Every act of ostensive communication communicates the presumption of its own optimal relevance." (1986, p. 158).

[23] See, for instance, (Levinson 1989, p. 462ff) for this point.

[24] For an interesting discussion and further references see (Davis 2010).

Calculability Constraint (CC):
A conversational implicature can be calculated or rationally reconstructed by means of the Cooperative Principle and Grice's maxims.

According to (CC), conversational implicatures are calcul*able* in the sense that our implicit interpretative processes can be rationally reconstructed by means of Grice's maxims and his CP—independently of whether our actual interpretation works this way or not. Thus, objections to Grice's original approach which are based on the observation that his maxims are psychologically inadequate and not true to our actual cognitive processing of implicatures may be argued to miss Grice's point.[25]

Similar points hold with respect to the objection that Grice's maxims are sometimes in conflict or over-generate conversational implicatures: as Davies (2010, §4) points out, for "nearly every implicature that appears to be correctly predicted by Gricean theory, others appear to be falsely predicted": implicatures are over-generated by Grice's maxims. Moreover, note that maxims are sometimes in conflict, when the application of different maxims would lead to the calculation of different implicatures. If, however, we drop the idea that the maxims are meant to model the actual psychological processes underlying implicature interpretation, we have also dropped the assumption that the Gricean maxims are meant to *predict* or *explain* implicatures. The objection that the maxims over-generate implicatures or are sometimes in conflict has lost its force. It is thus important to understand Grice's maxims and his calculability constraint as merely describing the phenomenon of conversational implicature or as providing a criterion for conversational implicature.[26]

Summing up, while there is much disagreement in the literature about Grice's maxims, much of this disagreement is based on implausible assumptions about the role those maxims are meant to play in Grice's account.[27]

Generalized vs. Particularized Implicatures

Grice further distinguishes between two different types of conversational implicatures—namely, between *generalized* and *particularized* conversational implicatures. Here is Grice again:

> [P]articularized conversational implicatures [are] cases in which an implicature is carried by saying that *p* on a particular occasion in virtue of special features of the context, cases in which there is no room for the idea that an implicature is normally carried by saying that *p*. But there are cases of generalized conversational implicature. Sometimes one can say that the use of a certain form of words in an utterance would normally (in the absence of special cir-

[25] See also (Saul 2002) for this point, who quotes (Carston 1991, p. 39) as construing Grice's maxims as psychologically implausible.

[26] Of course, if Grice's theory is no longer taken to predict or explain conversational implicatures, the theory's attractiveness to linguists and psychologists will be reduced.

[27] Note, for instance, that Horn's reduction of Grice's six maxims to only two maxims has no methodological advantage, if we interpret the maxims as providing a framework for the rational reconstruction of our interpretative processes: it is not obvious why more parsimonious (and less explicit) reconstructions of our implicit interpretative processes are to be preferred to less parsimonious (and more explicit) ones. If, on the other hand, the maxims were meant to model the actual psychological processes underlying utterance interpretation, parsimony might very well represent an important methodological virtue.

> cumstances) carry such-and-such an implicature or type of implicature. (Grice 1975 [1989], pp. 37-40)

Let us thus define the notion of a particularized conversational implicature as follows:

> *Particularized Conversational Implicature* (PCI):
> A particularized conversational implicature is a conversational implicature that is carried by a saying of a proposition *p* in particular contexts.

As the above quote makes obvious, PCIs contrast with generalized conversational implicatures:

> *Generalized Conversational Implicature* (GCI):
> A generalized conversational implicature is a conversational implicature that is carried by a saying of a proposition *p* in most ordinary contexts of utterance.

The examples of conversational implicatures discussed thus far are all examples of PCIs. Nothing about the examples (1)-(3), for instance, suggests that the implicatures at issue are generally triggered by utterances of the mentioned sentences in ordinary contexts of utterance. In fact, we can easily imagine contexts in which an utterance of 'Karl has a beautiful handwriting', for instance, does not implicate the proposition that Karl is not a good philosopher. However, consider the following examples:

(12) A: I'm meeting a man for dinner tonight.[28]
[*The man is not the speaker's husband*.]

(13) A: John thinks that he passed the exam.
[*John does not know that he passed the exam*.]

As is immediately obvious, the implicatures in these examples are triggered by almost any ordinary utterance of the sentences in (12) and (13). We need to make fairly distinctive and unusual stipulations to produce a context in which utterances of (12) and (13) do not carry the mentioned implicatures.

GCIs need to be carefully distinguished from conventional implicatures: even though GCIs may seem to be triggered by default, they are not part of the conventional meanings of the words used in the utterance. This can be seen easily by noting that GCIs have all of the indicators of conversational implicatures: they are cancellable, non-detachable, and calculable. To illustrate this consider the following cancellations of the conversational implicatures in (12) and (13):

(12′) I'm meeting a man for dinner tonight. It's my husband.

(13′) John thinks that he passed the exam. In fact, he knows it full well: the teacher told him this morning.

[28] This is a variant of an example by (Leech 1983, p. 91).

While utterances of (12′) and (13′) may seem somewhat odd or conversationally misleading, they crucially do not express contradictions and do not give rise to the type of conceptual tension exemplified by cancellation attempts of conventional implicatures. Finally, note also that the above GCIs are—just like PCIs—non-detachable:

(12*) I'm meeting a guy for dinner tonight.
[*The man is not the speaker's husband*.]

(13*) John believes that he passed the exam.
[*John does not know that he passed the exam*.]

Obviously, the distinction between GCIs and PCIs is a matter of degree, not one of category. Thus, no deep metaphysical distinction is to be drawn here, for the only difference between GCIs and PCIs concerns the relative frequency with which a conversational implicature occurs in everyday contexts.[29]

Scalar Implicatures

Another type of conversational implicature to be mentioned here is what is nowadays widely known as *scalar implicature*.[30] Consider the following definition:

Scalar Implicature (SI):
A scalar implicature is a conversational implicature that is triggered by a violation of *Quantity*$_1$ based on the use of an informationally weak term on an implicational scale.[31]

Here are two standard examples of scalar implicature:

(14) A: Who ate the cookies?
B: I ate some of the cookies.
[*B didn't eat all of the cookies*.]

(15) A: Who is the best in class?
B: John is sometimes the best in class.
[*John isn't always the best in class*.]

While Grice was aware that implicatures such as those in (14) and (15) are GCIs, it is important to emphasize that they are GCIs of a rather special type. To see this note that the lexical items 'some' and 'sometimes' are members of what Horn (1972) calls an *implicational scale*—that is, a set of lexical items that form a linear ordering according to their informational (or even, as in the case of 'some', logical) strength. Consider the following examples of implicational scales or *Horn scales*:

[29] For further discussion of Grice's notion of a GCIs see (Davis 1998) and for criticism of Davis's approach (Saul 2001).
[30] The term 'scalar implicature' goes back to (Horn 1972; 1989).
[31] Cp. (Levinson 1983, p. 134).

(16) {all, most, some}
{always, often, sometimes}
{certain, probable, possible}

Utterances of sentences that contain an item at a lower point on the scales in (16) usually conversationally implicate the negation of the propositions expressed by analogous sentences containing an item from further up the scale. For instance, an utterance of the sentence in (14) expresses the proposition that B ate some of the cookies, which is logically and informationally weaker than the propositions that B ate many, most, or all of the cookies. Thus, when B says or asserts that she ate some of the cookies, she usually conversationally implicates that she did not eat many, most, or all of them. Analogous considerations apply to (15). Scalar implicatures are accordingly cases of utterances in which an informationally weaker content is asserted to conversationally implicate that an informationally stronger content is false.

Despite the conventional aspect of scalar implicatures—they are, after all, partly triggered by the presence of lexical items that are semantically associated with implicational scales—it is important to emphasize that scalar implicatures are conversational and not conventional implicatures. This can, again, be easily illustrated by noting that scalar implicatures are cancellable, non-detachable, and calculable. Consider firstly constructions cancelling the implicatures in (14) and (15):

(14′) I ate some of the cookies. In fact, I ate all of them.

(15′) John is sometimes the best in class. In fact, he always is.

Next, note that the implicatures in (14) and (15) are non-detachable:

(14*) A: Who ate the cookies?
B: I ate at least one of the cookies.
[*B didn't eat all of the cookies*.]

(15*) A: Who is the best in class?
B: At times, John is the best in class.
[*John isn't always the best in class*.]

Finally, note that scalar implicatures are calculable: in the standard Gricean framework, scalar implicatures are triggered by potential violations of the *Maxim of Quantity*$_1$ according to which speakers must make their contribution to the conversation as informative as is required.[32] The implicature in (14), for instance, can be calculated as follows:

Calculation of Scalar Implicature in (14):
In response to my question of who ate the cookies, B just said that she ate some of them. If B had eaten all of the cookies, then her contribution to our conversation would not be as informative as is required. But B is cooperative and wouldn't keep information from me that I asked her for. Moreover, B has done nothing to prevent me from

[32] Scalar implicatures also allow for what Horn has called *metalinguistic negation*: 'A didn't eat *some* of the cookies, she ate *all* of them!" For interesting discussion see (Horn 1984; 1989, pp. 362-375).

thinking that she didn't eat all of the cookies. So that must be what B meant to convey by her utterance.

For an overview of recent work on scalar implicatures, including alternative views to and a critical discussion of the Gricean approach sketched here, see (Sauerland 2012).

Philosophical Relevance and Controversy

Let us now turn to the philosophical significance of Grice's theory and the notion of a conversational implicature. Grice's contribution to the philosophy of language and to linguistic theory is hard to overestimate. Grice systematized and popularized the idea that there are principled and systematic ways to account for a multitude of utterance meanings without having to postulate variations in the conventional meanings of the expressions used in the utterance, thereby opening the door for a more fruitful and constructive study of natural language semantics. With Grice's account in place, a multitude of data and intuitions about utterance meaning can be accounted for pragmatically rather than semantically—that is, by appeal to conversational implicatures rather than semantics. In this spirit, Grice's notion of a conversational implicature is often appealed to in conjunction with what some theorists have referred to as *Grice's Razor*, a methodological principle concerning the postulation of (lexical or structural) ambiguities:

Grice's Razor (GR):
Conventional meanings are not to be multiplied beyond necessity.[33]

According to (GR), the linguistic theorist ought to minimize the number of conventional meanings postulated by her semantics—that is, she ought to minimize both the number of lexicon entries postulated by her lexical semantics and the number of syntactic structures assigned to complex expressions.

A now standard example illustrating the importance of this point is due to Levinson (2000, pp. 38, 206). Consider the contrast between the occurrences of 'and' in (17) and (18) respectively:[34]

(17) They got married and had a child.
[*They first got married and then had a child*.]

(18) Mauricio is from Portugal and so is Inês.

By claiming that the sense of temporal succession in (17) is merely conversationally implicated we avoid having to postulate two different senses or conventional meanings for the connective 'and'. To see that such a pragmatic account of the phenomenon in (17) is in fact rather plausible, note that the implicature in (17) is cancellable:

(17′) They got married and had a child, but not in that order.

[33] See (Grice 1989b, p. 47). Grice calls the principle "Modified Occam's Razor" (and talks about "senses" rather than conventional meanings).

[34] Others (Horn 1989) have used the example of 'or', arguing that the exclusive reading of 'or' is due to a conversational implicature.

The notion of a conversational implicature is accordingly of crucial importance for our semantic theory building, for it allows us to simplify and systematize our semantic theorizing by avoiding the excessive multiplication of senses.

Besides being of immediate interest to linguists and philosophers of language, the notion of a conversational implicature has been employed frequently in attempts to resolve largely unrelated philosophical problems over the past decades. Kripke (1979), for instance, has famously argued that Donnellan's (1966) distinction between referential and attributive uses of definite descriptions can be accounted for by means of conversational implicatures. While Kripke's approach to definite descriptions is presumably one of the best-known cases in which a philosopher appeals to conversational implicatures in developing a *prima facie* unrelated theory, others have followed suit. In fact, the notion has, since Grice's early developments of his theory, been employed in defending philosophical positions in areas as diverse as ethics, epistemology, metaphysics, and the philosophy of mind and language.[35]

It is due to this prominent role of conversational implicatures in contemporary philosophy that it is indispensable to provide reliable and workable tests for conversational implicatures—tests that allow us to distinguish the phenomenon from other meaning components such as semantic entailments or conventional implicatures. We have already discussed the main Gricean criteria or tests for conversational implicature and their limitation. Here they are again:

Minimal Criteria for Conversational Implicature:
1. Cancellability
2. Non-detachability
3. Calculability[36]

These methodological constraints—with the restrictions mentioned in the previous sections—are widely accepted in the current literature on implicatures and almost universally presupposed in the philosophical debate.[37]

Before concluding, let me briefly address two further issues that have attracted much attention recently. Firstly, remember that, according to Grice, what is said by an utterance is closely related to the conventional meaning of the expressions employed in the utterance. To be precise, Grice is usually understood as adopting the view that what is said by an utterance just is the *semantic content* of the sentence used in the utterance at the context of utterance. In other words, what is said by an utterance is exclusively determined by the uttered sentence's syntax, the lexical meanings of its ultimate constituents, and the

[35] Grice (1961) himself made use of the notion of a conversational implicature in arguing for his causal theory of perception and in defending his account of the semantics of conditionals (Grice 1989a). More recently, Brown (2006), Rysiew (2001; 2007), and others have argued that we can account for the data from DeRose's (1992) bank cases by means of conversational implicatures, while Finlay (2005) has used the notion of a conversational implicature to undermine ethical expressivism. See also (Burton-Roberts 1984) for a discussion of the role of conversational implicature in the semantics of possibility ascriptions.

[36] The third constraint on the list—the calculability constraint—is sometimes also referred to as the *generality constraint*—the idea underlying this slightly different terminology being that one ought to postulate conversational implicatures only if the implicature's presence can be calculated from *general* conversational principles such as Grice's maxims.

[37] One notable exception is Davis (1998), who rejects the calculability constraint and the idea that all conversational implicatures are derivable from general conversational principles.

context narrowly construed—that is, the context construed as playing the role of fixing the semantic values of context-sensitive expressions (such as indexicals and demonstratives) and of resolving potential structural and lexical ambiguities.

Radical contextualists have called into question the identification of what is said by an utterance with its semantic content, arguing that semantic interpretation at a context often doesn't suffice in determining a full proposition. According to radical contextualism, Gricean pragmatic reasoning similar to the calculation of implicatures must also be employed in determining *what is said* and it must do so in ways that go well beyond mere disambiguation and the assignment of semantic values to context-sensitive expressions. Different radical contextualists have developed theories postulating different types of content that are meant to bridge the gap between an utterance's semantic content on the one hand and what is said by the utterance on the other.[38] Others theorists, however, have insisted that the phenomena alluded to by radical contextualists can be accounted for within the classic Gricean framework by postulating hidden syntactic structure.[39]

While these issues are still controversially discussed at the moment, it is important to note that the discussion between classical Griceans and radical contextualists is primarily a debate about the determinants of what is said rather than about the notion of a conversational implicature. I shall, therefore, refrain from discussing the issue further in this article.[40]

Finally, it is worthwhile noting another recent development in the study of conversational implicatures. Linguists and psychologists alike have recently started experimental research on the cognitive processing of conversational implicatures. However, for an overview of this novel area of research the reader is referred to (Katsos and Cummins 2010)—a different Compass article that is entirely devoted to the topic.[41]

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[38] Radical contextualists have employed different notions to resolve the problem in different ways, the most prominent suggestions being Sperber and Wilson's (1986) and Carston's (2002) notion of an *explicature*, Bach's (1994) notion of an *implicitures*, and Recanati's (1989; 2004) notion of *free enrichment*.

[39] See (Stanley 2002, pp. 182-183).

[40] For critical discussion of radical contextualism and further references to the works of radical contextualists see (Stanley 2002; 2005; 2007).

[41] See also (Katsos 2008) and (Sedivy 2007) for interesting discussion.

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