It's Maybe Somewhat Difficult *but* I Understand it!

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Abstract

Most studies of implicatures focused on conversational implicatures. This study, however, examined the conventional implicature induced by *but*. According to the literature, one can assume that the second argument in a '*p but q'* construction is the argument with the most weight. This is, however, never experimentally tested with a direct distancing-contrastive *but*. We presented participants with stories which ended with a direct distancing *but* construction, in which one of the arguments expressed a feeling of understanding towards the behavior of the main character in the story. The results indicated that indeed the q-argument has most weight. There was, however, also an effect of the specific content of the stories. These results are discussed in light of the hypotheses generated on the basis of previous research with an indirect distancing-contrastive *but*, but also in the light of the effect of content of the stories in conventional implicatures research and specific task characteristics.

Keywords: conventional implicature; *but*; scale; content

Introduction

As Clark and Schober (1992) formulated: *"It is a common misperception that language use has primarily to do with words and what they mean. It does not. It has primarily to do with people and what they mean. It is essentially about speakers' intention"*. What we want to convey in daily communication is to a large extent not explicitly expressed. Instead, people in conversation make use of facial expressions, gesticulation, and the (assumed) intentions of the speaker to make their interactions successful. Grice (1989) is one of the founding fathers of pragmatics and provided us with a theoretical framework to discuss this issue. Starting point was the general principle of cooperation, which Grice (1989) formulates as follows: "*Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.*" The cooperative principle can be divided into four maxims: the Maxim of Quantity, the Maxim of Quality, the Maxim of Relation and the Maxim of Manner. These maxims respectively imply that interlocutors are always expected to offer contributions which are informative, truthful, relevant to the goals of the conversation and appropriately phrased. According to Grice (1989), whenever people follow these maxims, the result is an efficient exchange of information. However, these maxims are not exhaustive. Other maxims, such as maxims of social or ethical nature, are necessary in communication as well.

By means of the cooperative principle and the maxims, Grice (1989) describes the inference process, the retrieval of a speaker's meaning. This brings us to the term 'implicature'. In his work, he made a difference between two categories of implicatures, i.e. conversational implicatures on the one hand and conventional implicatures on the other hand. The idea of implicatures became quickly popular both in theoretical and experimental pragmatics. However, experimental research on implicatures has almost completely concentrated on (generalized) conversational implicatures. One has to be even more precise: most experimental research focused on the subcategory of scalar implicatures (e.g., De Neys & Schaeken, 2007; Dieussaert, Verkerk, Gillard, & Schaeken, 2011; Doran, et al., 2009; Noveck, 2001; Papafragou & Musolino, 2003). Horn (1972) developed this concept. Horn-scales involve a set of alternative expressions of the same grammatical category, but with a difference in semantic informativeness. Underlying these scales is the assumption that the use of a semantically weaker term implies that the stronger one does not hold. We would do this, because we want to be as informative as required, but also not more informative as required. This is called by Grice (1989) the maxim of quantity. The most well-known examples of such scales, ordered from strong to weak are "all, most, some" and "and, or".

The scalar implicatures are examples of generalized conversational implicatures, which are assumed to occur very systematically although the context may be such that they do not occur. In contrast, there are also particularized conversational implicatures, which were assumed to be less systematic and always clearly context dependent. An example of such a particularized implicature is the situation where one wonders were the hamburger is and the grandmother suddenly says: "Well, the dog is looking very happy." In such a situation, we will derive the implicature

that the grandmother thinks that the dog ate the hamburger. The derivation from "looking happy"' to "did eat the hamburger" can only be made in this very specific context.

In the current study we will not focus on conversational implicatures, but on the seldom investigated conventional implicature. Conventional implicatures are independent of the cooperative principle: A statement always carries its conventional implicature, but this implicature is not part of the semantic meaning of the terms. Based on the different definitions found in the literature, Horn (2004) came up with a summarizing definition of this concept:

> "Unlike an entailment or logical presupposition, this type of inference is irrelevant to the truth conditions of the proposition. This inference is not cancellable without contradiction, but it is detachable, in the sense that the same truth-conditional content is expressible in a way that removes (detaches) the inference. Such detachable, but non-cancellable aspects of meaning that are neither part of, nor calculable from 'what is said', are conventional implicatures." (Horn, 2004)

Huang (2006) defines a conventional implicature as "*a non-truth-conditional inference which is not deductive in any general, natural way from the saying of what is said, but arises solely because of the conventional features attached to particular lexical items and/or linguistic constructions*" (Huang, 2006).

More specifically, we investigated in the present study the implicature induced by the conjunction 'but'. The word *but* (translated from Dutch *maar*) is the most commonly used connector to express a contrastive-concessive relation (Van Belle & Devroy, 1992). This 'p but q' relation is a particular type of contrast in which one part of the utterance (*p*) is a concession and the other, contrastive part of the utterance (*q*) denies the inference that could be made based on *p* (Van Belle, 2003). In the Algemene Nederlandse Spraakkunst (ANS; General Dutch Grammar), three types of the connector *but* are distinguished (Haeseryn et al., 1997).

First, *but* can be used in a dividing contrast, in which *but* can be replaced by *and*. Replacing *and* with *but* emphasizes the contrastive nature of the connection, but not the other way around (e.g., he is rich but he is friendly).

Second, *but* can be used in a replacing contrast. In such a construction, the first part of the sentence is a negation and the second part replaces the first part by expressing what's true (e.g., not bananas but apples are my favorite fruit).

Finally, in a distancing contrast, *but* connects two parts of a complex speech act and the second part is disassociated from the first part, without denying what is being expressed in the first part (Van Belle & Devroy, 1992). In this type of 'p but q' construction, the speaker endorses or recognizes that *p* is true (Van Belle, 2003). However, by using the word *but*, the possible inference derived from *p* is cancelled. There are two possible ways in which this cancellation can be manifested (Moeschler & de Spengler, 1982).

On the one hand, *q* can directly cancel the inference from *p* because it contains a conclusion that contradicts the inference from *p* (*p (p → r), but q (q = not-r) (so not-r)*). For example: "The water is cold (→ will not swim), but I swim in it". The connector *but*, used in a direct distancing contrast, is labelled as a 'concluding *but*'. In a direct concession, *p* and *q* are always connected by their content: *p* expresses a cause or a good reason for *r* and '*but q*' expresses the conclusion. It's because of this connection that *but* can be replaced or strengthened by a conjunctional adverb such as *nevertheless* (e.g., the water is cold, *nevertheless* I swim in it).

On the other hand, *q* can indirectly cancel the inference from *p* because *q* contains an argument that can be considered as stronger or more relevant than *p*. (*p (p → r), but q (q → not-r) (so not-r)*). E.g.: "The water is cold (→ will not swim), but I like swimming (→ will swim). (So I will swim)". Note that it is the conventional meaning of *but* that causes the argument from *q* to overrule the argument from *p*. When the two arguments trade places, the opposite conclusion follows because the q-argument always outweighs the p-argument. E.g.: "*I like swimming, but the water is cold. So I will not swim*." The connector *but*, used in an indirect distancing contrast, is labelled as an 'argumentative *but*'. This is in line with the three claims Anscombre and Ducrot (1977) postulated concerning this type of 'p but q' utterance:

1. *q* is always the argument with most weight and the 'p but q' construction must be viewed as a defense of not-*r*.
2. By uttering 'p but q', the speaker always expresses some kind of acceptance of *p*.
3. 'p but q' constructions are always aimed at cancelling a particular conclusion *r*.

The word *so*, following a 'p argumentative but q' utterance, introduces the expected conclusion from *q* (e.g., "The water is cold, but I like swimming. So I will swim."). In contrast, the word *nevertheless* following a 'p argumentative but q' utterance is used as a conjunctive adverb and has the purpose of reversing the argumentative orientation again and thus directing the reader towards the conclusion stemming from *p* (e.g., "The water is cold, but I like swimming. Nevertheless, I will not swim.").

Given the high frequency of the connector *but*, it is surprising that there is almost no empirical research about this connector. One of the exceptions is Janssens and Schaeken (2013). They investigated the indirect distancing contrast use of *but*. In their research, they presented adult participants with short stories. Each of these stories ended with a 'p but q' sentence, which was followed by two possible conclusions. The participants were instructed to indicate the appropriate conclusion. These were either two *so*-conclusions ('*so* conclusion from *p*' and '*so* conclusion from *q*') or two *nevertheless*-conclusions ('*nevertheless* conclusion from *p*' and '*nevertheless* conclusion from *q*').

The appropriate pragmatic conclusion following *so* is the conclusion inferred from *q* and the appropriate conclusion following *nevertheless* is the conclusion from *p* (see Van Belle, 2003). The experiments showed that adults indeed understand the pragmatic meaning of *but*: *so*-conclusions primarily followed the q-argument and the *nevertheless*-arguments followed the p-argument, although the preference was smaller. A plausible reason for the latter effect is the difficulty of *nevertheless*: one has to negate the negation of the expectation based on the p-argument

Interestingly, the content of the arguments also had an effect. In the experiment, Janssens and Schaeken (2013) presented not only sensible arguments, but also irrelevant arguments. In the swimming example above, both arguments are sensible in a context in which a person is doubting whether or not he will jump in the water. In this same context, uttering *"I like swimming, but I have a brother"* clearly contains an irrelevant q-argument. These irrelevant arguments were included to examine whether the pragmatic meaning of *but* is understood or used irrespective of the content of the arguments. This was not the case. It was observed that in those cases where an irrelevant argument was combined with a sensible argument, the participants had a clear preference for the conclusion from the sensible argument. This was true for both the *so*-conclusions and the *nevertheless*-conclusions.

In a second experiment, Janssens and Schaeken (2013) asked participants to justify their answers. It was observed that participants mostly referred to the content of the arguments whenever they did not provide the appropriate conclusion.

The present research builds on the work of Janssens and Schaeken (2013), but there were innovations.

First, instead of investigating the indirect distancing contrast use of *but*, in the current experiment the direct distancing contrast use of *but* will be examined.

Second, one argument of the 'p but q' construction represents a relevant argument in daily life and might even have repercussions for consoling talks, that is, expressing that you understand the action of the person. An example of such a sentence is:

> *I understand that after many attempts you lost the hope for reconciliation, but a good communication between the two of you is important for the entire company.*

In half of the problems, the "*I understand*"-argument was the p-argument, for the other half of the problems, it was the q-argument. To control for the real effect of *but*, half of the problems contained the connector *but*, and for the other half of the problems, the two arguments were separated with a 'period':

> *I understand that after many attempts you lost the hope for reconciliation. A good communication between the two of you is important for the entire company.*

Third, the dependent variable was a different one than in previous research. Instead of evaluating conclusions, participants were asked to express on a scale whether or not they expected that the person in the story would feel understood or not.

Our hypothesis was that there would be a significant interaction between order (whether *p* or *q* is the 'understanding argument') and connector (*but* or period). We expected the effect or order to be only there when the connector *but* is used instead of the period. Only in that case the q-argument has more weight, leading to higher feelings of being understood when the q-argument is the 'understanding argument'.

Experiment

Method

Participants A total of 192 adults participated in the experiment. They were all psychology students at the University of Leuven and participated as part of a course requirement.

Design The experiment had a 2x2x2 design, whereby all independent variables were manipulated between participants. First, the connector was either *but* or a period. Second, the proposition in which the feeling of understanding was expressed was either the p-argument or the q-argument. Third, to control for possible content effects, we developed two different stories (one about a company, one about an exam). The dependent variable was a rating of the feeling of being understood of the main character.

Material and Procedure Each of the stories started with a description of a very difficult situation. The company-story (story A) goes as follows:

> Joke had a violent fight with her colleague. The close collaboration between them is important for a good functioning of the business. A misunderstanding that arose a few days ago, has escalated. Joke is convinced that her colleague made a mistake and does not want to concede. Her colleague is blaming Joke. Joke has repeatedly tried to talk about this, but this never led to a success. As a consequence, being in the same room leads inevitably to an angry passage of words. Therefore, Joke decided to not say a word to her colleague. Joke is very determined to keep silent for the rest of their working collaboration.

After this introduction, the story continues with the introduction of the crucial manipulation:

> She talks about the situation with a different colleague. The colleague tells her: *"I understand that after many attempts you lost the hope for reconciliation, but a good communication between the two of you is important for the entire company.*

A quarter of the participants in the company-condition received this story; for another quarter, the order of the two arguments was reversed; another quarter received the arguments in the same order, but instead of using the connector but, the sentences were now simply separated by a period; finally, another quarter received the two arguments in the opposite order, separated by a period. The university-story (Story B) had the same four versions. An example of the crucial sentence in the university story is:

> *Carrying on with your study is important for your chances for a job later on, but I understand that you want to stop the study after such a dishonest act.*

Each participant received only one story. The participants were tested in five different groups, in which the different versions were distributed randomly.

The participants were asked to imagine how the main character in the story would feel after the last sentence. They had to indicate this on a seven-point scale, going from "feels totally misunderstood" to "feels totally understood".

Results and Discussion

Table 1 presents the proportions of the feeling of being understood for the different conditions. We performed an ANOVA, which resulted in two significant main effects and two significant interaction effects.

Table 1: Mean feeling of understanding score in the conditions with the "I understand" in the p- or the q-argument and with a period or *but* as a connector between the arguments.

	Period	*But*
p - I understand	3.78	4.26
I understand - q"	3.53	2.80

First, we observed an effect of order, that is, when the expression of understanding is the q-argument, the feeling of being understood is higher than when it is the p-argument (4.01 vs. 3.16; F (1,188) = 19.37, $p < .05$, *partiële* $\eta^2 = .09$).

Second, there was, as expected, no significant main effect of the type of connector (*but*: 3.51; period: 3.66; F (1,188) = 0.48, $p > .05$, *partiële* $\eta^2 = .001$). However, there is a significant interaction between order and connector *(F* (1,188) = 8.66, $p < .05$, *partiële* $\eta^2 = .04$). The effect of order is only there when the connector *but* is used instead of the period.

Third, to complicate things a little bit, there is a significant main effect of the variable story (story A vs story B: 3.95 vs 3.25; F (1,188) = 13.59, $p < .05$, *partiële* $\eta^2 = .07$) and an interaction between the variables story and order (F (1,188) = 7.25, $p < .05$, *partiële* $\eta^2 = .04$) indicating that the expected effect of order was only there in Story A (4.17 vs 3.25). For Story B, the effect was in the expected direction, but not significant (3.40 vs 3.08).

General Discussion

The present study contributes to the very recent experimental research into the area of conventional implicatures, and more precisely in the understanding of *but*. From these results of the present experiment, we can conclude that with a direct distancing contrast use of *but*, the q-argument indeed has a greater weight than the p-argument: Ratings of the expected feeling of being understood by the main character were clearly higher when the expression of understanding was in the q-argument instead of the p-argument. Importantly, this finding was only true when the two arguments were connected with *but*; when a period was used to connect the two arguments, there was no significant difference. The greater weight of the q-argument seems even higher than in the experiments of Janssens and Schaeken (2013) in which stories with an indirect distancing contrast use of *but* were presented. This might indicate that the claims of Anscrombre and Ducrot (1977) and Van Belle (2003) about the indirect distancing contrast use of *but* are not only also true for the direct distancing contrast use, but even in a stronger way. However, we have to be careful with this conclusion because of two important problems or shortcomings of the current study.

First, there is the effect of content which was present in the current experiment. The expected effect was only significant in story A, the company story. In story B, the exam story, the trend was in the same direction, but the effect was not significant. Such an effect of content is not very surprising. Janssens and Schaeken (2013) also observed a strong content effect on the understanding of *but*. Therefore, one could argue that the observed effect was not due to the direct distancing contrast use of *but*, but to the effect of content. The fact that for Story B the effect was, although non-significant, in the same direction as for Story A, strengthens our belief in the observed significant effect. Nevertheless, we admit that further research is definitely much needed. Perhaps it is worth mentioning that the absence of a significant effect of Story B might have something to do with the fact that the exam story is very close to home for the participants of this experiment who were all students themselves. It's plausible that they therefore empathize more closely with the main character in this story and generally judge this character as feeling misunderstood because of the dishonest situation that is easily imaginable to them. In future research, including a greater variety of different context stories should confirm whether the results of this study can be replicated or are due to these specific stories.

Second, there is the task we used. Janssens and Schaeken (2013) asked to evaluate which of the given conclusions was the most appropriate. In the current experiment, participants were asked to express on a scale whether or not they expected that the person in the story would feel understood or not. Katsos and Bishop (2011) compared two different tasks in which participants had to evaluate scalar implicatures. In one experiment, they instructed their participants to judge on a binary scale (right vs wrong) how well a fictional character described certain situations. They observed what is typically observed in such binary judgment tasks when an underinformative sentence was presented, that is, a sentence in which *some* is used while *all* is also the case (e.g., using the sentence "The crocodile played with some of the cars" while it was shown that the crocodile played with all the cars): Children do not penalize such a description as false whereas adults do. In a second experiment, they used a three-point scale with different sized strawberries. Now participants were instructed to reward a bad conclusion with the smallest strawberry, a conclusion that was not completely bad nor good with the medium-sized strawberry, and a good conclusion with the biggest strawberry. As a result, children's performance did not differ anymore from adults': The underinformative sentences were judged by both groups with the middle value on the scale. This indicated that the use of the scale can reveal children's comprehension of scalar implicatures whereas a binary task conceals their competence. Although we did not use a ternary scale, it is clear that it has more resemblances with a ternary scale than with a binary scale. Therefore, one could argue that it is the type of task that caused the effect and not specifically the direct distancing contrastive use of *but*. Further research has to confirm if it was the type of answer-scale that is a crucial factor.

Furthermore, in our task participants did not have to evaluate whether or not an utterance was right or wrong (or something in between), but they had to imagine how the main character in the story would feel after the last sentence and express it on a seven-point scale, going from "feels totally misunderstood" to "feels totally understood". Again, further research must clarify whether or not this dependent variable was crucial in finding the straightforward effects of *but*.

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