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# Pragmatics, propositional and non-propositional effects: can a theory of utterance interpretation account for emotions in verbal communication?

***Abstract.*** *This article is about pragmatics and emotion. The main purpose of pragmatics is to account for utterance-interpretation processes in verbal communication. In recent years much of pragmatics research has been devoted to the understanding of propositional effects; that is, to cognitive effects on mental representations with propositional forms such as implicatures and explicatures. Little energy has been devoted to non-propositional effects; that is, to pragmatic effects that have no propositional formats and are mainly associated with emotional reactions such as fear, pleasure, joy, anguish, etc. Utterances are, however, often the causes of such non-propositional effects. This paper presents a general framework, Relevance Theory, which could account for non-propositional effects. The limits of these theoretical approaches are also exposed.*

***Key words.*** *Emotion – Implicatures – Pragmatics – Propositional and non-propositional effects – Relevance*

***Résumé.*** *Cet article a pour objet les relations entre la pragmatique et les émotions. Le but principal de la pragmatique est de rendre compte du processus d'interprétation des énoncés dans la communication verbale. Ces dernières années, une grande part de la recherche en pragmatique a été consacrée à la compréhension des effets propositionnels, à savoir les effets cognitifs sur les représentations mentales à forme propositionnelle comme les implicitations et les explicitations. En revanche, peu d'énergie a été consacrée aux effets non propositionnels, c'est-à-dire aux effets qui n'ont pas de format propositionnel et qui sont principalement associés à des réactions émotionnelles comme la peur, le plaisir, la joie, la colère, etc.*


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*Les énoncés sont cependant souvent la cause de tels effets non propositionnels. Cet article présente un cadre général, la Théorie de la Pertinence, qui peut rendre compte des effets non-propositionnels. Les limites de cette approche théorique sont aussi discutées.*

***Mots-clés.*** *Effets propositionnels et non-propositionnels – Emotion – Implicatures – Pertinence – Pragmatique*

## 1. Introduction

It is a matter of common sense to claim that emotion has a strong connection to language. It is also widely accepted that verbal communication is causally linked to emotions. In verbal communication, we can be either attracted or repelled by the verbal behaviour of the communicator. In fiction, the reader can be attracted to, frightened by, or deeply enjoy what he or she is reading. The issue I would like to address is not so much the relation between language and emotion – a considerable research issue in itself – but rather a much more precise question: How can a theory of verbal communication account for non-propositional effects? The initial proposition of this article is as follows: Let us suppose that we have a good theory of utterance interpretation; that is, a theory that will make good predictions on how and why hearers reach certain utterance interpretations, as opposed to alternative interpretations. Let us also suppose that the cognitive processes underlying those interpretive processes are correctly described and explained. Now let us suppose that the format in which those interpretations are delivered is propositional; that is, based on non-demonstrative deductive inferences. The following question may then be posed: Is such a model of utterance comprehension capable of accounting for non-propositional effects; that is, effects which do not trigger mental representations, but which do trigger emotions?

Put in these terms, the question is a rather tricky one. It presupposes that the same theoretical basis will be able to make good predictions based on the logical part of utterance processing, as well as on predictions based on the non-logical part of this processing. This premise may be false for a variety of reasons: for instance, one could imagine that emotions are not located in the same cerebral areas and thus are caused by different types of stimuli and produce different types of effects, which in turn might or might not be connected with more rational or logical processes. This view, which is upheld mainly by researchers in cognitive science such as Damasio, would imply that, if language is connected with emotion (which is certainly true), different cognitive functions and functional cerebral areas would be the cause of propositional and non-propositional effects.

I would like to defend the claim that this issue is mainly an empirical one, and that the state of current research cannot give a precise picture of how emotions are linguistically connected to rational and inferential processes. A different viewpoint would be to examine how theories of utterance interpretation can account for representational and non-propositional effects. The main hypothesis of this article is that representational and non-representational effects are intrinsically connected.

This hypothesis is common sense. If emotion can be triggered by events, language use could be considered a release mechanism for such mental states. But the difficulty of such an outcome arises from the large range of means available to communicate non-propositional mental states and to produce non-propositional effects. For instance, intonation gives clues to hearers about the mental state of the speaker, but there is no clear explanation for how different linguistic resources (lexicon or syntax, for instance) can be conventionally connected to the communication of non-propositional mental states.

If one adopts the pragmatics point of view, one restricts the issue to understanding how hearers process their comprehension of the speaker's informative intention. According to this view, it is also possible to question the way in which non-propositional effects can interface, in the course of utterance processes, with classical propositional ones.

In Section 2, I briefly introduce the pragmatics paradigm as related to linguistics and cognitive sciences. Section 3 is devoted to the classical question of the interface between linguistics and pragmatics. Section 4 introduces the main changes in the way pragmatics describes verbal communication and explains why linguistic communication is inferential. Section 5 demonstrates how communication, through the concept of relevance, is related to cognition. Section 6 presents two types of cognitive effects: propositional and non-propositional. Section 7 addresses the question of how these two types of effects can be handled in a pragmatics theory of utterance interpretation. Finally, Section 8 addresses the issue of the interaction between propositional and non-propositional effects in the course of utterance interpretation.

## 2. Where does pragmatics come from?

The classical view of pragmatics, set forth by Morris in 1971, defines pragmatics as a component of semiotics that deals with the relationship between signs and their users. As such, pragmatics intervenes as the last component in a decoding process, after syntax and semantics, whose function is to connect signs and their referents. The current view of pragmatics is rather

different, and belongs to another tradition, whose origins lie in philosophy of language. According to certain formal approaches (set forth by Wilson, 1975; Levinson, 1983; Moeschler & Reboul, 1994; Reboul & Moeschler, 1998; Moeschler, 2009, for instance), the origins of pragmatics are linked to the old debate on presupposition (Russell, 1905; Frege, 1952), the Oxonian speech act paradigm (Austin, 1962; Searle, 1969) and more recently to the Gricean view of meaning and communication (Grice, 1989; see Moeschler, 2009, ch. 1, for a short conceptual history of pragmatics).

According to the more contemporary approach, pragmatics is seen as a theory of meaning whose main claim is that linguistic meaning does not exhaust the speaker's meaning. In other words, pragmatics tries to give a formally and theoretically complete explanation of the issue of the conflict between the conventional meaning of a sentence and its meaning in a specific context. The goal of pragmatics as a theory of language use, therefore, is to explain this gap. Two questions must now be addressed: 1. How is it possible for a hearer to infer the speaker's meaning from the sentence's meaning? 2. Why does the speaker not explicitly and directly convey his informative intention, rather than using indirect linguistic means to do so?

The answers to these questions are common sense and should be obvious. For instance, one might imagine that social settings explain why speakers use indirect means or that speakers, because of a psychological bias, seek indirect ways of communicating their intentions. The social explanation of this question is not convincing, however, because it would be necessary to assume that features of the social settings have causal properties, and that these exist in order to exert sufficient pressure on the speaker's communicative behaviour as related to his or her informative intention. The psychological explanation is much more interesting, but I would like to limit it in cognitive terms. What must be explained now is how an indirect route could provide more efficient communication in cognitive terms.

Everyone remembers Snoopy's great idea: that there is no problem that cannot be solved. In order to get from A to B, it is sometimes easier to take path C; that is, to take an indirect route. Coming up with a theory of utterance interpretation is not a simple task. But it can be restricted to a clear-cut debate; that is, the semantics–pragmatics interface.

## 3. The semantics–pragmatics interface

Semantics is defined here as the domain of the linguistic system that produces conventional representations of linguistic meaning. The main issue is as follows: How can linguistically encoded information contribute to the

sense of the utterance; that is, to the speaker's meaning? This question presupposes what we referred to above as common sense. There is, in other words, a gap between the sentence's meaning and the speaker's meaning (see Searle, 1979, for a classical explanation). The second question to be answered is, therefore: How does utterance meaning differ from sentence meaning?

These two questions presuppose what pragmaticists have defined as the under-determination of linguistic meaning. In other words, utterance meaning is linguistically under-specified, or to put it another way, an utterance conveys more than the meaning of the sentence that is actually used.

For example:

(1) I am tired.
(2) The weather is fine.
(3) He's asking me for something again.

All these utterances are understandable in context: they are unambiguous and their meaning is crystal clear, but they are all incomplete. More complete versions of the speaker's meaning follow (pragmatic enrichments are given in brackets):

(4) I [Jacques] am [too] tired [to prepare the meal].
(5) The weather is fine [at Sainte-Cécile on Thursday, 4 February].
(6) He [the dean] is asking me [Jacques] [to write the commission report].

These enrichments are free: they are not structurally constrained, and they assume that the hearer can access the referents of deictic and anaphoric pronouns or access the unarticulated constituents, as in (5). Example (4) shows how incomplete utterances are linked to partial and shared information in linguistic communication. In order to give a more precise explanation of the two questions we have addressed in this section, we must now examine how linguistic communication works.

## 4. Verbal communication

Modern pragmatics, and specifically Relevance Theory (Sperber & Wilson, 1986), makes a very strong claim: Verbal communication, it states, cannot be reduced to a coding–decoding process, because it is a mixed process including both coding–decoding and inferential processes. In order to explain how verbal communication works, two models of communication must therefore be used: 1. The code model explains how natural languages associate strings of sounds and meanings. 2. The inferential model explains how linguistic meanings are enriched or developed in contexts.

Although verbal communication is a mixed process – that is, a code as well as an inferential process – it is also an ostensive one. It is for this reason that Sperber & Wilson refer to linguistic communication as ostensive-inferential communication. In ostensive-inferential communication, the speaker, through his act of communication, makes his communicative intention ostensive to the hearer. The hearer, by acknowledging the speaker's communicative intention, infers his informative intention, or what the speaker wishes to communicate with his utterance.

Here is a very simple example, which explicitly illustrates the difference between sentence meaning and speaker meaning. If I tell my youngest son, aged 10 years, that he has to brush his teeth after dinner, my real purpose is to tell him to go to bed:

(7) Jacques: Axel, go brush your teeth.
Axel: Daddy, I'm not sleepy.

It is clear that Axel's reply is a refusal: he does not want to brush his teeth and then go to bed. He perfectly understood my informative intention, which was to tell him to go to bed. How did I infer this interpretation? The inferential explanation attributes beliefs to Axel; that is, that propositions are necessary to draw correct conclusions. Example (8) states the beliefs attributed to Axel and (9) the conclusions that I drew from these beliefs and his utterance:

(8) a. One goes to bed when one is sleepy.
b. One brushes one's teeth before going to bed.
(9) a. Axel refuses to brush his teeth.
b. Axel does not want to go to bed.

Now, this general format is not random, and intervenes in many cases. In other words, for reference assignment (10–11) and invited inference (12), for instance, the correct interpretation is a by-product of linguistic information, contextual premises and deductive processes:

(10) They're still raising taxes.
(11) The boss fired the worker because he was a communist.
(12) If you cut the lawn, you'll get 10 euros.

In (10), 'they' refers to the authorities in charge of taxes (for instance the Geneva State Council); in (11), 'he' refers either to the boss or to the worker, depending on the speech situation (in Communist Russia or the United States); finally, in (12), the hearer understands (13a) and not (13b), which would be true according to propositional logic.[1]

(13) a. If you don't cut the lawn, you won't get 10 euros.
b. If you don't cut the lawn, you'll get 10 euros.

Even when these examples are correctly interpreted by researchers and brought together in a general theory of language use, a pressing question remains: How does the hearer understand more than the meaning of the words and sentences? Three answers are possible, from a logical point of view:

First of all, hearers simply guess at utterance meaning. If this were true, hearers could be described as either very lucky or excellent guessers, because verbal communication generally succeeds. This explanation is therefore not a very good one, because is does not explain anything: inferential communication would be defined as randomly successful according to this theory, which is very difficult to accept.

The second answer is more plausible, but gives rise to many objections: it states, in effect, that speakers can use non-linguistic codes alongside linguistic code to access the speaker's meaning. According to this perspective, the propositions in (8) would belong to Jacques and Axel's family social code, which is probably shared by many occidental families. The problem, however, is that these social codes are difficult to explain: where do they come from? And although some beliefs are socially grounded, certain contextual hypotheses do not belong to any social code. For instance, Mary's informative intention in (14), below, is not accessible through any social code, but only through specific encyclopædic information and the specific context of communication (does Mary need to be awake all night or does she need to go to bed early?):

(14) John: Do you want some coffee?
Mary: Coffee would keep me awake.
(Sperber & Wilson, 1986: 34)

The third answer is the generally accepted one according to cognitive pragmatics theory: speakers are mind-readers to a greater or lesser degree. In other words, the inferential capability used in interpreting utterances is based on a more general cognitive faculty, which Sperber & Wilson (2002) refer to as 'mind-reading'. This faculty is based on what cognitive psychologists (Baron-Cohen, 1995) call the Theory of Mind (ToM).[2]

It has become clear that the inferential property used in utterance interpretation is neither a specific linguistic ability nor an extra-linguistic one. It is instead a basic cognitive ability. Interestingly enough, it can be imagined that this inferential faculty is older than the faculty of language. This hypothesis is explicitly formulated by Sperber & Origgi (2005). In their scenario of language evolution, they hypothesize that inferential capability was already present when natural language emerged: language faculty resulted in no new advantages of adaptation, and was merely a new, biologically inherited trait.

## 5. Communication and relevance

The preceding sections set forth some arguments for an inferential approach to verbal communication. According to these perspectives, language should not be logically associated with communication. The final issue to be addressed is how language can be connected to communication.

According to cognitive pragmatic approaches to language use, such as Relevance Theory (Sperber & Wilson, 1986; Carston, 2002), linguistic communication is a special case of communication, in which language and communication are not mutually connected. Language and communication are referred to as independent systems and mechanisms for the following reasons: 1. Communication can occur without natural languages. Cases of non-linguistic communication are common, and other species have developed very specific and sophisticated means of communication (Hauser, 1996; Reboul, 2007). 2. Language can exist without communication. Many uses of language are not communicative. The main examples of non-communicative language use are fiction and free reported speech (Banfield, 1982; Reboul, 1992).[3]

Although language can exist without communication, language cannot exist without cognition. The fundamental function of language is therefore cognitive and not social, as Anne Reboul and I strongly argued (Reboul & Moeschler, 1998).

How then can the relationship between language and cognition be explained? One method is to examine the relationship between cognition and relevance. According to Relevance Theory, information is said to be relevant if it yields at least one positive cognitive effect. More specifically, 'an assumption is relevant in a context if and only if it has some contextual effect in that context' (Sperber & Wilson, 1986: 122). A positive cognitive affect is defined as the addition of new information, the modification of the strength with which an assumption is entertained or the suppression of old information (in the case of contradiction). This very general definition of a contextual effect leads to the first principle of relevance, the cognitive principle of relevance: 'Human cognition tends to be geared to the maximization of relevance' (Wilson & Sperber, 2004: 610).

Now, if cognition is directly linked to relevance, how is relevance connected to communication? The main thrust of Relevance Theory is that, in order for linguistic communication to be successful, the hearer must be able to infer the speaker's informative intention through the recognition of his communicative intention. How is this possible?

Three factors intervene: First, the speaker's utterance contains indices of his informative intention. Second, the hearer, on the basis of indices from his

utterance, seeks a relevant interpretation. Third, the relevant interpretation can be inferred through the communicative principle of relevance, which states that 'every ostensive stimulus [here, an utterance] conveys a presumption of its own optimal relevance' (2004: 612).

The presumption of optimal relevance is defined as follows: 'a. The ostensive stimulus is relevant enough to be worth the audience's processing effort. b. It is the most relevant one compatible with communicator's abilities and preferences' (2004: 612).

The cognitive principle of relevance can therefore be said to pilot the search for maximal relevance. The communicative principle of relevance limits this search, however, by directing the hearer to search for optimal relevance; that is, for positive cognitive effects that balance cognitive processing efforts. Relevance is in effect defined as a balance between positive cognitive effects and processing efforts: the more positive effects, the more relevance; the more cognitive efforts, the less relevance.[4]

We know, therefore, how relevance can be achieved: the communicative principle of relevance guides the hearer to search for optimal relevance, and optimal relevance is balanced by the speaker's abilities and preferences. But a very important question remains unanswered: What procedure does the hearer use to understand the speaker's utterance; that is, to access his informative intention? Relevance Theory formerly used a procedure based on the principle that, when a hearer reaches an interpretation, this is consistent with the principle of relevance. According to Wilson & Sperber (2004: 612), a general comprehension procedure, based on a minimalist strategy, can be defined: 'a. Follow the path of least effort in computing cognitive effects …; b. Stop when your expectations of relevance are satisfied (or abandoned)' (p. 613). In other words, what is obtained as a cognitive effect is not the result of a random process. Relevance guides the search for cognitive effects, but in the most economical way: the speaker must produce a stimulus that should produce no superfluous cognitive efforts.

We have now reached the halfway mark in our quest: we know how an utterance is processed and what guides the hearers in the interpretative process. Utterance interpretation is guided by optimal relevance; that is, by the production of cognitive effects through the cognitive path of least effort.

## 6. Two types of cognitive effects

Now, what types of cognitive effects are produced in the process of interpreting utterances? I would like to propose the following theory: utterance interpretation not only produces positive propositional effects, it also yields

non-propositional effects, which are non-representational and non-truth-conditional. Non-propositional effects are triggered by emotion.

Propositional effects are the result of utterance contextualization. They are the by-product of the interaction between the propositional form of the utterance and its context, defined as a set of hypotheses or assumptions that are constructed utterance after utterance. In technical terms, contexts are subsets of the mutual cognitive environment. A cognitive environment can be defined as a set of assumptions that are manifest to an individual; that is, assumptions that are entertained as true or inferable. For instance, Axel's cognitive environment contains assumptions (8). In order for these assumptions to become a context for Jacques, they must be mutual.[5] Propositional effects can be defined as the addition of a new assumption, the strengthening of an old assumption or the suppression of old assumptions. Assumptions (9), therefore, are typical cognitive effects, or more specifically contextual implications. In other words, they are new assumptions derived through a contextualization process of Axel's utterance and contextual assumptions (8).

On the other hand, non-propositional effects result from the interaction between accessible hypotheses or assumptions during the utterance-processing process and other sources of information affecting or causing the mental state of the speaker and/or the hearer. As such, non-propositional effects cannot be reduced to propositions: they have no propositional content.

For instance, Axel could be very angry in saying, with a specific intonation, 'Daddy, I'm NOT sleepy': the manner in which the utterance is delivered typically triggers non-propositional effects which may or may not be taken into account by Jacques. Indeed, Jacques not only understands that Axel does not want to brush his teeth and then to go to bed; he can also access Axel's mental state, as represented in (15):

(15) Axel is angry.

As such, (15) is a proposition that Jacques can access. It then becomes necessary to ask whether it is necessary to access (15) in order to understand Axel's utterance. To answer this question, I am going to discuss three political speeches that had a significant impact on 20th-century history. The first speech was given by Martin Luther King on 28 August 1963, during the March on Washington. Its purpose was to exert pressure on the American Congress to abolish segregationist laws. The speech was given in front of 250,000 American citizens. Everyone in the Western world knows the famous sentence 'I have a dream'. The sound recording of this speech never fails to produce tears and strong emotions in the hearer, not only because of the content of King's speech, but also because the hearer not only bears in mind the speech, but the tragic events that followed it as well.

(16) I have a dream that one day this nation will rise up and live out the true meaning of its creed: 'We hold these truths to be self-evident, that all men are created equal.' I have a dream that one day on the red hills of Georgia the sons of former slaves and the sons of former slave owners will be able to sit down together at the table of brotherhood. I have a dream that one day even the state of Mississippi, a state sweltering with the heat of injustice, sweltering with the heat of oppression, will be transformed into an oasis of freedom and justice. I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character. I have a dream today! I have a dream that one day down in Alabama, with its vicious racists, with its governor having his lips dripping with the words of interposition and nullification – one day right there in Alabama little black boys and black girls will be able to join hands with little white boys and white girls as sisters and brothers. I have a dream today!

The second example is associated with one of the most famous speeches of John F. Kennedy, given on 26 June 1963, on West Berlin's Rudolf-Wilde Square, before the citizens of Berlin. His words, '*Ich bin ein Berliner*', produced a huge emotional response: their main cognitive effect was to connect all free citizens of the world (living in the West) with the isolated citizens of West Berlin. They also caused a deeper emotional reaction; that is, a reaction containing non-propositional effects:

(17) Freedom is indivisible, and when one man is enslaved, all are not free. When all are free, then we can look forward to that day when this city will be joined as one and this country and this great Continent of Europe in a peaceful and hopeful globe. When that day finally comes, as it will, the people of West Berlin can take sober satisfaction in the fact that they were in the front lines for almost two decades. All free men, wherever they may live, are citizens of Berlin, and, therefore, as a free man, I take pride in the words *Ich bin ein Berliner*.

The last speech was given by Franklin Roosevelt on 8 December 1941, to the American Congress, the day after the Japanese attack on Pearl Harbor. The speech was simple, and consisted of repetitions (Japanese Government/forces attacked Malaya/Hong Kong/the Philippine Islands/Wake Island/Midway): the repetitive form of the sentences not only gave the required information on the military situation in Asia, but expressed contained anger and fury:

(18) Yesterday the Japanese Government launched an attack against Malaya. Last night Japanese forces attacked Hong Kong. Last night Japanese forces attacked Guam. Last night Japanese forces attacked the Philippine Islands. Last night the Japanese attacked Wake Island. And this morning the Japanese attacked Midway Island.

## 7. An enigma for pragmatics?

The interaction between propositional effects and non-propositional effects could in principle fall within the domain of cognitive neuroscience rather than of linguistics. Different brain areas are implied in the processing of

these effects: the cortex, a more recent region, and the amygdal, an older cognitive and neural system. It cannot be denied that a neuroscientific study of these effects would be interesting. But if pragmatics theory is indeed a theory of complete interpretation of utterances, then it should be able to make claims about the interaction of propositional and non-propositional effects.

Interestingly enough, Relevance Theory makes an explicit proposition on this type of interaction. According to Relevance Theory, Sperber & Wilson (1986, ch. 4, § 6: 'Implicatures and style: poetic effects') devote a section to non-propositional effects. Non-propositional effects are indeed treated as weak implicatures, and the domain investigated is what is traditionally called 'poetic effects'. Let us examine two tropes, namely epizeuxis (repetition) and zeugma (syntactic parallelism).

Example (19) illustrates repetitions, with specific non-propositional effects:

(19) a. There's a fox, a fox in the garden.
b. My childhood days are gone, gone.
(Sperber & Wilson, 1986: 219)

The description given by Sperber & Wilson (p. 220) is an interesting one: 'However, in the case of [19a], and especially [19b], it is hard to think of propositional paraphrases that would adequately capture their import. These utterances as it were exhibit rather then merely describe the speaker's mental or emotional state: they give rise to non-propositional effects which would be lost under paraphrase.'

It can therefore be stated that non-propositional effects cannot be paraphrased, and that they describe the speaker's emotion: in the case of (19a), the speaker's excitement is expressed; in (19b) the speaker expresses regret. In another quotation, Sperber & Wilson (p. 222) give a more precise definition of non-propositional effects: 'What look like non-propositional effects associated with the expression of attitudes, feelings and states of mind can be approached in terms of the notion of weak implicatures.'

An implicature is a non-truth-conditional pragmatic effect; that is, an implicated conclusion drawn on the basis of contextual premises. According to Relevance Theory, two types of implicatures are distinguished: strong and weak. Strong implicatures are determined, or paraphrasable, and are under the speaker's responsibility. In other words, the speaker cannot deny them without contradiction.[6] Utterances (20), for example, have strong implicatures (21), and (22) show that it is difficult to deny them without contradiction:

(20) a. My assistants are gems.
b. Your room is a pigsty.
c. Max is a bulldozer.

(21) a. My assistants help me in my work as a professor.
b. Your room is dirty and disgusting.
c. Max is strong and cannot be stopped by any obstacle.

(22) a.?? My assistants are gems, but they are not helpful.
b.?? Your room is a pigsty, but it is clean enough to live in.
c.?? Max is a bulldozer, but he will be stopped by any obstacle.

For Sperber & Wilson (1986: 224), 'poetic effects … result from the accessing of a large array of very weak implicatures in the otherwise ordinary pursuit of relevance'. Non-propositional effects, therefore, referred to by Sperber & Wilson as poetic effects, are the result of weak implicatures. Weak implicatures are undetermined; that is, they cannot be paraphrased, and are under the hearer's responsibility.

The issue of weak implicature is not the crucial point, even if, by definition, weak implicatures are indeterminate or not precisely calculable. What is relevant, on the other hand, is that poetic effects are associated with affective effects as opposed to cognitive effects: 'Utterances with poetic effects can be used precisely to create this sense of apparently affective rather than cognitive mutuality' (p. 224). This statement implies that the main function of non-propositional effect is to produce mutual affective relation; that is, that it enables sharing of that which cannot be represented propositionally.[7]

As a last example, Sperber & Wilson examine zeugma, or syntactic parallelism. In (23), *a* is a pure syntactic parallelism. The same is true for *b*, which introduces a slight absence of semantic parallelism. In *c*, however, the apparent syntactic parallelism is damaged by the absence of semantic parallelism: in this case 'the hearer's task is to find a set of assumptions in the context of which the fact that Mary came with Peter, Joan with Bob, and Lily with a sad smile on her face have identical or directly contrasting implications. What might be suggested is that Lily had no one to come with, that she was sad because she had no one to come with, and that there was a whole story behind her smile in which Mary, Peter, Joan and Bob were somehow involved' (1986: 223).

(23) a. Mary went on holiday to the mountains, Joan to the sea, and Lily to the country.
b. Mary lives in Oxford, Joan in York, and Lily in a skyscraper.
c. Mary came with Peter, Joan with Bob, and Lily with a sad smile on her face.
(Sperber & Wilson, 1986: 222)

## 8. Interaction between propositional and non-propositional effects

The last issue I would like to address is the interaction between propositional and non-propositional effects. This issue is based on the following

premise: If the interpretation of an utterance triggers two types of cognitive effects, yielding different results (representational and emotive, to summarize them briefly), these cognitive effects must be connected. It can be posited, for instance, that non-propositional effects can either trigger or block propositional effects, and that propositional effects can have an effect on non-propositional effects. The first issue is certainly, from a cognitive point of view, the most interesting: what is at stake is the possible contribution of emotion to the computation of representation.

This section examines two possible relationships: In the first case, the emergence of non-propositional effects will be seen to block the inferential process, or the triggering of propositional effects. In the second case, the emergence of non-propositional effects will be seen to reinforce propositional effects.

### *First case*

In this situation, the emotional state of the hearer prevents him from accessing the salient and relevant information and from processing the utterance normally. Let us imagine that Peter and Mary, the day before their wedding, meet Peter's old Latin professor at the station, as in (24):

(24) Peter: Mary, I'd like to introduce you to Mr X, my old Latin teacher.
Mary: Good morning, Madam.

In this example, Mary's mental state is such that she cannot process Peter's utterance normally, and makes a funny mistake about the gender of her interlocutor. These situations are more frequent that one imagines. In cases such as (24), the emotive state of the speaker prevents him or her from producing ordinary utterances.

A second case of propositional blocking effects is illustrated by witticisms (*mots d'esprit* in French or *Witze* in German). The main function of witticisms is to convey a paradoxical conclusion to the hearer. This can produce a large set of non-propositional effects, for instance, a burst of laughter. Here is one of the most famous *Witz* taken from Freud's corpora (Freud, 1957):

(25) A gentleman entered a pastry-cook's shop and ordered a cake; but he soon brought it back and asked for a glass of liqueur instead. He drank it and began to leave without having paid. The proprietor detained him. 'You've not paid for the liqueur.' 'But I gave you the cake in exchange for it.' 'You didn't pay for that either.' 'But I hadn't eaten it.'

In this story, the explanation of the paradox is part of a complex reflexive process, which is slow and cognitively costly. In other words, the processing of non-propositional effects blocks access to the rational process of deducing propositional effects.

*Second case*

This case demonstrates the reinforcement of propositional effects through non-propositional effects. Many examples may be given: the pleasure of listening to a good lecturer who reinforces old assumptions; positive expressive speech acts amplifying social relations (congratulations, for instance); and puns in the news which lead to supposedly shared references. The two examples that follow, produce contradictory effects.

The first is taken from the French sports newspaper *L'Equipe*, the day after the French tennis player Gaël Monfils won a tennis match at the Roland Garros tournament (5 June 2008). The title is given in (26):

(26) La gloire de Monfils ['Monfils' glory']

This title is an implicit allusion to Marcel Pagnol's book *La gloire de mon père* (My Father's Glory). The word *gloire*, in Pagnol's context, refers to a hunting trophy, whereas the referent in (26) is a sports result: Monfils defeated a well-known tennis player. The reader, while processing this very short phrase, accesses many layers of information: the result of the tennis match, Pagnol's novel, and the comparison between Gaël Monfils and Marcel Pagnol. In this example, propositional effects are reinforced through non-propositional effects, which in turn trigger a highly pleasurable reaction.

The headline announcing the same victory in the general French newspaper, *Libération*, was very different:

(27) La Monf' à donf

This title is untranslatable, because it uses two jargon expressions: first, *La Monf* is Gaël Monfils' nickname in the tennis world; second, *à donf* is a French slang expression meaning 'at top speed'.

It is interesting to note that a very specific linguistic decoding is necessary here, and that the poetic effect, with the alliteration *Monf–donf*, produces new propositional effects, for instance on the manner in which Monfils defeated his opponent.

## 9. Conclusion

As this article has shown, non-propositional effects, as I call them, are rarely isolated from propositional effects: they are generally intrinsically webbed, and certain interactions, such as blocking and reinforcement, can be easily demonstrated. The following question must now be asked: How can this

webbing of propositional and non-propositional effects strengthen or weaken communication, and more specifically linguistic communication?

In the case of the reinforcement of propositional effects by non-propositional effects, the general result is a reinforcement of linguistic communication. Conversational implicatures are triggered, for instance, and some additional effects – pleasure, for example – are simultaneously produced. This case is illustrated by puns (*jeux de mots*) in newspaper headlines, as shown in (26) and (27).

What about the first case of interaction between non-propositional effects and propositional effects, or blocking effects? Can it be said that communication is altered or unsuccessful? Any possible example can demonstrate that communication is able to take an alternative direction: erroneous reference assignment, for instance, does not alter communication, but it makes the communication odd at first and funny on second thought. A double process occurs with *mots d'esprits*: non-propositional effects block the derivation of implicated conclusions, with rational deductions occurring only after a second processing. In the case of Freud's *Witz* in (25), laughter breaks out in reaction to a contradiction: the man is simultaneously right and wrong in not wanting to pay. A second reading allows the false premise to come to light: what has been exchanged – the cake for the glass of liqueur – cannot count as having paid for something.

In summary, this article has shown that the description and the explanation of non-propositional effects are contained within the scope of pragmatics. However, much more energy has been expended in explaining propositional effects; that is, the rational part of cognition that is engaged in utterance interpretation. The general framework for pragmatics gives a precise definition of non-propositional affects. As pragmatics has developed in recent years, new directions, closely connected to cognitive studies, have arisen (see Reboul, 2007, for a synthesis of this theory). The experimental domain (Noveck & Sperber, 2004) has also been addressed. We now possess conceptual tools and empirical methods that can be used to test hypotheses on the interaction between propositional and non-propositional effects. Let the good work continue!

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## Notes

1. This is a general argument for a more restrictive analysis of logical words: 'if' is understood as 'if and only if', 'or' as the 'exclusive or', 'some' as 'only some', etc. See Horn (2004), Moeschler (2009) for a general description of this issue.

2. Philosophers such as Dennett (1987) refer to a more general cognitive ability called the 'intentional stance', translated in French as *la stratégie de l'interprète*. This strategy is based on two premises: that speakers are rational, and that they have internal mental states (beliefs, intentions, etc.). The hearer, according to this point of view, presumes the rationality of the speaker's verbal behaviour and is able to attribute mental states to him or her. The inability to make such an attribution of mental states is generally interpreted as one of the major traits of autism (Baron-Cohen, 1995; Reboul, 2007).

3. Banfield (1982) argues very strongly that communication can occur in languages only when the second person pronoun is used, because the occurrence of 'you' logically entails a speaker (*you* → *I*), whereas the use of a first-person pronoun does not entail a hearer. This implies that fictional stories told in the first person are not communicative. Only the presence of the second person would allow fiction to communicate. Fiction narrated in the second person is very rare. In French literature, the best example is Michel Butor's *La modification*.

4. 'Relevance of an input to an individual:

   a. Other things being equal, the greater the positive cognitive effect, achieved by processing an input, the greater the relevance of the input to the individual at that time.
   b. Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time.'

   (Wilson & Sperber, 2004: 609)

5. Relevance Theory makes a crucial distinction between an assumption that is mutual and an assumption that is shared. Relevance Theory rejects, in effect, that the context is constructed against a set of propositions belonging to mutual knowledge. See Sperber & Wilson (1986, ch. 1) for arguments against theories of mutual knowledge.

6. This is a crucial issue for pragmatics, because implicatures are generally defined as non-truth-conditional aspects of meaning: in a classical definition of implicatures (Grice 1975), (generalized) conversational implicatures are cancellable. In effect, (i) implicated conversationally (ii), which can be cancelled as in (iii) without contradiction:

   (i) Some of the students were at the party.
   (ii) Not all of the students were at the party.
   (iii) Some of the students, in fact all of them, were at the party.

7. One of the main functions of music, as opposed to language, is to trigger affective mutuality: the reason why I am so insensitive to 19th-century music is because of its tendency to become narrative or descriptive. Bach, Handel, Haydn and Mozart are non-representational composers.

## References


Austin, J. L. (1962) *How to do things with words*. Oxford: Clarendon Press.

Banfield, A. (1982) *Unspeakable sentences: narration and representation in the language of fiction*. London: Routledge & Kegan Paul.

Baron-Cohen, S. (1995) *Mindblindness: an essay on autism and theory of mind*. Cambridge, MA: MIT Press.

Carston, R. (2002) *Thoughts and utterances: the pragmatics of explicit communication*. Oxford: Blackwell.

Dennett, D. (1987) *The intentional stance*. Cambridge, MA: MIT Press.

Frege, G. (1952) 'On sense and reference', in P. T. Geach & M. Black (eds) *Translations from the philosophical writings of Gottlob Frege*, pp. 56–78. Oxford: Blackwell.

Freud, S. (1957) *Jokes and their relation to the unconscious*. London: Hogarth Press.

Grice, H. P. (1975) 'Logic and conversation', in P. Cole & J. L. Morgan (eds) *Syntax and semantics 3: speech acts*, pp. 41–58. New York: Academic Press.

Grice, H. P. (1989), *Studies in the way of words*. Cambridge, MA: Harvard University Press.

Hauser, M. (1996) *The evolution of communication*. Cambridge, MA: MIT Press.

Horn, L. R. (2004) 'Toward a new taxonomy for pragmatic inference: Q-based and R-based implicature', in D. Schiffrin (ed.) *Meaning, form, and use in context*, pp. 11–42. Washington, DC: Georgetown University Press.

Levinson, S. C. (1983) *Pragmatics*. Cambridge: Cambridge University Press.

Moeschler, J. (2009) *Pragmatic theory, lexical and non-lexical pragmatics*. Berlin: Mouton de Gruyter.

Moeschler, J. & Reboul, A. (1994) *Dictionnaire encyclopédique de pragmatique*. Paris: Le Seuil.

Morris, C. W. (1971) *Writings on the general theory of signs*. The Hague: Mouton.

Noveck, I. & Sperber, D., eds (2004) *Towards experimental pragmatics*. Basingstoke, Hants; New York: Palgrave Macmillan.

Reboul, A. (1992) *Rhétorique et stylistique de la fiction*. Nancy: Presses Universitaires de Nancy.

Reboul, A. (2007) *Langage et cognition humaine*. Grenoble: Presses Universitaires de Grenoble.

Reboul, A. & Moeschler, J. (1998) *La pragmatique aujourd'hui. Une nouvelle science de la communication*. Paris: Le Seuil.

Russell, B. (1905) 'On denoting', *Mind* 14: 479–93.

Searle, J. R. (1969) *Speech acts*. Cambridge: Cambridge University Press.

Searle, J. R. (1979) *Expression and meaning*. Cambridge: Cambridge University Press.

Sperber, D. & Origgi, G. (2005) 'Pourquoi parler, comment comprendre', in J.-M. Hombert (ed.) *Aux origines des langues et du langage*, pp. 236–53. Paris: Fayard.

Sperber, D. & Wilson, D. (1986) *Relevance: communication and cognition*. Oxford: Blackwell.

Sperber, D. & Wilson, D. (2002) 'Pragmatics, modularity and mindreading', *Mind and language* 17: 3–23. (Special issue: *Pragmatics and cognitive science*)

Wilson, D. (1975) *Presuppositions and non-truth-conditional semantics*. New York: Academic Press.

Wilson, D. & Sperber, D. (2004) 'Relevance theory', in L. R. Horn & G. Ward (eds) *The handbook of pragmatics*, pp. 607–32. Oxford: Blackwell.