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6 Is implicit communication a way to escape epistemic vigilance?

Abstract: The present paper focuses on conversational implicatures and presuppositions and attempts to provide an answer to the question of why we have them, given that they are costly for both the speaker and the hearer, relative to explicit communication. I examine some possible answers, in terms of Universal Grammar, of pragmatic minimax, of politeness and of plausible denial and find them either wanting or incomplete. My alternative proposal is that this type of implicit communication has all the features that allow a speaker to eschew or bypass epistemic vigilance, that is, the mechanisms that speakers and hearers have developed to avoid deception and manipulation.

1 Introduction

I will start with a caveat: this paper is not devoted to all implicit communication. It is, notably, *not* concerned with *pragmatic intrusion* (cf. Levinson 2000) or the use of pragmatic inferential processes in the determination of the propositional content of an utterance (cf. Carston 2002). The term *implicit communication*, in the way I am using it here, is to be understood strictly as referring to *presuppositions* and, among implicatures, to *conversational implicatures*. Let me illustrate with two examples:

(1) *John has stopped drinking.*

(2) *The pianist has played some Mozart sonatas.*

Though (1) explicitly communicates that John does not drink, it *presupposes* that John used to drink. And though (2) explicitly communicates that the pianist played at least some Mozart sonatas (which is compatible with the fact that he played *all* of them), it *conversationally implicates* that he played only some Mozart sonatas, and *not all* of them.

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In 2008, von Fintel and Matthewson published a paper, entitled 'Universals in semantics,' in which they point out that most candidates for semantic universals turn out either not to be universal, or to be in need of further empirical research. One exception to that skepticism over the existence of semantic universals,[1] however, is implicit communication. Thus, it seems that conversational implicatures and presuppositions (with a few minor variations for presupposition[2] that I will ignore here) are universal. So my point of departure is the universality of implicit communication or to put it more accurately, *the universality of conversational implicatures and presuppositions*.

The very existence of implicit communication, in the present restricted sense, is somewhat mysterious, because implicit communication seems to impose costs on both the speaker and the hearer that explicit communication does not. Regarding the speaker, the main cost associated with implicit communication has to do with the production of an utterance which runs greater risks of being misunderstood relative to the explicit communication of the same content. In other words, even if both the speaker and the hearer are competent, uptake is far from guaranteed. Additionally, all experimental work on implicatures has shown a greater cognitive cost for pragmatic interpretation, manifested in children by a lengthy developmental course for the production of pragmatic interpretations, and by greater reaction times, when compared to the production of semantic interpretations, in adults (cf. Bott and Noveck 2004; Bott, Bailey, and Grodner 2012; Noveck 2000; Noveck and Posada 2003).

This leads to the major question that I will try to answer in the present paper: *Why do we have implicit communication?* Here are a few potential answers to it, which I will turn to examine in the following section:

a. Implicit communication is part of Universal Grammar;
b. Implicit communication is the automatic product of general principles that govern the use of language in communication (e.g. *minimax* principles);
c. Implicit communication is used for social reasons.

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1 In von Fintel and Matthewson's paper, the notion of *semantics* is understood fairly widely and encompasses most, if not all, linguistic phenomena related to meaning, including some that would usually be categorised as pragmatic in nature.

2 von Fintel and Matthewson detail the single claim that presupposition is universal in three sub-claims: All languages allow their speakers to express aspects of meaning which (a) are not asserted, but somehow taken for granted; (b) impose some constraints on when an utterance is felicitous, and (c) project through certain entailment-cancelling operators. For some languages, the relevant items possess only properties (a) and (c).

2 Potential answers

2.1 Implicit communication as part of Universal Grammar

If implicit communication is part of Universal Grammar, one would expect it to be triggered automatically by the same linguistic items (be they words, expressions or constructions) in all languages where these items exist. A first problem with this arises when one looks at conversational implicatures. While some seem strongly linked to specific lexical items (e.g. the so-called *scalar* implicatures), quite a lot of them, and, more specifically, those dubbed particularised conversational implicatures, are not. Additionally, even for those that are linked to lexical items, a pragmatic interpretation is not mandatory, which seems to raise a problem for any view according to which they are grammatical in nature. Regarding presupposition, it is also unlikely that an appeal to Universal Grammar could be fruitful, given that "not all languages possess exactly the same presuppositional triggers" (von Fintel and Matthewson 2008: 179). For example, Jayez and van Tiel (2012) investigated *only* in three European languages: French, English and Dutch, demonstrating that it has different projection potentialities and can thus be deemed more strongly presuppositional in French and Dutch than in English. Against this backdrop, the prospects for a UG-based account of the existence of implicit communication seem fragile.

2.2 Minimax accounts

Minimax principles are basically economy-related principles based on the assumption that costs should be *minimised*, while benefits should be *maximised*. As noted by Horn (2004), a lot of approaches, from classical rhetorical prescriptions to post-Gricean through neo-Gricean accounts, can be understood as relying on minimax reasoning. In this section, I will focus on the neo-Gricean and post-Gricean versions of this reasoning.

2.2.1 Neo-Gricean accounts

Horn has been the most explicit neo-Gricean proponent of a minimax account for scalar implicatures, so I will concentrate on his proposal here. All in all, Horn's account is based on the Gricean Principle of Cooperation and its associated Maxims (see Grice 1989). However – and this is my main interest, Horn

retains the Quality maxim[3] and subsumes all other maxims under two principles, the *Q-principle* (that recapitulates the Gricean maxim of Quantity) and the *R-principle* (that recapitulates the Gricean maxim of Relation):

> *Q-principle*: Say as much as you can modulo Quality and R.
>
> *R-principle*: Say no more than you must modulo Q.

In his comments about these two principles, Horn explicitly refers to the economics of communication. So, he approaches the Q-principle as "a lower-bounding *hearer-based* guarantee of *sufficiency* of informative content" (Horn 2004: 13, emphasis mine), and the R-principle as "an upper-bounding correlate of the Law of Least Effort dictating *minimization* of form" (Horn 2004: 13, emphasis mine), essentially rendering it *speaker-based*. In other words, the Q-principle is hearer-based and aims at maximising interpretive benefit, while minimising interpretive cost and the R-principle is speaker-based and aims at minimising productive cost, while preserving interpretive benefit.

What is more, Horn insists on the importance of *form* over *content* in the generation of implicit meaning, most notably in his discussion of *categorical* sentences:

> A: All/Every F is G.
>
> E: No F is G.
>
> I: Some F is/are G.
>
> O: Not every F is G/Some F is not G.

As is well-known, A implies I, E implies O, while I implicates not-A and O implicates not-E. In relation to this, Horn says – and this is the heart of his brand of Neo-Gricean pragmatics: "Because the basic forms [A/E] are not only more informative, but *briefer* than their I/O counterparts, the use of the latter will strongly implicate against the former" (Horn 2004: 15, emphasis mine).

One could argue that minimax principles oriented toward both the speaker and the hearer, such as the balance of Q- and R-principles, could account for the emergence of scalar implicatures as follows:

> Satisfying both Q- and R-principles will necessarily lead to the emergence of scalar implicatures as a result of the pressure for making communication profitable (i.e. as a result of the pressure for communicating as much content as possible from as economic a linguistic form as possible).

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3 The Quality maxim enjoins the speaker to 'try to make his/her contribution one that is true' and is declined into two sub-maxims: 'Do not say what you believe to be false' and 'Do not say that for which you lack evidence.'

There are still problems with this proposal, however. The main one has to do with the fact that Horn considers all the costs of scalar implicatures for the hearer to be linguistic (inference is supposed to be cheap, if not free), but it is far from clear that this is actually the case. Experimental studies on scalar implicatures (cf. Bott and Noveck 2004; Noveck 2000; Noveck and Posada 2003) show that they are indeed quite costly to generate (and the *some*-implicatures have been extensively investigated), leading to their non-generation in an important proportion of cases (up to 40%, depending on the experimental paradigm). Thus, conveying more content with fewer or shorter words is far from being ensured despite the Q- and R-principles. If this is the case, it is also far from clear that hearer/speaker-based minimax principles, *à la* Horn, can successfully account for the existence of implicit communication.

2.2.2 Post-Gricean accounts

The most prevalent post-Gricean account is Relevance Theory (Sperber and Wilson 1995), which is basically concerned with interpretation rather than production; hence it is hearer-based. It can also be considered a Minimax account, since the very definition of *relevance* it puts forth is formulated in terms of cost and benefit. Roughly:

> An utterance is relevant
> – to the extent that its interpretation cost is low;
> – to the extent that its cognitive effects[4] are important.

The main tenet of Relevance Theory in relation to the present discussion is that any utterance, as an instance of *ostensive-inferential communication*, conveys the presumption of its own *optimal* relevance, or, in other words, conveys the presumption that *its cognitive effects will balance its interpretive costs*.

Relative to conversational implicatures, this means that, given the extra interpretive costs,[5] extra cognitive effects have to be present to balance the extra interpretive costs. Let's take an example:

(3) A: *Do you want some wine?*

B: *No, thank you.*

B': *I don't drink alcohol.*

4 The cognitive effects of an utterance would be on the benefit side of the Minimax.

5 In a major departure from neo-Gricean pragmatics, Relevance Theory does not consider inference to be cheap. For it, both linguistic decoding and pragmatic inferential processes are costly.

B and B' communicate the same content, to wit: *I don't want any wine*; yet, B communicates it explicitly, while B' does so implicitly. But, in addition, B' conveys (and B does not convey):

(4) B does not drink beer.

(5) B does not drink vodka.

(6) B does not drink whisky.

and so on and so forth. This suggests that conversational implicatures might merely be the result of the hearer-based relevance-theoretic minimax account: Because a straight answer ('*No, thanks*') only conveys *I don't want any wine*, while an implicit answer ('*I don't drink any alcohol*') conveys, in addition, the information that the speaker is a tea-totaller and would not want to drink any sort of alcoholic beverage, conversational implicatures occur as a result of the search for optimal relevance.

However, one may wonder whether comparing a direct answer with only one piece of information with an indirect answer with two or more pieces of information is the right comparison, as, in each case, both costs and effects differ. I do not think that it is, and I suggest that a more appropriate comparison would be one that keeps cognitive effects constant, such as that between the respective costs of '*No thanks, I don't drink alcohol*' and '*Thank you, I don't drink alcohol*.' Contrary to relevance-theoretic predictions, recent experimental data (cf. Bott, Bailey and Grodner 2012) obtained while comparing identical contents that have been implicitly and explicitly communicated (e.g. *Some elephants have trunks* vs. *Only some elephants have trunks*) in terms of reaction time measurements, indicate that, despite the additional linguistic material (here *only*), explicit communication is less costly than implicit communication,[6] when the cognitive effects are kept constant.

It should be noted, of course, that this does not mean that optimising relevance is not the right explanation for *how* implicatures are accessed. Rather, it means that optimising relevance may not be a satisfying answer to the question of *why* we have conversational implicatures. A potential counter-objection could be that conversational implicatures are produced because there is no other way to convey the information (as is, for instance, the case for live metaphors).

6 This has to be relativised: the experiment targets conversational implicatures, and more specifically, scalar implicatures. It is far from obvious that the results can be extended to other kinds of conversational implicatures beyond scalars, while they also have nothing to say about the pragmatic processes involved in the recovery of explicatures (or fully propositional explicitly expressed forms).

However, this is clearly not the case for at least some conversational implicatures, i.e. scalars. Hence the relevance-theoretic minimax cannot be the explanation for why we generally make use of conversational implicatures.

2.3 Implicit communication is used for social purposes

Social theories of why we have implicit communication are (again) centered on conversational implicatures. Two of the most popular such theories are Brown and Levinson's (1987) Politeness Theory and Pinker's Theory of the Strategic Speaker (Lee and Pinker 2010; Pinker 2007; Pinker, Nowak, and Lee 2008).

2.3.1 Politeness Theory

Politeness Theory was inspired by Goffman's (1967) notion of *face*, which can be defined as a positive social value that a person claims for himself/herself. Some speech acts, such as orders, threats, etc., pose a threat to the interlocutor's face and politeness is a way to deal with this problem. In this setting, Brown and Levinson propose that there are four ways of managing such face threats, which, from the least to the most efficacious, are: *positive politeness* (sympathy), *negative politeness* (deference), *indirect* speech acts and *off-the-record indirect* speech acts. While some claims of Politeness Theory have been confirmed, as, for example, the intuition that indirect speech acts sound more polite than their direct counterparts, face threat does not seem to lie on a single scale, with negative repercussions for Brown and Levinson's proposed scale of politeness: notably, off-the-record indirect speech acts are not perceived as more polite than indirect speech acts, and are also typically perceived as less polite than deferential politeness. Additionally, as noted by Pinker "veiled threats, oblique bribes, sexual come-ons are hardly examples of a speaker being polite" (2007, 443).

2.3.2 The Theory of the Strategic Speaker

Pinker's Theory of the Strategic Speaker is, in turn, based on the following diagnosis of what's wrong with Politeness Theory (and Gricean cooperation): "Like many good-of-the-group theories in social science, [it] assume[s] that the speaker and the hearer are working in perfect harmony" (Pinker 2007, 443). Based on the assumption that the speaker and the hearer's interests may indeed diverge, Pinker proposes instead a three-part theory, consisting of the logic of

plausible deniability, relationship negotiation, and language as a digital medium.[7] For my current purposes, it suffices to concentrate on the logic of plausible deniability, which is after all at the heart of the framework.

To this end, let's reproduce Pinker's (2007) example of a driver who is stopped by a police officer and decides to bribe him in order to avoid a fine.

Table 1: Payoffs of explicit bribing in the speeding driver situation

	Dishonest officer	**Honest officer**
Don't bribe	Traffic ticket	Traffic ticket
Bribe	Go free	Arrest for bribery

As Table 1 above shows, the driver can select one of two potential strategies. The first one, *Don't bribe*, will give the same (negative) payoff, i.e. a traffic ticket, whether the officer is honest or dishonest. However, when it comes to the second strategy, *Bribe*, the ethics of the officer are crucial in relation to the payoff: if the officer is dishonest, the driver goes scot-free (a positive payoff), while if he is honest, the driver goes to jail for attempted bribery (a much more negative payoff than a mere traffic ticket).

The main problem is then that the driver cannot know beforehand whether the officer is honest or not. Pinker's solution is to add a third strategy, *Implicate bribe*, which turns out to be optimal as it changes the payoff if the officer is honest; at worst, the driver will receive a traffic ticket, and will not face going to jail, which makes it worth her while to attempt bribery, as long as she merely *implicates* it.

Table 2: Payoffs of explicitly and implicity bribing the officer

	Dishonest officer	**Honest officer**
Don't bribe	traffic ticket	traffic ticket
Bribe	Go free	arrest for bribery
Implicate bribe	Go free	traffic ticket

Pinker has defended his Theory of the Strategic Speaker through a formal model (Pinker, Nowak and Lee 2008), as well as through a series of psychological experiments (Lee and Pinker 2010). There are, however, two problems with it. First of all, Pinker claims that it is incompatible with Gricean cooperation,

7 This last part is supposed to preserve deniability even in cases where the speaker's meaning seems fairly transparent.

as the speaker's interests may diverge from the hearer's interests. This seems misguided as regards the relevant mechanism of interpretation. Any view about implicit communication has to incorporate some mode of cooperation, whether Gricean or not Gricean, in the general sense that the speaker has to tailor her utterance to what she believes to be her hearer's abilities and preferences, if she wants to be understood. Equally, unless the hearer has some reason to think that her utterance will not be of interest to him, he should make the effort of trying to recover the speaker's meaning, again taking into account her own abilities and preferences. At least in this prudential sense, communication has to be mutualistic, i.e. the speaker's and the hearer's interests have to converge, if communication is to succeed. This, however, does not mean that, beyond the communicative episode itself, the interests of the speaker and the hearer may not diverge. They both may have further and more or less incompatible intentions. The second problem is that there may be more to implicit communication than just avoidance of institutional or social sanctions.[8] In this respect, the Theory of the Strategic Speaker is subject to the same objection of incompleteness that Pinker puts forth in relation to Politeness Theory; even though his account may explain quite a lot about conversational implicature use, it does not explain all of it. At the same time, it entirely ignores presupposition, which is included in the present inquiry.

2.4 Taking stock

As already mentioned in the first section of this paper, implicit communication is costly, both for the speaker who runs the risk of being misunderstood, and for the hearer who undergoes additional interpretive costs. This raises the question of why we resort to implicit communication (in the current setting, presuppositions and conversational implicatures) at all, given that, in most, if not all, cases, we could convey what we intend to communicate using explicit means, which would be less costly for both the speaker and the hearer.

Having examined a number of answers to this question, we have found them wanting:

- Structural explanations in terms of Universal Grammar fail in as much as conversational implicatures seem to be at most only weakly linguistic;
- Explanations in terms of the economics of communication fail because implicit communication is more costly than the proponents of this view claim it to be;

8 As exhibited in Pinker's discussion of the example of sexual innuendos, mentioned in the previous subsection.

- Finally, social explanations, though basically sound, are incomplete in two ways:
  - they only account for conversational implicatures at best;
  - they do not account for all uses of implicatures.

That said, going for a social account that might incorporate or complete Pinker's Strategic Speaker Theory seems like the most promising road. One of the limitations of the Strategic Speaker Theory, however, is that, from a social point of view, it targets specific social phenomena where implicit communication is used to avoid institutional or social costs. More precisely, the speech acts concerned seem to be mainly of the directive sort (e.g. orders or requests), while implicit communication can occur in any variety of speech acts, including, not least of all, constatives (e.g. assertions).

3 Epistemic vigilance and implicit communication

The use of implicit communication in constatives may be due to politeness considerations (e.g. the speaker wants to contradict her hearer's previous utterance without thereby hurting his "face"), but, again, this seems too restricted to account for all the use of implicit communication in constatives. Additionally, as Pinker rightly pointed out, Politeness Theory takes for granted that the speaker's and the hearer's interests necessarily converge in communication, which is at best doubtful: as already mentioned above, they *converge inside* the communication process in a prudentially mutualistic way, but may *diverge in the further respective motivations of the participants*.

This may be the place to note that most accounts of communication are extremely sanguine as to the social attitudes of communicators: these are usually described as "altruistic" (rather than merely – and more reasonably – mutualistic), and it is not always obvious what exactly is meant by that and on what basis this characterisation is given. So, let's first clarify what is at stake here.

3.1 Social attitudes and varieties of social interactions

An important first step is to give a definition of the relevant social attitudes, something that is all too rarely attempted in accounts of communication. Such definitions have been pursued in biology (see, for example, Trivers 2002), in terms of evolutionary fitness. It is, however, still possible to give a definition

in terms of the protagonists' respective interests, couched in terms of cost and benefit. Basically there are four relevant social attitudes:

- *Mutualism*, which occurs when a cooperative or collaborative action is directly beneficial to both participants;
- *Altruism*, which occurs when a cooperative action is beneficial to the recipient, but costly for the agent;
- *Exploitation*, which occurs when a manipulation is beneficial for the agent, but neutral (neither costly nor beneficial) for the recipient;
- *Free-riding*, which occurs when a manipulation is beneficial for the agent and costly for the recipient.

As follows from the definitions, these attitudes manifest themselves in different kinds of interactions, which will typically involve communication of some sort, but which are not necessarily communicative in nature. These include:

- *Collaboration*, which occurs when an activity is performed by several individuals, and where the behaviour of each participant is coordinated with the activity of the other participants, with all participants having a common goal;
- *Cooperation*, which occurs when an agent does something beneficial for the recipient;
- *Manipulation*, which occurs when an action by an agent toward a recipient leads the recipient to perform an action that the recipient might otherwise not have performed, and which is beneficial for the agent.[9]

According to these definitions, cooperation may be either altruistic or mutualistic. There is, thus, no reason to deduce from the fact that human communication involves cooperation that it is altruistic. Indeed, as argued in section 2.3. above, there is good reason to think that it is mutualistic.

Its being mutualistic, however, does not preclude the communicators from entering the communication process with other, less savory motivations and social attitudes, such as exploitation and free-riding. These attitudes, which are typical of manipulation, may lead humans[10] to aim at changing one another's mental states (e.g. beliefs or desires) in order to induce specific actions. This may, but need not, involve deception. But, in any case, it is to the advantage of the audience to be at least mildly cautious about what it is told, especially given

9 Note that, in manipulation, communication is necessarily involved.

10 In non-human animals the motivation is usually considered to bear directly on the other's behaviour.

the possibility of decoupling,[11] which makes deception easier (cf. Trivers 2011). As proposed by Sperber et al. (2010), this has probably led to the development of a range of mechanisms dedicated to *epistemic vigilance* in human cognition.

3.2 Epistemic vigilance

According to Sperber et al. (2010), there are two grounds for epistemic vigilance. First, as mentioned above, the interests of the communicators may diverge rather than converge (beyond the prudential mutualism and cooperation entailed by successful communication), leading to manipulation and, occasionally, to deception. Second, as Mercier and Sperber (see Mercier 2009; Mercier and Sperber 2011) have convincingly argued, human reasoning is, first and foremost, dedicated to argumentation, i.e. to persuading one's audience that one's own opinion is better than the audience's. This implies cognitive mechanisms for both the production of reasons and the evaluation of reasons produced by others. It also suggests that human reasoning and language co-evolved. In this respect, it seems that one of the two components of human reasoning, the evaluation of others' reasons, is already a tool for epistemic vigilance. Two additional detection mechanisms of epistemic vigilance target respectively:

- the *source*: is it reliable and competent?
- and the communicated *content*: is it compatible with previously held assumptions?

Thus, though epistemic vigilance is, up to a point, costly, some of its costs are mandatory, given that the mechanisms concerned are part of the interpretation process. In most cases, this will be true of the verification of compatibility, as far as the propositions in the context are concerned, since interpretation is always context-based (regardless of whether or not the utterance includes an implicature or a presupposition). This may be further extended to propositions beyond the context in cases where the source is of dubious credibility. This maximal sort of vigilance, however, is unlikely to be permanent, given its costs. It will vary with the relevance of the communicated content: the more relevant it is, the more effort the hearer should invest in processing it and the more vigilance he should exercise. Nonetheless, some minimal epistemic vigilance is always present, which probably explains why young children, despite being

11 Decoupling has to do with the possibility of referring to an object or describing a situation in the absence of the object referred to or the situation described.

generally trustful, can detect and reject some misinformation (see, for example, Harris 2012).

This quick sketch of epistemic vigilance suggests that, in a classical arms race, speakers should have developed mechanisms to overcome it. In what follows, I will suggest that implicit communication has developed, at least in part, to eschew epistemic vigilance. Before I do so, however, I want to first point out that there is at least one other relevant mechanism that, though not strictly speaking part of epistemic vigilance, complements it all the same.

3.3 The egocentric bias

Even though manipulation may be deceptive in the information communicated, it arguably need not be: one may give true, but incomplete information, leading one's addressee to a misguided decision or an incorrect belief. Now, since the information at hand is true, this manipulation will not be detected by compatibility checking. In such cases, it may be in the addressee's interest to stick as far as possible to his own opinion. My hypothesis is that this is the root of the *egocentric bias* described by Mercier (2009), that is, a preference for one's own over communicated beliefs. In other words, the egocentric bias steps in, as a supplementary mechanism, where epistemic vigilance might be non-operant. Even though it has to be limited, as one's own opinion might turn out to be misguided, in the sense that it can be overturned by strong enough evidence to the contrary, it is nevertheless extremely widespread. In this respect, the egocentric bias makes sense as a defense mechanism not so much against deception, as against non-deceptive manipulation.

3.4 Implicit communication as a mechanism to bypass epistemic vigilance and associated mechanisms

Taking stock, there are a few interesting consequences of both epistemic vigilance and the egocentric bias for our inquiry of why we have implicit communication:

- people will tend to hold more strongly to conclusions that they have reached themselves;
- people will tend to be less epistemically vigilant toward information on the truth of which speakers do not seem to commit themselves, that is, information that is not asserted;

– people will tend to be less epistemically vigilant toward information that is *not* presented to them as a reason to change their own beliefs or decisions, that is, information which is not perceived as communicated with a manipulative or argumentative intention.

In what follows, I wish to argue that varieties of implicit communication have all or most of these characteristics. This leads me to my main hypothesis, which I will call the *Manipulation Hypothesis*:

> Implicit communication (i.e. conversational implicatures and presuppositions) has emerged in order to facilitate manipulation and argumentation, by allowing the speakers to hide their intentions, avoid epistemic vigilance and bypass the egocentric bias.

Though the hypothesis covers both conversational implicatures and presuppositions, the mechanisms involved in each are rather different, as we will now see.

3.4.1 Commitment

Let's first look at an example of conversational implicature:

(7) A: *Do you know where Anne lives?*

B: *Somewhere in Burgundy I believe.*

The conversational implicature of B's answer is that B does not know where exactly Anne lives. Note that B may know this perfectly well, but may not want to share this information so that A does not write to Anne or visit her. By using a conversational implicature, B can hide her intention to not give A this piece of information, or even later deny having had that intention in the first place. Furthermore, *B can deny having meant that she did not know where Anne lives* as well.

All of this comes from the fact that implicatures are *defeasible*. In fact, B could even cancel her implicature in the very same utterance, as shown in (8), without rendering it contradictory or problematic in any way:

(8) *Anne lives somewhere in Burgundy, in Cluny as a matter of fact.*

This non-contradictory defeasibility of conversational implicatures has a consequence for *commitment*: The speaker of an utterance that communicates a conversational implicature does not commit herself to the truth of this implicature, but to the truth of the utterance's explicit content.

Let me quickly outline what I mean by commitment. In order to do so, I will go back to Pinker's example of the driver bribing the police officer, presented in section 2.3.2. above. In deciding to bribe the officer, she can do so either explicitly, as in (9), or implicitly, as in (10):

(9) *Here, Officer, how much would you want to forget about my exceeding the speed limit?*

(10) *I am awfully sorry, Officer! Couldn't we solve this little misunderstanding in a civilised way?*

The difference between the two options is that the speaker of (9) makes it undeniable and mutually manifest to both herself and the officer that she is offering a bribe to him. So to speak, she puts herself on record as having done so, or, to put it more simply, *commits* herself to having offered a bribe. On the other hand, in uttering (10), she does no such thing.[12]

This has a few consequences. For one, if you conversationally implicate something you know to be false, you are not thereby strictly speaking lying. Then, your hearer will be much more vigilant toward what you have explicitly communicated, which may well be true, than toward the content that you have conversationally implicated because:

- you haven't committed yourself to the truth of that content;
- it is a content that he has reached by himself (in other words, his own conclusion) and it is thus favoured by his egocentric bias.

Turning to presuppositions, things are rather different. Consider, for example, the exchange in (11):

(11) A: *I have decided to give John the manager job.*

B: *That's an excellent idea, especially now that he has stopped drinking.*

Here, the presupposition is obviously that *John used to drink*. Again, B can claim that she has no hostile feelings toward John and no intention to change A's decision; on the contrary, she can even point out that she has praised A's choice. What she cannot do, however, is deny having meant that John drank.

12 This is the heart of the logic of plausible deniability. It also explains why one cannot have Moore's paradox (e.g. *It rains and/but I don't believe it rains*) over an implicature. That is why *Anne lives somewhere in Burgundy and/but I know exactly where* may be long-winded, but there is nothing pragmatically weird about it.

Indeed, one major difference between conversational implicatures and presuppositions is that presuppositions are not defeasible. That is why an utterance like (12) is undeniably strange:[13]

(12) *?John has stopped drinking and he never drank in his life.*

So, clearly, presuppositions do not work in the same way as conversational implicatures do. Nevertheless, the presupposed content is still not on a par with the explicitly communicated content. In other words, *John has stopped drinking* is not equivalent to (13):

(13) John does not drink and John used to drink.

3.4.2 The layering of information

One should note that, in an utterance with a presupposition, the presupposed content is not available for continuation with a causative (e.g. *because*), while the explicitly communicated content is (cf. Ducrot 1972; Jayez 2010, 2015). Thus, while (14), where the continuation with *because* bears on the explicit content '*John doesn't drink*', is fine, (15), where the continuation with *because* bears on the presupposed content '*John drank*', is not:

(14) *John has stopped drinking because his doctor told him to do so.*

(15) *?John has stopped drinking because he liked the feeling of euphoria alcohol gave him.*

Admittedly, this is a common feature of both presuppositions and conversational implicatures. For instance, (16), where the relevant continuation with *because* bears on the explicitly communicated content (*Anne lives somewhere in Burgundy*), is fine, whereas (17), where it bears on the implicature (*I don't know exactly where*), is not:

(16) *Anne lives somewhere in Burgundy, because she likes that part of France.*

(17) *?Anne lives somewhere in Burgundy, because I was never told exactly where.*

13 In connection to the previous footnote, it is clear that in contrast with conversational implicatures, presuppositions can be the target of a Moorean paradox. So, unless interpreted metalinguistically, as a denial of a content previously communicated by someone else, *John has stopped drinking and/but I don't believe that he ever drank* is clearly strange.

In other words, in both presuppositions and conversational implicatures, there is a layering of information to the effect that the implicitly communicated information (be it a presupposition or an implicature) is not salient and available to the same degree. Thus, the hearer may not be aware to the same degree of the two sorts of contents, which effectively allows them to escape the radar of epistemic vigilance.

One, however, could object to this argument, by suggesting that continuations on the implicit content are possible with other connectives, such as *but*,[14] as there is nothing wrong with either (18) or (19):

(18) *John has stopped drinking, but he liked the feeling of euphoria alcohol gave him.*

(19) *Anne lives somewhere in Burgundy, I believe, but I was never told exactly where.*

So, it might be that the weirdness of (15) and (17) is linked to the semantics of *because* rather than to the implicit or explicit way in which the content it picks up on is communicated. To my mind, however, this is not an argument against the layering of information, since some connectives may have wider access to different layers of content than others. If this is correct, accounting for their behaviour can still not eschew an appeal to layered contents.

3.4.3 Implicit content as the hearer's conclusion

Indeed, the possibility of a continuation with *but* bearing on the implicitly communicated content does not only sustain the layering of information proposed above, but also opens up another perspective on the specificity of implicit communication and the opportunity it offers for bypassing epistemic vigilance and the egocentric bias. According to Ducrot (1972, 1980), there is a contrast between two uses of *but*[15]: the rectificative use (usually following a negative first component), as in '*Jean is not Belgian, but French*', and the use illustrated in (18) and (19) above. With respect to the latter (*p but q*), Ducrot provides an analysis that is directly relevant here: *q* contradicts not *p* itself, but a certain conclusion, *r*, that can be derived from *p*. Additionally, *q* is a stronger argument against *r* than *p* is for *r*. This elegant account is full of interesting implications for

14 Thanks to Didier Maillat for having pointed this out to me in the discussion following my talk at the Intercultural Pragmatics Conference in Malta (30 May–1 June 2014).

15 Ducrot also noted that in some languages such as German and Spanish (though not in French or English), these two uses correspond to two different words: *sondern* and *aber* in German, *sino* and *pero* in Spanish (1980: 11).

the analysis of implicit communication, and notably of presupposition. So, let's come back to examples (18) and (19), reproduced here for convenience:

(18) *John has stopped drinking, but he liked the feeling of euphoria alcohol gave him.*

(19) *Anne lives somewhere in Burgundy, I believe, but I was never told exactly where.*

(18) conforms entirely to Ducrot's analysis, since *but* picks up on the presupposition *John used to drink* and not on the explicitly communicated content *John doesn't drink now.*

Notably, a continuation with *but* on the explicit content would be unacceptable:

(20) *?John has stopped drinking, but his doctor told him to do so.*

Interestingly, on the only interpretation that would make (20) acceptable, *but* would not pick up on the explicit content (*John doesn't drink now*), but rather on another potential conclusion, i.e. that *John decided on his own to stop drinking*. What this suggests, given Ducrot's analysis, is that it is because of the presupposition being a conclusion that can be drawn from '*John has stopped drinking*' that (20) makes perfect sense in this context.

Conversely, it is for a rather different reason that (19) is also fine: it is not because *but* picks up on the implicature *I don't know exactly where*, but rather because it picks up another conclusion that can be drawn from '*Anne lives somewhere in Burgundy, I believe*'. This alternative conclusion is that B knows precisely where Anne lives. Now, at face value, this might seem mysterious, since the conclusion *I know exactly where* seems less accessible than the implicature *I don't know exactly where*; yet, this is most likely where defeasibility, a major factor that differentiates between conversational implicatures and presuppositions, comes in. It is therefore defeasibility, which concerns exclusively the implicature and not the alternative conclusion, that seems to make the difference as far as *but* is concerned. This is further corroborated if one looks at scalar implicatures[16] too:

16 Here, it should be noted that a continuation with *because*, picking up on the implicature, is possible for scalars, as (i) below shows:

(i) *The pianist has played some Mozart sonatas, because he had little time.*

This may have to do either with the distinction between *strongly communicated* and *weakly communicated implicatures* proposed by Sperber and Wilson (1995), or with the fact that scalar implicatures may belong to the level of *explicature* (see Carston 2002), in the sense that they belong to the pragmatically enriched proposition that an the utterance explicitly expresses.

(21) *The pianist played some Mozart sonatas, but he had little time.*

Again, in (21) *but* seems to not pick up on the implicature *he did not play all of them*, but on an alternative conclusion directly derived from the utterance's explicit content (in which *some* is interpreted as *at least some*), i.e. *He played all Mozart sonatas*.

If this is right, Ducrot's analysis has to be complemented: the conclusion *r*, which *q* contradicts, cannot be defeasible, i.e. it cannot be an implicature. Of course, this does not mean that implicatures are not conclusions that the hearer reaches by himself, but rather that they are not among the conclusions that the hearer reaches by himself *and* that are available for continuation with *but*. In this respect, presuppositions, like implicatures, are also conclusions that the hearer reaches by himself.

3.4.4 Summing up

In conclusion, apart from the three different features which were indicated in the opening part of section 3.4 as those allowing communication to eschew epistemic vigilance and bypass the egocentric bias, differential accessibility should also be added to the list. This gives us the following list:

a. The fact that the information is perceived by the hearer as his own conclusion rather than as information coming from someone else;
b. The absence of speaker's commitment relative to the truth of the information;
c. The accessibility of the information (due to the layering described in section 3.4.2);
d. Hiding one's manipulative or argumentative intentions.

As I have argued in this paper, both presuppositions and conversational implicatures allow the speaker to hide her argumentative or manipulative intentions (condition d), and both of them are less accessible than the explicit content (condition c), as well as perceived by the hearer as his own conclusion rather than as information coming from the speaker (condition a). It is only conversational implicatures and not presuppositions, however, which allow the speaker to withdraw her commitment to the truth of the implicitly communicated content (condition b). Thus, implicit communication seems to be calibrated for eschewing epistemic vigilance and the egocentric bias, which in turn strongly supports the Manipulation Hypothesis.

4 Conclusion

Implicit communication is obviously more costly than explicit communication for both the speaker and the addressee, since it increases the risk of misunderstanding, making it less sure for the speaker to secure the hearer's uptake, and demanding greater efforts on the hearer's part to attain uptake too. On the other hand, explicit communication is interpretively cheaper and offers a greater guarantee of success. Finally, though it might be argued that implicit communication might be the only way the speaker has to communicate her intended content, this seems to hold only in relation to rather specific cases, such as metaphor, and can hardly be the case for scalar implicatures and presuppositions.

Against this background, the question of why we have implicit communication in the form of conversational implicatures and presuppositions arises. In this paper, I examined and found wanting a number of potential answers to this question: that implicit communication is part of Universal Grammar, that it is a result of the economics of communication, or that it emerged to allow politeness. Among these, only Pinker's Strategic Speaker Theory seems to be on the right track, but lacks generality.

In an attempt to provide a more plausible answer to the question at hand, I broadened the putative function of implicit communication beyond the avoidance of social sanction, to include a wider function of eschewing epistemic vigilance and bypassing the epistemic bias. After listing a number of features that allow speakers to do this, I showed that all of them are found in one form or another of implicit communication. While this on its own may not confirm the hypothesis that implicit communication emerged to allow speakers to bypass vigilance, it still strongly supports it.

In closing, I would like to add a final argument, even though, due to space restrictions, I can hardly discuss it as extensively as it deserves to be discussed here. If the Manipulation Hypothesis is right, implicit communication emerged as part of an arms race, which in turn raises the further question of why a counter-mechanism restoring vigilance was not also developed. A tentative answer to this question is that such a mechanism does exist and is actually responsible for the relatively low rate of pragmatic answers in experiments targeting scalar implicatures (where speakers give up to 40% of semantic interpretations depending on the paradigm). Though no one would expect hearers to be at ceiling for other, non-scalar types of conversational implicatures, one would expect them to be at ceiling for scalar implicatures, given that they are, after all, dependent on particular lexical items. Yet, the best rate obtained never seems to go past 80% (see, for example, Bott and Noveck 2004; Bott, Bailey and

Grodner 2012; Noveck 2000; Noveck and Posada 2003), even when there is a context that strongly encourages the hearer to draw the implicature. A possible explanation is that this is due to a defense mechanism along these lines. Rather than extending their epistemic vigilance, and increasing even more the interpretive cost for conversational implicatures, hearers just ignore them in a number of cases. While this is only a speculative explanation at this stage, I believe that it can provide an answer to what, on the face of it, seems to be an enigma, while at the same time going one step further in support of the manipulation hypothesis.

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