ARGUMENTATIVE PROPERTIES OF PRAGMATIC INFERENCESS

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I. Empirical Domain

We’re interested in the argumentative properties of conversational implicatures.

I.A. Central data

The reinforcement of implicatures, illustrated in (2), doesn’t appear as free as it is sometimes claimed to be ([Sadock,78], [Levinson,00]...)

1. a. Do you know whether John will come?
   b. It’s possible

2. a. It’s not sure that John will come
   b. The reinforcement of (2) appears better with an adversative connective:

3. a. It’s possible but it’s not sure
   b. # It’s possible and it’s not sure

Although (4) can be construed as a felicitous utterance, a simple Google search for “possible and not sure” yields far less results than “possible but not sure”, suggesting the former is indeed generally disregarded.

I.B. A first generalization

We observe an apparent correlation between the argumentative orientation of implicatures and the Q-based and R-based implicatures classes presented in [Horn,89].

1. Reinforcement

We can check that the usual examples of Q-implicatures behave as in (5) when reinforced: clauses in (5), implicatures related to the maxim of manner in (6) and to attitude verbs in (7).

5. a. Where is Susan?
   b. Susan is in the kitchen or in the bedroom, (#but) I don’t know which

6. a. What did Max do?
   b. Sam caused Max to die, (#but) he didn’t kill him on purpose

7. a. What did you learn about Sam?
   b. Sam thinks Mary is pregnant, (#but) she isn’t

R-implicatures come in a wide variety of shapes. Their reinforcement doesn’t allow for an adversative connective:

8. a. What has Gwen done when she came home?
   b. Gwen took off her socks and jumped into bed, (#but) in that order

9. a. What did Sam and Max?
   b. Sam and Max moved the piano, (#but) together

10. a. What happened?
    b. Walther broke a finger, (#but) it was his

11. a. What happened yesterday night?
    b. Cindy had a few drinks, (#but) they were alcoholic ones

2. Cancellation

Unsurprisingly, the cancellation of implicatures shows an opposed preference for the use of adversative connectives (as already noted in [Benndorf, Koenig, 98]).

12. It is possible that John will come, (#but) it’s even sure

13. Gwen took off her socks and jumped into bed, (#but) not in that order

From this Benndorf and Koenig conclude that but is intrinsically sensitive to the Q or R nature of an implicature. In (14) we give Anscombe and Ducrot original description of the meaning of but and in (15) we give Benndorf and Koenig’s adapted version.

14. [Anscombe & Ducrot]: A but B is felicitous iff there is a proposition p such that
   a. A is an argument for p
   b. B is an argument for ¬p

15. [Benndorf & Koenig]: A but B is felicitous iff there is a proposition p such that
   a. p is an R-inference or a “world inference” derived from A
   b. B together with the common ground entails ¬p

I.C. Shortcomings

According to the analysis in (15), (16b) has to be an R-implicature derived from the first conjunct of (16a) and thus conveyed by this conjunct.

16. a. Mary almost fell but she caught herself
    b. Mary fell

(16) illustrates a central point in Ducrot’s account of language: an utterance can convey a given meaning and at the same time argue in an opposite direction. Another problematic example is the possibility of utterances such as (17), involving an adversative connective to cancel (what appears as) a Q-based implicature [highlighted in bold face].

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1 I am indebted to Pascal Ansidi, Jacques Jaye, François Mouret, Frédéric Laurens and the audiences of JSM’08 and FSOM4 for their precious advice and comments on previous versions of this work.

2 Actually it doesn’t produce any result at all. All the occurrences are of the form “only possible, but not sure”. The use of restriction conventionally expresses the content of the implicature and the resulting utterance has different properties.

3 Dropping the but would be acceptable in (13) with a specific prosody on the cancelling part. We take this to be a cue marking for contrast.
Given an utterance of propositional form \( p \) that conversationally implicates \( q \) in the aforementioned manner, an utterance \( U \equiv p \land q \) is felicitous iff:

24. The goal of conversation \( H \) is such that \( r_i(p)>0 \) and \( r_i(q)<0 \)

25. If \( q \) is as in (22);
   a. by Ducrot’s law of inversion: \( 0<r_{i,1}(q)<r_{i,2}(p) \)
   b. therefore \( q \) is an argument for \( \neg H; r_i(p)=r_i(q)<0 \)
   c. \( \Rightarrow \) the conditions for the use of an adversative are met

Let’s call the implicatures derived in the manner of (22) *adversary implicatures*.

### III.B. Allied Implicatures

The property in (22) isn’t true of all implicatures. Most notably we don’t want it to apply to (17). As shown by its cancellation, the implicature from *some* to *not all* in (17) has the same argumentative orientation as the sentence using *some*. We will call such implicatures *allied implicatures*.

To explain (17) let’s consider:

- \( p \); the proposition denoting all worlds such that Kevin ate some cookies but not all
- \( q \); the proposition denoting all worlds such that Kevin ate all of the cookies
- \( U \); the utterance “Kevin ate some of the cookies”
- \( H \); the “discourse goal” “Kevin behaved well at Granny’s”

The relevancies of \( p \) and \( q \) are such that: \( r_{i,1}(q)<0<r_{i,2}(p) \); it would be counter-argumentative to utter a sentence containing all if the speaker wishes to argue for \( H \)

The denotations of \( p \) and \( q \) are in that of \( U \), but \( U \) can’t argue for both \( H \) and \( \neg H \)

There is a way to argue explicitly in favour of \( \neg H \) (by using \( q \), a hearer is thus entitled to understand that the speaker meant \( p \) (and had no choice but to use *some* since there’s no way to express \( p \) straightforwardly, as abundantly commented in [Horn,89])

- An implicature of content \( \neg q \) is then derived, but on different grounds than in (22)

In other terms we could say that \( q \) doesn’t belong in the speaker’s commitment.

### III.C. Application: Possible Discourses

We now look at the possible discourse connectives for the reinforcement or cancellation of the inferences based on the following parameters:

- The logical relation between an implicated meaning and the utterance that conveys it (whether the implicature entails the utterance or is independent of it)
- The argumentative link between the implicated meaning and the utterance that conveys it: adversary or allied

The results are presented in Table 1 with the preferred connectives and the reference to examples.

### III.A. Adversary Implicatures

An explanation for the possibility of marking a contrast is then straightforward:
IV. Preferences

In III A we explained the possibility of having an adversative connective, not the preference for it.

IV.A. Maximization

[Sauerland,08] postulates a principle of “Maximize Redundancy” that we paraphrase as in (32).

32. Prefer an utterance that presupposes an already existing proposition

This principle accounts for the oddness of (33a) versus (33b).

33. a. # A father of the victim came to the scene of the murder
   b. The father of the victim came to the scene of the murder

Since in (3) an argumentative opposition is present between the conjunct, one could argue that (3) is favoured over (4) because an adversative “captures” the opposition already present.

This leaves several questions unanswered:

- The argumentative contribution of but isn’t usually treated as presupposition, but rather as a conventional implicature or as a secondary content (see [Bach,99])
- It is not sure that the preference for (3) over (4) is as strong as the preference for (33b) over (33a) and thus the applicability of the same principle for the two pairs could be seen as dubious

IV.B. Idiosyncrasy

In [Asher, Lascarides, 03] the semantics of the discourse relation Contrast are such that:

34. a clause for the Contrast relation such as a cue element like but or intonation is necessary when two propositions are connected and one proposition denies a default consequence of the other

In example (35) the second conjunct denies a default consequence of the first and thus a “cue marker” is necessary. Simple juxtaposition is possible only with a specific intonation.

35. John hates sports, #(but) he likes curling

Thus we could consider that the systematic argumentative opposition in (3) somehow embodies the relation of Contrast.

However it’s not clear how the second conjunct of (3) denies a default consequence of the first. Even if it can be figured out¹, one can find examples that exhibit the same preference and for which the second conjunct appears very redundant with the first.

36. a. Does John want some cake?
   b. Yes, he’d like a bit of cake, but not a lot.

V. Conclusion

We argued that we can’t account for the argumentative properties of pragmatic inferences on the sole basis of classical Gricean mechanisms.

Footnotes:

¹ e.g. by considering that being sure entails being possible and thus that the implicature denies a situation compatible with being possible.
Rather, it’s in argumentative frameworks that the argumentative relations linking an implicature and the utterance that conveys it can be described. The argumentative properties of the implicatures stem from the propositions they express and not from their inferential nature.

We showed that the operations of implicature reinforcement and cancellation were not just as often supposed, but should obey discourse constraints related to the argumentative and logical links between an utterance and its inferences.

One point remains open to investigation: the exact reason for the preference for certain connectives. As stated we claim that this preference is not grounded on inferential mechanisms. We intend to pursue an experimental validation of this claim based on recent results (see [Breheny et al.,45] and [Novick,Sperber,07]) that suggest that implicatures are a nonce phenomenon. If the same preference for adversative connectives is observed in the absence of the implicatures this would strengthen our position.

References
Potts, C. (2007). Into the conventional-implicature dimension. Philosophy Compass