Intentions, Commitments, and the Derivation of Implicatures

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Abstract: In this paper, I focus on a common equivocality in how the content of conversational, especially scalar, implicatures is specified and I argue that there is a substantial difference between the belief specification $\text{BEL}_s(\neg\psi)$ ("The speaker believes that $\neg\psi$") and the content specification $\neg\psi$. The main argument for taking the distinction between the specifications seriously is that, in most cases, both $\text{BEL}_s(\neg\psi)$ and $\neg\psi$ can be derived as the implicatures of the same sentence but they have different consequences for how the hearer plans her future actions and manages expectations about the future actions of the speaker. As I argue further, the commitment-based approaches can provide an explanation of how the content specification is derived in contexts in which the speaker does not have beliefs required for the derivation of the belief specification and because of that they have an advantage over the standard Gricean approach.

Keywords: Commitments; Gricean pragmatics; implicatures; intentions; social-normative pragmatics.

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1. Introduction

If we take a closer look at the literature on scalar implicatures, we can notice a very common equivocality in the way the content of implicatures is specified.[1] On the one hand, implicatures are often specified as the *contents* of beliefs of a speaker. On the other hand, implicatures are also specified as the *beliefs* (or other intentional states) of a speaker itself. To mark the difference better, we can represent the content specification by "$\neg\psi$" ("ψ is false" where ψ is some proposition) and the belief specification by "$BEL_S(\neg\psi)$" ("The speaker believes that ψ is false"). An example of this equivocality can be found in Carston (1998). When she gives examples of scalar implicatures, she uses both specifications:

(1)   a. Bill has got some of Chomsky's papers.
         b. The speaker believes that Bill hasn't got all of Chomsky's papers.

(2)   a. There will be five of us for dinner tonight.
         b. There won't be more than five of us for dinner tonight.

(3)   a. X: I like Mary. She's intelligent and good-hearted.
            Y: She's intelligent.
         b. Y doesn't think Mary is good-hearted.

(4)   a. She won't necessarily get the job.
         b. She will possibly get the job. (Carston 1998, 179)

In (1b) and (3b), the implicatures are specified as beliefs (or other intentional states) of the speakers, while in (2b) and (4b), the implicatures are specified as the contents of beliefs.

Another example can be found in Sauerland (2004). Sauerland (2004, 369) paraphrases scalar implicatures as having the form "The speaker is certain that ψ is false" or "$K\neg\psi$" (where the certainty operator K approximates knowledge, and so an intentional state, of the speaker). But when he presents examples of scalar implicatures, he omits the part specifying the intentional states and uses "ψ is false" or "$\neg\psi$" only. Similar examples are

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[1]   In what follows, I focus mostly on the discussions about scalar implicatures as the equivocality is most visible there. But the arguments presented in the paper have broader implications for how conversational implicatures in general can be derived.

ubiquitous in literature and authors often switch from one specification to another arbitrarily.[2]

The general aim of the paper is to argue that the distinction between $BEL_S(\neg\psi)$ and $\neg\psi$ is substantial and that the two specifications cannot be replaced by each other arbitrarily. The particular aims of the paper are to show that a) the same sentence can carry both $BEL_S(\neg\psi)$ and $\neg\psi$ as its implicatures, b) $BEL_S(\neg\psi)$ and $\neg\psi$ cannot be used interchangeably because they have different impacts on the overall conversational situation, and c) the potential impact on the overall situation influences whether $BEL_S(\neg\psi)$ or $\neg\psi$ is a preferred option in a particular context.

In Section 2, I propose a possible explanation of why the equivocality has been mostly overlooked in literature and I argue that the belief specification should be preferred from the Gricean "intentionalist" perspective. In Section 3, I argue that the belief specification is a preferred option only in specific contexts in which information about the beliefs of the speaker has an impact on the overall conversational situation, especially on the way the hearer plans her own actions and manages her expectations about the actions of the speaker. In Section 4, I argue that the content specification is preferred, and it may even be the only option available, in many other contexts. In Section 5, I argue that commitment-based approaches (Brandom 1994, 2000; Geurts 2019a, 2019b) can provide a way for deriving the content specification in contexts in which the speaker does not have beliefs required for the derivation of the belief specification and so they have an advantage over the standard Gricean approach.

2. Gricean communication and the standard recipe

The equivocality between $BEL_S(\neg\psi)$ and $\neg\psi$ has a rather simple historical explanation. As a matter of fact, the discussions on implicatures have

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[2]   A rare example of a paper that makes the distinction explicitly is Franke (2012). Franke distinguishes between base-level implicatures ($\neg\psi$) and strong epistemic implicatures ($BEL_S(\neg\psi)$) and provides game-theoretic models for deriving both. A general idea behind the models will be briefly discussed later in the paper.

started with Grice (1975, 1978, 1981) and one of the most distinctive components of his views is the intentionalist view of communication. According to this view, communication is a matter of the hearers' recognition and ascription of speakers' intentions (Grice 1957, 1968, 1969).

In general, we can find numerous proposals for how different types of conversational implicatures can be derived in the spirit of the intentionalist view and one of the most specific and the most common proposals is the so-called standard recipe for the derivation of scalar implicatures:

S has said ϕ.
i.   S could have made a stronger claim by saying ψ. Why didn't he do so?
ii. Presumably, it's because S doesn't believe that ψ is true: $\neg\mathrm{BEL_S}(\psi)$.
iii. S has an opinion as to whether ψ is true: $\mathrm{BEL_S}(\psi) \vee \mathrm{BEL_S}(\neg\psi)$.
iv. Between them, (ii) and (iii) entail $\mathrm{BEL_S}(\neg\psi)$: S believes that ψ is false. (Geurts 2010, 32)[3]

For example, if $\phi = $ (5a), then we can use the standard recipe to derive (5b).

(5)   a. John drank some of the beers.
      b. The speaker believes that John did not drink all the beers.

Derivation of scalar implicatures through the standard recipe represents a specific case of the general intentionalist view in which the hearers engage in abductive reasoning about the intentional states of the speakers. As part of the standard recipe, the hearer is supposed to find the best explanation for the speaker's choice of words by making assumptions about the intentional states of the speaker. In particular, she makes assumptions about her beliefs represented by the premises (ii) and (iii). The belief operator used in the premises naturally passes on to the conclusion, resulting in the belief specification of scalar implicatures.

For someone who accepts the intentionalist view of communication, as the vast majority of researchers in pragmatics do, it might be hard to notice

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[3]   The argument is implicitly present in Grice (1975, 1978) already. The first explicit version of the standard recipe can be found in Soames (1982). Besides Geurts (2010), we can find the fully explicit form of the argument e.g. Horn (1989), or van Rooij and Schulz (2004).

the equivocality, because she may automatically tend to read the content specification $\neg\psi$ as representing the intentional states of the speaker. And for someone who considers the standard recipe to be a plausible approximation of how scalar implicatures are derived, the belief specification $BEL_S(\neg\psi)$ should be *the* specification of the content of implicatures, as $BEL_S(\neg\psi)$ is the actual output of the standard recipe. Taking into account the popularity of the standard recipe, I assume that the belief specification is the generally preferred, though not always explicitly recognized, specification of the content of conversational implicatures.

If this is so, then the equivocality discussed here can be understood as a pardonable simplification. The idea would be that, strictly speaking, $BEL_S(\neg\psi)$ is the right way to specify the content of scalar implicatures. The content specification $\neg\psi$ is just a shorter, imprecise placeholder for the longer specification used by authors for the sake of brevity.

Another reason for understanding the derivation of scalar implicatures through the lens of standard recipe, and so for seeing $BEL_S(\neg\psi)$ as the preferred option for the specification of the content of scalar implicatures, is that the standard recipe allows us to make a difference between weak ($\neg BEL_S(\psi)$) and strong ($BEL_S(\neg\psi)$) implicatures. This distinction would not be possible to make if the content specification would be accepted as the specification of the content of scalar implicatures.

3. When intentional states matter

In this section, I argue that the distinction between the belief and the content specification is not just a matter of superficial terminological sloppiness. The main reason for taking the distinction seriously is that many sentences can carry both $BEL_S(\neg\psi)$ and $\neg\psi$ as their implicatures and whether the hearer derives $BEL_S(\neg\psi)$ or $\neg\psi$ has profound consequences for how she plans and execute her subsequent actions. To be open, I do not see any reason that would prevent the option that the hearers can switch between deriving $BEL_S(\neg\psi)$ or $\neg\psi$ depending on their momentary interests as most of the conversational situations allow for deriving both $BEL_S(\neg\psi)$ and $\neg\psi$. However, there are specific situations in which either one or the

other specification is preferred. We can demonstrate this through the ex-
ample of the sentence (6a).

(6)   a. Some civilians left the building before the attack.
        b. The speaker believes that not all civilians left the building
        before the attack.
        c. Not all civilians left the building before the attack.

I focus first on a situation in which derivation of $BEL_S(\neg\psi)$ is preferred.
Let us say that intelligence agency discovered a hideout of a terrorist, and
the president ordered an attack in order to eliminate the terrorist. Unfor-
tunately, some civilians died during the attack and the president is now
facing a trial for homicide. The prosecutor interrogates the president:

Pro.: Did you know anything about the position of civilians before or-
      dering the attack?
Pre.: Some civilians left the building before the attack.

If the hearers are the prosecutor, a judge, and a jury, then the belief speci-
fication (6b) is a preferred option for the implicature of (6a), because the
intentional states of the president (the speaker) matters for the trial. In
particular, information that the president had a specific belief has a pro-
found impact on the decisions and actions of the hearers. If the president
believed that all civilians left the building before the attack, then she might
be accused of unintentional homicide by the prosecutor and judged for com-
mitting a manslaughter by the judge and the jury. If the president believed
that not all civilians left the building before the attack, but ordered it any-
way, then she could be accused of intentional homicide by the prosecutor
and judged for committing a murder by the judge and the jury.

What makes $BEL_S(\neg\psi)$ the contextually preferred option is that deri-
vation of $BEL_S(\neg\psi)$ makes it possible for the hearers to make actions that
would not be possible if $\neg\psi$ would be derived in this situation. In particular,
if $\neg\psi$ would be derived by the hearers, then it would not be possible for
them to decide whether the committed crime should be classified as a mur-
der or a manslaughter as (6c) carries no information about the beliefs of the
president and so it has no bearing on the intentionality of her actions.

Generally speaking, $BEL_S(\neg\psi)$ is preferred as an implicature in those
situations in which information about the intentional states of the speaker

have consequences for the subsequent actions of the hearers beyond and above the consequences provided by $\neg\psi$. Standardly, these are contexts in which the hearers assess the actions or the character of the speaker in order to plan their own future actions and manage their expectations regarding the actions of the speaker. Deciding whether I should vote for the president in the upcoming elections, whether I want to go with someone to a family vacation, whether I want to start a business with someone, or simply whether I can trust someone are among the paradigmatic examples.

4. When intentional states do not matter

However, situations in which $BEL_S(\neg\psi)$ is preferred are far from ubiquitous. In other words, contrary to what the standard recipe might suggest, the derivation of $BEL_S(\neg\psi)$ is in no way universal. As a matter of fact, the intentional states of the speaker might be irrelevant and $\neg\psi$ might be the preferred option for the implicature of (6a) in many other situations. For example, let us say that John's wife is working as a cleaner in the Pentagon. There has been a terrorist attack on the building. When John arrives there, he gets into a conversation with a rescuer:

John: My wife was at work here today.
Res.: What is her job?
John: She is a cleaner.
Res.: Some civilians left the building before the attack.

In this situation, the content specification (6c) is a preferred option for the implicature of (6a), because $\neg\psi$ provides sufficient information for John (the hearer). If all civilians left the building before the attack, then John's wife should be safe and he does not have to worry about her life. This is no longer true if he derives (6c) as the implicature as it leaves the possibility that his wife was in the building during the attack open. Deriving $\neg\psi$ has an impact on how John will plan his subsequent actions, e.g. he might calm down a little, ask for a list of those who did not leave the building before the attack, or where those who are safe are.

Generally speaking, $\neg\psi$ is preferred as an implicature in those situations in which information about the intentional states of the speaker have no

direct consequences for the subsequent actions of the hearer. Standardly, these are situations in which the actions of the hearer are guided only by information provided by $\neg\psi$ and the management of expectations about the future actions of the speaker does not play a role (e.g. one-off encounters). Asking for a tip for a restaurant ("Some restaurants in this area are good") or asking a stranger for directions ("Some buses from this stop go there") are among the paradigmatic examples.

5. How to derive the content specification?

The question I would like to raise now is: If a sentence can carry both the belief specification and the content specification as its implicatures, what is the relation between them with respect to their derivability? From the Gricean perspective, it seems natural to assume that the derivation is serial: the hearer first derives the belief specification and, on the basis of that, she derives the content specification.[4] We can see how this could be the case through the example of a paramedic-patient conversation. Let us say that a paramedic examines a patient who does not feel well and the patient utters (7a).

(7)   a. I feel very cold.
         b. The patient has hypothermia.
         c. The patient believes she has hypothermia.

In this situation, taking into account further symptoms (e.g. shivering), the paramedic (the hearer) preferably derives the content specification (7b) as the implicature, because (7b) is relevant for the planning of her subsequent actions, in particular, for identifying and initiating the proper treatment (e.g. removing wet clothes, providing warm clothes or blankets, providing a sweet beverage). If we assume that the patient has advanced medical knowledge (e.g. she is a doctor), then the paramedic could derive (7b) seri-

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[4]   A similar suggestion has been proposed by Franke (2012, 7) for scalar implicatures. In his reading, the preferred Gricean option is a serial derivation in which $\neg\text{BEL}_S(\psi)$ is strengthened to $\text{BEL}_S(\neg\psi)$, which may in turn be strengthened to $\neg\psi$.

ally by relying on the maxim of quantity: "Make your contribution as informative as is required (for the current purposes of the exchange)" (Grice 1975, 26).

1. The patient has said that ϕ [= (7a)].
2. There is no reason to suppose that she is not observing the maxims.
3. She could not be doing this unless she thought that ψ [= (8)/(7b)]: $BEL_S(\psi)$.
4. She knows (and knows that I know that she knows) that I can see that the supposition that she thinks that ψ is required.
5. She has done nothing to stop me thinking that ψ.
6. She intends me to think, or is at least willing to allow me to think, that ψ.
7. Therefore, she has implicated that ψ.

The idea is that (7a) is not as informative as it is required with respect to the goal of the conversation, i.e. for identifying and initiating a treatment, and (8) represents its more informative alternative.

(8)   I have hypothermia.

Since the patient used (7a) instead of (8), she could not abide the maxim of quantity unless she *believes* (8). In other words, the serial derivation requires that the paramedic first derives the belief specification (7c) in Step 3 and, only on the basis of that, she derives the content specification (7b) in Step 7.

This serial derivation requires that the patient has an expertise in specific medical knowledge. This assumption, however, certainly does not hold often in the paramedic-patient encounters. In particular, in some other case, the paramedic may reasonably believe (or even know) that the patient does not know what hypothermia is. Despite that, it seems plausible that she derives the same implicature (7b) in such a context as well, because information communicated in (7b) is crucial for planning her subsequent actions (and, arguably, there is no reason to suppose that the paramedic would behave differently in the first and the second scenario).

However, in such a case, the paramedic cannot derive (7b) through the belief specification (7c), because such a derivation would require ascribing the patient the belief that she may not possibly have. This poses a challenge

for the Gricean view of communication. How can the hearer derive a conversational implicature without relying on the considerations about the intentional states of the speaker?

What sounds like an oxymoron from the Gricean perspective may have a perfectly reasonable explanation from another perspective. An especially promising alternative for showing how conversational implicatures could be derived without considerations about the intentional states of the speakers are the commitment-based approaches (Brandom 1994, 2000; Peregrin 2014; Geurts 2019a, 2019b). Setting aside the differences, the commitment-based approaches hold that the primary aim of communication is to establish commitments and, by doing this, to help to coordinate the actions between the speakers and the hearers. In particular, commitments can help the speaker and the hearer to plan their actions in accordance with the expectations induced by the commitments. As Geurts (2019a, 3) puts it, "If Albert promises Brenda to do the dishes, he commits himself to do the dishes, and by the same token Brenda becomes entitled to act on the assumption that Albert will do the dishes".

Interesting feature of the commitment-based approaches is that the establishment of commitments is a social matter and so it does not always rely on the intentions of the speakers. For example, I might become legally married to someone by uttering (9) while being drunk in the wedding chapel in Las Vegas regardless of the fact whether I intend to marry the second person.

(9)   I do.

This feature of the view can help us to explain how the paramedic can derive the content specification in the context in which the speaker does not have the beliefs required for the derivation of the belief specification. In particular, the paramedic could use the commitment-based alternative of the serial derivation:

1. The patient has said that ϕ [= (7a)].
2. There is no reason to suppose that she is not observing the maxims.
3. She could not be doing this unless she was committed to ψ [= (8)/(7b)]: $COM_s(\psi)$.
4. She did nothing to stop me in attributing the commitment to ψ to her.

5. She intends me, or is at least willing to allow me to attribute the commitment to ψ to her.
6. Therefore, she has implicated that ψ.

The idea is that the commitment-based approaches can explain how implicatures are derived in situations in which there are discrepancies between the beliefs of the speakers and the hearers, because whether a commitment is established does not necessarily depend on whether the speaker intends to establish the commitment. In particular, the paramedic can attribute the commitment to (7b) to the patient regardless of the fact whether the patient acknowledges the commitment (Brandom 1994, 194).

What I consider crucial for such attributions is the second part of the assumption in Step 5 of the derivation, i.e. the assumption that the hearer is willing to allow the speaker to attribute the commitment to ψ to her. This assumption can be supported by more general considerations about the division of linguistic labour. In particular, if it is a common ground between the patient and the paramedic that the paramedic has an expertise in medicine, then the patient should acknowledge any commitment attributed to her by the paramedic as the paramedic is an expert on which commitments are actually established in such situations. In other words, the paramedic is entitled to attribute the commitments to the patient and the patient should be willing to undertake the commitments without knowing exactly what she is committing to at the time of uttering the sentence. Since the patient does not know which commitments she undertakes, the paramedic can guide her in how she should behave in accordance with the attributed commitments by giving her instructions and she should be ready to follow these instructions.

From this perspective, we can see the derivation of conversational implicatures as not being based on considerations about the intentional states of the speaker, but as being based on considerations about the commitments established in a particular context. In particular, the reliance on commitments can explain how the content specification could be derived without a previous derivation of the belief specification.

6. Conclusions

In this paper, I discuss the equivocality present in the way the content of conversational, especially scalar, implicatures is specified and I argue that the difference between the belief specification $\text{BEL}_\text{S}(\neg\psi)$ and the content specification $\neg\psi$ is not a matter of superficial terminological sloppiness. The main argument for taking the distinction between the belief and the content specification seriously is that both specifications can be derived as the implicatures of the same sentence, and they have different consequences with respect to the hearer and the way she plans her own future actions and manages expectations about the future actions of the speaker. If this is so, then the question arises how the content specification $\neg\psi$ is derived. As I argue, the commitment-based approaches provide an explanation of how the content specification can be derived without making considerations about the intentional states of the speakers by relying on commitments that are attributed to the hearer (but which are not necessarily acknowledged by the hearer). Because of that, the commitment-based approaches have an advantage over the Gricean view in the cases in which the speakers do not have relevant intentional states to communicate an implicature.

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