

1. Introduction

With entailments and presuppositions under our belts, I turn briefly to one other kind of inference called a *conversational implicature* (or simply an *implicature*). This inference is also an implicational relation but it is distinct from entailments and presuppositions and important in our understanding of meaning.

Conversational implicatures are pragmatic inferences: unlike entailments and presuppositions, they are not tied to the particular words and phrases in an utterance but arise instead from contextual factors and the understanding that conventions are observed in conversation. The theory of conversational implicatures is attributed to Paul Herbert Grice, who observed that in conversations *what is meant* often goes beyond *what is said* and that this additional meaning is inferred and predictable. As an illustration of what Grice was talking about, consider the sentence in (1).

(1) John ate some of the cookies

The sentence in (1) expresses the proposition that John ate a portion of the cookies and is true just in case it corresponds to the outside world. Intuitively, all of the cookies still constitutes a portion of the cookies. So the sentence in (1) is true even if in the outside world John ate all of the cookies. However, something interesting happens when this sentence is uttered in a conversation like (2).

(2) A: "John ate some of the cookies"
B: "I figured he would. How many are left?"

It is clear from (2) that A conveys the literal meaning of the sentence in (1), i.e., its semantic content. It is equally clear that A implies—or at least B infers—the proposition expressed by (3).

(3) John didn't eat all of the cookies

You might suspect that what the word *some* really means is something like *a portion but not all*, so that the sentence in (1) literally means that John ate a portion but not all of the cookies and (1) entails (3). Let me show you that this is not the case by comparing the sentences in (4).

(4) a. John ate some of the cookies;
in fact, he ate none of the cookies
b. John ate some of the cookies;
in fact, he ate all of the cookies

In (4a), I cannot follow the sentence *John ate some of the cookies* with the sentence *in fact, he ate none of the cookies* because the second sentence contradicts the first sentence. In other words, there is no way in which the world could correspond to both sentences simultaneously. However, no such contradiction arises

in (4b) and the two sentences are mutually consistent. This proves that (1) does not entail (3). If it did, there would be a contradiction. That leaves us with an intriguing puzzle. The meaning of (3) is not part of the literal meaning of (1) and yet it is implicated by the utterance of (1). It is a systematic inference by the addressee, one the speaker does not try to discourage and therefore must intend. We note this inference using the symbol \rightarrow , illustrated in (5).

- (5) John ate some of the cookies
 \rightarrow John didn't eat all of the cookies

This inference obtains through a special reasoning process, one that relies on our understanding of the conventions of communicative exchanges—or conversations. Let's assume the speaker and addressee are in some sense cooperating in this exchange to make it smoother and beneficial to both. The speaker utters the sentence in (5) and in so doing conveys its literal meaning. The speaker (in the spirit of cooperation) is being as informative as he can in the exchange and the addressee (assuming he is being cooperative) believes this. The addressee reasons that if the speaker had known John ate all the cookies, he would have said so. Since the speaker did not say so, then he must know otherwise. In other words, the speaker must know that John didn't eat all of the cookies. So the addressee infers—from what the speaker said, from what the speaker didn't say, and from the way in which cooperative exchanges take place—that John didn't eat all of the cookies.

2. Grice's Theory of Conversational Implicatures

Grice proposed that participants in a communicative exchange are guided by a principle that determines the way in which language is used with maximum efficiency and effect to achieve rational communication. He called it the *Cooperative Principle*, defined in (6).

- (6) *The Co-operative 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.

This cooperative principle is an umbrella term for nine components that guide how we communicate. These nine components are grouped together into four categories, called the *Maxims of Conversation*: the maxim of quality (truthfulness), the maxim of quantity (informativeness), the maxim of relation (relevance), and the maxim of manner (perspicuity).

- (7) *The Maxims of Quality*

- i. Do not say what you believe to be false
- ii. Do not say that for which you lack adequate evidence

- (8) *The Maxims of Quantity*

- i. Make your contribution as informative as is required (for the current purposes of the exchange)
- ii. Do not make your contribution more informative than is required

(9) *The Maxims of Relation*

Be relevant

(10) *The Maxims of Manner*

- i. Avoid obscurity of expression
- ii. Avoid ambiguity
- iii. Be brief (avoid unnecessary prolixity)
- iv. Be orderly

Following the cooperative principle and its maxims ensures that in an exchange, the right amount of information is provided and that the exchange is conducted in a truthful, relevant, perspicuous fashion. The theory is abbreviated in (11).

(11) *Grice's Theory of Conversational Implicatures (abridged)*

- i. The Cooperative Principle
- ii. The Maxims of Conversation

Quality	Try to make your contribution one that is true
Quantity	Make your contribution as informative and no more so than is required.
Relation	Be relevant
Manner	Be perspicuous

In a conversation, the speaker may do one of four things with regards to the cooperative principle and the maxims. These are listed in (12).

- (12) i. The speaker may **observe** the maxims—this is the default assumption.
- ii. The speaker may **opt out** of a maxim by using a phrase that eliminates or mitigates the effect of the maxims and signals this to the addressee—this phrase is called a *hedge*.
- iii. The speaker may **flout** a maxim, to the full knowledge of the addressee
- iv. The speaker may **violate** a maxim, e.g., lie.

If the speaker chooses to do the last, (12iv), he is ignoring the cooperative principle without giving the addressee a cue that he is doing so. We will ignore this altogether as it is impossible to predict anything from it and so no systematic analysis can result from it. The remaining three are of interest, especially (12i). In particular, Grice's theory relies on a fundamental assumption in (13).

(13) *Fundamental Assumption*

It is assumed that at some level, the speaker is always observing the cooperative principle, even if this is not evident from what is literally said, i.e., what is literally said does not coincide with the maxims. Observing the maxims at a non-literal level triggers a standard conversational implicature, sometimes called a conversational implicature_o.

This just means that if the addressee assumes the speaker is following the maxims, but that this is not evident at a literal level, then the addressee infers additional meaning (in the form of an implicature) to make up the difference. In other words, what is literally said + the implicature together satisfy the maxims.

3. Examples of Standard Implicatures

Before continuing, here are some examples of conversational implicatures. I'll start with the implicature that arise because of the maxim of quality.

(14) *Quality Implicatures*

- a. John has two PhD's
+> I believe John has two PhD's, and have adequate evidence that he has.
- b. Does your farm contain 400 acres?
+> I don't know that your farm does contain 400 acres, and I want to know if it does

In (14), what is literally said does not contain a statement of belief in the proposition or a statement of evidence backing it up. So at a literal level, the speaker does not seem to be observing the maxim of quality. However, the addressee assumes the speaker is at a deeper level. This assumption triggers the implicature, which is a statement of belief/evidence.

Quantity implicatures are perhaps the most systematic of the lot. They typically arise because a less informative word or phrase is used when a more informative one could have been used, but wasn't. (This was the case in (1), when the speaker utters *some* instead of *all*.)

(15) *Quantity Implicatures*

- a. Nigel has fourteen children
+> Nigel has no more than fourteen children
- b. The flag is white
+> The flag is only white
- c. A: How did Harry fare in court today?
B: Oh, he got a fine
+> He got no more than a fine

In (15), by using the less informative word or phrase, the speaker does not seem to be observing the maxim of quantity in what he has said. But the addressee still assumes that the maxims are being observed. Therefore, the addressee infers that the speaker knows the sentence containing the more informative word is false. So in (15a), the addressee infers that the speaker knows that *Nigel does not have 15 children, Nigel does not have 16 children, etc.* otherwise the speaker would have said so. All these negative statements taken together amount to *Nigel has no more than 14 children*. In (15b), the addressee infers that the speaker knows that *the flag is not blue, the flag is not red, the flag is not pink, etc.*, otherwise he would have said so. Again, taken together this amounts to *the flag is only white*. In (15c), the addressee infers that the speaker knows that *Harry did not get jail time, Harry did not get the death sentence, Harry did not get prosecuted, etc.*, otherwise

the speaker would have said so. Taken together, these statements amount to *Harry got no more than a fine*. As you can see, the reason is the same for all of these. Once the implicature and what is said are taken together, they satisfy the maxim of quantity.

The maxim of relation is perhaps the hardest maxim to single out because it figures into almost every utterance. Relevance is often assumed and left unspoken.

(16) *Relation Implicatures*

- a. Pass the salt
+> Pass the salt now
- b. A: Can you tell me the time?
B: Well, the milkman has come
+> The time now is after the time the milkman arrived

In (16a), the utterance is in the imperative so it has no contrast between present and past tense. The speaker has made a request but has not signaled when he wishes the salt. On a literal level, the speaker is not observing the maxim of relation but the addressee assumes that on a deeper level he is. The addressee infers that the request is related to the here and now. The implicature is therefore pass the salt now. In (16b), A asks the time. B's reply is not literally relevant to the question. A assumes he is cooperating and being relevant. A infers that B is relating the time at which the milkman came to the current time. The implicature is thus that the time now is after the time the milkman arrived. [Please don't assume this is the only implicature—there is nothing to prevent one utterance from resulting in several implicatures.]

Lastly, manner implicatures have to do with the form of the utterance. The maxim of manner requires that an utterance be perspicuous. When the speaker does not observe this maxim, his utterance is obscure or ambiguous or disorderly and this is intended to convey an implicit meaning.

(17) *Manner Implicatures*

- A: How do I get into your apartment?
- B: Walk up to the front door, turn the door handle clockwise as far as it will go, and then pull gently towards you.
+> Pay particular attention and care to each step of the instructions I've given you

In (17), A asks a question and B's literal reply is complicated. At the literal level, B does not appear to be observing the maxim of manner—a simple reply like *open the front door* would have sufficed. But A assumes that B is being cooperative and following the maxim of manner. B could have just said *open the front door* but he didn't, so the added detail must be necessary. In other words, B was being as perspicuous as he could be. And so A infers that B's elaborate details are somehow important.

Here's a more complicated example.

- (18) a. A: Where's Bill?
X: He's at Sue's house.
- b. A: Where's Bill?
Y: There's a yellow VW outside Sue's house
+> Bill might be at Sue's house

In (18a), A asks a question and X fully answers A's question. End of story. In (18b), A asks the same question but Y's reply is not literally relevant to the question. Nevertheless, A assumes Y is cooperating and observing the maxim of relation. So, A infers that Y's answer is relevant to Bill's whereabouts, the location of the yellow VW (outside Sue's house) is related Bill's location. Second, A assumes Y is observing the maxim of quality. So, A infers that Y does not believe or have enough evidence to state that Bill is outside of Sue's house. Finally, A assumes that Y is observing the maxim of quantity. Since Y used the less informative phrase *a yellow VW* rather than the more informative phrase *Bill's yellow VW*, A infers that Y does not know that the VW is Bill's. Taken together, the implicature is that Y thinks Bill might be at Sue's house.

The following is a general outline for working out conversational implicatures. This is different from what I presented in class. It is more streamlined and should be easier to work with.

(19) *Mechanics of Implicatures*

- i. The speaker has said that p
- ii. If by saying p, the speaker does not appear to be observing the maxims, literally, the addressee nevertheless assumes the speaker is observing the maxims
- iii. For S to say that p and be indeed observing the maxims, S must think q
- iv. S has done nothing to stop the addressee from inferring that q
- v. Therefore S intends the addressee to infer that q, and so in saying that p has implicated q.

4. Hedges and Flouting (Supplemental)

There is a way for the speaker to tactfully opt out of a maxim using a special word or phrase called a *hedge*. These hedges are used to signal the addressee not to read anything into the speaker's disregard of one of the maxims. Using a hedge, the speaker effectively says he is not implicating q.

(20) Hedge — a phrase that eliminates or at least mitigates one of the maxims.

- a. Quantity *As far as I know; I'm not sure if this is true, but...; I may be wrong, but... .*
- b. Quality *As you probably already know; I can't say any more; I probably don't need to say this, but... .*
- c. Relation *Oh, by the way; I'm not sure if this is relevant, but...; I don't want to change the subject, but... .*
- d. Manner: *I'm not sure if this is clear, but...; I don't know if this makes sense, but...; This may be a bit tedious, but....*

There is another way in which the speaker can signal to the addressee that he is going to ignore a maxim. It is called a *flout* and it too carries a conversational implicature, sometimes called a conversational implicature_F. Flouting a maxim is typically done by uttering something absurdly false, wholly uninformative, completely irrelevant, or abstruse so that the addressee understands the speaker is implying something entirely different. This is how metaphors get resolved.

(21) *Flouting*

A speaker who makes it clear that they are not following the conversational maxims is said to be **flouting** the maxims and this too gives rise to an implicature. That is, the addressee understands the speaker flouted the maxims for a reason and infers further meaning from this breach of convention.

Here are some examples.

(22) *Flouting Quality*

a. A: What if the USSR blockades the Gulf and all the oil?

B: Oh come now, Britain rules the seas! [sarcasm]

+> There is nothing Britain can do about it

b. A: Tehran's in Turkey, isn't it, teacher?

B: And London's in Armenia, I suppose

+> Tehran is not in Turkey

(23) *Flouting Quantity*

a. War is War

+> Terrible things happen in war. That's it's nature and there's no use lamenting that tragedy.

b. Either John will come or he won't

+> I don't care whether or not John comes

(24) *Flouting Relation*

a. A: (Letter of Recommendation) What qualities does John have for this position?

B: John has nice handwriting.

+> John is not qualified for the job

b. A: Susan can be such a cow sometimes!

B: Lovely weather, isn't it?

+> B finds A's comment inappropriate (for some reason or other)

(25) *Flouting Manner*

a. The Corner of John's lips turned slightly upwards

+> John did not exactly smile

b. Miss Singer produced a series of sounds corresponding closely to an aria from *Rigoletto*

+> Miss singer did not perform well.