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Julia Zakkou[1]

Abstract
Many philosophers and linguists agree that there are two kinds of conversational implicatures: there are not only the well-known paradigm examples of conversational implicatures that are not entailed by the sentences that are used to bring them about; there are also less-often discussed conversational implicatures that are entailed by the sentences in question. In this paper, I take a closer look by examining classical candidates as well as novel contenders for entailed conversational implicatures. I argue that one might rightly classify some of these cases as conversational implicatures but show that doing so has so far unnoticed consequences.

Keywords Conversational implicature · Entailment · Calculability · Cancellability · Grice

1 Introduction

Many philosophers and linguists follow Wilson and Sperber (1986), Sperber and Wilson (1986, ch.4), Davis (1998, ch.1), Carston (2002, ch.2), and Bach (2006) in holding that there are two kinds of conversational implicatures.[1] There are not only the

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[1] See also Higashimori and Wilson (1996), Carston (2004), Blome-Tillmann (2013, 172), Haugh (2013, ch.2.1), Rett (2015, ch.4), Allott (2013, sec. 4.2), Sullivan (2017, 169), Davis (2019), Moldovan (2019) and Macagno and Graci (2024). For the question of whether the converse holds, i.e. whether conversational implicatures can entail the proposition semantically expressed, see, e.g., Vicente (1998) and the literature cited therein.

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well-known paradigm examples of conversational implicatures such as (1c) and (2c) that are not entailed by (1b) and (2b), respectively:[2]

(1)   a. Did Hannah eat all of the cookies?

        b. Hannah ate some of the cookies.

   -->   c. Hannah didn't eat all of the cookies.

(2)   a. Did Trump win the 2020 election?

        b. Sure. Trump also won the Nobel Peace Prize.

   -->   c. Trump did not win the 2020 election.

There are also less-often discussed conversational implicatures, as in (3), adapted from Bach (2006, 24), that are entailed by the sentences that are used to bring them about:

(3)   a. Has anybody ever put the shot more than 24 meters?

        b. Hannah has put the shot more than 24 meters.

   -->   c. Someone has put the shot more than 24 meters.

In this paper, I take a closer look. I argue that we might rightly classify only some of the cases at issue as conversational implicatures, and I show that doing so has so far unnoticed consequences. For instance, contrary to what is claimed in the debate, granting that these cases are conversational implicatures does not require a modification of the well-known and often-used cancellability test.

The plan is as follows. Section 2 presents classical candidates for entailed conversational implicatures taken from the literature (Sect. 2.1) and argues that we should refrain from classifying them as conversational implicatures (Sect. 2.2). Section 3 presents novel contenders for entailed conversational implicatures (Sect. 3.1) and argues that we might well take them to be conversational implicatures because doing so does not require a modification of attested features of conversational implicatures (Sect. 3.2). Section 4 concludes.

A couple of clarifications are in order before I start. First, I work in a Gricean framework, broadly construed. I assume that conversational implicatures exist and that the Cooperative Principle is in place (Grice, 1989, ch.2). To not beg the question against either proponents or opponents of entailed conversational implicatures, I do not presuppose a substantive definition of implicature (conversational or otherwise). Instead, I rely on characteristic features of conversational implicatures to investigate

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[2] Here and in the following, '->' is used to indicate that the speaker conveys the proposition in question. I discuss in the main text how it is conveyed. For more on the notion of conveying, see below.

whether the cases in question should be considered conversational implicatures.[3] I clarify the status of these features as we go along. Furthermore, I adopt Grice's terminology, with two minor variations: (i) For readability, I extend Grice's notion of what is said to cases of figurative speech. Thus, instead of Grice's 'making as if to say' that p I simply use 'saying' that p (see similarly, e.g., Bach, 1994). Furthermore, I sometimes use 'the proposition semantically expressed' to refer to what is said in the indicated sense (see, similarly, e.g., Neale, 1992, 521). (ii) I use 'implicature' both for the act of implicating and for the content of such an act (i.e. the implicatum), otherwise the common label 'entailed conversational implicature' would have to be replaced by 'entailed conversational implicatum' (see, among many others, Neale, 1992). Furthermore, I stay neutral on whether conversational implicatures are always part of what a speaker means in Grice's sense (see, e.g., Saul, 2002 for pertinent discussion).[4] Instead, I assume that they are part of what a speaker conveys, and I use 'what is conveyed' in an intuitive and wide sense which includes not only what is said in literal communication but also what is 'implied, suggested, meant' in literal and non-literal communication (see Grice, 1989, 24, who provides this list in sketching his general notion of implicating; see similarly Grice, 1989, 86).[5] Lastly, I stay neutral on how to analyze what a context exactly is. For concreteness, we can assume a Stalnakerian account of contexts throughout (see Stalnaker, 2014).

Second, like proponents of entailed conversational implicatures, I work with a classical notion of entailment; more precisely, I assume the following (see, similarly, e.g., Sperber & Wilson, 1986, 84):

(Ent)   For any two sentences s_1 and s_2: the proposition semantically expressed by s_1 entails the proposition semantically expressed by s_2 if, and only if, it is impossible that the proposition semantically expressed by s_1 is true while the proposition semantically expressed by s_2 is false.

Third, again like proponents of entailed conversational implicatures, I do *not* assume the following:

(Imp)   For any two sentences s_1 and s_2: if the speaker's use of s_1 implicates the proposition expressed by s_2, it is possible that the proposition expressed by s_1 is true while the proposition expressed by s_2 is false.

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[3] For a characterization of conversational implicature, see Grice (1989, 30f.). For a further such characterization, see Grice (1989, 86). There is an ongoing debate about how to 'unravel' these characterizations (as Potts, 2015, 178 puts it), and about whether they align (see, e.g., Saul, 2002, 230f.).

[4] For instance, I formulate principles (Can) and (Cal) to be presented below in such a way that they don't entail this claim but they are not incompatible with it either. Note that the gist of my argument and, more specifically, the claim that the classical candidates of conversational implicatures are not contextually cancellable is independent of whether conversationally implicating is something that speakers do intentionally. As I explain in footnote 14 below, contextual cancellability is about whether a given proposition is being conveyed, not about whether it is conversationally implicated. See Sects. 2.1 and 2.2 for discussion.

[5] Like Grice, I use 'what is implied, suggested, meant' in an intuitive and pretheoretic way. This will allow us to answer questions about cancellability in a theory independent way. See Sect. 2.1.

Assuming (Imp) would prejudge the question at issue—that is, whether there are entailed conversational implicatures. For assuming (Ent) *and* (Imp), a given proposition could never be both an entailment and an implicature (whether conversational or otherwise). After all, the proposition expressed by a sentence s_2 could be both an entailment and an implicature of (the speaker's use of) s_1 only if it were both impossible and possible that the proposition expressed by s_1 is true while the proposition expressed by s_2 is false.[6]

2 Classical candidates

In this section, I present candidates for entailed conversational implicatures taken from the literature and discuss whether we should in fact consider them conversational implicatures.

2.1 The cases

Consider as a first set of cases the following three dialogues, the first modeled after Bach (2006, 24), the second and third after Davis (1998, 6); see also Wilson and Sperber (1986, 61) and Carston (2002, 139f.):

(3)   a. Has anybody ever put the shot more than 24 meters?

     b. Hannah has put the shot more than 24 meters.

  –> c. Someone has put the shot more than 24 meters.

(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.

  –> c. Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.

(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.

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[6] It is not clear whether Grice, the progenitor of implicatures, considers (Imp) true—both when it comes to conversational implicatures and when it comes to conventional implicatures; for suggestive but not unambiguous passages in favor of (Imp), see Grice (1989, 25f.,39). Likewise, Horn (2007, 39), Geurts (2010, 8,9f.), and Potts (2015, 186) are careful to only state that the truth value of an implicature has no 'effect' or no 'bearing' on the truth value of the proposition semantically expressed and that implicatures are truth-conditionally inert, which might only mean that the fact that an implicature is true/false does not *make* the proposition semantically expressed true/false. Taken by itself, this does not imply (Imp).

—>   c. Hannah has put the shot more than 24 meters or thrown the javelin more-
        than 100 meters.

According to the authors listed above and in footnote 1, (3c)–(5c) are conversationally
implicated by the speaker's use of (3b)–(5b) in the dialogues at hand. Clearly, though,
(3c)–(5c) are also entailed by (3b)–(5b). After all, (3b)–(5b) cannot be true if (3c)–(5c)
are false, respectively.[7]

Consider as a second set of cases the following two exchanges containing figura-
tive speech, the first an example of an overstatement, the second an example of an
understatement (Davis, 2019 gestures at cases like these but does not give concrete
examples):

(6)   a. Was Hannah's jump longer than any of her previous jumps?

        b. Hannah's jump was 100 times longer than any of her previous jumps.

—>   c. Hannah's jump was longer than any of her previous jumps.

(7)   a. Was Hannah's jump shorter than any of her previous jumps?

        b. Hannah's jump was 100 times shorter than any of her previous jumps.

—>   c. Hannah's jump was shorter than any of her previous jumps.

Following Davis (2019), one might hold that (6c) and (7c) are conversationally
implicated by the speaker's use of (6b) and (7b) in the exchanges at issue. But, here
too, (6c) and (7c) are also entailed by the sentences that are used to bring them about:
(6b) and (7b) cannot be true if (6c) and (7c) are false.[8]

Note that the above cases differ on at least two dimensions. First, (3c)–(5c) are
candidates for what are sometimes called additive conversational implicatures; they
are conveyed *in addition* to the propositions that are semantically expressed by
(3b)–(5b). (6c) and (7c), by contrast, are candidates for substitutive conversational
implicatures in that they are conveyed *instead* of what is semantically expressed by
the sentences (for this distinction, see Vanderveken, 1991; Meibauer, 2009; Dinges
2015): while (3b)–(5b) are meant literally, (6b) and (7b) are cases of figurative

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[7]According to (Ent) from the introduction, we get that every proposition semantically expressed by a
sentence s is also entailed by s. The converse does not hold: not every proposition that is entailed by the
proposition semantically expressed is itself semantically expressed by s. Proponents of entailed conver-
sational implicatures take (3c)–(5c) to be entailed by (3b)–(5b) without being semantically expressed by
(3b)–(5b). I follow this assumption in this paper. According to (Ent), any sentence also entails any tautol-
ogy. Thanks to a reviewer of this journal.

[8]Proponents of entailed conversational implicatures don't claim that every entailment of a sentence is also
a conversational implicature of the use of that sentence, as suggested by a reviewer for another journal.
For surely not every entailment is conveyed by the speaker, nor is every entailment required to make the
speaker's saying what she says consistent with the presumption that the speaker is cooperative.

speech. Second, while (3c) as well as (6c) and (7c) are candidates for generalized conversational implicatures in the exchanges at hand, (4c) and (5c) are candidates for particularized conversational implicatures in the context of (4) and (5) (for this distinction, see, most prominently, Grice, 1989, 37ff.). The alleged implicatures (3c) and (6c)/(7c) seem fairly self-standing, whereas the alleged implicatures (4c) and (5c) heavily depend on contextual cues: even though (4b) and (5b) are identical, (4c) is a candidate for a conversational implicature in the context of (4), not in the context of (5), while (5c) is a candidate for a conversational implicature in the context of (5), not in the context of (4). So, if the above cases exemplify conversational implicatures, entailed conversational implicatures are a global phenomenon and can be found throughout the full spectrum of conversational implicatures.[9]

Why, though, think that (3c)–(7c) are conversationally implicated in the cases at issue? Many proponents of entailed conversational implicatures rely on intuitions (see, e.g., Higashimori & Wilson, 1996, 12f.; Davis, 1998, 6; Bach, 2006, 24; Blome-Tillmann, 2013, 172): (3c)–(7c) as conveyed in (3)–(7), it is said, intuitively belong to the same category as (1c) and (2c) as they are conveyed in (1) and (2).[10] I do not want to deny that intuitions play a role here, but I am skeptical that we should rely only on intuitions when it comes to technical notions like conversational implicature.[11]

A further prima facie reason for thinking that (3c)–(7c) are conversationally implicated is the following:[12] (3c)–(7c) are neither said nor conventionally implicated nor semantically presupposed in the cases at hand, but they are conveyed. So they are conversationally implicated. First, this assumes that conversational implicatures are some kind of pragmatic wastebasket, where everything goes that doesn't belong elsewhere. This though is controversial (see below for tests for conversational implicatures). Second and relatedly, the argument overgenerates. It would also show that explicatures (Sperber & Wilson, 1986; Carston, 1988), implicitures (Bach, 1994), elicitures (Cohen & Kehler, 2021), near-implicatures (Saul, 2002), quasi-implicatures (Sander, 2021), etc. are equally conversational implicatures. After all, these phenomena don't fit into the indicated categories either. I come back to this at the end of this section.

In the following, I investigate whether there are good reasons for classifying (3c)–(7c) as conveyed in (3)–(7) as conversational implicatures that go beyond immediate intuitive verdicts and a lack of a more plausible category. I argue that while they seem to fulfill one noteworthy feature of conversational implicatures—calculability—,

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[9] The above cases also differ in that they instantiate different inference schemata. For instance, (3c) follows from (3b) by existence introduction, whereas (4c) and (5c) follow from (4b)/(5b) by disjunction introduction.

[10] One might argue that (3c)–(7c) are not conveyed in the context of (3)–(7), contra proponents of entailed conversational implicatures, listed in the main text and footnote 1. This would provide an immediate problem for the claim that they are conversational implicatures, since conversational implicatures are conveyed. For the sake of the argument, I'm going along with proponents of entailed conversational implicatures in this respect.

[11] Besides, in my experience from presenting this material, intuitions seem far from uniform. See, similarly, Bach (2002).

[12] I'm grateful to two anonymous reviewers of this journal for pressing me on this. Note that I'm not endorsing the indicated reasoning. As I explain in the main text, I'm very skeptical.

they do not meet another, equally important feature—cancellability (see Grice, 1989, 31, 39 for calculability and Grice, 1989, 39, 44 and Grice, 1981, 186 for cancellability). I comment on the status of these features in Sect. 2.2, and I briefly address further features in footnote 20.

First, as discussed in detail by Carston (2002, 139f.) and Moldovan (2019, sec.3), the alleged conversational implicatures seem to be calculable. There is a reasoning roughly along the following lines: If the speaker of (3b)–(7b) had not conveyed (3c)–(7c) in the context of (3)–(7), she would have violated Grice's cooperative principle. Since she does not violate this principle, she must convey these contents. Carston and Moldovan more specifically suggest that if the speaker of (3b)–(5b) had not conveyed (3c)–(5c), she would have violated the maxim of relation by not answering the question under discussion. In the case of (3), for instance, she would not have answered whether anybody ever put the shot more than 24 ms if she had not conveyed that someone has put the shot more than 24 ms.[13] One might worry about the understanding of calculability at play here. But for the sake of the argument I'm granting proponents of entailed conversational implicatures that they have a case. As I'll argue in Sect. 2.2 we should be skeptical of entailed conversational implicatures even if (3c)–(7c) were not calculable.

Second, as has been noted by many scholars in the debate, the alleged implicatures are not cancellable (see, e.g., Neale, 1992; Vicente, 1998; Carston, 2002, 139f.; Blome-Tillmann, 2013, Allott, 2013, sec. 4.2; Sullivan, 2017; Moldovan, 2019, sec.4—Haugh, 2013, 138; Davis, 2019 are exceptions, though see Moldovan, 2019, 53 for criticism). Grice distinguishes between explicit cancellability and contextual cancellability (Grice, 1989, 39, 44). Explicit cancellability is all about felicity: whether adding a cancellation clause to the initial sentence is felicitous, or 'admissible' or 'a linguistic offense', as Grice puts it. A cancellation clause, according to Grice, expresses either the negation of the proposition potentially implicated or the negation of the claim that the speaker meant to imply the proposition potentially implicated. Contextual cancellability, by contrast, is all about conveyance: whether there is a context at which the speaker uses the initial sentence literally and seriously without conveying the proposition in question.[14] Let's consider explicit and contextual cancellability one after the other.

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[13] Note that the above gives only a rough outline of the reasoning process suggested by Carston and Moldovan. Carston would for instance refer to her principle of relevance. Note also that they only consider cases like (3)–(5); it seems though that a similar reasoning applies to (6) and (7) as well: if the speaker hadn't conveyed (6c)/(7c), she wouldn't have answered the question under discussion. A reviewer of another journal worries that on QUD-based theories of relevance, the speaker would have answered the question even if she had only meant what she said. Since I'm not defending the argument but only reporting it, I'm leaving this issue open.

[14] In characterizing contextual cancellability, Grice (1989, 44) talks about whether we can find contexts at which the speaker's use of the initial sentence 'would simply not carry the implicature'. However, that we can use 'Hannah is a fine friend' ironically or jokingly without implicating that Hannah is a fine friend (but rather that she is a bad friend) does not show that the proposition that Hannah is a fine friend is contextually cancellable. Otherwise, the proposition semantically expressed would always be contextually cancellable. Hence my restriction to literal and serious uses. Furthermore, that we can use 'Hannah has passed/failed the exam' without either *conventionally or conversationally implicating* that Hannah took the exam does not show that the proposition that Hannah took the exam is contextually cancellable. Otherwise, semantic presuppositions (among others) would always be contextually cancellable. Hence my talk of conveyance.

As for explicit cancellability, consider the following sentences.

(3′) Hannah has put the shot more than 24 meters, but nobody has put the shot more than 24 meters.

(4′) Hannah has put the shot more than 24 meters, but it's not the case that Hannah has put the shot more than 24 meters or thrown the discus more than 75 meters.

(5′) Hannah has put the shot more than 24 meters, but it's not the case that Hannah has put the shot more than 24 meters or thrown the javelin more than 100 meters.

(6′) Hannah's jump was 100 times longer than any of her previous jumps, but it was not longer than any of her previous jumps.

(7′) Hannah's jump was 100 times shorter than any of her previous jumps, but it was not shorter than any of her previous jumps.

These sentences seem infelicitous. Since (4′) and (5′) are fairly cumbersome, consider also the following two sentences that are equivalent to (4′) and (5′).

(4″) Hannah has put the shot more than 24 meters, but Hannah has neither put the shot more than 24 meters nor has she thrown the discus more than 75 meters.

(5″) Hannah has put the shot more than 24 meters, but Hannah has neither put the shot more than 24 meters nor has she thrown the javelin more than 100 meters.

These sentences seem infelicitous as well.

Consider also variations of (3′)–(7′) which don't contain negations of (3c)–(7c) but the negation of the claim that the speaker meant to imply (3c)–(7c), respectively, as per Grice's alternative formulation of the cancellation clause, such as for instance

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Recall that I'm using 'conveying' in an intuitive and wide sense (that includes implying, suggesting, and meaning, which are subsumed under Grice's general notion of implicating) but which is not coextensive with 'meaning' in Grice's sense. If we took contextual cancellability to be about whether there are contexts at which the speaker of the initial sentence would simply not mean the proposition in question, everything would come out as contextually cancellable, since in principle we can mean anything with any sentence. For instance, if the speaker is confused about the meaning of 'but', she can use a sentence featuring this term non-figuratively and non-jokingly without meaning in Grice' sense that there is a contrast of the relevant sort. To be sure there is a lively debate about how to spell out explicit and contextual cancellability in detail. For recent discussion, see Huitink and Spenader (2004), Weiner (2006), Blome-Tillmann (2008), Åkerman (2015), Sullivan (2017), Zakkou (2018), Rett (2020, sec.2.2), and Macagno and Graci (2024). I won't be able to do justice to this debate in the context of this paper.

(3″)   Hannah has put the shot more than 24 meters, but I don't mean to imply that anybody has put the shot more than 24 meters.

Such sentences don't seem to be felicitous either.

One might object that according to Grice, meaning to imply is intentional: a speaker means to imply p only if she intends to imply p. So if a speaker lacks the intention to imply p, she does not mean to imply p. Now there are various reasons for lacking the intention to imply p with the use of a given sentence. One reason is that one takes p to be irrelevant for the question under discussion (say, because the question is not about p, or because one wrongly takes it not to be about p), but other reasons are possible too. For instance, one might simply not contemplate p. So the indicated variations of (3′)–(7′) can be true. To take the example of (3″): it can be the case both that Hannah has put the shot more than 24 ms and that the speaker does not mean to imply that someone has put the shot more than 24 ms. This, one might hold, suffices for the potential implicature to be explicitly cancellable.[15]

To respond, even though the indicated variations of (3′)–(7′) can be true, they don't seem to be felicitous, which is what matters for explicit cancellability. If we don't heed this distinction, everything becomes cancellable. Consider 'Hannah is tall but beautiful, but I don't mean to imply that there is any kind of contrast between being tall and being beautiful', or 'Hannah passed/failed the exam, but I don't mean to imply that she took the exam'. Assume that Hannah is tall and beautiful, and that she took the exam. Assume furthermore that the speaker takes whether there is a contrast between being tall and being beautiful and whether Hannah took the exam to be irrelevant to the question under discussion (for instance, because she might think that that is common ground in the conversation already). Or assume that the speaker simply doesn't contemplate the proposition in question, or that she misspeaks or is mistaken about the meaning of, say, 'but'. Then the indicated sentences will be true (by assumption, Hannah is tall and beautiful and Hannah took the exam, but the speaker *doesn't mean to imply* that). But that doesn't suffice for explicit cancellability, as conventional implicatures and semantic presuppositions as presented in the sentences just mentioned are commonly taken to be non-cancellable.[16] Consider also 'Hannah has put the shot more than 24 ms, but I don't mean to imply that Hannah has put the shot more than 24 ms'. This sentence can be true as well (the simplest scenario would be one in which the speaker misspeaks when using the first conjunct). But, again, this doesn't suffice for explicit cancellability, as the content semantically expressed by 'Hannah has put the shot more than 24 ms' is commonly taken to be non-cancellable.

As for contextual cancellability, note first that (3c), (6c), and (7c) are not contextually cancellable. There are no contexts in which these propositions are not conveyed, assuming that the speaker speaks literally and seriously. Assume that (3b), (6b), and (7b) are given in response to questions different from (3a), (6a), and (7a), respec-

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[15] I'm grateful to an anonymous reviewer of this journal for raising this objection.

[16] For non-cancellability of either conventional implicatures or semantic presuppositions, see, e.g., Levinson (1983, 127), Leech (1983, 11), Grice (1989, 36ff.), Bach (1999, 329), Potts (2015, 191f.), and Rett (2020, 47). Note that my argument is compatible with the claim that in certain environments (e.g. the embedding under operators like negation or in the context of a question) conventional implicatures and semantic presuppositions might be said to be cancellable.

tively. Assume, for instance, that (3c) is given in response to 'Has anybody ever put the shot more than 10 ms?' Then (3c) is conveyed nonetheless, *mutatis mutandis* for (6b) and (6c) and (7b) and (7c). Recall that I'm using 'what is conveyed' in an intuitive and wide sense which includes not only what is said in literal communication but also what is, following Grice, either implied, or suggested, or meant in literal and non-literal communication. Furthermore, think about how strange it would be—independently of the context—if the speaker of, say, (3b) were to deny that she implied or suggested (3c) when questioned about these claims. Note second that (4c) and (5c) don't seem contextually cancellable either. There don't seem to be any contexts in which these propositions are not conveyed, assuming that the speaker speaks literally and seriously. Given how immediately and transparently (4b)/(5b) entail (4c) and (5c), the former do seem to imply or suggest the latter, and so it would be strange if the speaker of (4b)/(5b) were to deny that she implied or suggested (4c) and (5c).

There might be contexts in which (3c)–(7c) are not meant in Grice's sense by the speaker who uses the relevant sentences. For instance, (3c) might not be meant by the speaker who uses (3a) when asked whether someone ever put the shot more than 10 ms. At the very least, in such a case, (3c) doesn't seem to be the main point of her utterance. Similarly, (4c) is presumably not meant if (4b)/(5b) is given in response to (5a), just as (5c) is presumably not meant if (4b)/(5b) is given in response to (4a). But as noted above, contextual cancellability is all about conveyance, not about what the speaker means in Grice's sense.[17]

2.2 Discussion

Which conclusion should we draw from the fact that the classical candidates for entailed conversational seem calculable but not cancellable? While calculability and cancellability play an important role for Grice, he takes neither feature to present a definition of conversational implicature. He considers both features necessary, but neither of them sufficient (see Grice, 1989, 39 regarding calculability and Grice, 1989, 44 regarding cancellability.).[18] In other words, he only subscribes to the following:

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[17] See my footnote 14. An anonymous reviewer points out that intuitions about whether the propositions in question are conveyed in the cases in point might not be universally shared. Given an informal survey among fellow philosophers (of language and other areas) however it seems that intuitions about whether the relevant propositions are implied or suggested are fairly stable.

[18] See also Grice (1989, 42, 44) where he stresses that there is no 'decisive test' for conversational implicatures since we cannot take the fulfillment of calculability or cancellability to imply that something is a conversational implicature (which makes calculability and cancellability *insufficient* for conversational implicatures). For defenses of the claim that cancellability is a *necessary* condition against recent objection (bracketing potential cases of entailed conversational implicatures), see Blome-Tillmann (2008) and Zakkou (2018). Lauer (2014) argues that what he calls 'needs-a-reason implicatures' are non-cancellable, but I'm not convinced this is the case as 'A or B, but I don't have a good reason for not giving you more information' is not a linguistic offense. See also Sander (2021) who argues that the mere observation of a maxim does not give rise to conversational implicatures. Davis (1998, 27ff.) and Potts (2015, 183) provide further support for the claim that calculability is not a sufficient condition, while Sadock (1978) and Carston (2002) substantiate the claim that cancellability is not a sufficient condition.

(Cal)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c, then it is calculable.

(Can)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c, then it is explicitly and contextually cancellable.[19]

If we classify (3c)–(7c) as conversational implicatures of (3)–(7), we can uphold (Cal) but we must reject (Can). If, by contrast, we refrain from classifying them as conversational implicatures, we can uphold both (Cal) and (Can) since they provide only necessary conditions for conversational implicatures.[20]

In light of this, one might naturally conclude that we should not classify (3c)–(7c) as conversational implicatures. But as indicated in the introduction, most scholars in the debate reach a different conclusion. They hold that acknowledging (3c)–(7c) as conversational implicatures requires only a harmless modification of (Can) (see, e.g., Carston, 2002, 139f.; Blome-Tillmann, 2013, 172; Rett, 2015, 92; Sullivan, 2017, 169; Moldovan, 2019, 60—though see Neale, 1992; Vicente, 1998). Instead of (Can) we simply assume

(Can′)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c but not an entailment of s, then it is explicitly and contextually cancellable.

This way we can classify all of the above cases as conversational implicatures and uphold cancellability as a meaningful criterion for paradigm conversational implicatures such as the two examples from the outset.

A closer look reveals, however, that classifying (3c)–(7c) as they are conveyed in (3)–(7) as conversational implicatures has far-reaching consequences that have not been acknowledged so far. To foreshadow, if we take these cases to be conversational implicatures, then, by parity of reasoning, we will have to grant that propositions can be both conversationally implicated and, at the same time, conventionally implicated or semantically presupposed. Furthermore, if we go along with this, then we have to

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[19] For the claim that both explicit and contextual cancellability are necessary conditions for conversational implicatures, see Blome-Tillmann (2008) and Zakkou (2018). The consequent of the above claim, that a proposition p is cancellable (or calculable, for that matter), is short-hand for the claim that said proposition p as conveyed by the speaker's use of s at c is cancellable (or calculable). See, similarly, Zakkou (2018).

[20] Apart from calculability and cancellability, Potts (2015, 183), drawing among others on Hirschberg (1985), lists four further features of conversational implicatures: (i) non-detachability, (ii) indeterminacy, (iii) non-conventionality, and (iv) re-inforceability. I bracket (i) and (ii) because they are neither necessary nor sufficient for conversational implicatures, which makes them of little help for the task at hand; see Grice (1989, 43f.) and Sadock (1978, 285). For further criticism of non-detachability as a diagnostic for conversational implicatures, see Bach (2006), Blome-Tillmann (2013), and Rett (2020). I bracket (iii) and (iv) because I agree with Potts that (iii) is 'just another perspective on calculability' and because (iv) is not due to Grice and highly contentious, as a reviewer of this journal rightly points out, see, e.g., Horn (1991). Note, though, that especially (iv) would provide further evidence against classifying the cases from Sect. 2.1 as conversational implicatures, since none of (3c)–(7c) seems reinforceable ('Hannah has put the shot more than 24 ms, and someone has put the shot more than 24 ms' sounds redundant).

restrict (Can) in far less harmless ways than (Can′). I will develop these two points in more detail in turn and explain why they are problematic.

Consider first the following three cases which feature the ambiguous term 'bank', the context sensitive expression 'soon', and the pronoun 'she':

(8)   a. Where in the nature reserve is Hannah's favorite spot?

      b. Hannah's favorite spot is by the bank.

  –>   c. Hannah's favorite spot is by the river bank.

(9)   a. It's 8 am. 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.

  –>   c. Hannah will arrive in the morning.

(10)   a. Is Hannah going to the river bank?

      b. She is going to the river bank.

  –>   c. Hannah is going to the river bank.

It is commonly assumed that (8c)–(10c) are semantically expressed by (8c)–(10b) in the context of (8)–(10), respectively.[21] But if we take (3c)–(5c) to be conversational implicatures of (3)–(5), then, by parity of reasoning, we will have to grant that (8c)–(10c) are conversational implicatures of (8)–(10) as well. There is no principled reason for classifying them differently. To see this, consider the two features discussed before.

First, if (3c)–(7c) are calculable, then so are (8c)–(10c). If the speaker of (8b)–(10b) had not conveyed (8c)–(10c), she would have violated the maxim of relation by not answering the question at hand in (8)–(10). Take (8), for instance. If the speaker of (8b) had not conveyed (8c) but, say, that Hannah's favorite spot is by the credit institution, she would not have answered where in the nature reserve Hannah's favorite spot is.

Second, unlike (3c)–(5c), (8c)–(10c) are explicitly cancellable.[22] Consider, for instance, the following:

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[21] Grice (1989, 25) would agree. He'd say that (8c)–(10c) are what is said in the context of (8)–(10) (see my terminological remark in the introduction). (8c) and (9c) might be considered explicatures or implicitures instead, but at least (10c) seems to be a clear case of a proposition that is semantically expressed in (10) (assuming that the pronoun is not used deictically).

[22] That (8c)–(10c) of (8)–(10) are cancellable even though they are semantically expressed has been acknowledged in the debate as early as Sadock (1978) and it is one of the reasons for denying that cancellability is a sufficient condition of conversational implicatures. See also Wilson and Sperber (1981, 159), Miller (2016, 543f.), and Zakkou (2018).

(8′)   Hannah's favorite spot is by the bank, but it's not by the river bank.

This sentence is felicitous. If asked where Hannah's favorite spot is the speaker might respond with the following, for instance:

(8″)   Hannah's favorite spot is by the bank, but it's not by the river bank; it's by the credit institution.

(8″) might sound cumbersome but surely it is felicitous. The same holds, *mutatis mutandis*, for (9) and (10). Consider

(9″)   Hannah will arrive soon, but Hannah won't arrive in the morning.

(10″) She is going to the river bank, but Hannah is not going to the river bank.

If the speaker's interlocutor is asking whether Hannah will arrive within the next few days or whether *Sarah* is going to the river bank, respectively, (9″) and (10″) will be felicitous. Likewise for variations of these cases that make use of Grice's alternative cancellation clause. Furthermore, (8c)–(10c) are contextually cancellable: there are contexts in which (8b)–(10b) can be used literally and seriously without conveying (8c)–(10c), respectively.

Now, if (3c)–(5c) are classified as conversational implicatures in the context of (3)–(7) because they meet one of the two necessary features of conversational implicatures, then (8c)–(10c), which meet both these features (i.e. calculability and (explicit and contextual) cancellability), should be classified as conversational implicatures of (8)–(10) as well. (8c)–(10c) would thus be both semantically expressed by (8b)–(10b) and, at the same time, conversationally implicated in the context of (8)–(10).[23]

This outcome conflicts with how scholars standardly think of implicatures. Grice introduced the label 'implicature' to pick out precisely those contents that are *not said* but still *conveyed* by the use of a given sentence at a given context. He went on to clarify that what is said is not completely determined by the conventional meaning of the sentence in question and that contextual cues are needed especially when it comes to resolving ambiguities and fixing the referent of indexicals and demonstratives, but that only shows that he grants what is said some degree of context dependence, not that he allows what is said to overlap with what is conversationally implicated.[24]

Note though that since (8c)–(10c) are cancellable, they would not call into question (Can′) from above. So considering the semantically expressed propositions (8c)–(10c) to be also conversationally implicated in (8)–(10) might be considered acceptable after all.

Consider next though the following six cases:

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[23] If (8c) and (9c) are considered explicitures or implicitures, we'll get that they are both that and conversationally implicated.

[24] See Grice (1989, 24f.). Carston (2002, 102) agrees with this interpretation of Grice. She observes that "[i]t is clear that Grice intended the distinction between 'saying' and 'implicating' to be sharp."

(11)   a. Is Hannah the queen of England?

        b. Well, I'm going to meet Hannah, the queen of England, later.

  –>   c. Hannah is the queen of England.

(12)   a. Is there a contrast between being tall and being beautiful?

        b. Well, Hannah, for instance, is tall but beautiful.

  –>   c. There is a contrast between being tall and being beautiful.

(13)   a. Does being a Brit entail being brave?

        b. Hannah, for instance, is a Brit and therefore brave.

  –>   c. Being a Brit implies being brave.

(14)   a. Is there a queen of England?

        b. Look at the balcony. The queen of England is waving at us.

  –>   c. There is a queen of England.

(15)   a. Hannah didn't take the exam, right?

        b. Hannah {passed/failed} the exam.

  –>   c. Hannah took the exam.

(16)   a. Hannah is not home, right?

        b. I know that Hannah is home.

  –>   c. Hannah is home.

(11c)–(13c) are usually taken to be conventionally implicated while (14c)–(16c) are often considered semantically presupposed, but the exact classification does not matter. What is important is that it is often assumed that they belong to one of these two categories.[25]

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[25] Some of the cases might be more controversial than others (pace, e.g., Potts (2005), appositions might not be considered conventional implicatures but secondary assertions, and pace, e.g., Kiparsky and Kiparsky (1970), the factivity of knowledge might not be considered a semantic presupposition but a mere classic entailment). A proper subset of the cases in question would suffice however for my argument to go through. Thanks to two anonymous reviewers of this journal for pressing me on this.

If we take (3c)–(7c) to be conversationally implicated in (3)–(7), then, by parity of reasoning, we have to grant that (11c)–(16c) are conversationally implicated in (11)–(16) as well. For there is no principled reason for classifying them differently.

First, if (3c)–(7c) are calculable, then so are (11c)–(16c). If the speaker of (11b)–(16b) had not conveyed (11c)–(16c), she would have violated the maxim of relation by not answering the question under discussion. Take (11), for instance. If the speaker of (11b) had not conveyed (11c), she would not have answered whether Hannah is the queen of England.

Second, like (3c)–(7c), (11c)–(16c) are not explicitly cancellable. Consider, for instance, (11′) and (14′).

(11′) I'm going to meet Hannah, the queen of England, later, but Hannah is not the queen of England.

(14′) The queen of England is waving at us, but there is no queen of England.

These sentences are infelicitous. The same holds, *mutatis mutandis*, for (12) and (13) as well as (15) and (16), and for variations of these cases that make use of Grice's alternative cancellation clause. Furthermore, it seems clear that (11c)–(16c) are not contextually cancellable either. There are no contexts in which (11b)–(16b) can be used literally and seriously without conveying (11c)–(16c), respectively.

As before, if (3c)–(7c), which only meet the calculability requirement, are classified as conversational implicatures in the context of (3)–(7), then (11c)–(16c) showing the same pattern should be classified as conversational implicatures in the indicated contexts as well. (11c)–(16c) would thus be conventionally implicated or semantically presupposed by (11b)–(16b) and, at the same time, conversationally implicated in (11)–(16).

This outcome, too, conflicts with how scholars standardly think of implicatures. They distinguish between two kinds of implicatures, conventional implicatures, on the one hand, and nonconventional implicatures, on the other, and they single out conversational implicatures as a 'subclass' (Grice, 1989, 26) of nonconventional implicatures. Now, if conversational implicatures are a subclass of nonconventional implicatures, and nonconventional implicatures and conventional implicatures are not only distinct categories but mutually exclusive (as indicated by the labels, among others), then propositions cannot be conversationally implicated and conventionally implicated at the same time. Furthermore, scholars usually take semantic presupposition to be a category sui generis which is distinct from any of the standard Gricean categories. This suggests that propositions cannot be conversationally implicated and semantically presupposed at the same time either. So, if we want to stay true to standard assumptions, we should reject the above picture according to which conversational implicatures overlap with the categories just outlined.

One might not feel the need to stay true to these standard assumptions. Two things should be noted, however. First, there have been plenty of reductive projects to get by with just one type of conventionally triggered content—Boër and Lycan (1976), for instance, hold that we can dispense with semantic presupposition, whereas Bach (1999) famously argues that we can forgo conventional implicatures—but few would

deny that at least one of these categories exists and even fewer, to my knowledge, would acknowledge that they can overlap with conversational implicatures. Second, 'conversational implicature' is a term of art, so we are in principle free to choose what it refers to. But that does not make all possible terminological choices equally good. A use of 'conversational implicature' that, where possible, is faithful the origins of the term and current practice is to be preferred over a use that breaks with the tradition in important respects.[26]

Most importantly, however, there is a further problematic consequence of the view in question. If we grant that propositions conversationally implicated can be conventionally implicated or semantically presupposed at the same time, we have to restrict the cancellability requirement on conversational implicatures even further. As pointed out above, while (8c)–(10c) as conveyed by (8b)–(10b) are cancellable, the conventional implicatures and semantic presuppositions (11c)–(16c) as triggered by (11b)–(16b) are not.[27] Accordingly, we should restrict (Can) as follows:

(Can″)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c but neither an entailment, nor a conventional implicature nor a semantic presupposition of s, then it is explicitly and contextually cancellable.

Restricted this way, though, cancellability loses much of its predictive power as a diagnostic for conversational implicatures. Granted, since cancellability has never been intended by Grice to be a sufficient condition for conversational implicatures, one should have never inferred from the mere fact that a given conveyed content is explicitly and contextually cancellable that it is a conversational implicature. But given the initial, unrestricted claim (Can) we are allowed to conclude from the fact that a conveyed content is not cancellable that it is not a conversational implicature. Given (Can″), though, this is not the case anymore: a given non-entailed conveyed content might be non-cancellable and still be a conversational implicature.[28] One can of course help oneself with further tests to find out whether a given conveyed content is a conversational implicature or something else instead. But that does not change the fact that by substituting (Can″) for (Can) we limit the usefulness of what is often described as the 'best test' for conversational implicatures (Sadock, 1978, 292; see also Levinson, 1983, 114; Hirschberg, 1985, 27; Blome-Tillmann, 2008, 156).[29]

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[26] See similarly Saul (2002, 239) who discusses cases that seem to escape the Gricean taxonomy as well and who notes that '[c]ertainly, we could decide to use the terms 'implicature' and 'implicate' in this way, but it would, I think, be a *change*'.

[27] As pointed out in footnote 16, this claim is compatible with the view that in certain environments (e.g. the embedding under operators like negation or in the context of a question) conventional implicatures and semantic presuppositions might be said to be cancellable.

[28] On the flipside, we'd have to give up the claim that conventional implicatures and semantic presuppositions are non-calculable, contra e.g. Levinson (1983, 127), Leech (1983, 11), Bach (1999, 329), Potts (2015, 191f.), and Rett (2020, 47).

[29] Note also that it's not clear what these further tests could be. Scope or projection tests (see, e.g., Recanati, 1989; Carston, 2002, 191ff.; Potts, 2015) don't provide us with a necessary feature of conversational implicatures since some conversational implicatures scope/project out of embeddings (see, e.g., Simons,

To conclude, if we classify the entailments from Sect. 2.1 as conversational implicatures, we have to reconstrue Grice's notion of implicature and we have to significantly water down one of the central tests for conversational implicatures. Both are noteworthy theoretical costs. Not classifying the entailments from 2.1 as conversational implicatures avoids these costs. We stay true to the common picture according to which conversational implicatures, on the one hand, and conventional implicatures and semantic presuppositions, on the other, are mutually exclusive categories, and we can keep not only calculability but also cancellability as a useful diagnostic.

If the indicated entailments are not conversational implicatures, then what are they? They don't seem to be conventional implicatures or semantic presupposition.[30] Nor do they seem to fall into any other established category.[31] I propose that we regard them as a distinct category, defined simply as calculable entailments. In the spirit of the ongoing discussion, we could aptly term them 'entailatures'.[32] As Sainsbury (1984, 416) notes, there is an 'enormous variety of cases' of conveyed contents, which should be treated 'variety by variety'. And as Sander (2021, 3) more recently follows up, 'in order to fully understand human communication, we ought to attend to important differences among cases and should not use the term 'conversational implicature' as a one-size-fits-all cap.'

3 Novel contenders

In this section, I present novel candidates for entailed conversational implicatures and outline how they differ from those cases presented above.

3.1 The cases

Here is a first set of cases, containing necessary truths and falsehoods.

(17)   a. Are all prime numbers smaller than 100?

        b. Some prime numbers are smaller than 100.

  –>   c. Not all prime numbers are smaller than 100.

(18)   a. Are all prime numbers smaller than 2?

2010, 2011). Tests referring to conventionality are controversial too since they would undermine the case for entailed conversational implicatures. After all, they are conventional.

[30] Take (4c) and (5c), for instance. They don't project out of attitude complements and negation, as they should if they were conventional implicatures or semantic presuppositions, respectively. Note that I'm using projection as a necessary feature of conventional implicatures and semantic presuppositions. This is compatible with footnote 28, which notes that some conversational implicature might project as well.

[31] I won't be able to consider all options here, but suffice it to say that the relevant authors haven't considered any of these other categories as plausible candidates.

[32] See, similarly, Saul (2002, 230f.) on 'near-implicatures' and Sander (2021, 16ff.) on 'implicature-like phenomena'.

      b. Some prime numbers are smaller than 2.

  –>   c. Not all prime numbers are smaller than 2.

(17c) and (18c) are conveyed by the speaker's use of (17b) and (18b). But (17c) and (18c) are also entailed by (17b) and (18b). After all, (17c) as a mathematical truth is true with necessity and (18b) as a mathematical falsity is false with necessity: (17c) is true in all possible worlds and (18b) is false in all possible worlds. So, it cannot be the case that (17b) is true while (17c) is false and, likewise, it cannot be the case that (18b) is true while (18c) is false.[33]

Here is a second set of cases, containing necessary truths and falsehoods as well.

(19)   a. Does $2 + 2 = 5$?

       b. Sure, and Trump won the Nobel Peace Prize.

  –>   c. $2 + 2 \neq 5$

(20)   a. Did Trump win the Nobel Peace Prize?

       b. Sure, and $2 + 2 = 5$

  –>   c. Trump didn't win the Nobel Peace Prize.

(19c) and (20c) are conveyed by the speaker's use of (19b) and (20b), but they are also entailed by these very sentences. (19c) is true with necessity and (20b) is false with necessity. So, it cannot be the case that both (19b) is true and (19c) is false and, likewise, it cannot be the case that both (20b) is true and (20c) is false.

Note that like the cases from Sect. 2 these two sets of cases differ on two dimensions. First, (17c) and (18c) seem to be candidates for additive conversational implicatures in that both the b- and the c-propositions are being conveyed; (19c) and (20c), by contrast, are candidates for substitutive conversational implicatures in that the speaker merely tries to get across the c-proposition, not the b-proposition. Second, the former cases arise without special help from the context; the latter, however, heavily depend on contextual cues. So, if they are conversational implicatures, they are generalized and particularized conversational implicatures, respectively.

But should we take (17c) and (18c) as well as (19c) and (20c) to be conversationally implicated in the given cases? One might refer to intuitions. For instance, one might point out how intuitively similar (17c)–(20c) as conveyed in (17)–(20) are to (1c) and (2c) as conveyed in (1) and (2). But as indicated above I think we shouldn't rely on intuitions only when it comes to classifying candidates for conversational implicatures. Let's rather look at the two characteristic features discussed above.

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[33] In other words, since (17c) is necessarily true it is entailed by anything and since (18b) is necessarily false it entails everything.

First, (17c)–(20c) as conveyed in (17)–(20) are calculable roughly along the following lines: If the speaker of the respective b-sentence had not conveyed the proposition semantically expressed by the c-sentence in question, she would have violated Grice's cooperative principle. More specifically in the cases at hand, if the speaker of (17b) and (18b) had not conveyed (17c) and (18c) in addition to (17b) and (18b), she would have conveyed less than what she could have conveyed and so would have violated the maxim of quantity; and if the speaker of (19b) and (20b) had not conveyed (19c) and (20c) instead of (19b) and (20b), she would have conveyed something that she does not take to be true herself and so would have violated the maxim of quality. So, (17c)–(20c) are calculable.[34]

Second, (17c)–(20c) as conveyed in (17)–(20) are explicitly and contextually cancellable. To begin with, consider the following sentences.

(17′)   Some prime numbers are smaller than 100, but it's not the case that not all prime numbers are smaller than 100.

(18′)   Some prime numbers are smaller than 2, but it's not the case that not all prime numbers are smaller than 2.

These sentences seem felicitous. Consider, for instance, the following:

(17″)   Some prime numbers are smaller than 100, but it's not the case that not all prime numbers are smaller than 100. All prime numbers *are* smaller than 100.

(18″)   Some prime numbers are smaller than 2, but it's not the case that not all prime numbers are smaller than 2. All prime numbers *are* smaller than 2.

To be sure, the first phrase of (17′/17″) is necessarily true and the first phrase of (18′/18″) is necessarily false, but since they are not obviously or transparently true and false, respectively, that does not make the contributions on the whole infelicitous, or in Grice's parlance: a linguistic offense. Also, as explained above, the respective first phrase entails what the speaker denies with the second phrase, but that in itself does not make the contributions infelicitous either. Surely, we are often agnostic especially about the not so immediate or transparent entailments of the sentences we use, and so denying them does not lead to infelicity.[35]

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[34] As above, this is only a very rough sketch of the relevant reasoning process (a more precise reasoning process regarding (17c) and (18c) will most likely refer to scales), and, as noted before, there is an ongoing debate about various aspects of calculability reasonings. It seems fair to assume though that since (1c) and (2c) are calculable, (17c) and (18c) as well as (19c) and (20c) are calculable as well, no matter the details.

[35] Note that the cases can be replaced by more opaque ones in which the respective phrases are clearly not obviously or transparently true and false, respectively. Note also that instead of a lack of a *linguistic offense* Grice at one point talks of a lack of *logical absurdity* when he talks about cancellability (Grice, 1981, 186). I do think that they both amount to what many people these days call (in)felicity (for more on infelicity, see Franzén & Stokke, ms). But even if not, the cases presented in this section pass the cancellability test on any plausible interpretation of both linguistic offense and logical absurdity since while some of the cancellations present mathematical falsehoods it is anything but clear that they present logical

Next, consider the following sentences.

(19′)   Trump won the Nobel Peace Prize, but 2 + 2 = 5.

(20′)   2 + 2 = 5, but Trump won the Nobel Peace Prize.

These sentences seem felicitous as well. Consider, for instance, the following exchanges (see, similarly, Zakkou, 2018):

(19″)   a. Trump didn't win the Nobel Peace Prize, and 2 + 2 = 5, right?

         b. Trump won the Nobel Peace Prize, but 2 + 2 = 5.

(20″)   a. 2 + 2 = 5, and Trump didn't win the Nobel Peace Prize, right?

         b. 2 + 2 = 5, but Trump won the Nobel Peace Prize.

Both conjuncts of (19′/19″b) and (20′/20″b) are false, the one contingently and the other one necessarily so, but, as before, that does not make the contributions on the whole infelicitous. For surely, even mathematically and politically ill-informed people can make felicitous contributions. The same considerations apply, *mutatis mutandis*, for variations of these cases that make use of Grice's alternative cancellation clause.

Furthermore, (17c)–(20c) seem contextually cancellable. There seem to be contexts in which (17b)–(20c) can be used literally and seriously without conveying (17c)–(20c), respectively. Consider, for instance, a context in which (17b) is used to answer the question 'Are some prime numbers smaller than 100?' Since (17c) is not an immediate or transparent entailment of (17b), (17c) does not seem to be conveyed. Or consider a context in which (19b) is used as an answer to the question 'Did Trump win the 2020 election?'. Since (19c) is not an immediate or transparent entailment of (19b), (19c) does not seem to be conveyed. It wouldn't be strange if the speaker of (17b) were to deny that she conveyed (17c) when pressed just as it wouldn't be strange if the speaker of (19b) were to deny that she conveyed (19c) when challenged. *Mutatis mutandis* for the other two cases.

3.2 Discussion

What to do with these novel contenders? Recall that Grice took calculability and cancellability to be necessary but not sufficient conditions for conversational implicatures and thus commits to the following.

(Cal)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c, then it is calculable.

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absurdities. After all, it is highly contested that mathematical falsehoods reduce to logical falsehoods, let alone logical absurdities.

(Can)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c, then it is explicitly and contextually cancellable.

If we classify (17c)–(20c) as conversational implicatures of (17)–(20), we can uphold both (Cal) and (Can).[36] Moreover, unlike with the cases from Sect. 2.1, classifying the cases from Sect. 3.1 as conversational implicatures does not get us into the slippery slope discussed above. To see this, recall (11)–(16) which were considered the problematic ones in Sect. 2.2. For instance, recall (11) and (14), repeated here as (21) and (22)

(21)   a. Is Hannah the queen of England?

b. I'm going to meet Hannah, the queen of England, later.

–>   c. Hannah is the queen of England.

(22)   a. Is there a queen of England?

b. Look at the balcony. The queen of England is waving at us.

–>   c. There is a queen of England.

where (21c) and (22c) are conventionally implicated or semantically presupposed. If we take (17c)–(20c) to be conversational implicatures of (17)–(20), we do not have to grant that (21c) and (22c) are conversational implicatures of (21) and (22) as well. For there is a principled reason for classifying them differently.

Like (17c)–(20c), (21c) and (22c) are calculable. But unlike (17c)–(20c), (21c) and (22c) are neither explicitly nor contextually cancellable. As seen above,

(21′)   I'm going to meet Hannah, the queen of England, later, but Hannah is not the queen of England.

(22′)   The queen of England is waving at us, but there is no queen of England.

don't seem to be felicitous.[37]

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[36] As indicated, there are further characteristic features of conversational implicatures which I bracket here; see footnote 20. Note though that re-inforceability does not provide evidence against classifying the entailments from Sect. 3.1 as conversational implicatures. Neither 'Some prime numbers are smaller than 100, but not all prime numbers are smaller than 100′ nor 'Trump won the Nobel Peace Prize, and $2 + 2 \neq 5$' sounds redundant.

[37] An anonymous reviewer of this journal notes that (21′) and (22′) can sound fine if the speaker puts 'the queen of England' in scare quotes. I agree, but I don't think this undermines the argument: when used without scare quotes (or attributively rather than referentially, to use Donnellan's (1966) terminology), the sentences don't seem to be felicitous.

In sum, even if we classify the entailments from Sect. 3.1 as conversational implicatures, we can uphold the view that conversational implicatures, on the one hand, and conventional implicatures and semantic presuppositions, on the other, are mutually exclusive, and we do not have to restrict (Can)—neither as given in

(Can′)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c but not an entailment of s, then it is explicitly and contextually cancellable.

nor, for that matter, as given in

(Can″)   If a proposition p is a conversational implicature of the speaker's use of a sentence s at a context c but neither an entailment, nor a conventional implicature nor a semantic presupposition of s, then it is explicitly and contextually cancellable.

So, we can stay true to the Gricean notion of implicature and we can keep not only calculability but also cancellability as useful diagnostics.

4 Conclusion

In this paper, I examined classical candidates as well as novel contenders for entailed conversational implicatures. I argued that different considerations apply. I suggested that while we should be wary of classifying the former as conversational implicatures, we might be right to classify the latter as conversational implicatures. More specifically, I have made two so-far unnoticed observations. First, if we classify the former cases as conversational implicatures, an overgeneration worry lurks that affects how we see conversational implicatures not only vis-à-vis entailments, but also vis-à-vis conventional implicatures and semantical presuppositions, and which threatens cancellability as a test for conversational implicatures. Second, if we classify the latter cases as conversational implicatures, we do not have to worry about overgenerating conversational implicatures and we can keep cancellability as a useful necessary condition of conversational implicatures.[38]

Declarations

Conflict of interest   There is no conflict of interest.

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