

## The Myth of Epistemic Implicata

by

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*Abstract:* Quite a few scholars claim that many implicata are propositions about the speaker's epistemic or doxastic states. I argue, on the contrary, that implicata are generally non-epistemic. Some alleged cases of epistemic implicature are not implicatures in the first place because they do not meet Grice's non-triviality requirement, and epistemic implicata in general would infringe on the maxim of quantity. Epistemic implicatures ought to be construed as members of a larger family of implicature-like phenomena.

*Keywords:* conversational implicature, scalar implicature, quantity implicature, clausal implicature, ignorance implicature

### 1. Introduction

On a Gricean account of communication, what is communicated by an utterance frequently consists of two layers: what is said and what is conversationally implicated.<sup>1</sup> Consider one of Grice's well-known examples: Professor Y is writing a letter of recommendation for Mr. X, a pupil of Y, who intends to apply for a philosophy job. The letter contains a single sentence:

(1) Mr. X's command of English is excellent, and his attendance at tutorials has been regular (Grice, 1989 [henceforth: WoW]: 33).

What is Y saying here? In cases where sentences contain ambiguous terms or indexicals, things will become a little more complicated; however, in the case of (1), we can identify what is being said with the conventional linguistic meaning of that sentence (see WoW 25). Now, obviously, what Y is attempting to convey by writing (1) goes beyond the literal content of (1). How can an addressee Z grasp the implicatum, that is, the "extra" content S is communicating? Grice's answer to that question is as simple as it is resourceful (WoW 26-7): Z just has to assume that Y is a rational speaker who communicates cooperatively. More specifically, Grice claims that cooperative communication is guided by four maxims

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1 In cases where an utterance contains words such as "but" or "therefore," there will be an additional layer of conventional implicatures. Because conventional implicature is a highly contested issue (see, e.g., Bach, 1999 vs. Potts, 2005), I shall ignore this layer altogether in what follows. Accordingly, when I use "implicature" here, the term ought to be read as "conversational implicature".

according to which utterances ought to be informative (“quantity”), truthful and justified (“quality”), relevant (“relation”), and perspicuous (“manner”).

In the case of (1), it is evident that the sentence’s literal content does not meet these requirements: (1) is neither informative nor relevant. However, on the assumption that Y is a cooperative speaker, Z may take Y to be implicating something informative and relevant which Y did not want to write down:

(1a) Mr. X is no good at philosophy (WoW 33).<sup>2</sup>

Now why should we assume that (1a) is exactly what Y implicated by uttering (1), instead of, say, “Mr. X is a moron”? This is an instance of the more general problem of whether implicata are, at least to some extent, indeterminate — a problem that goes well beyond the scope of this paper. (I will, however, briefly come back to that issue in §7.) What matters, for present purposes, is another alternative to (1a): one might argue that what Y conveys by uttering (1) is one of Y’s beliefs:

(1b) Y believes that Mr. X is no good at philosophy.

Whereas (1b) is what I shall call an “epistemic implicatum,”<sup>3</sup> (1a) is non-epistemic. Now quite a few scholars such as Horn (2010) have argued that many types of implicature (most notably quantity implicatures) are epistemic, and scholars such as Geurts (2010) have advanced the stronger claim that what is conveyed via implicature is (almost) always one of the speaker’s mental states. In this paper, I shall argue to the contrary: within a Gricean framework, there is no reason to suppose that there are epistemic implicatures, although I concede that there are some exceptions. Why is that important? I think there are at least three reasons for paying closer attention to that issue:

*First*, the issue is an important internal problem for any theory of implicature. Communicating that something is the case is, obviously, different from communicating that you believe so, and blurring the distinction between these two kinds of implicata by using brackets (“[S believes that] Mr. X is no good at philosophy”), which is what some scholars have done, would amount to dodging a question instead of answering it.<sup>4</sup>

2 One may suspect that the retrieval of that implicatum is not just guided by Gricean maxims but also by certain rhetorical conventions, in this case the convention of “damning by faint praise” (see Sainsbury, 1984, p. 422). See also Davis (1998) and Lepore and Stone (2015), who argue that implicatures in general are much more conventional than Grice would have acknowledged.

3 I am using *epistemic* as a term that covers epistemic as well as doxastic states, as is common in epistemic logic.

4 See, for example, Matsumoto (1995). When discussing some alleged cases of conventional implicature in earlier work (Sander, 2019, §4), I also dodged the question.

The *second* point has to do with the notion of communication. According to the code, or transmission, model of communication (see, respectively, Green, 2007, p. 7; Davis, 2003, p. 96), communication is essentially a transferal of mental states from one mind to another. Plainly, epistemic implicata are congenial to, or a corollary of, such an account. If communication generally “consists in the expression of beliefs, thoughts, or ideas” (Davis, 2003, p. 167), then communicating via implicature will plausibly be a matter of conveying epistemic states, too. If, however, you are sceptical about such Lockean accounts of communication, you should also be sceptical about the idea of epistemic implicata.<sup>5</sup> This is so because, from a Gricean point of view, the difference between saying and implicating is not a matter of content but a mere matter of how contents are conveyed. So *prima facie* there is no reason to think that “what-is-said”-contents are ordinary propositional contents, whereas implicated contents concern the respective speaker’s epistemic states — and we shall see in the course of this paper that there are neither any specific properties of implicature that would speak in favour of such an asymmetry. If the transmission model offers the only plausible rationale for embracing epistemic implicata, then anti-Lockeans have no reason whatsoever to assume that implicata are about the speaker’s mental states.

*Third*, I think recent debates in pragmatics have corroborated a claim advanced by Sainsbury already a few of decades ago. According to Sainsbury, there is an “enormous variety of cases” (1984, p. 416) in which addressees may learn more from an utterance than what the speaker actually says. Thus, in order to fully understand human communication, we ought to attend to important differences among these cases and should not use the term “conversational implicature” as a one-size-fits-all cap. Accordingly, I do not wish to deny that addressees frequently infer something about a speaker’s epistemic states and that such inferences bear some similarities to implicatures; such inferences, however, should not be regarded as cases of implicature proper.

I shall proceed as follows. Section 2 says a little more about the idea of epistemic implicata. In section 3, I then show how that idea is connected to the “standard recipe” for calculating implicata. Although two kinds of epistemic implicata figure prominently in that recipe (“weak” implicata of the form “S does not believe that *p*” and “strong” implicata of the form “S believes that not-*p*”), there is, on Grice’s original account of implicature, just a single non-epistemic implicatum. In section 4, I argue that many weak implicata are not implicata in the first place because their content would be tantamount to the proposition that

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5 One salient alternative to the code model would be Brandom’s (1994, pp. 141–198) “scorekeeping model of discursive practice” (although Brandom rarely uses the term *communication*). For a similar account, partly inspired by Brandom, see Geurts (2019).

the speaker is conforming to a certain maxim, which would infringe Grice's non-triviality requirement. Section 5 then turns to strong implicata and presents the core argument of this paper: assuming that implicata are epistemic would imply that speakers are generally either less or more informative than required, which would infringe the maxim of quantity. In section 6, I shall have a closer look at what speakers might implicate by uttering disjunctive statements and also at Grice's notion of "non-truth-functional ground." Finally, in section 7, I argue that "epistemic implicata" might best be construed as members of a larger family of implicature-like phenomena.

## 2. Epistemic Implicata

For a start, consider sentence (2), as uttered by some speaker S:

(2) B is either crazy or a liar.

On the standard view (see, e.g., Levinson, 2000, pp. 108–109; Geurts, 2010, pp. 59–64), disjunctions such as (2) carry two distinct conversational implicatures. First, there is an ignorance (or "clausal") implicature, which is essentially epistemic: by uttering (2), S implicates that S does not know whether B is crazy or whether B is a liar. Second, there is a scalar implicature which involves the proposition that B is not crazy and a liar.<sup>6</sup>

Let us first turn to the scalar implicatum. I said that, in this case, the implicatum "involves" the proposition that B is not crazy and a liar because we may construe the proposition that is conveyed by the speaker as either epistemic or non-epistemic. Although all Griceans will agree on what might be dubbed the "propositional core" of the implicatum, there is no consensus on whether the core is to be construed as having an "epistemic shell." Accordingly, all of the following propositions have been proposed as implicata in contemporary scholarship:

(2a) B is not crazy and a liar.

(2b) A knows that B is not crazy and a liar.

(2c) A does not believe that B is crazy and a liar.

(2d) A believes that B is not crazy and a liar.

(2e) For all A knows, B is not crazy and a liar.

Now, many scholars claim or take it for granted that many, perhaps all, implicata are epistemic. That certain *kinds* of implicatures, such as quantity and clausal

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<sup>6</sup> Surprisingly, and in contrast to what some scholars assume (Davis, 1998, p. 145), exclusivity implicatures are not discussed by Grice himself. Horn seems to be the first one who has construed them (1972, §2.11) as scalar implicatures. Thanks to an anonymous reader for bringing that to my attention.

implicatures, are epistemic seems to be a near-consensus (see, e.g., Gazdar, 1979, pp. 55–62; Levinson, 2000, pp. 75–79; Horn, 2010, pp. 315–316),<sup>7</sup> and Geurts (2010, p. 14) makes the still stronger claim that implicata “will generally be of the form ‘S believes that ...’, ‘S does not know whether ...’, etc.” Geurts allows for cases where the implicatum is a non-epistemic mental state such as a desire, but he seems to assume that all implicata are of the form “S  $\psi$ -s (or does not  $\psi$ ) that p” (where “ $\psi$ ” stands for a propositional attitude verb).

This idea is in striking contrast to what Grice seems to have assumed. In his seminal “Logic and Conversation,” (WoW, 22–40) Grice briefly discusses approximately a dozen examples of implicature, and in nearly all cases Grice takes the implicatum to be a proposition about the world and not about one of the speaker’s mental states. Take the recommendation letter from §1 as an example: what is implicated by an utterance of (1) is simply that Mr. X is no good at philosophy, and the same goes for almost all of the other examples discussed by Grice. For Grice, then, implicata are almost never of the form “S  $\psi$ -s (or doesn’t  $\psi$ ) that p.”

There is, however, one exception:

(3) A: Where does C live?

B: Somewhere in the South of France.

According to Grice, B implicates here “that he does not know in which town C lives” (WoW 33). I will argue below that we ought to reject that claim for reasons that naturally fall out of Grice’s overall picture of implicature, but it is (in part, at least) easy to see why he arrived at that conclusion. In many other alleged cases of epistemic implicature, the epistemic shell (as I called it) is optional and can thus be put in brackets (“[S believes that] Mr. X is no good at philosophy”). In the case at hand, this bracketing manoeuvre obviously fails because the locution outside the brackets would not be a propositional content (“[S does not know] in which town C lives”). Accordingly, the ignorance implicatum “S does not know in which town C lives” is, if it is an implicatum at all, an essentially epistemic implicatum.

It might seem clear, then, that there are essentially epistemic implicata. In what follows, I will argue that there are not. Ignorance implicatures may be some kind of pragmatic inference; they are not, however, implicatures in any strict sense of that term. More generally, I will argue that implicata typically are not propositions about the respective speaker’s mental states. Accordingly, using “ $\Delta$ ” as a placeholder for epistemic verbs, my two central claims can be put like this:

(A) Alleged implicata of the form  $\sim\Delta p$  generally are not implicata in the first place.

(B) In nearly all cases where scholars assume implicata of the form  $\Delta p$ , the real implicatum is just  $p$ .

<sup>7</sup> For that reason, such implicatures will serve as the main examples in this paper.

Before proceeding, I would like to stress the word “nearly” in claim (B) and the word “generally” in (A). My point is not that there are not any epistemic implicata. Sometimes people do not talk about the world but about their epistemic stances, and in such cases, there are likely to be epistemic implicata. (A salient example is the phenomenon known as “neg-raising” [see, e.g., Horn, 2001, § 5.2]. Although this is a rather contested issue, it seems plausible that many utterances of the form “A does not believe that  $p$ ” implicate “A believes that not- $p$ ”.) What I want to claim, though, is that in most standard cases of (particularised or generalised) implicature, the implicatum is non-epistemic. The next section will identify a possible rationale for thinking otherwise.

### 3. The Standard Recipe

Although there has been a controversy about the exact nature of epistemic implicata,<sup>8</sup> the question of whether implicata are epistemic at all has received virtually no attention in the literature. Now lack of explicit arguments for some claim  $p$  can often be explained, and would be justified, by the idea that  $p$  is either self-evident or an obvious consequence of some unproblematic assumptions. In our case, the main assumption seems to be that there are scenarios in which a speaker  $S$  conveys an implicatum of the form “ $S$  does not believe/know that  $p$ ,” simply because  $S$  is not in an epistemic position to decide whether  $p$  or not- $p$ . Furthermore, weak implicatures of the form “ $S$  does not believe/know that  $p$ ” seem to be systematically linked to strong implicatures of the form “ $S$  believes/knows that not- $p$ ”. These two assumptions are built into a scheme for calculating implicatures which Geurts (2010, p. 27) has aptly called the “Standard Recipe” (=SR). Take, for instance, sentence (4):

(4) Bonnie stole some of the pears. (Geurts, 2010, p. 27)

How can an addressee find out what an utterer of (4) intended to implicate? Here is SR, as applied to (4):

(SR-4)

- i. Rather than saying (4), Clyde could have made a stronger statement: (4\*) Bonnie stole all the pears. (...)
- ii. The most likely explanation is that Clyde does not believe that (4\*) is true:  $\neg\text{Bel}_C(4^*)$ .
- iii. Clyde is likely to have an opinion as to whether (4\*) is true:  $\text{Bel}_C(4^*) \vee \text{Bel}_C(\neg(4^*))$ .

8 For this debate on “weak” versus “strong” theories see, for example, Levinson (2000, pp. 75–79); van Rooij and Schulz (2004, pp. 494–495); Sauerland (2004, pp. 382–387); Geurts (2010, pp. 28–30); Horn (2010, pp. 315–316).

- iv. Between them, (ii) and (iii) entail  $\text{Bel}_C(\neg(4^*))$ : Clyde believes that Bonnie did not steal all the pears. (Geurts, 2010, pp. 27–28, numbers changed; for similar reconstructions see, e.g., Levinson, 1983, pp. 134–136; Atlas, 2005, pp. 52–53)<sup>9</sup>.

According to this rendering of an addressee's reasoning, there are actually two epistemic implicata: the weak implicatum  $\neg\text{Bel}_C(4^*)$  and the strong implicatum  $\text{Bel}_C(\neg(4^*))$ , which follows logically from the weak implicatum if Clyde is assumed to believe either  $p$  or  $\text{not-}p$ .<sup>10</sup>

I should stress that I do not see any significant problems with (SR) in itself or in its application to (4): (SR-4) seems to be quite a plausible representation of the reasoning by means of which an addressee retrieves an implicatum. This fact in itself, however, does not yet show that  $\neg\text{Bel}_C(4^*)$  and  $\text{Bel}_C(\neg(4^*))$  are actually implicata. If we accept a crucial claim Grice made, (SR-4) would even demonstrate that  $\neg\text{Bel}_C(4^*)$  and  $\text{Bel}_C(\neg(4^*))$  are *not* implicata. Here are two of Grice's elucidations of the notion of conversational implicature:

- (A) A man who, by ... saying ... that  $p$  has implicated that  $q$ , may be said to have conversationally implicated that  $q$ , provided that ... the supposition that he is aware that, or thinks that,  $q$  is required in order to make his saying ... consistent with [the] presumption [that he is observing the Cooperative Principle]. (WoW 30-1)
- (B) [An] implicatum (factual or imperatival) is the *content* of that psychological state or attitude which needs to be attributed to a speaker to secure ... that what appears to be a violation by him of a conversational maxim is only a seeming, not a real, violation. (WoW 370, emphasis added).

Let us stick with (B). What Grice says here seems to be this: we sometimes need to ascribe a mental state  $\Delta$  with the propositional content  $q$  ( $\Delta[q]$ ) to a speaker  $S$  in order to maintain the presumption that  $S$  is conforming to the Cooperative Principle; the implicatum, however, is not the proposition  $\Delta[q]$  but simply  $q$ .

Let us see what happens when we apply Grice's characterization of implicature to example (4).  $\text{Bel}_C(\neg(4^*))$  is plausibly a mental state the ascription of which is needed to maintain the presumption of cooperation. This, however, means that the *content* of that belief ("It is not the case that Bonnie stole all the pears"), not a proposition describing that belief, is the implicatum. What about the weak implicature  $\neg\text{Bel}_C(4^*)$ ? The first thing to note is that Grice's characterization

9 Although Geurt's recipe is tailored to cases in which there is a stronger lexical item (i.e., to scalar implicatures), it seems to involve some assumptions that may be construed as implying that all implicata are epistemic. If, as is suggested by (ii.), an implicatum is something that *explains* an act of saying, then (assuming that only mental states can explain such acts) all implicata will be of the form "S  $\psi$ -s that  $p$ ." See also Geurts's "general format for the derivation of conversational implicatures" (2010, p. 14).

10 This assumption goes under various names. "Competence assumption" (van Rooij and Schulz, 2004) is perhaps the most common term.

seems barely applicable to such cases because  $\neg\text{Bel}_C(4^*)$  does not ascribe a “psychological state or attitude” to C:  $\neg\text{Bel}_C(4^*)$  is about the *absence* of a belief.<sup>11</sup> But even if we construe non-belief as a “limiting case” of a psychological state, there seems to be no plausible candidate for a non-epistemic implicatum. By uttering “Bonnie stole some of the pears,” C clearly does not implicate that Bonnie stole all of the pears; and although it is true that C might plausibly be taken to have implicated that Bonnie did *not* steal all of the pears, that proposition would be just the demodalised strong implicatum. If we take Grice’s characterization of implicature at face value, there is simply no place for weak implicatures: by uttering “Bonnie stole some of the pears,” a speaker implicates that Bonnie did not steal all of the pears, and that is all.<sup>12</sup>

Although I regard this result as intuitively appealing, others might take this to be a *reductio ad absurdum* of Grice’s claim. An opponent might concede that Grice in fact thought implicata to be the *contents* of psychological states but take this to be a flaw in his original approach. So is there any systematic reason not to construe propositions about our beliefs as what is being implicated? I think there is: claiming that implicata are generally epistemic would lead to an odd asymmetry between saying and (conversationally) implicating as the two main kinds of non-natural meaning (henceforth:  $\text{meaning}_{\text{NN}}$ ). Grice’s overall approach to  $\text{meaning}_{\text{NN}}$  has often been described as a kind of “mentalism” (cf. Putnam, 1998, p. 298), and in a way this is clearly correct. For Grice, speakers don’t mean a thing if they ain’t got ... well, rather complex audience-directed intentions. In the course of his career, Grice considered different proposals for specifying the necessary intention: it might be the speaker’s intention of making an audience believe that  $p$  (WoW 217) or the intention of making an audience believe that the speaker believes that  $p$  (WoW 110), but as far as I see Grice has always firmly opposed the view that anything psychological might intrude into the proposition a speaker means (unless, of course, speakers are talking about what is going on in their minds).

Consider one of the cases that was intended as a counterexample to Grice’s early analysis of  $\text{meaning}_{\text{NN}}$  (WoW 213-23):

(5) Schoolmaster S: When was the Battle of Waterloo?

Examinee E: The Battle of Waterloo was fought in 1815 ( $=p$ ). (WoW 106-8)

11 Suppose some person P does not know anything about, say, stamps. On that assumption, the sentence “P does not believe that the Penny Black was issued in 1840” will be true, but it clearly does not ascribe a mental state to P because otherwise each of us would have infinitely many causally inert mental states.

12 Things are even worse in the case of “S does not know in which town C lives,” where we cannot even draw a distinction between a psychological state and its content. In the next section, I will argue that such cases are not examples of implicature proper.



Clearly, E does not want to make S believe that  $p$ ; however, E plausibly may wish to make S believe that E believes that  $p$ . Now should we say that, in this case, E also means<sub>NN</sub> that E believes that  $p$ ? Grice's answer is "no" (WoW 108) because a positive answer would entail that by uttering "The Battle of Waterloo was fought in 1815" speakers might mean different things, depending on the situation. (Compare the exam case to a lesson on the Napoleonic wars in which the same sentence is uttered by the teacher.) And if the meaning<sub>NN</sub> of "The Battle of Waterloo was fought in 1815" were that situation-dependent, then Grice's overall project of explaining sentence meaning in terms of speaker meaning would be seriously threatened (cf. WoW 124-9).

To sum up: when speakers say things, what they mean<sub>NN</sub> is almost never psychological in character. So why should we assume things to be different when speakers communicate via implicature?<sup>13</sup> One possible answer to that question will be briefly discussed in §5, but let us first turn to weak implicata.

#### 4. Weak Implicata

As we have seen in section 3, the "standard recipe" is based on the assumption that there are two kinds of epistemic implicata: weak implicata of the form  $\sim\Delta p$  and strong implicata of the form  $\Delta\sim p$ . Let us first turn to the weak variety, focusing on ignorance implicatures. To see what might be wrong with such implicata, first consider an instance of Moore's paradox:

(6) Dogs bark, and I don't believe that they do (cf. Moore, 1962, p. 277)

It seems tempting to explain the absurdity of (6) roughly along the following lines (see Gazdar, 1979, p. 46; Martinich, 1980, p. 224; Huang, 2014, p. 34): by asserting that dogs bark, a speaker S conversationally implicates that S believes that dogs bark. Because this is exactly the proposition the right conjunct of (6) denies, (6) is pragmatically incoherent, although not semantically inconsistent.

Although in the case of Moore's paradox, it seems as though Grice's notion of implicature can be employed to solve a still perplexing problem, Grice explicitly warned against that approach. When speakers say or assert that  $p$ , they thereby

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13 I am assuming here, that — pace Saul (2002) — implicature is, for Grice, indeed a species of speaker's meaning. Grice, after all, introduces the words "implicature," "implicate," and "implicatum" as "terms of art" that are supposed to do "general duty" for a larger "family of verbs" such as "suggesting," "implying," and "meaning" (see WoW 24). So it seems clear that Grice is concerned with what speakers actually want to convey.

*express* their belief that *p*, but they do not *implicate* that they believe so (WoW 42).<sup>14</sup> Grice's point, however, is not purely terminological:

On my account, it will not be true that when I say that *p*, I conversationally implicate that I believe that *p*; for to suppose that I believe that *p* ... is just to suppose that I am observing the first maxim of quality on this occasion. (WoW 42)

More generally, Grice proposes to restrict the set of possible implicata to “non-trivial” (WoW 41) cases. There are, for Grice, no implicata that are (roughly) equivalent to the proposition that a speaker is conforming to a certain maxim.<sup>15</sup>

Is there any systematic reason to accept Grice's restriction? I think there is because in such cases the calculation of an implicatum would be either trivial or utterly circular. Depending on how you look at it, you would either demonstrate a proposition *p* which could not have been demonstrated without assuming that *p*, or you would simply repeat a proposition which was used as an assumption before. A proposition that *S* is conforming to some maxim cannot be both an implicatum and an assumption that is needed in order to calculate the (alleged) implicatum. (I shall offer an additional rationale for Grice's restriction in §5.)

Unfortunately, Grice did not heed his own warning. Consider, again, the dialogue from §2, repeated (and renumbered) here:

- (7) A: Where does C live?  
B: Somewhere in the South of France

Grice claims that B implicates here that B does not know in which town C lives. A crucial assumption needed to calculate the implicatum is, as Grice put it, “the supposition that B is aware that to be more informative would be to say something that infringed the second maxim of quality. ‘Don't say what you lack adequate evidence for’” (WoW 33). Grice's wording here is somewhat cumbersome,<sup>16</sup> so let me offer an alternative way of specifying the essential assumption:

- (8) B is aware that saying something more specific than “Somewhere in the South of France” would mean saying something B does not know.

14 If that claim of Grice's is also valid for “factual” (i.e., assertive) implicata (cf. WoW 370), then, by conveying an epistemic implicatum, the speaker would generally *express* a higher-order mental state, which does not strike me as particularly plausible.

15 Could not one argue that “Dogs bark” cannot be construed as implicating “I believe that they do” because conversational implicatures are cancellable, whereas instances of Moore's paradox show precisely that there is a non-cancellable relation between assertion and belief? I do not think so. There are, after all, felicitous instances of Moore's paradox (see Crimmins, 1992). Thanks to an anonymous reader for pressing me on this point.

16 One might even wonder whether we may ascribe that supposition to a thinker who has not read some of Grice's works.

(8), however, still seems to be just a fancy way of saying that B does not know in which town C lives. At the same time, (8) seems to be tantamount to the claim that B conformed to the maxims of quantity *and* of quality. The so-called implicatum, then, is nothing else than the assumption needed for its calculation, and thus, according to Grice's own proviso, by uttering "Somewhere in the South of France" a speaker S does not conversationally implicate that S does not know more than that.<sup>17</sup> "Ignorance implicatures," then, ought not to be construed as examples of implicature proper. They are, rather, best seen as pragmatic inferences hearers sometimes make in order to explain a seemingly uncooperative utterance.

### 5. Strong Implicata

Let us now turn to strong implicata of the form  $\Delta p$ . In section 2 of this paper, I argued that, for Grice, implicata do not normally contain epistemic terms as main operators. Accordingly, when Clyde utters

(9) Bonnie stole some of the pears,

he will ordinarily convey (9a) and not (9b) or any other epistemic implicatum

(9a) Bonnie did not steal all of the pears.

(9b) For all C knows, Bonnie did not steal all of the pears.

Grice, however, might have been wrong about that. Maybe there is good reason to construe implicata as epistemic. I do not think so, and here is why.

An essential element in the overall picture of implicature due to Grice is the notion of a "common purpose" (WoW 26). Now Grice was well aware of the fact that communication serves different purposes. His examples of implicature and meaning<sub>NN</sub> in general, however, are almost exclusively assertive in character.<sup>18</sup> In Grice's examples, people exchange information about a world whose denizens are, typically, medium-sized dry goods such as buses, broken china, garages, and poor philosophers (see, respectively, WoW 214, 218, 32, 33).

If exchange of information is the purpose of communicating, then, in order to conform to the maxim of quantity, the "total signification" (WoW 41) of an utterance U (i.e., what is said by uttering U plus what is being implicated by U) has to be exactly as informative as is required. As we shall see, epistemic implicata

17 See also Atlas (2005, p. 53) who claims that, in Grice's discussion of the "Somewhere in the South of France" example, Grice confounds reasons for not making a stronger statement with what a speaker means.

18 As stressed by Grice himself (WoW 28), his maxims, particularly the maxims of quality and quantity, would need to be "generalised" (how exactly?) to allow for cases of non-assertive communication.

are generally an impediment to meeting this requirement. Implicata of the form “S believes that ...” are at best indirectly relevant and so less informative than required; implicata of the form “S knows that ...” are generally more informative than required.<sup>19</sup> This point is more readily seen in the case of what is being said. Suppose you ask an addressee for the time. In standard cases, a cooperative addressee will *not* answer your question by saying “I know/believe that it’s a quarter past nine” but by simply saying “It’s a quarter past nine.” (You were, after all, requesting a piece of information about the world, not about the addressee’s epistemic stance.) To be true, there are cases in which speakers, by using locutions such as “I believe that ...” or “For all I know ...,” indicate that their epistemic situation might be nonideal; however, ordinarily people convey information about the world by directly saying what is the case.

When engaging in information exchange, what we say will typically not involve epistemic operators. So why should we take certain implicata to be, in general, epistemic? The only plausible rationale that comes to mind here would be the assumption that speakers are generally less certain about what they implicate than about what they say, but that assumption does not seem to be true. There are all sorts of reasons for implicating something rather than saying it. Implicatures make communication more economical (scalar implicatures being a salient example); merely implicating something may be a matter of politeness (think of Grice’s letter of recommendation from §1); by communicating indirectly we can avoid legal consequences or social sanctions (Pinker et al., 2008; Camp, 2018); by implicating something we may convey intentionally vague messages (Sperber and Wilson, 1995, p. 56); implicatures may mark power relations between the interlocutors (Cappelen and Dever, 2019, p. 16); they may be more entertaining than plain speech (Sainsbury, 1984, p. 427); and perhaps they are psychologically more effective (Green, 1987). There may be cases in which communicating by implicature is due to ignorance, but such cases seem to be the exception rather than the rule.

Now if speakers do not, in general, choose to implicate something rather than saying it because of their non-ideal epistemic situation, the Gricean approach seems to commit us to construe implicata as non-epistemic. Take “Bonnie stole some of the pears” as an example again. Using Frege’s assertion sign to indicate what Grice called “factual” (as opposed to “imperative”) implicata, the total signification of that utterance may be identified with a sequence comprising the

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19 Implicata of that kind are not only more informative than is required. Because “know” is, on all accounts, a (weak) presupposition trigger, such implicata may also lead to a confusion as to the speaker’s main point (cf. Stalnaker, 1974, p. 55). Because epistemic implicatures are typically construed as involving beliefs, I will ignore “knowledge implicatures” in what follows.

what-is-said content “+ (Bonnie stole some of the pears),” plus one of the three following implicata:

(9c) + (Bonnie did not steal all of the pears)

(9d) + (S believes that Bonnie did not steal all of the pears)

(9e) + (S does not believe that Bonnie stole all of the pears)

The weak implicatum (9e) is clearly the least informative,<sup>20</sup> and given the purpose of information exchange, even the “strong” implicatum (9d) is significantly less informative than (9c). Thus, if we take a speaker S to have meant (9d), or (9e) instead of (9c), this would be tantamount to the claim that S did not conform to Grice’s first maxim of quantity. The key idea of Grice’s account of implicature is that the assumption of cooperativeness gives us access to a layer of content that goes beyond what was said, and assuming, as the standard recipe does assume, that the “strong” implicatum is the most informative implicatum a speaker may have meant would thus be at odds with the very mechanism of communication to which Grice appeals. Beliefs such as (9d) are irrelevant to the purpose of ordinary information exchange.

The above argument is, of course, also applicable to clausal implicatures. Consider, again, the ignorance implicature from section 2 (B: “C lives somewhere in the South of France”). According to Grice’s description of the scenario (WoW 32), finding out where C lives is the accepted purpose of the communicative interchange, and none of the interlocutors knows anything more specific than that C lives in the South of France. Now the alleged implicatum that B does not know where C lives is simply not informative *with respect to* that common purpose; that proposition is, at best, a kind of excuse that *explains* why B was not able to say anything genuinely informative. On Grice’s view, an implicatum is essentially a propositional content that, by either supplementing or replacing what is said, “transforms” a seemingly uncooperative speech act into an utterance that is in line with the Cooperative Principle (cf. Grice’s characterizations of implicature quoted in §3.) Now, given B’s epistemic situation, what is said by the sentence “C lives somewhere in the South of France” achieves a perfect balance between the maxims of quantity and of quality. Thus, there is no need for an additional content that would make B’s utterance cooperative. (Being cooperative does not involve being omniscient.) But even if we assume that the sentence on its own is, in a way, uncooperative (it is, after all, not the *most* informative answer to the question under discussion), the additional pseudo-implicatum about B’s lack of more specific knowledge would not make B’s utterance any more informative

20 Recall, moreover, that lacking a belief is arguably not a mental state at all (cf. §3). So even on the assumption that implicata are epistemic, (9e) is plausibly not an implicatum.

with respect to what the conversation between A and B is about, that is, the whereabouts of C.

And if that is correct, there is an additional rationale for Grice's non-triviality requirement (cf. § 4): trivial "implicata" generally do not increase the relevance or informativeness of an utterance. Thus, speakers who abide by the Cooperative Principle and the maxims do not normally implicate propositions about their own mental states.

## 6. Disjunctions

Up to now, I have focussed on the ignorance implicature allegedly carried by "Somewhere in the South of France" and on the scalar implicature arising from sentences involving "some." Let us finally have a brief look at disjunctions and at what speakers might implicate by employing them. Consider an example from §2, repeated (and renumbered) here:

(10) B is either crazy or a liar.

Next consider how Soames characterizes the implicatures carried by disjunctions and the way to calculate them:

Since one has asserted the weaker statement expressed by the disjunction rather than the statement expressed by either disjunct, ... the presumption that one is obeying the conversational maxims requires one's hearers to conclude that one lacks adequate evidence to assert the statement expressed by either disjunct. ... So, someone who asserts the proposition expressed by  $\neg(A \text{ or } B)$  typically conversationally implicates that he/she does not know ... the proposition expressed by A, or the proposition expressed by B, but that he/she *does* have adequate grounds for thinking that both can't be false. (Soames, 2008, p. 445)

When applied to (10), what Soames claims here would mean that by uttering (10) a speaker S conversationally implicates two things:

(10a) S does not know whether B is crazy or a liar.

(10b) S has grounds for thinking that it is not the case that B is not crazy and not a liar.

According to Soames, then, there is not only the ignorance implicatum (10a) but also an additional epistemic implicatum concerning S's grounds, that is, (10b). I am not sure why Soames added (10b), but I would guess that (10b) is supposed to capture Grice's idea that uttering a disjunction "implicates the existence of non-truth-functional grounds for A or B" (WoW 49).<sup>21</sup> However, because "both

21 For Grice, a non-truth-functional ground or reason for the disjunction "B is either crazy or a liar" is a reason that does not depend on a reason for either "B is crazy" or "B is a liar." (Uttering a disjunction when having a conclusive reason for one of the disjuncts would normally infringe the maxim of Quantity.) See WoW 44-49.

can't be false" is logically equivalent to "at least one is true," (10b) just articulates the constraint that S ought to have *some* (truth-functional or non-truth-functional) reason for what S said: a reason for "B is crazy" is, after all, a ground for thinking that it is not the case that B is not crazy and not a liar.

So instead of (10b), let us consider Grice's original proposal (WoW 47), according to which a speaker S, when uttering (10), implicates:

(10c) S has non-truth-functional grounds for *B is crazy or a liar*.

The first thing to note here is that (10c) differs from all other cases of implicature, including "normal" cases of epistemic implicature, in that (10c) involves a peculiar higher-order implicatum. (10c) is neither concerned with the world nor with an ordinary epistemic state of S but instead with a ground for what has been said by S. This is odd. Moreover, it seems highly unlikely that (10c) is something normal speakers would want to communicate. On the plausible assumption that speakers cannot mean something if they do not have the conceptual resources necessary for grasping the proposition meant, one might even claim that ordinary speakers *cannot* implicate (10c). (10c), after all, essentially involves the technical concept *non-truth-functional ground*, which ordinary speakers plausibly do not possess.

But maybe we can articulate the idea behind (10c) in a way that evades technical concepts. Having a non-truth-functional ground for *A or B* implies not having a ground for *A* and not having a ground for *B*, and, on the assumption that knowledge requires grounds, this would mean that S does not know that *A* and that S does not know that *B*. This, in turn, might be taken to mean that (10c) is, roughly, tantamount to (10a), and although (10c) is an alleged implicatum that ordinary speakers are not able to grasp, (10a) seems to be a psychologically plausible implicatum.

Accordingly, (10a) is the only salient candidate for an implicatum that needs to concern us here, and what I shall say about (10a) will not come as a surprise. Not knowing whether *A* or whether *B* simply is not the sort of thing speakers implicate. Treating such propositions as implicata would, again, infringe Grice's non-triviality requirement. If a speaker S wants to observe the first maxim of quantity ("Make your contribution as informative as is required") and the second maxim of quality ("Do not say that for which you lack adequate evidence"), then not knowing whether *A* or whether *B* will give S a reason for uttering a disjunction; however, reasons for uttering something are not to be identified with what is implicated. Moreover, knowing S's reason typically does not have any genuine informational value for an addressee H: if S utters a disjunction and if H knows that S attempts to be as informative as possible, then H may trivially infer that S

does not know more, but that inference does not retrieve something genuinely informative relative to typical communicative purposes.<sup>22</sup>

In the next, and final, section, I shall discuss a possible objection to what I have attempted to show here: does it really matter whether we call certain pragmatic inferences “implicatures”?

### 7. Implicatures versus Implicature-like Phenomena

Because, in the case of (10), I have conceded that the proposition *that A does not know whether B is crazy or a liar* may be pragmatically inferred by an addressee, one might suspect that much of what I have been arguing here amounts to a mere verbal dispute. If an addressee may infer that proposition, does it really matter whether we call that kind of interpretation process “pragmatic inference” or “implicature”? Whereas I do not think that the linguistic labels we attach to certain communicational phenomena are of any importance, especially so because *implicature* is a term of art, I think it is of utmost importance to use separate labels for phenomena that are different. And there is a difference between “ignorance implicatures” and genuine cases of implicature: in the first case, an addressee infers nothing more than that a speaker was in fact conforming to certain maxims; in the second case, a maxim is used in order to calculate a proposition that is actually informative.

Confounding these two cases is an instance of a more general confusion that Bach takes to be one of the “top 10 misconceptions about implicature.” There is, according to Bach (2006, p. 26), a temptation to ignore the distinction between what a speaker means and the conditions that have to be met in order for an utterance to be felicitous. In §4, we have already encountered one example where that distinction has been ignored by some scholars: asserting *p* without believing *p* is, plausibly, infelicitous; however, by asserting *p* you do not *implicate* that you believe *p* to be true. Rather, you *express* one of your beliefs.

Now confounding implicature with other (though similar) phenomena is not restricted to cases in which the other phenomenon is a felicity condition. Several post-Gricean accounts of communication suggest that there are all sorts of cases in which the overall message of an utterance transcends its literal content and which are not examples of implicature (narrowly construed). Take, for instance,

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22 Recall that Grice’s maxims of quantity and of relation are relativised to specific purposes of a talk exchange (WoW 26). Now consider a context in which a sentence such as (10) is likely to be uttered, for instance a context in which (10) is offered as a reason for why C said something patently false. I fail to see how, in such a context, the utterer’s lack of knowledge may be even mildly relevant. More generally still, conveying your lack of knowledge is, I think, not a genuine “move” in an informational language game. It is more like a higher-order comment on why you are not able to make a real move.



the kind of “off-record” communication exemplified by sexual innuendos and concealed threats (“Nice restaurant you got here, be a shame if anything happened to it”). One of the puzzling features of such examples is this: because, in many cases, the speaker *S* knows quite well that the addressee will be able to retrieve *S*’s implied message, why do speakers refrain from simply saying what they want to get across? Here’s an explanation which I think is quite plausible in some cases:

Imagine that Harry says, “Would you like to come up and see my etchings?” and Sally demurs. There is little or no uncertainty about Harry’s intent, and none about Sally’s: Sally knows that she has turned down an overture, and Harry knows that she has turned down an overture. However, Sally does not necessarily know that *Harry* knows; she might think to herself, “Maybe Harry thinks I’m naïve.” In addition, Harry does not necessarily know that *Sally* knows that he knows; he might think to himself, “Maybe Sally thinks I’m obtuse.” Although there is individual knowledge, there is no common knowledge, and they can maintain the fiction of friendship. (Pinker et al., 2008, p. 837)

According to the explanation offered by Pinker et al., off-record communication prevents certain propositions (or other kinds of contents such as a proposal) from becoming common knowledge among the interlocutors. Now it is widely recognized that a proposition *p* cannot be meant<sub>NN</sub>, and thus also not be implicated, unless the speaker wants *p* to become common, or mutual, knowledge (see, e.g., Schiffer, 1972, pp. 30–42). Accordingly, Harry’s communicative attempt in the above example ought not to be construed as a fully fledged case of conversational implicature. Rather, it should be described as implicature minus common knowledge.

And there are quite a few additional implicature-like phenomena.<sup>23</sup> I shall briefly discuss three of them:

### 7.1 Associated contents

Consider a sentence discussed in Frege’s “Über Sinn und Bedeutung”:

- (11) Napoleon, who recognised the danger to his right flank, himself led his guards against the enemy position. (Frege, 1892, p. 46)

On Frege’s view, a speaker who utters (11) will normally intend to convey, and will be understood as conveying, that Napoleon’s recognition of the danger was the reason for leading his guards against the enemy position. This side-thought or *Nebengedanke* is, for him, something that simply comes to mind due to

23 There are two further (but more controversial) cases that are worth mentioning here: the propositional expansions or completions Bach (1994) discusses as “implicatures” and Levinson’s “presumptive meanings,” which are based “on general expectations about how language is normally used” (2000, p. 22).

psychological associations (see Sander, 2021, § 3).<sup>24</sup> Side-thoughts are similar to conversational implicatures in that an utterance communicates a non-encoded proposition; however, in contrast to implicatures, that proposition is not calculated but rather associated.

### 7.2 *Non-propositional contents*

Grice treats metaphor as a prototypical instance of conversational implicature because what a metaphorical sentence literally says is either patently false (“You are the cream in my coffee”, WoW 34) or obviously true (“No man is an island”), the addressee has to look for an alternative proposition the speaker wanted to convey. But is it even remotely plausible that metaphors convey determinate propositional contents? Grice was aware of the general problem that some implicatures convey rather vague messages and tried to account for it by claiming that implicata may be disjunctions, sometimes open-ended disjunctions (WoW 40). But even on that proposal, what metaphorical utterances convey would be essentially propositional, which might be taken to be highly implausible in many cases (cf. Davidson, 1978).

The underlying problem is actually not restricted to metaphors. Sperber and Wilson (1995, p. 57) claim that “much of what is communicated does not fit the propositional mould” and offer the following example:

(12) Peter: What do you intend to do today?

Mary: I have a terrible headache.

It seems clear that Mary does not want to communicate a simple proposition here, and construing what she is attempting to convey as a complex disjunction of propositional contents also does not seem to be terribly convincing. Should not we rather take the communicative content of her utterance to be an amorphous cloud containing propositions, propositional fragments, attitudes, mental images, emotions, and so forth?<sup>25</sup> And if all that is correct, there are implicature-like phenomena in which the “implicatum” is either non-propositional or not wholly propositional.

24 The mechanism discussed by Frege was arguably rediscovered by Geis and Zwicky, who similarly appeal to tendencies of the human mind (1971, p. 562) in order to explain what they call “invited inferences”.

25 Recall that, on the orthodox Gricean picture, you cannot *express* an emotion via an implicature since implicata are essentially propositional (though you can implicate that you are in a certain emotional state). More generally, it is not really clear what a Gricean account of genuinely expressive content might look like. Probably, one would need to construe expressing as something analogous to Gricean saying, but I shall leave that for another occasion.

### 7.3 *Unmeant<sub>NN</sub> contents*

Third, there are cases in which the addressee is not attempting to find out what the speaker actually attempted to communicate. Two salient members of that family are cases in which the addressee's inference is based on the literal content of the speaker's utterance and on certain features of the communicative situation (Gauker, 2001),<sup>26</sup> and cases in which the addressee's inference is not intended to uncover what the speaker *S* *actually* meant but rather the message that *S* "made available" (Saul, 2002).<sup>27</sup>

It is worth noting that "ignorance implicatures," although being implicature-like phenomena, are essentially different from all of the phenomena I have just listed. In all these cases, there is an interpretation process that enriches the literal content of an utterance. For instance, "Napoleon did *H* because of being in mental state *S*" is more informative than "Napoleon, who was in mental state *S*, did *H*," and the stronger content of the former sentence can be retrieved by a specific mechanism of pragmatic enrichment.

Ignorance implicatures, in contrast, are best not construed as a means of getting access to additional communicative contents. The specific value of such inferences instead appears to concern the interpersonal dimension. Suppose you are given a fairly uninformative answer (e.g., "Somewhere in the South of France"). In such a case, you may either assume that the speaker, being uncooperative, is concealing information from you. Or you may assume that the speaker is cooperative but ignorant on the exact whereabouts of a certain person. By explaining an uninformative answer in the latter way, you can dispel the suspicion of uncooperativeness, and so you are able to maintain a spirit of trust towards the speaker (which may be vital for future interactions). Construing such inferences as run of the mill examples of implicature misses the real function they have for our social life.

## 8. Concluding Remarks

I have been arguing here against the claim that implicata are epistemic, which is not to deny that utterances may sometimes serve as clues to the speaker's epistemic states. Thus, we should not think of the notion of conversational implicature as a one-size-fits-all cap that is becoming to any situation in which what a speaker conveys or what an addressee infers goes beyond the literal content of

26 Gauker thinks that these "situated inferences," as he calls them, make the notion of conversational implicature ultimately dispensable. I disagree with him, but I think we should acknowledge situated inferences as a genuine communicative phenomenon.

27 Saul thinks that this is Grice's official account of implicature. I disagree with her, but I think we should acknowledge such "normative" inferences as a genuine communicative phenomenon.

the speaker's utterance. Rather, we ought to acknowledge the existence of several implicature-like phenomena, alleged cases of epistemic implicatures being one of them.

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