

## The operationality of Grice's tests for implicature

### 1. Introduction

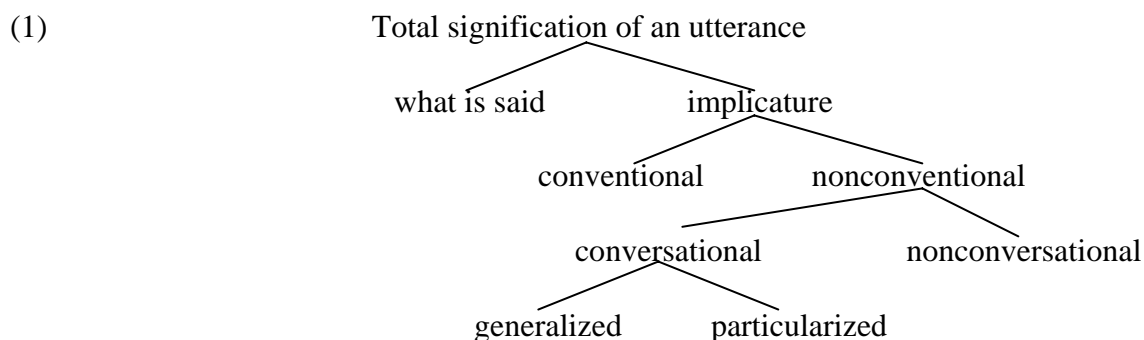
In less than a decade after its first publication in 1975, Herbert Paul Grice's paper *Logic and conversation* becomes one of the classic treatises of the linguistic subdiscipline now standardly referred to as pragmatics. There are at least two reasons for the paper's success: (i) it can be regarded as the first truly serious attempt to clarify the intuitive difference between what is expressed literally in a sentence and what is merely suggested by an utterance of the same string of words, (ii) the components of the notional and inferential framework that Grice set up to characterize various kinds of utterance content are intuitively appealing (*cf.* Haberland & Mey 2002).

The present paper has two related aims: (i) to give a comprehensive overview of Grice's theory of implicature, and (ii) to investigate whether it is possible to test the presence of a conversational implicature on the basis of some or all of the properties that Grice attributes to this construct. It will be argued that of the six characteristics listed by Grice, only cancellability is a practical criterion. However, cancellability is not a sufficient condition of the presence of a conversational implicature. Therefore, additional criteria are needed to arrive at an adequate test.

### 2. Overview of Grice's theory of implicature

Most of the body of Grice 1975=1989a consists in an attempt to clarify the intuitive difference between what is expressed literally in a sentence and what is merely suggested or hinted at by an utterance of the same string of words. To distinguish the latter from the former, Grice (1975=1989a and 1978=1989b) uses the neologisms *implicate* and *implicature*, while he refers to the linguistically coded part of utterance content as WHAT IS SAID.

The sum of what is said in a sentence and what is implicated in an utterance of the same sentence is called the TOTAL SIGNIFICATION OF AN UTTERANCE (Grice 1978=1989b: 41). Implicature itself is meant to cover a number of ways in which literally unsaid information can be conveyed. The relationships between these can be represented schematically as follows:



Of the above implicature types, we will be concerned with CONVENTIONAL IMPLICATURE and the two types of CONVERSATIONAL IMPLICATURE. Let us then recall Grice's definitions of these terms along with some of his examples.

In the case of conventional implicature "the conventional meaning of the words used will determine what is implicated, besides helping to determine what is said" (Grice 1975=1989a: 25). In Grice 1975=1989a only one example of conventional implicature is given. (2) is said

to conventionally implicate rather than literally say that the man's being brave follows from his being an Englishman:

- (2) He is an Englishman; he is, therefore, brave.

The conventional implicature here is attributed to the presence of the lexical item *therefore* (Grice 1975=1989a: 25-26).

Conversational implicature is triggered by "certain general features of discourse" rather than by the conventional meaning of a specific word (Grice 1975=1989a: 26). These features are the following: (i) linguistic exchanges are governed by the COOPERATIVE PRINCIPLE, the content of which is detailed in the four MAXIMS OF CONVERSATION and their submaxims; (ii) when one of the participants of the exchange seems not to follow the Cooperative Principle, his or her partner(s) will nevertheless assume that, contrary to appearances, the principle is observed at some deeper level.

The principle, the maxims and their submaxims are formulated as follows:

- (3) The Cooperative Principle (Grice 1975=1989a: 26):  
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.
- (4) The Maxims of Conversation (Grice 1975=1989a: 26-27):  
QUALITY: Try to make your contribution one that is true.  
1. Do not say what you believe to be false.  
2. Do not say that for which you lack adequate evidence.  
QUANTITY:  
1. Make your contribution as informative as is required (for the current purposes of the exchange).  
2. Do not make your contribution more informative than is required.  
RELATION: Be relevant.  
MANNER: Be perspicuous.  
1. Avoid obscurity of expression.  
2. Avoid ambiguity.  
3. Be brief.  
4. Be orderly.

Grice's (1975=1989a: 30-31) notion of conversational implicature can be stated as in (5):

- (5) A participant P in a linguistic exchange, by literally making an assertion with the propositional content x, *conversationally implicates* the proposition y if and only if:
- a. P is presumed to be observing the maxims
  - b. the supposition y is required to maintain (a)
  - c. P thinks that his partner will realize (b)<sup>1</sup>

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<sup>1</sup> Cf. Levinson's (2000a: 15) abbreviation from Grice (1975=1989a: 30-31): "By saying p, utterer U *conversationally implicates* q iff:

- (i) U is presumed to be following the maxims,
- (ii) the supposition q is required to maintain (i), and
- (iii) U thinks the recipient will realize (ii)".

The distinction between PARTICULARIZED and GENERALIZED CONVERSATIONAL IMPLICATURE is characterized as follows. Instances of particularized conversational implicature require “special features of the context”, while in the case of generalized conversational implicature “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” (Grice 1975=1989a: 37).

Let us now consider two of Grice’s examples of *particularized conversational implicature*. In the exchange

- (6) A: Smith doesn’t seem to have a girlfriend these days.  
B: He has been paying a lot of visits to New York lately.

B seemingly fails to be cooperative. The implicature that Smith has, or may have, a girlfriend in New York is necessary, Grice (1975=1989a: 32) argues, to preserve the assumption that B is observing the maxim of Relation.

Similarly, the professor’s letter of recommendation for one of his students applying for a position at a philosophy department (7) seems to breach the first maxim of Quantity:

- (7) Dear Sir, Mr. X’s command of English is excellent, and his attendance at tutorials has been regular. Yours, etc.

Yet, given that the professor has made the effort and has written the letter, its recipient cannot help assuming that he wanted to be cooperative, and thus, informative. The implicature that bridges the gap between what is literally said in the letter and the requirement that such a document inform the reader about the candidate’s competence in the given subject is that the student in question is no good at philosophy (Grice 1975=1989a: 33).

Under the heading of generalized conversational implicature, Grice (1975=1989a: 37-38) lists a number of sentences containing an indefinite noun phrase. Again, we will consider two examples:

- (8) X is meeting a woman this evening.  
(9) X went into a house yesterday and found a tortoise inside the front door.

Grice says that the utterance of (8) carries the implicature that the woman that X is meeting is unknown to the recipient of (8). That is to say, she is “someone other than X’s wife, mother, sister, or perhaps even close platonic friend” (Grice 1975=1989a: 37). In a similar fashion, (9) normally implicates that the house that X entered is not his or her own.

The emergence of these implicatures is explained in the following way: “When someone, by using the form of expression *an X*, implicates that the X does not belong to or is not otherwise closely connected with some identifiable person, the implicature is present because the speaker has failed to be specific in a way in which he might have been expected to be specific, with the consequence that it is likely to be assumed that he is not in a position to be specific” (Grice 1975=1989a: 38). In other words, the assumption that (8) and (9) only seemingly breach the first maxim of Quantity requires the above suppositions.

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I consider the formulation given in the present paper preferable to Levinson’s in the following respects: (i) it is neutral as to whether the linguistic exchange is spoken or written, and (ii) it makes it explicit that in order to make use of Grice’s definition of conversational implicature, one has to have an operational definition of the literal meaning of assertions (in Grice’s terms: “what is said” in assertions). We will return to this point in section 3.

In connection with the discussion of generalized conversational implicatures of the above sort, Grice proposes that we accept a principle, which he states as follows:

- (10) Modified Occam's Razor (Grice 1978=1989b: 47):  
Senses are not to be multiplied beyond necessity.<sup>2</sup>

In other words, one should only assign more than one conventional meaning to a construction or posit the existence of an additional word sense that putatively fits the pertinent sentential environment, if “the supposition that there is such a sense does some work, explains why our understanding of a particular range of applications of the word is so easy or so sure” (*ibid.*).

One element of the theory of implicature is left for us to recall here, namely the properties that Grice (1975=1989a and 1978=1989b) attributes to conversational implicature. These properties are the following (*cf.* Grice 1975=1989a: 31 & 39-40):

- (11) (a) Conversational implicature is **CALCULABLE**, that is, capable of being worked out on the basis of (i) the linguistically coded content of the utterance, (ii) the Cooperative Principle and its maxims, (iii) the linguistic and non-linguistic context of the utterance, (iv) background knowledge, (v) the assumption that (i)-(iv) are available to both participants of the exchange and they are both aware of this;  
(b) Conversational implicature is **NONDETACHABLE** from the utterance by a replacement of the words used with synonyms, that is, expressions with the same linguistically coded content generate identical conversational implicatures when produced in the same context;  
(c) Conversational implicature is **CANCELLABLE**, that is, it can be annulled by certain contexts without this giving rise to a contradiction;  
(d) Conversational implicature is **NONCONVENTIONAL**;  
(e) Conversational implicature is not carried by what is said, but by the saying of it.  
(f) Conversational implicature may be **INDETERMINATE**.<sup>3</sup>

### 3. Evaluation of Grice's tests for implicature

Grice's endeavour to set up a notional and inferential framework to characterize various kinds of utterance content is undoubtedly a milestone in what has since come to be known as pragmatics (*cf.* Haberland & Mey 2002). Yet, even his closest followers admit that “if use is to be made of these ideas in a systematic way within linguistic theory, much has to be done to tighten up the concepts employed and to work out exactly how they apply to particular cases” (Levinson 1983: 118). In this section, we will take a critical look at the conceptual distinctions made between some of the constructs that add up to the total signification of an utterance (*cf.* (1) above). Particular attention will be paid to the properties that Grice attributes to conversational implicature.

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<sup>2</sup> Grice calls (10) “Modified Occam's Razor”, because it is a variation of the English scholastic philosopher William of Occam's (1280-1349) regulative principle, which has come to be known as OCCAM'S RAZOR. The original principle, formulated as *Entities are not to be multiplied beyond necessity*, has many applications in science and is interpreted as “the simplest theory that fits the facts corresponds most closely to reality” (Yule 1985: 413).

<sup>3</sup> I have borrowed the term *calculable* and the abbreviation of Grice's (1975=1989a: 39-40) characteristic (f) from Sadock (1978=1991: 367). When formulating characteristic (b), I made use of Levinson's (1983: 116) and Chierchia & McConnell-Ginet's (2000: 244) abbreviations, while the way characteristic (c) is rendered resembles Posner's (1980: 181) formulation.

Let us first consider the notion of *conventional implicature*. Similarly to conversational implicature, conventional implicature is added to “what is said”, yet, unlike the former, it is determined by the very means that yield “what is said”, that is, by the linguistic meaning of the words used. How is this possible?

A reasonable answer to this question reads as follows. “What is said” in an utterance is to be identified with the part of LINGUISTICALLY CODED CONTENT that is expressible by the sentence’s truth conditions. Since this latter does not exhaust the semantics of the sentence, we need a category to denote whatever is coded linguistically yet falls outside “what is said”. The notion of conventional implicature serves exactly this purpose (*cf.* Levinson 1983: 128).

Note, however, that even if we assume that the TRUTH-CONDITIONAL CONTENT of any sentence can easily be identified, we need to have an operational definition of linguistically coded content in order to specify what the conventional implicature carried by a particular utterance is. Since Grice provides no such definition, an obvious choice to make is to try and identify what his definition of conversational implicature covers and say that whatever is part of the total signification of the utterance (*cf.* (1) above) and is not a conversational implicature will belong to linguistically coded content.<sup>4</sup>

Let us then consider the definition of conversational implicature paraphrased in (5). Without closer scrutiny it can be ascertained that even if we disregard the problems of stating the exact conditions on which the Cooperative Principle or the maxims (*cf.* (3) and (4) above) can be said to be followed as well as those on which the presence of presumptions can be checked, we run into a difficulty: the definition presupposes an ability to specify the literal or linguistically coded content of assertions.<sup>5</sup> In other words, the definition takes it for granted that we know the solution to the very problem we wish to solve.

Given the above circularity in the specifications of the concepts of conventional implicature, linguistically coded content and conversational implicature, one may attempt to regard the characteristics of conversational implicature listed in (11) as defining properties. Grice (1978=1989b: 42) himself is unsure whether “it is possible, in terms of some or all of these features, to devise a decisive test to settle the question whether a conversational implicature is present”, yet he thinks that “at least some of them are useful as providing a more or less *prima facie* case in favor of the presence of a conversational implicature” (Grice 1978=1989b: 43).

The defining value of the features is most thoroughly examined by Sadock (1978=1991). He rightly claims that (d)-(f) of the characteristics listed in (11) cannot be “reasonable candidates for practical tests” (Sadock 1978=1991: 367). Characteristic (e), if interpretable at all, is a variation of (d), which, in turn, presupposes that we know how to specify conventional meaning, or, to use the terminology introduced above, linguistically coded content. (f) cannot be a practical criterion either, Sadock (1978=1991: 367-368) correctly argues, because linguistically coded content may itself be indeterminate if the sentence in question includes indexical expressions.

Let us now consider the remaining three features. Sadock (1978=1991: 368) says that (a) is problematic, because the definition of calculability refers to the Cooperative Principle and

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<sup>4</sup> It could be objected that (i) Grice’s category of NONCONVENTIONAL IMPLICATURE includes not only conversational implicature but also NONCONVERSATIONAL IMPLICATURE (*cf.* (1)), therefore nonconventional nonconversational implicatures should also be identified if we are to specify the linguistically coded content of an utterance. However, since Grice (1978=1989b: 43) appears to assign the same characteristics to this poorly described class of implicature as he does to conversational implicature, there is no need to treat the two classes separately. Another sensible objection could be that (ii) there are no empirical means at our disposal by which we could precisely identify the total signification of an utterance. Although I consider (ii) an important point, we will not need to exploit it in the criticism that follows.

<sup>5</sup> This difficulty was already anticipated in footnote No. 1

its maxims, which are so vague that on the basis of them “almost anything can be ‘worked out’”. While I certainly agree that neither the Cooperative Principle nor the maxims are formulated in a way that would make their application in rigorous linguistic analyses possible, I would rather reject (a)’s being a suitable defining feature on the ground that, just as characteristics (d) and (e), it appeals to the notion of linguistically coded content, the specification of which is impossible without an operational definition of conversational implicature.

In a similar fashion, (b)’s applicability can be questioned, since it also presupposes an ability to independently specify linguistically coded content. Sadock (1978=1991: 369-372) mentions two other problems with this feature, which are recognized by Grice (1978=1989b: 43-44) himself. First, there are expressions in any language that have no exact synonyms. Therefore, feature (b) cannot be a necessary condition of the presence of a conversational implicature. Second, presuppositions are also nondetachable from an utterance by a replacement of the words used with synonyms, thus nondetachability cannot be a sufficient condition either. To see the adequacy of the second point, it is enough to consider Grice’s example (12.a) along with a paraphrase (12.b) and the specification of the relevant presupposition (12.c):

- (12) (a) He has left off beating his wife.
- (b) He doesn’t beat his wife any more.
- (c) He had beaten his wife.

Sadock (1978=1991: 372) regards cancellability “the best of the tests”. This feature, we can agree with him, is the only one among those listed in (11) that attempts to provide an operational definition of what it means to fall outside linguistically coded content. To see how criterion (c) works in practice, let us try and cancel the particularized and generalized conversational implicatures in Grice’s above-mentioned examples.

Arguably, B’s particularized implicature in (6) that Smith has, or may have, a girlfriend in New York does not arise if A knows that Smith’s mother lives in New York and that she and her son are on excellent terms. Alternatively, B’s implicature, despite its being arisen in another context, is annulled if B complements his utterance in the following way:

- (12) B: He has been paying a lot of visits to New York lately, but I don’t think he has a girlfriend there, either.

A verbal addition of a similar sort, although it renders the letter somewhat odd, can cancel the particularized implicature in (7) as well:

- (13) Dear Sir, Mr. X’s command of English is excellent, and his attendance at tutorials has been regular. And, needless to say, he is highly competent in philosophy. Yours, etc.

Furthermore, it is not impossible to annul the generalized conversational implicatures of (8) and (9), either. We can imagine a linguistic and/or non-linguistic context in which the utterance of the sentences in (14) and (15) would not be totally inappropriate:

- (14) X is meeting a woman this evening. The woman is, in fact, X’s wife.
- (15) X went into a house yesterday and found a tortoise inside the front door. The house that he entered was, in fact, his own.

By contrast, neither the conventional implicature, nor “what is said” is cancellable in (2) without the annulling attempt resulting in a contradiction:

- (16) ?? He is an Englishman; he is, therefore, brave. Yet, his being brave does not follow from his being an Englishman.  
(17) ?? He is an Englishman; he is, therefore, brave. Yet, in fact, he is cowardly.

It seems, therefore, that we can reasonably regard cancellability as a necessary condition of the presence of a conversational implicature.

Unfortunately, however, Sadock (1978=1991: 373) adequately observes, cancellability is not a sufficient condition, because it “does not distinguish cases of ambiguity from cases of univocality plus possible conversational implicature”. As an illustration of this point, consider, for example, the following oft-repeated sentence:

- (18) Everyone speaks only one language.

According to the standard view, (18) is ambiguous. Either (i) it means that ‘For each person in the universe of discourse, there is a language that (s)he speaks’ or (ii) it has a more specific reading under which everyone speaks the same language. Nevertheless, Sadock (*ibid.*) argues, it is just as possible to claim that the sentence is univocal and its other apparent sense is a generalized conversational implicature, which arises on the basis of sense (i) and the first maxim of Quantity. This line of argument would follow the principle that Grice calls Modified Occam’s Razor (10) as well.

Yet, other than by stipulation, that is, by the acceptance or refusal of (10), one cannot decide whether a sentence such as (18) is ambiguous or univocal. Consequently, the fact that

- (19) Everyone speaks only one language although no one language is spoken by everyone.

is not contradictory does not enable us to decide whether the utterance of (18) normally (in the absence of special circumstances) carries a generalized conversational implicature (*ibid.*).

#### 4. Conclusion

The above discussion shows that, despite their intuitive appeal, the constructs of Grice’s theory of implicature do not lend themselves easily to a linguistic application. From the point of view of linguistic semantic analyses of the sort Grice imagined his theoretical apparatus to assist, the notion of generalized conversational implicature seems the most promising, since it is meant to delineate those elements of utterance content that, although normally carried by the linguistic items in question, fall outside the linguistically coded content of a lexeme or construction.

Yet, we have seen that there is an inherent circularity in Grice’s definitional efforts, which make the demarcation of linguistically coded content and conversational implicature extremely difficult. Considerable attention was paid to the characteristics that Grice attributes to conversational implicature, which, given the lack of an operational definition of the above concepts, were put to test as defining features. The investigation, based on Sadock’s close scrutiny, showed, however, that of the six characteristics listed by Grice, only cancellability can be considered a practical criterion. Since cancellability itself cannot be regarded as a sufficient condition of the presence of a conversational implicature, additional criteria have to be proposed.

## 5. References

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