

Local Pragmatics and Structured Contents*

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1. Introduction

There is a long-standing view that the Gricean model of conversational reasoning – the kind of reasoning that supports the identification of conversational implicatures – cannot accommodate cases of pragmatically generated modification of the contents of embedded clauses. Such modifications are often referred to as “embedded implicatures.” I will instead use the term embedded pragmatic effects, to be defined explicitly below.¹ The goal of this paper is to argue that some of the supposedly

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¹ A reviewer of this paper observes that the term embedded implicatures seems fundamentally incoherent. The reason is that implicatures, on a strict Gricean construal, are things (let’s say, for concreteness, propositions) that the speaker means, and the speaker, surely, cannot mean something embedded. In the linguistic literature, the term conversational implicature tends to be used in an extended, interpreter-oriented way, to refer to any content which is inferred via Gricean reasoning. The definition given below of embedded pragmatic effects is, I think, a reasonable construal of what is usually intended by the term embedded implicature.

The analyses to be developed in this paper do, I think, suggest how we might formulate a notion of embedded implicature which accords with the strict Gricean conception. Suppose that a speaker, in uttering a complex sentence *S* with constituent *c* and thereby saying (or making as if to say) *p*, implicates *q*; and intends the addressee to recognize that she so implicates by recognizing (via general considerations of Cooperativity) that she intends *c* to be given the non-literal interpretation *i*. Then

problematic pragmatic effects can be accommodated within a Gricean framework, and indeed that these effects can be seen as continuous with ordinary, utterance-level, conversational implicature. I will further suggest, though, that embedded pragmatic effects do force us on us a particular conception of semantics. Specifically, I will argue that an adequate model of the data requires a semantic framework that posits structured representations or contents. One of my primary goals in this paper is to suggest such a model.

Let's begin by characterizing somewhat more precisely the kinds of effects that are the target of this discussion. I define embedded pragmatic effects as in (1). (Illustrative examples will come shortly.)

(1) Embedded Pragmatic Effects: Cases where $\hat{A} \rightarrow \hat{D} \text{ f } \neg P$

framework are traced to the Maxim of Manner. As one reviewer of this paper notes, the fact that

Levinson 1981 and by Levinson 2000. (For Horn, this is an instance of his R-implicature; for Atlas and for Levinson, this is an instance of I-implicature.) I will argue that in a large number of cases, local pragmatic enrichment can be modeled as a process aimed at making sense of the utterance as a whole, that is, as aimed at reconciling the utterance act with the requirements of Cooperativity. In these cases, the process of pragmatic enrichment is triggered by an apparent violation of Cooperativity at the global level. In the relevant examples, however, the global problem has a local solution.⁵

I should emphasize before starting that the point of the discussion

B: Either I'll buy flowers or I'll cook a nice dinner.

>> buy flowers understood to mean "buy flowers and give them to my mother"; cook a nice dinner understood to mean "cook a nice dinner to share with my mother."

The relevant feature of these examples is this: Speaker A asks a question, and B replies with a disjunctive or sentence.⁶ In each case, at least one of the disjuncts is such that, on its fully literal interpretation, it does not directly answer the question asked. We very naturally give that ni

implicature, as it involves the interpreter amplifying the information content of the speaker's utterance up to what the interpreter judges to be the speaker's m-intended point. (See Levinson 2000: 114).

The second preliminary concerns disjunctive answers to questions: Where a disjunctive or sentence is given in answer to a question, it is felicitous only if each disjunct is interpretable as an answer to the question (Grice 1989: 68; Simons 1998, 2001). This can be explained in terms of the relevance of the disjunction as a whole to the question, adopting a standard analysis of questions and answers. We here take a question Q to be a partition over a subset c of the set of possible worlds (roughly, the current common ground of the conversation), where, intuitively, each cell of the partition corresponds to a possible exhaustive answer to the question. Then some proposition p constitutes an answer to Q only if the truth of p eliminates at least one possible answer to Q . In other words, where Q^c is the partition induced by Q on c , then p is an answer to Q relative to c iff $Q^c \perp p$. If we further assume a standard (inclusive) Boolean semantics for disjunctive or, we derive the consequence in (7):

(7) For any question Q and context set (set of possible worlds) c :

$$Q^{1A \text{ or } B} \text{ d } Q^c \text{ iff } Q^{1A} \text{ d } Q^c \ \& \ Q^{1B} \text{ d } Q^c$$

i.e. a sentence of the form A or B can provide an answer to a question Q (in the sense just articulated) only if each of A and B provides an answer in this sense.

Now let's return to our example (5) above, and attempt a Gricean reconstruction of the reasoning that leads to the observed enrichment.⁸ At the first stage, we determine the content of the disjunction as a whole in a fully compositional manner. Now the interpreter must consider whether the utterance is pragmatically adequate. For the reasons just given, it isn't. Merely buying flowers is not a way to recognize someone's birthday (at least not in contemporary Anglo-American culture); hence, the first disjunct fails to provide an answer to the question asked. Consequently, the disjunction as a whole fails

a variable which must be bound. I set aside these complexities here.

⁸Following many others (Saul 2002, Bach 2006, Soames 2008) I take the standard kind of presentation of Gricean reasoning to be a rational reconstruction of some inference process, not an explicit claim about processing. In particular, I do not wish to make any commitment to the claim that interpreters actually calculate full propositional content before engaging in any pragmatic inference. The question we are addressing here is whether Gricean resources allow us to provide a rational reconstruction in the case in question.

to do so. Let's further assume (as in fact seems to be the case), that no other way of making sense of the utterance suggests itself (e.g. it can't be understood as a "monkey's uncle" disjunction, it's not a way of opting out of answering the question, etc).

Now we run standard Gricean reasoning: the speaker's utterance fails to provide an answer to the question asked. But it is presumed that the speaker intends to be cooperative; in particular, she intends to answer the question. So she must intend to convey something other than what she has literally said.

Now let's introduce some slight departures from standard Gricean accounts. First, let's assume that speakers recognize, at least implicitly, that the failure of relevance of the disjunction as a whole is due to the failure of relevance of the first disjunct. The interpreter might then reason as follows: the speaker has said p or q ; but p is not in itself an answer to the question, and so renders the utterance as a whole irrelevant. So, p is not the intended answer. So, q is the intended answer. \therefore q .

(9) [Making plans to get together for an evening]

If you cook dinner, I'll bring dessert.

>> If you cook dinner for both of us and invite me to eat it with you...

(10) [Interlocutors are trying to figure out how to get to a conference in a different city; both know that their friend Harry is intending to go]

If Harry rents a car, we could ride with him.

>> If Harry rents a car to go to the conference...

First observation: in all of these cases, if the antecedent is given its literal interpretation, the resulting conditional makes a claim which the speaker is unlikely to intend to commit to. The presence of a possibly disused nest would not result in a mess; it's the birds occupying the nest that would be the problem. I'm unlikely to offer to bring dessert simply as a reward for you cooking dinner for yourself. And if Harry rents a car to drive to the airport to catch a plane to the conference, riding with him won't get us where we want to go.

In the previous section, I was able to identify one simple condition – the answerhood condition – that triggered local enrichment in all of the disjunction examples. The factors that make these conditional assertions implausible if taken literally are more complicated. Certainly, it has something to do with the connection (or lack thereof) between antecedent and consequent. But for current purposes, all we need is the observation that the global content expressed is not content which an interpreter is likely to take the speaker to intend to convey.

Consider what we might say about the discourse in (8). A, in interpreting B's utterance, first identifies the proposition literally expressed. But this, she figures, cannot be what the speaker meant. The speaker should mean something that she believes to be true (Maxim of Quality); but she can't plausibly believe that the presence of any nest (incidentally

as only the former could be

(12) A: How is Bill getting to Boston next week?

B: I'm not sure. I asked Freda, but she didn't know either. She doubts that he's going to rent a car, though. Apparently he hates long distance driving.

>> ...doubts that he's going to rent a car for the purpose of driving to Boston

(13) We suspect that the boy found a brick and then tried to smash a window, but wound up hitting a passerby.¹⁰

>> ...suspect that the boy fo

3 Accessing subsentential contents

Let's suppose for the moment that the analyses sketched above for the various cases are approximately correct. We then have the following picture: An interpreter recognizes that the literal content of a particular assertoric utterance cannot be what the speaker in

- (15) A: If Jane comes later, we can fill her in.
B: She won't be coming.

B's utterance neither affirms nor denies the

structured propositions have as parts the semantic values of expressions in the sentences expressing them, the semantic values of those expressions are recoverable from the semantic values of the sentences (i.e. the propositions).” In linguistic semantics, structured propositions have had much less appeal (although there are notable exceptions).¹¹ However, a similar effect could be captured within the possible world approach, by assuming that pragmatic reasoning has access not only to the final output of compositional semantics, but to the output of any step in the compositional procedure. The interpreted logical form approach proposed by Larson & Ludlow 1993 seems compatible with this view.¹²

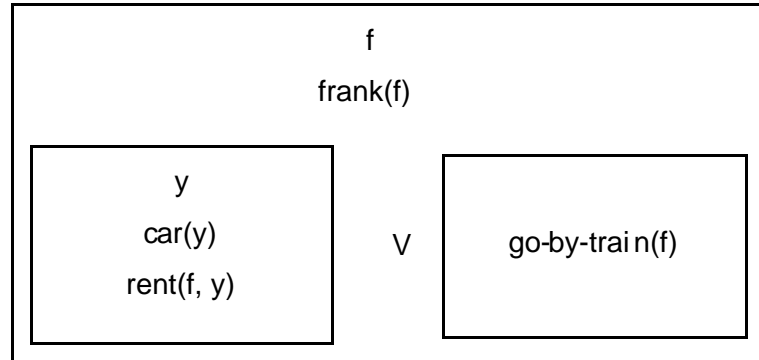
Although there are many arguments for propositions as structured entities, what distinguishes the argument given here is that it is driven by observations about the semantics/pragmatics interface. But I also cannot claim to be the first to argue that a proper model of this interface requires that pragmatic processes operate on a relatively fine-grained input. Much work in Discourse Representation Theory (DRT; Kamp 1981, Kamp and Reyle 1993) constitutes an implicit argument for this position, an argument made explicit in Asher 2012.

DRT provides an alternative to a structured propositions approach, introducing structure at the level of representations which are intermediate between the linguistic input and the semantic value. In this theory, the output of the semantic composition system is a structured representation, a Discourse Representation Structure, which itself receives a model theoretic interpretation. Subordinate clauses generate their own substructures, as illustrated by the basic DRS for a disjunctive sentence given in (20) below:

¹¹ One reviewer, while agreeing that most linguistic semanticists adopt possible world semantics, remarks that this framework “is highly implausible as part of a theory of mental representation or communication,” and notes the large number of highly influential pragmaticists who eschew it. I suspect that most semanticists would be unmoved by this observation, arguing that the job of formal semantics is to provide a formal model of linguistic content, not a psychological one. One way that semanticists might take my arguments here is as suggesting that semantics cannot proceed in a vacuum: for a plausible semantic theory must be able to interface appropriately with pragmatics, and my arguments here demonstrate that pragmatics needs access to subsentential contents.

¹² What it would mean to allow for local pragmatic effects in these and various other frameworks requires careful consideration. ~~Unf~~ @onse

(20) Either Frank will rent a car, or he'll go by train.



As is dear from this simple example (where most of the details of the DRS have been omitted), each disjunct gives rise to a substructure in the representation. It is now clearer what it means for an interpreter to modify the content of a subordinate clause as a result of pragmatic inference. If the interpreter identifies the first disjunct as the locus of infelicity of the disjunction as a whole, then she can consider what modifications of the content of that disjunct, as represented by the subDRS on the left, would resolve that infelicity.¹³ These modifications can be directly entered into the representation.¹⁴

While modification of the contents of subordinate clauses goes beyond the most standard kind of Gricean analysis, the general approach seems fully in line with the Gricean picture. According to the standard Gricean picture, when a speaker makes an assertion, she intends to communicate some particular content to her addressee. The conventional content of her utterance is a guide to, but not fully determinative of, the content she intends to communicate. Interpreters reason on the basis of general principles as to what that content is.

On the expanded Gricean view proposed here, we take into account more specific intentions that a speaker might have. When a speaker makes an assertion with a complex sentence, she intends the

¹³The idea that sub-DRSs can be modified to maintain felicity of the discourse is integral to DRT. This idea is crucial to the treatment of presupposition in this framework (van der Sandt 1991), and is at the core of Segmented DRT (Asher & Lascarides 2003).

¹⁴A DRS could contain a record of these modifications, so that the literal meaning of the utterance could still be preserved.

interpreter to construct a particular structured semantic representation or structured proposition. The conventional content of a subordinate clause is a guide to, but not fully determinative of, the intended content of the corresponding substructure¹⁵. It is, as before, up to the interpreter to reason on the basis of general principles as to what the intended content of that substructure is. But at least for the cases discussed here, reasoning about the intended contents of sentence subparts is always in the service of rendering the content of the utterance as a whole pragmatically appropriate.

References

- Asher, Nicholas 2012. Implicatures in Discourse. Ms IRIT - Université Paul Sabatier.
- Asher, Nicholas & Alex Lascarides. 2003. Logics of Conversation. Cambridge, UK: Cambridge University Press.
- Atlas, Jay & Stephen Levinson. 1981. It-clefts, informativeness and logical form: Radical pragmatics (revised standard version). In P. Cole (ed.), Radical Pragmatics. New York: Academic Press, 1-62.
- Bad, Kent. 1994. Conversational Implicature. *Mind and Language* 9(2), 124-162.
- Bad, Kent. 2006. The top 10 misconceptions about implicature. In B.J Birner and G. Ward (eds.), *A Festschrift for Larry Horn*. Amsterdam: John Benjamins.
- Bad, Kent. 2011. Review of Truth Conditional Pragmatics. *Notre Dame Philosophical Review* August 31 2011 Edition. http://ndpr.nd.edu/news/25657-truth-conditional-pragmatics-2/#_edn14
- Gazdar, Gerald. 1979. Pragmatics: Implicature, presupposition, and logical form. New York: Academic Press.
- Geurts, Bart and Emar Maier 2003: 'Layered DRT'. Ms, University of Nijmegen.
- Grice, H. Paul 1989: *Studies in the Philosophy of Language* 57 @ i

Horn, Laurence R. 1984. A new taxonomy for pragmatic inferenc

Walker, Ralph. 1975. Conversational Implicature. In S. Blackburn (ed.), *Meaning, Reference and Necessity*. Cambridge: Cambridge University Press. 133-81.