The Myth of Entailed Conversational Implicatures

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Grice famously distinguished between conventional and conversational implicatures. Though similar in several respects, they are often taken to lie on opposing sides of the semantic-pragmatic divide. Conventional implicatures are a semantic phenomenon since they come into existence due to the conventional meaning of the expressions used. Conversational implicatures, in contrast, are pragmatic because they arise due to a general expectation of cooperativeness. This classification is challenged by the emerging consensus that there are two kinds of conversational implicatures. There are not only our paradigm conversational implicatures which are semantically independent from the sentence used. There are also conversational implicatures which are semantically entailed by the sentence in question and so not purely pragmatic. In this paper, I argue that the existence of entailed conversational implicatures is a myth that easily leads to all kinds of misunderstandings.

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Introduction

Grice (1989, ch. 2) famously distinguished between conventional and conversational implicatures. Though similar in several respects, they are often taken to lie on opposing sides of the semantic-pragmatic divide. Conventional implicatures are a semantic phenomenon since they come into existence due to the conventional meaning of the expressions used. Conversational implicatures, in contrast, are pragmatic because they arise due a general expectation of cooperativeness.[1] This classification is challenged by the emerging consensus that there are two kinds of conversational implicatures. There are not only our paradigm conversational implicatures which are semantically independent from the sentence used. Following Davis (1998), Carston (2002), and Bach (2006), many

[1]For this way of cutting the cake, see, e.g., Potts (2007, 668f.) and Horn (2008, p. 181).

researchers hold there are also conversational implicatures which are semantically entailed by the sentence in question and so not purely pragmatic.[2]

As examples of the former kind, consider the following dialogues:[3]

(Ex 1) A: Did Hannah eat all the cookies?
B: Hannah ate some of the cookies.
$\rightsquigarrow$ (1) Hannah didn't eat all of the cookies.

(Ex 2) A: Is Hannah still single?
B: Hannah has been visiting New York quite a lot lately.
$\rightsquigarrow$ (2) Hannah is not single anymore.

It is standardly assumed that propositions (1) and (2) are conversationally implicated by B in (Ex 1) and (Ex 2), respectively.[4] Clearly though, (1) and (2) are semantically independent from the sentences B uses. Most importantly in the context of this paper, (1) and (2) are not semantically entailed by the sentences B uses. B's sentences can be true even if (1) and (2) are false.

For seeming examples of the latter kind of conversational implicatures, consider the following exchanges, modeled after Davis (1998, p. 6) and Bach (2006, p. 24):

(Ex 3) A: Has anybody ever put the shot more than 24 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (3) Someone has put the shot more than 24 meters.

(Ex 4) A: Has Hannah put the shot more than 24 meters or thrown the discus more than 75 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (4) Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.

(Ex 5) A: Has Hannah put the shot more than 24 meters or thrown the javelin more than 100 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (5) Hannah has put the shot more than 24 meters or thrown the javelin more than 100 meters.

[2] Further proponents of entailed conversational implicatures are Higashimori and Wilson (1996, 12f.), Blome-Tillmann (2013, p. 172), Haugh (2013, 4f.), Rett (2015, ch. 4), Sullivan (2017, p. 169), and Moldovan (2019). For simplicity, I not only allow propositions but also sentences to entail propositions. Nothing of importance hangs on this.

[3] Here and in the following, I use '$\rightsquigarrow$' to indicate that the respective proposition is conveyed, where 'being conveyed' is used as an umbrella term that leaves it open whether the proposition is semantically expressed, conventionally or conversationally implicated, presupposed, or the like. Note that at least some of these more specific categories are not by their very nature categories of conveyed propositions. There are, e.g., conveyed and non-conveyed semantically expressed propositions. This will be important in sec. 2.

[4] While (1) of (Ex 1) is standardly taken to be a *generalized conversational implicature*, (2) of (Ex 2) is commonly conceived as a *particularized conversational implicature*. For this distinction, see Grice (1989, 37ff.).

Proponents of entailed conversational implicatures hold that propositions (3)–(5) are conversationally implicated in the three dialogues, respectively—just like the propositions (1) and (2) are conversationally implicated in dialogues (Ex 1) and (Ex 2). Clearly, though, (3)–(5) are semantically entailed by the sentence B uses: B's sentence cannot be true if (3), (4), or (5) is false. It thus seems that there are two kinds of conversational implicatures: non-entailed and entailed ones.

In this paper I argue against this emerging consensus. I grant that (3)–(5) are entailed by B's sentence, but I dispute that they are conversationally implicated in the cases at hand. Entailed conversational implicatures of the indicated type, I thus conclude, do not exist.

Why, one might wonder, should we care? 'Conversational implicature' is a term of art so we are in principle free to choose what it refers to. Clearly, though, not all terminological choices are equally good.[5] I show that subsuming (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) under the label 'conversational implicature' would lead to a massive distortion of the long-standing and well-entrenched usage of 'conversational implicature' due to Grice, in that it would make 'conversational implicature' an umbrella term the extension of which would not only comprise entailed propositions, but also semantically expressed propositions, on the one hand, and conventionally triggered propositions, on the other. For the sake of terminological clarity and continuity and for want of reasons in favor of such a terminological shift, we should abstain from treating (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) as conversational implicatures.

The paper is structured into three sections. In the first section, I present two arguments in favor of entailed conversational implicatures. Sec. 1.1 concerns what I call the *negative reason* for believing in entailed conversational implicatures. It is the claim that the propositions in question fit no other mold: they are conveyed in the cases at hand, but they do not fulfill the criteria of any other category for conveyed propositions, in particular, they are neither semantically expressed nor otherwise conventionally triggered. Sec. 1.2 concerns the corresponding *positive reason* for believing in entailed conversational implicatures. It is the claim that (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) nicely fit the mold of conversational implicatures both from (a) an intuitive and from (b) a theoretical standpoint. In the second section, I object to both arguments. In response to the positive reason I argue that the cases in question might well form a category of their own. In response to the negative reason I raise an overgeneration worry: if (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) were conversational implicatures, many other kinds of propositions would be conversational implicatures as well. More concretely, there would not only be entailed conversational implicatures; there would also be semantically expressed conversational implicatures, on the one hand, and presupposed conversational implicatures and conventionally implicated conversational implicatures, on the other. In the third and final section, I elaborate on why the existence or non-

[5]See the growing literature on *conceptual engineering* for theoretical underpinnings, e.g., Burgess and Plunkett (2013a), Burgess and Plunkett (2013b), and Cappelen (2018).

existence of entailed conversational implicatures should interest us. In particular, I work out what difference the classification of (3)–(5) can make for the bigger picture.

The paper provides the first in-depth discussion of the pros and cons of allowing entailed conversational implicatures. Various scholars have explicitly committed to the existence of entailed conversational implicatures (see again Davis (1998, p. 6), Carston (2002, 139ff.), and Bach (2006), as well as the works cited in footnote 2), but arguments for their existence have been sketchy, relying mostly on intuitions about cases in question (see my footnote 15). The arguments that I present in sec. 1 on behalf of my opponents aim at filling this lacuna. I take them to provide the strongest case that can be made for entailed conversational implicatures. Of course I cannot rule out that a stronger case could be made, but my discussion in sec. 2 should suffice to shift the burden of proof to my opponents. As such the paper can be read as an invitation for further investigation of this understudied topic.

Before I start my investigation let me set aside an objection to entailed conversational implicatures that I am not going to raise in the following. Many scholars take truth-conditional irrelevance to be a central and unifying feature of both conventional and conversational implicatures. More precisely, they think that the following claim is true:

(Imp) The truth value of the proposition *semantically expressed* by a sentence s at a context c is not affected by the truth value of the proposition *implicated* by (the speaker using) s at c. More specifically, *it's possible* that the proposition semantically expressed is true while the proposition implicated is false.[6]

In addition to that, scholars usually assume the following:

(Ent) The truth value of the proposition *semantically expressed* by a sentence s at a context c is affected by the truth value of the proposition *entailed* by s at c. More specifically, *it's not possible* that the proposition semantically expressed is true while the proposition entailed is false.

By (Imp) and (Ent), a given proposition can never be both an implicature (whether conversational or otherwise) and an entailment. So given (Imp) and (Ent), the term 'entailed implicature' would be a *contradictio in terminis*.

As indicated, this is not the objection that I am going to raise. In the spirit of an open-minded investigation I consider (Imp) as being up for negotiation. That is, I do not rule out entailed implicatures just because they would invalidate (Imp).[7]

[6] Grice does not seem to endorse this claim explicitly. For a suggestive passage regarding conversational implicatures, see Grice (1989, ch. 2: 39); for a suggestive passage concerning conventional implicatures, see Grice (1989, ch. 2: 25f.). For consent to (Imp), see, e.g., Horn (2007, p. 39) and Geurts (2010, pp. 9, 12).

[7] More generally, to not beg the question against my opponent, I do not presuppose *any*

1 Two arguments

As indicated, there seems to be a negative and a positive reason for believing in entailed conversational implicatures. I present the strongest versions of the arguments in the background in the following two subsections.

1.1 They fit no other mold

The negative reason looks at alternative categorizations of (3)–(5) and finds none of them appropriate. But why, one might wonder, would (3)–(5) have to fit any further category? Can't we just say that they are entailed, period? To see that they should fulfill a further condition, recall (Ex 3), repeated here for convenience (same things apply, *mutatis mutandis*, to (Ex 4) and (Ex 5)):

(Ex 3) A: Has anybody ever put the shot more than 24 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (3) Someone has put the shot more than 24 meters.

It seems clear that (3) is not only entailed by B's sentence; it is also conveyed by B. It is part of the message B sends and A receives.[8] But not any old entailment of B's sentence is conveyed in (Ex 3). Consider, for instance, the following propositions, both of which are semantically entailed by B's sentence ((3.1) is a necessary truth, (3.2) at best a contingent truth):

(3.1) Hannah has put the shot more than 24 meters or if Hannah has thrown the discus or the javelin more than 30 meters, it is not the case that she has thrown neither the discus nor the javelin more than 30 meters.

(3.2) Someone has put the shot more than 24 meters and if Hannah has thrown the discus or the javelin more than 30 meters, it is not the case that she has thrown neither the discus nor the javelin more than 30 meters.

Neither of these propositions is conveyed by B in (Ex 3), for neither (3.1) nor (3.2) seems to be part of the message B sends and A receives.[9] So to explain

substantive definition of implicature (conversational or otherwise). As indicated in the introduction, however, received tests for conversational implicatures will play a major role in sec. 1.2 and sec. 2.

[8] Here and in the following, I focus on cases of successful communication between two speakers A and B where there is no misunderstanding between A and B about what is intended and taken to be conveyed. Dropping this simplification would make my argument much more complicated, but nothing of substance would change. As mentioned in footnote 3, I use 'being conveyed' as an umbrella term which leaves open whether the proposition in question is semantically expressed, conventionally or conversationally implicated, presupposed, or the like.

[9] This is not only intuitively plausible. It is also supported by the fact that if (3.1) and (3.2) were conveyed in (Ex 3), there would presumably be infinitely many propositions that are being conveyed, which seems controversial, to say the least.

why (3) as well as (4) and (5) are conveyed in (Ex 3)–(Ex 5), respectively, we have to assume that they fulfill a further condition. Being entailed does not imply being conveyed.

Fair enough, one might think. But can't we then say that (3)–(5), unlike (3.1) and (3.2), are obviously entailed by B's sentence, in the sense that they are derivable in one step by a simple inference pattern? To see that this wouldn't suffice for them to be conveyed either, recall (Ex 4) and (Ex 5), repeated here for convenience:

(Ex 4) A: Has Hannah put the shot more than 24 meters or thrown the discus more than 75 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (4) Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.
$\not\rightsquigarrow$ (5) Hannah has put the shot more than 24 meters or thrown the javelin more than 100 meters.

(Ex 5) A: Has Hannah put the shot more than 24 meters or thrown the javelin more than 100 meters?
B: Hannah has put the shot more than 24 meters.
$\rightsquigarrow$ (5) Hannah has put the shot more than 24 meters or thrown the javelin more than 100 meters.
$\not\rightsquigarrow$ (4) Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.

In (Ex 4), (4) but not (5) is conveyed. In (Ex 5), it is the other way around: (5), but not (4) is conveyed. In both cases, however, both propositions are derivable from B's sentence in one step by the same simple inference pattern (disjunction introduction). This shows that even being an obvious entailment does not suffice for a proposition to be conveyed.[10]

So let us look at the two main alternatives to conversational implicatures that might explain why (3)–(5) are conveyed in (Ex 3)–(Ex 5). The propositions could be

(i) semantically expressed, or they could be
(ii) conventionally triggered (but not semantically expressed), by which I mean that they are either conventional implicatures or semantic presuppositions.[11]

To be sure, there is a controversy about how to think of the second category, in particular about whether it should be broken up into the two indicated subcategories. Boër and Lycan (1976) have argued that semantic presuppositions are

[10] Additionally, there is an overgeneration worry analogous to the one of footnote 9: if (4) and (5) were both conveyed in the two cases, there would presumably be infinitely many propositions that are being conveyed.

[11] The first category—or categories very similar to it—sometimes go by other names. Semantically expressed propositions are also called *truth-conditional contents*, *what is literally expressed*, *what is said*, *primary contents*, and *proffered contents*.

a myth and that propositions of category (ii) are really conventional implicatures.[12] Bach (1999), in contrast, has claimed that conventional implicatures are a myth and that propositions of category (ii) either belong to the first category or else are semantically presupposed.[13] Fortunately, though, this controversy need not bother us here. What is of interest to us at the moment is only whether (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) belong to categories (i) or (ii), not how category (ii) should be broken up into subcategories.

It seems clear that (3)–(5) are not semantically expressed in (Ex 3)–(Ex 5), respectively. If you do not find this immediately intuitive, ask yourself how you would report what B said (or literally said or strictly speaking said) in, say, (Ex 4) and (Ex 5). You would say, I hope, that B said that Hannah has put the shot more than 24 meters. You would not say any of the following:

(4') B said that Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.

(5') B said that Hannah has put the shot more than 24 meters or thrown the javelin more than 100 meters.

If you do not like this 'speech report' test for semantically expressed propositions, focus on the truth conditions. From the falsity of (4) and (5) it certainly follows that B's sentence in (Ex 4) and (Ex 5) is false. But from the truth of (4) and (5) it clearly does not follow that B's sentence is true. If you do not like this test via truth conditions either, focus on the syntactic structure. The syntax of B's sentence does not contain anything that corresponds to 'or.' This too supports the claim that (4) and (5) are not semantically expressed by B's sentence in the two exchanges, respectively.

Furthermore, it seems clear that (3)–(5) are not (proper) parts of the propositions semantically expressed in (Ex 3)–(Ex 5). Compare these cases with the following dialogue:

(Ex 6) A: What are Hannah's biggest achievements?
B: Hannah has thrown the discus more than 75 meters and she has thrown the javelin more than 100 meters.
$\rightsquigarrow$ (6.1) Hannah has thrown the discus more than 75 meters.
$\rightsquigarrow$ (6.2) Hannah has thrown the javelin more than 100 meters.

(Ex 6) and (Ex 3)–(Ex 5) are similar in that the conveyed propositions ((6.1) and (6.2), on the one hand, and (3)–(5), on the other) are entailed by B's respective sentence. Still, there is an important difference. While, intuitively, each of (6.1) and (6.2) is a part of the (complex) proposition semantically expressed by B's sentence in (Ex 6), none of (3)–(5) is a part of the proposition semantically expressed by B's sentence in (Ex 3)–(Ex 5). We can thus conclude that (3)–(5) do not belong to category (i).

[12] See, similarly, Karttunen and Peters (1979).
[13] See also Rieber (1997) and Blakemore (2000).

It seems similarly clear that (3)–(5) are not conventionally triggered in (Ex 3)–(Ex 5) either. If they were—that is, if they were either conventionally implicated or semantically presupposed—they should survive the embedding under negation and in certain modal and conditional constructions. To see that they do not, consider the following dialogue, in which B negates that Hannah has put the shot more than 24 meters (*mutatis mutandis* for respective variants of (Ex 4) and (Ex 5))):

(Ex 7) A: Has anybody ever put the shot more than 24 meters?
B: Hannah hasn't put the shot more than 24 meters.
$\nrightarrow$ (7) Someone has put the shot more than 24 meters. (= (3)).

Proposition (7) is clearly not conveyed by B. Analogous things can be shown for 'Hannah might have put the shot more than 24 meters' and 'If Hannah has put the shot more than 24 meters, she was very happy.' So (3)–(5) are not conventionally implicated or semantically presupposed in (Ex 3)–(Ex 5) and do therefore not belong to category (ii) either.[14]

1.2 They fit the mold

The positive reason for believing in entailed conversational implicatures is that (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) nicely fit the mold of conversational implicatures. There seem to be two versions of the argument. The first draws on intuitions. It compares (Ex 1)–(Ex 3) with paradigm cases of a conversational implicature as we find, for instance, in (Ex 1) and (Ex 2) and judges them to belong to the same category.[15]

The second and much more substantial version of the argument one could provide makes use of received tests for conversational implicatures.[16] It acknowledges that they do not yield a univocal verdict about (3)–(5) as they are conveyed in (Ex 3)–(Ex 5), but contends that considerations in favor of treating (3)–(5) as conversational implicatures trump those against it. I construe the argument as proceeding in two steps.

[14] To further support the claim that the propositions in question are not conventionally triggered in the sense given, one might want to point out that they are not always conveyed by the speaker using the respective sentence. Consider (Ex 4) and (Ex 5) for illustration. B's sentence is the same, but she does not convey (5) in (Ex 4), just like she does not convey (4) in (Ex 5).

[15] In fact, this argument by intuition seems to be the most central argument for entailed conversational implicatures. In his 'The top 10 misconceptions about implicatures' Kent Bach writes: "It is commonly assumed that what a speaker [conversationally] implicates in uttering a sentence can't be entailed by the sentence itself. To be sure, most [conversational] implicatures (by speakers) are not entailments (by sentences uttered by speakers), but there are exceptions. For example, suppose someone says to you, 'Nobody has ever long-jumped over 28 feet.' You reply, 'Whad'ya mean? Bob Beamon long-jumped over 29 feet way back in 1968.' Here you are clearly [conversationally] implicating that somebody has long-jumped over 28 feet. But this is entailed by the fact that Beamon long-jumped over 29 feet." Bach (2006, p. 24) If an argument at all, it is an appeal to our intuitions about what is and what isn't a conversational implicature.

[16] Overviews of the various tests are given in, e.g., Blome-Tillmann (2013) and Potts (2015).

The first step is to acknowledge what I call *the challenge from cancellability*. It's that propositions (3)–(5) as they are conveyed in (Ex 3)–(Ex 5), respectively, do not pass the cancellability test. As a brief reminder of the test, consider a modification of (Ex 1):[17]

(Ex 1') A: Did Hannah eat all the cookies?
B: Hannah ate some of the cookies. But I don't mean to suggest that she didn't eat all of them. In fact, she did.

Here, B's response is perfectly fine. So proposition (1)—that Hannah did not eat all the cookies—which was conversationally implicated in the original dialogue (Ex 1) passes the cancellability test. Consider next an analogous modification of (Ex 3):

(Ex 3') A: Has anybody ever put the shot more than 24 meters?
B: Hannah has put the shot more than 24 meters. But I don't mean to suggest that anybody ever put the shot more than 24 meters.

Here, B's response is bad. It is not clear what B could try to get across. So proposition (3)—that someone has put the shot more than 24 meters—as it was conveyed in (Ex 3) does not pass the cancellability test. *Mutatis mutandis* for (Ex 4) and (Ex 5).[18]

The second step is to put this challenge into perspective. I can see two complementary ways of doing that. One is what I call the *argument by quality*. We shouldn't care too much about the cancellability challenge, this argument has it, because the most important test for conversational implicatures—the calculability test—speaks in favor of (3)–(5) being conversational implicatures in (Ex 3)–(Ex 5).[19] As a brief reminder of this test, consider once more (Ex 1),

[17] For the cancellability test, see, most prominently, Grice (1981, p. 186) and Grice (1989, ch. 2: 39f., ch. 3: 44., ch. 17: 270f.). I focus on *explicit* cancellability and leave *contextual* cancellability aside. For the distinction, see especially Grice (1989, ch. 3: 44). Since both kinds of cancellability are commonly considered independent tests, the challenge described above arises even if—as seems plausible—(4) and (5) as they are conveyed in (Ex 4) and (Ex 5) *are* contextually cancellable. For an overview of the recent discussion of the cancellability test, see Sullivan (2017) and Zakkou (2018). I will comment on the status of the test shortly.

[18] There is a controversy about what exactly cancellability amounts to (see, e.g., Weiner (2006), Blome-Tillmann (2008), Åkerman (2015), and Zakkou (2018)). However, since B's sentence of (Ex 3') sounds bad in basically any context, proposition (3) as it is conveyed in (Ex 3) comes out non-cancellable according to all versions of the cancellability test. For consent to the claim that the entailments under consideration are not cancellable, see, e.g., Neale (1992, p. 529) and Carston (2002, p. 113). For opposition, see Haugh (2013, p. 138), but see Moldovan (2019). Note that I confine myself to the claim the entailments (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) are non-cancellable. I agree with Sadock (1978) that propositions semantically expressed by ambiguous or context-sensitive sentences are cancellable and so refrain from taking all entailments to be non-cancellable. See, similarly, Davies (2017).

[19] In the first version of his paper 'Presupposition and Implicature', Grice speaks of the calculability test as the 'final test' for conversational implicatures (1981, p. 187).

repeated here for convenience:[20]

(Ex 1) A: Did Hannah eat all the cookies?
B: Hannah ate some of the cookies.
⇝ (1) Hannah didn't eat all of the cookies.

People seem to agree that a proposition like (1) as conveyed in (Ex 1) passes the test since there is a reasoning roughly along the following lines: If B had not conveyed (1), she would have violated Grice's cooperative principle ('Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged' (Grice, 1989, p. 26). More specifically in the case at hand, she would not have answered the question under consideration. In (Ex 1), she has answered the question, however. So she conveyed proposition (1).[21] To be sure, there is a big controversy about how to further spell out the test. Why consider proposition (1) rather than the exact opposite, for instance?[22] And which of the conversational maxims of the cooperative principle would have been flouted?[23] But these controversial issues need not interest us here. What is important at the moment is only that (1) as conveyed in (Ex 1) passes the calculability test due to the availability of the reasoning given above.[24] Compare now (Ex 1) with (Ex 3), also repeated for convenience:

(Ex 3) A: Has anybody ever put the shot more than 24 meters?
B: Hannah has put the shot more than 24 meters.
⇝ (3) Someone has put the shot more than 24 meters.

Proposition (3) as conveyed in (Ex 3) seems to pass the outlined calculability test because we can provide an analogous reasoning: If B had not conveyed (3), she would not have answered the question under consideration. She has answered the question, however. So she conveyed (3). *Mutatis mutandis* for (4) and (5).

The second way of responding to the challenge from cancellability is what I call the *argument by quantity*. We shouldn't worry too much about the challenge, this argument has it, because in total more tests—namely not only the calculability but also the non-detachability test—speak in favor of (3)–(5) being conversational implicatures. For this test, consider what happens if we replace

[20] For the calculability test, see, most prominently, Grice (1989, ch. 2: 31, 39, ch. 3: 43). For discussion, see, e.g., Davis (1998).

[21] The reasoning is commonly seen as a rational reconstruction of what is going on rather than being psychologically realized.

[22] This problem goes by the name *symmetry problem*. For discussion, see, e.g., Kroch (1972), Wilson (1975, 104ff.), Fox (2007), and Breheny et al. (2018).

[23] The answer to this question depends, among others, on the specific framework: while Grice distinguishes four maxims, Levinson has three, and Horn two. Sperber and Wilson get along with just one principle—the principle of relevance. For an overview, see, e.g., Huang (2007, ch.s 2.1., 2.2, 7). For discussion of whether the calculability reasoning *has* to involve an apparent violation of a maxim, see Dinges (2015).

[24] I'll comment on the status of the calculability as outlined above shortly.

'some' with truth conditionally similar expressions, as indicated in the following:[25]

(Ex 1") A: Did Hannah eat all the cookies?
B: Hannah ate {some/ a few/ many/ a couple} of the cookies.
⇝ (1) Hannah didn't eat all of the cookies.

Independently of which of these expressions B uses, she seems to convey (1). So non-detachability is fulfilled. Consider now what happens if we replace 'Hannah' with a co-extensional expression, as indicated in the following:

(Ex 3") A: Has anybody ever put the shot more than 24 meters?
B: {Hannah/ Ms. Arendt} has put the shot more than 24 meters.
⇝ (3) Someone has put the shot more than 24 meters.

Independently of which of the given expressions B uses, she seems to convey (3). So non-detachability is fulfilled here as well. *Mutatis mutandis* for (4) and (5).

We can summarize the above argument as follows:

(C1) If we take (3)–(5) *to be* conversational implicatures in (Ex 3)–(Ex 5), we cannot uphold cancellability as a reliable test.

(C2) If we take (3)–(5) *not to be* conversational implicatures in (Ex 3)–(Ex 5), we cannot uphold calculability and non-detachability as reliable tests.

From a qualitative and from a quantitative perspective, it is better to give up cancellability than to give up calculability and non-detachability as reliable tests. So, we should take the propositions in question to be conversational implicatures.[26]

2 Objections

My response to the first argument of the previous section is straightforward. For it to show that (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) do not fit any other mold than the one of conversational implicatures, the semantically

[25] See, most prominently, Grice (1989, ch. 2: 39, ch. 3: 43).

[26] A variant of this argument takes the three tests to merely be rules of thumb to begin with and so concludes that we can very well uphold cancellability as a useful (though not fail-safe) test if we take (3)–(5) to be conversational implicatures (Sullivan (2017, p. 169) seems to employ a similar strategy). I'm skeptical that there is independent reason for taking cancellability to be a mere indication rather than a substantial condition (like many others, I take Grice's proviso that there is no 'decisive test' (1989, 42 f.) to merely stress that none of the suggested tests provides a necessary *and* sufficient condition for conversational implicatures). That's why I'm not going to consider this variant any further. I will say more about whether the three conditions should be considered necessary or sufficient for conversational implicatures in sec. 2.

expressed (option (i) from above) and the conventionally triggered (option (ii), i.e. conventional implicatures and semantic presuppositions) would have to be the only two alternatives to conversational implicatures. This, however, is controversial, to say the least. Neither does the argument rule out that (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) belong to one of the further categories presented in the literature; nor, more importantly, does it undermine the idea that they form a category of their own.[27] So as it stands, the argument is on shaky ground.

My response to the second argument is a bit more complex. I am not going to say much in response to the argument by intuition. I agree that (Ex 3)–(Ex 5) are similar to (Ex 1) and (Ex 2) in certain respects, but I am not convinced this similarity provides a strong and independent reason to group them in the same category. But what about the more theoretically informed argument? One might carp about the calculability test, for instance by reminding us of the notorious problem of spelling out how exactly calculability works. If (3)–(5) had not been conveyed in (Ex 3)–(Ex 5), B would not have answered A's question. But does this suffice for them to meet the calculability condition in the sense that Grice had in mind?[28] Alternatively, one might cavil about the non-detachability test, for instance by rehearsing the familiar objection according to which prior theoretical intuitions about which expressions are truth-conditionally similar are needed to apply the test, which renders the test question begging.[29] Justified as they may seem, however, I will not elaborate on these two response strategies in the following, because there is a much more obvious problem with the argument of sec. 1.2.

I agree that *if* each of the three tests gave a necessary *and* sufficient condition for conversational implicatures, (C1) and (C2) would be true. Cancellability as a necessary condition entails that (3)–(5) are not conversational implicatures in (Ex 3)–(Ex 5). So we could not maintain that (3)–(5) are conversational implicatures and uphold cancellability in its full generality (i.e. (C1)). Calculability and non-detachability as sufficient conditions, in contrast, entail that (3)–(5) are conversational implicatures in (Ex 3)–(Ex 5). So we could not maintain that (3)–(5) are not conversational implicatures and uphold either calculability or non-detachability as general claims (i.e. (C2)).

If, however, neither calculability nor non-detachability were sufficient for something to be a conversational implicature, (C2) would not follow from the above reasoning. Instead, we would get the following:

[27] Bach (1994) has famously argued that in addition to conversational implicatures and besides the categories (i) and (ii), there are also what he calls *implicitures*. Carston (1988) and others have suggested that there are *explicitures* (see also Carston (2002) and Carston (2010)) and Copp (2009) has made the case for what he calls *simplicitures*. More recently, Tonhauser et al. (2013) have spoken out for a categorization along two dimensions, which arguably covers a broader range of phenomena. See also Väyrynen (2013, ch. 5.4), who takes the evaluative component of thick terms to belong to a class of 'not at issue' contents, as he calls them, which is distinct from the categories discussed above, and Murray (2014), who presents a range of phenomena which cannot be subsumed under the classic categories.

[28] The calculability test is critically examined in, e.g., Davis (1998).

[29] For criticism of this kind, see, e.g., Blome-Tillmann (2013).

(C3) If we take (3)–(5) *not to be* conversational implicatures in (Ex 3)–(Ex 5), we can uphold calculability and non-detachability as reliable tests.[30]

Somewhat differently put, if neither calculability nor non-detachability were sufficient for conversational implicatures, there would not be any positive evidence for (3)–(5) being conversational implicatures in (Ex 3)–(Ex 5). The argument of sec. 1.2 would thus fail.

In the following, I will show that calculability as a sufficient condition overgenerates conversational implicatures. More precisely, I will show that *by the very same calculability reasoning we have applied above on behalf of my opponent*, all kinds of propositions would be calculable and would thus come out as conversational implicatures: there would not only be entailed conversational implicatures, but also semantically expressed conversational implicatures and conventionally triggered conversational implicatures (more specifically: conventionally implicated conversational implicatures and semantically presupposed conversational implicatures). Calculability in the sense used by my opponent should therefore not count as sufficient. My objection thus circumvents the tricky questions of how to define calculability. My claim is merely that assuming an understanding of calculability according to which (3)–(5) of (Ex 3)–(Ex 5) are calculable, many further kinds of propositions are calculable and hence that if calculability is sufficient for conversational implicatures, they would count as conversational implicatures as well. I will not say more about non-detachability. If calculability in the sense used by my opponent can be shown not to be a sufficient condition for conversational implicatures, both the argument by quality and the argument by quantity fail. A separate examination of non-detachability is thus not needed.[31]

As a first set of examples, consider the following dialogues, in which B conveys propositions that are semantically expressed by the respective sentences:

(Ex 8) A: Where in the nature reserve is Hannah's favorite spot?
B: Hannah's favorite spot is by the bank.
$\rightsquigarrow$ (8) Hannah's favorite spot is by the river bank.

(Ex 9) A: It's 8 am already. I know that Hannah will arrive today. But I don't know when exactly. Will she arrive in the morning?
B: Hannah will arrive soon.
$\rightsquigarrow$ (9) Hannah will arrive in the morning.

As indicated, it is commonly assumed that propositions (8) and (9) are semantically expressed by B's respective sentence, which features an ambiguous expression (in the case of (Ex 8)) and a context-sensitive expression (in the case of (Ex 9)). Clearly, though, if B had not conveyed (8) and (9), respectively, she

[30] Note that for a test to be reliable, it suffices that the condition given is a necessary condition.
[31] Let me point out though that Grice (1989, ch. 3: 43) himself acknowledges that non-detachability is neither a necessary nor a sufficient condition for conversational implicatures.

wouldn't have answered A's question. So by the reasoning given above, (8) and (9) would be conversationally implicated by B.[32]

As a second set of cases, consider the following exchanges in which B conveys propositions that are conventionally triggered by the respective sentences:

(Ex 10) A: Is there a contrast between being tall and being beautiful?
B: Hannah is tall but beautiful.
$\rightsquigarrow$ (10) There is a contrast between being tall and being beautiful.

(Ex 11) A: Does being a Brit entail being brave?
B: Hannah is a Brit and therefore brave.
$\rightsquigarrow$ (11) Being a Brit entails being brave.

(Ex 12) A: Is there exactly one queen of England?
B: Look at the balcony. The queen of England is waving at us.
$\rightsquigarrow$ (12) There is exactly one queen of England.

(Ex 13) A: Hannah is not home, right?
B: I know that Hannah is home.
$\rightsquigarrow$ (13) Hannah is home.

(Ex 14) A: Hannah didn't take the exam, right?
B: Hannah {passed/ failed} the exam.
$\rightsquigarrow$ (14) Hannah took the exam.

(Ex 15) A: Is Hannah the queen of England?
B: I'm going to meet Hannah, the queen of England, later.
$\rightsquigarrow$ (15) Hannah is the queen of England.

There is a debate regarding more or less all the examples about whether they are conventionally implicated or semantically presupposed, but most researchers agree that they are conventionally triggered. Clearly, though, if B had not conveyed (10)–(15) in the cases given, respectively, she would not have answered A's question. So by parity of reasoning, they should be conversationally implicated by B.

This shows that if we take the argument presented above in support of entailed conversational implicatures seriously, we will end up with a picture where there are not only entailed conversational implicatures but also semantically expressed conversational implicatures and conventionally triggered conversational implicatures. To me that sounds absurd.[33] It is important to note that I am not claiming here that (8) and (9), on the one hand, and (10)–(15), on the other, *are* calculable in the sense Grice had in mind. I am only claiming that *if* (3)–(5) of (Ex 3)–(Ex 5) are calculable in the relevant sense and *if* this makes them

[32] One might object regarding (Ex 8) that it is actually two numerically distinct sentence types that semantically express (8), on the one hand, and the proposition that Hannah's favorite spot is by some credit institute, on the other. An analogous objection does not apply to (Ex 9), however.

[33] I will come back to this issue in section 3.1. Note that relevance theorists might be fine with classifying (10)–(15) as conversational implicatures, but they too will be against classifying (8) and (9) as conversational implitatures.

conversational implicatures, then (8) and (9) of (Ex 8) and (Ex 9) and (10)–(15) of (Ex 10)–(Ex 15) will be calculable and thus conversational implicatures as well.

One might be unimpressed by the overgeneration worry because there seems to be an easy fix. It trades on an apparent difference between the original dialogues (Ex 3)–(Ex 5) and the just presented exchanges (Ex 8)–(Ex 15). In the former cases, calculability plays a crucial theoretical role because the conventional meaning of the sentences used does not guarantee that the propositions in question are conveyed. In the latter cases, in contrast, calculability does not carry any theoretical weight. Here the conventional meaning of the sentences used ensures that the relevant propositions are conveyed. This suggests a way to dispel the overgeneration worry. The calculability of a proposition p conveyed by a speaker S with a sentence s at a context c might not be sufficient for p to be conversationally implicated by S at c. But the calculability of p which is conveyed by S with s at c *but not guaranteed to be conveyed by s's conventional meaning* is sufficient for p to be conversationally implicated by S at c after all. By this criterion, propositions (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) still come out conversational implicatures, but propositions (8)–(15) as they are conveyed in (Ex 8)–(Ex 15) do not anymore.

It is doubtful, however, that the conventional meaning guarantees that the relevant propositions are conveyed in (Ex 8)–(Ex 15). Firstly, if B's sentences of (Ex 8)–(Ex 15) are used figuratively, the propositions in question are not conveyed. To take just two of the examples: if 'I know that Hannah is home' is used ironically, B does not convey that Hannah is home, and if 'I'm going to meet Hannah, the queen of England, later' is used metaphorically (because Hannah is known to behave queenlike), B does not convey that Hannah is the queen of England. So conventional means do not guarantee that the relevant propositions are being conveyed. This shows that calculability plays a role even in cases like (Ex 8)–(Ex 15) where the sentences in question are used literally. In this vein, Kent Bach writes:

> It's a common misconception that the Gricean maxims, or conversational presumptions, kick in only when the speaker is implicating something (or is speaking figuratively). In fact, they apply equally to completely literal utterances, where the speaker means just what he says. After all, even if what a speaker means consists precisely in the semantic content of the sentence he utters, this still has to be inferred. (Bach, 2006, 24f.)

Secondly, while in (Ex 10)–(Ex 15)—the latter five cases—the relevant propositions may be guaranteed to be conveyed for conventional reasons assuming that the sentences are used literally, the same cannot be said for the former two cases, i.e. (Ex 8) and (Ex 9), repeated here.

(Ex 8) A: Where in the nature reserve is Hannah's favorite spot?
B: Hannah's favorite spot is by the bank.
$\rightsquigarrow$ (8) Hannah's favorite spot is by the river bank.

(Ex 9) A: It's 8 am already. I know that Hannah will arrive today. But I don't know when exactly. Will she arrive in the morning?
B: Hannah will arrive soon.
$\rightsquigarrow$ (9) Hannah will arrive in the morning.

It is clearly not the case that whenever a speaker uses B's sentences literally, she conveys propositions (8) and (9). In relevantly different contexts, B might convey that Hannah's favorite spot is by a given credit institute instead of (8) and that Hannah will arrive in the next few days instead of (9), for instance. So calculability in the sense used by my opponent—even combined with the absence of conventional triggers—does not suffice for something to be a conversational implicature. The argument of sec. 1.2 thus fails. As things stand, there is no reason to assume that (3)–(5) are conversationally implicated in (Ex 3)–(Ex 5).[34]

This concludes my indirect argument against the existence of entailed conversational implicatures like (3)–(5) of (Ex 3)–(Ex 5). It is worth pointing out, however, that the discussion above points towards a direct argument against my opponents. So far, we have concentrated on the status of (C2). More precisely, we have seen that (C2) is untenable and should be replaced by (C3). What about (C1)?

If cancellability is indeed a necessary condition for something to be a conversational implicature, (C1), repeated here together with (C3), is true.

(C1) If we take (3)–(5) *to be* conversational implicatures in (Ex 3)–(Ex 5), we cannot uphold cancellability as a reliable test.

(C3) If we take (3)–(5) *not to be* conversational implicatures in (Ex 3)–(Ex 5), we can uphold calculability and non-detachability as reliable tests.

And if (C1) together with (C3) is true, we have a direct argument against our target claim. It is that both from a qualitative and a quantitative perspective, it is better not to give up any of the three conditions as reliable tests than to give up even one. So we should take (3)–(5) not to be conversational implicatures.

Space does not permit to go into whether cancellability is indeed a necessary condition of conversational implicatures.[35] So even though I believe that the stronger case against entailed conversational implicatures can be made, I conclude on a more modest note: there is neither a negative nor a positive reason for taking the entailments (3)–(5) to be conversational implicatures.

[34] I cannot rule out that there is an non-ad hoc sense of calculability according to which both standard conversational implicatures such as (1) and (2) of (Ex 1) and (Ex 2) and the alleged entailed conversational implicatures, i.e. (3)–(5) of (Ex 3)–(Ex 5), are calculable, while (8)–(15) of (Ex 8)–(Ex 15) are not, but I take the burden of proof to be on my opponent. Note that the difference cannot be about the input of the calculability reasoning since Grice is explicit that, even in standard cases of conversational implicatures, the input is not the proposition semantically expressed but the fact that the speaker has used a sentence semantically expressing the relevant proposition.

[35] For a recent defense of the claim that it is, see Zakkou (2018).

3 Why bother?

The above discussion brings out that there are in principle two notions of conversational implicatures: there is the narrow notion that excludes (3)–(5) as they are conveyed in (Ex 3)–(Ex 5), and there is the much wider notion that includes the entailments (3)–(5) but also allows semantically expressed propositions (such as (8) and (9)) and conventionally triggered propositions (such as (10)–(15)) to be conversational implicatures.[36] Why, one might wonder, should we take a stand on which notion to prefer? Or more generally, why should we care about this purely terminological question?

3.1 Need for terminological clarity

We should care about terminological questions because we should care about terminological clarity. And we should care about terminological clarity because, without it, misunderstandings and talking past are sure to follow. Such communication failures are deplorable in any debate, but they seem particularly dramatic when they concern expressions as central to philosophy as 'conversational implicature:' this term is not only ubiquitous in philosophy of language and different strands of linguistics where it plays an essential role in the various attempts to model human communication. It also figures crucially in further areas of philosophy such as epistemology to explain our practice of ascribing knowledge, aesthetics to account for disputes on seemingly subjective matters, ethics to elucidate the connection between descriptive and normative components of evaluative terms, and metaphysics to explain different perspectives on what causes what, to name but a few. So even though terminological, the question of whether we want to call (3)–(5) as they are conveyed in (Ex 3)–(Ex 5) 'conversational implicatures' seems substantial and of great importance to numerous debates.

But why should we prefer the narrow over the wide notion, as has been tacitly assumed in my objection of sec. 2? As indicated in the introduction, 'conversational implicature' is a term of art so that we are in principle free to choose what it refers to. But this doesn't make all possible terminological choices equally good. And there seems to be at least two reasons to favor the narrow over the wide notion. First, the narrow notion is in line both with the original Gricean and with the current usage of 'conversational implicature.' Scholars from the late 70s up until today standardly take conversational implicatures to be distinct from semantically expressed and conventionally triggered propositions. They do not use 'conversational implicature' as an umbrella term that can subsume phenomena of the latter types.[37] Second, the narrow notion seems to be more

[36] As indicated in footnote 33, relevance theorists might want to leave out (10)–(15). So for them, the comparision would be between a notion that excludes (3)–(5) and a notion that includes (3)–(5) but also (8) and (9).

[37] See, e.g., Horn (2012): 'Implicature was (re)introduced into the philosophical literature [...] as a species of implication distinct from logical implication or entailment' and Carston (2002, p. 102) 'It is clear that Grice intended the distinction between 'saying' and 'implicating' to be sharp.' In support of the narrow notion one might add that it follows the long-standing

joint-carving. It has 'conversational implicature' pick out a class of cases which are truth conditionally inefficacious and thus purely pragmatic. There is thus not only the need to take a stand on the terminological question of how to use 'conversational implicature.' There is reason to prefer the narrow over the wide notion.

3.2 Benefits of terminological clarity

Taking a stand on the terminological question and, by that, promoting a specific way of classifying propositions opens up a fresh and theoretically informed look at a range of interesting cases. In (Ex 3)–(Ex 5), B does not only convey propositions (3)–(5), respectively; she surely also conveys the proposition that is semantically expressed, namely that Hannah put the shot more than 24 meters. But not all cases where entailments are conveyed are like that. Sometimes, the speaker conveys the entailment without conveying the proposition semantically expressed. Consider the following two cases, the first a (specific) case of hyperbole, the second a (specific) case of irony or sarcasm:

(Ex 16) A: Was the plane longer than anything you have ever seen?
B: The plane was 100 times longer than any plane I've ever seen.
$\rightsquigarrow$ (16) The plane was longer than any plane B has ever seen.

(Ex 17) A: Did Donald Trump actually win the Nobel Peace Prize?
B: Sure, and 2 + 2 = 5.
$\rightsquigarrow$ (17) Donald Trump did not win the Nobel Peace Prize.

As indicated, these cases differ from (Ex 3)–(Ex 5) in that B, while conveying the entailments, does not convey the propositions semantically expressed (that the plane was actually 100 times longer than any plane B has ever seen and that 2 + 2 = 5, respectively). Like in (Ex 3)–(Ex 5), however, the conveyed propositions (i.e. (16) and (17)) are entailed by the respective sentence B uses. One might take my reasoning from above to imply that neither (16) nor (17) is a conversational implicature. But there is room for a more nuanced treatment. Since (17), unlike (16), is cancellable in the case at hand, one might take (17), unlike (16), to be conversationally implicated in the respective case.[38] I have sympathies for the first option because it allows us to restore (Imp) from above, but I want to stay neutral here. I therefore restrict my central claim of this paper to the claim that (3)–(5) are not conversationally implicated in (Ex 3)–(Ex 5) or, more generally, that while there might be entailed substitutive conversational implicatures, there are no entailed additive conversational implicatures.[39]

and wide-spread idea of taking 'conversational implicatures' to pick out propositions which have cancellability as a necessary feature. Since this issue seems controversial, I do not put much weight on it.

[38] For discussion, see Åkerman (2015) and Zakkou (2018).

[39] My use of *substitutive* and *additive* conversational implicature is modeled after Meibauer (2009) and Dinges (2015).

3.3 A general lesson

It is worth noting that the above discussion also teaches us an important lesson beyond conversational implicatures. The puzzle of how to classify (3)–(5) arose because we realized that just taking them to be entailed would not explain why they are conveyed in (Ex 3)–(Ex 5). After all, there are conveyed and non-conveyed entailments. But in sec. 2 we saw that the same holds for the other two semantic categories. There are (i) conveyed and non-conveyed semantically expressed propositions and there are (ii) conveyed and non-conveyed conventionally triggered propositions. This suggests that entailed propositions are of the same kind as semantically expressed and conventionally triggered propositions. All of these propositions *can* be conveyed, but they *need not*. When are they conveyed and when aren't they? I suggest that they are conveyed if they are calculable in the broad sense introduced in sec. 2, and they are not conveyed if they are not calculable in the way suggested. If this is on the right track, we do not have to subsume the entailments (3)–(5) under any further category, neither one of the established ones nor a novel one. To explain when an entailment is conveyed, we merely have to invoke calculability.

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