ENTAILMENTS,PRESUPPOSITIONS AN IMPLICATURES : A SEMANTICO-PRAGMATIC STUDY

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INTRODUCTION

It is common knowledge for us that in any kind of verbal interaction speakers convey most of the communicational content by way of implication rather than by making overt statements. In fact, it is in the nature of communication itself that much of the total signification of utterances is communicated in the form of implicit meaning. One cannot make one's utterances entirely explicit. We can imagine the dullness and drabness such explicitness would result in. Implicitness is thus an essential feature of communication. It is this feature that makes communication both an interesting and a challenging enterprise.

In a conversational interaction implicitness results from a number of sources. Entailments, presuppositions and implicatures are some of the most significant inference generating mechanisms involved in the generation and transfer of implicit meaning. The present paper aims at stating some distinctive properties of entailments, presuppositions and implicatures. The purpose here is to explore the nature and function of these different types of inferencing at work in an ongoing conversational interaction.

1.ENTAILMENT

Entailment (sometimes referred to as logical implication or logical consequence) is a crucial semantic relation. This relation can be

defined in terms of valid rules of inference, or alternatively in terms of the assignment of truth and falsity. Levinson defines semantic entailment as follows:

A semantically entails B (written A 11- B) if every situation that makes A true, makes B true (or: in all worlds in which A is true, B is true). (Levinson, 1983:174)

Entailment reflects a fixed truth relation between sentences which holds regardless of empirical truth of the sentences . Saeed (1997:90) characterizes this truth relation as follows:

A sentence P entails a sentence q when the truth of the first (p) guarantees the truth of the second (q) and falsity of the second (q) guarantees the falsity of the first (p).
A sentence p is thus said to entail a sentence q if q is a valid inference from p irrespective of the empirical truth of p and q.
Consider the sentences 1 (a) and (b), for example, where the former is said to entail the latter.

1.(a) Brutus, Cassius and Casca assassinated Caesar.
ll- (b) Caesar died.
In the above example [1], if one knows (a) to be true, then, without being told anything more, one knows that (b) is true. The inference to (b) is arrived at instantaneously as a result of one's knowledge of the English language. An entailment relation is thus given to us by linguistic structure. We do not have to check any fact in the world to deduce the entailed sentence from the entailing sentence.

2. a) This car belongs to Ali.
   (b) Ali owns this car.
   The sentences (a) and (b) in [2] above mutually entail each other, since these sentences have the same sets of entailments, they may be said to paraphrase one another .
   Just as entailment relation results from lexical sources, it may also result from syntactic sources.

   Consider the following, for example,
3. (a) Dr.Hadi organizerd a seminar on multiculturalism.
   (b) A seminar on multiculturalism was organized by Dr.Hadi.

The sentences (a) and (b) in [3] entail one another . The active and passive versions of the same sentence thus mutually entail each other. The entailment relation here results from a syntactic source.

2.PRESUPPOSITIONS

If entailments are crucial semantic relation, presuppositions, it may be said, are typical pragmatic relation. The notion of presupposition emerged originally from a concern in philosophy with the nature of 'reference' and 'referring expressions'. However, it soon emerged that there are several types of presuppositions and that they arise from a variety of lexical and syntactic sources. The presupposition generating linguistic items are referred to as presupposition triggers.
The following linguistic items (i.e. words, expressions or syntactic structures) may be said to give rise to specific types of presuppositions:

A) Simpler or compound referring expressions (i.e. proper names, definite descriptions, quantified noun phrases, etc.) give rise to presuppositions of existence. e.g.
   4. Babu is a staunch vegetarian.
      >>Someone called Babu exists.
   5. The President of USA is a man of action .
       >>There is certain person who is the president of USA.
   6. Ali's car is the best of its class.
       >>Ali has a car.
   B) Some lexical items such as factive verbs, verbs of judgment,
      Change of state verbs generate presppositions. Factive verbs
      like know, realize, regret,etc and verbs of judgment like blame,
      approve, etc. presuppose the truth of their complement clause,
      e.g.
  7. Fadi realized that it was a tough topic.
       >>It was a tough topic.
  8.George regrets joining activist network.
    >>George joined activist network.
  9.   Karim blamed Salim for instigating Rami against the
        authorities.
   C) Change of state verb like start, begin, stop, etc give rise to a
      kind of 'switch' presupposition. Such a verb describes a new

state (or a kind of change in state), and simultaneously presupposes that the newly described state of affairs did not exist prior to the change, e.g.

10. Nadia started attending seminars.

 >>Nadia did not use to attend seminars.

11. Nadia stopped attending seminars.

 >>Nadia used to attend seminars.

D) Cleft and pseudo-cleft constructions give rise to Presuppositions. e.g.

12. It was his arrogance that irritated me.

13. What irritated me was his arrogance .

 >> Something irritated me.

E) Some subordinate clauses like 'Time adverbial clauses' and 'comparative clauses' also generate presuppositions, e.g.

14.I was awarded a Ph.D. before he had even registered for it.

 >>He registered for Ph.D.

15.He is more generous than you are.

 >> You are generous.

These are some of the sources which generate presuppositions . In fact there are many other surface linguistic structures that give rise to presuppositions. Karttunen, for example, identified thirty-one kinds of presuppositions triggers out of which Levinson (1983: 179-184) isolated thirteen sources as representing the core presuppositional phenomena. Yule (1996: 27ff) speaks of presuppositions due to lexical and structural sources such as factive, non-factive, counter-factual presuppositions; existential presuppositions and presuppositions generated by WH-questions, etc.
The above-cited illustrations, however, suffice for our purpose hereto indicate the general nature of the phenomena.

Presuppositions, however, are not just inferences picked out by virtue of some technical definition. There is, as Levinson (1983:180) notes, an intuitive conceptual unity to this set of inferences, namely that they are all inferences regarding the background assumptions against which the main import of an utterance is to be assessed Consider the following, for example:

16. Charles,who is a renowned wrestler, stopped wrestling from 25th of March 2002.

17. Charles, who is a renowned wrestler, did not stop wrestling from 25th of March 2002.

18. Did Charles ,who is a renowned wrestler ,stop wrestling from 25th of March 2002?

The utterance of any of these three sentences[16-18] seems to Produce a range of shared inferences, such as:

19. Someone called Charles exists.

20. Charles is a renowned wrestler.

21. Charles was a practicing wrestler before 25th of March 2002.

The inferences [19-21] may be said to be the presuppositions of the utterances [16-18]. It is interesting to note that the said presuppositions [19-21] are all background assumptions against which the main point of each of the three utterances [16-18] is asserted.

PROPERTIES SHARED BY PRESUPPSITIONS

Presuppositions share certain common features which may be used as criteria for identifying or defining the phenomena . The following may be said to be the properties of presuppositions;

I) DETACHABILTY

 Presuppositions are apparently tied to particular aspects of the surface structure of utterance. Proper names and definite descriptions, for example, have presuppositions of existence attached to them; verbs of judgment and factive verb have the presuppositions of the truth of their complement clauses attached to them. There seems to be a conventional association between the surface organization of sentence constituents and particular presuppositions. The presuppositions of a cleft sentences, for example, can be specified by forming a proposition by taking the material after the relative clause marker and inserting an appropriate variable or indefinite existential expression like 'something' or 'somebody' . In fact, detachability is one of the properties which servers to distinguish   presuppositions   from implicatures. Unlike

presuppositions, implicatures are attached to the semantic content and not to the surface from of the expressions used.

II)CONSTANCY UNDER NEGATION

Frege(1892)and Strawson(1952)observed that presuppositions survive negation(negations here means the negation of the main verb or the topmost clause in a complex sentence). Frege noted that negation of a sentence / statement sustains its presuppositions. This is to say that a statement and its negative counterpart share the same set of presuppositions. In fact, one major difference between entailment and presupposition is their behaviour under negation, namely that negation alters entailments but it leaves the presuppositions untouched. Consider the following sentences for example:

22. Uncle managed to stop in time .
    From this we can infer:
23. Uncle stopped in time.
24. Uncle tried to stop in time .

    Now take the negation of (22):
25. Uncle didn't manage to stop in time.

From (25) we cannot infer (23). In fact, the main point of the utterance (25) could be to deny (23). Yet the inference to (24) is preserved and thus shared by both (22) and its negation (25). On the basis of the negation test, then , (23) is entailment of (22), whereas (24) is a presupposition of both(22) and (25).
'Constancy under negation ' thus provides us with an initial operational test for identifying presuppositions. We can simply take a statement , negate it, and see what inferences survive. The inferences that survive this initial test may be said to be the potential candidates for presuppositionhood.

III) POTENTIALITY TO SURVIVE IN A RANGE OF LINGUISTIC AND NON- LINGUISTIC CONTEXTS

Presupposition survive not only negation, but they also systematically survive in a range of other contexts where entailments do not . They survive, for example, in model

contexts (i.e. in embedding under model operators   like 'possible', 'there is a chance that', etc; under deontic modalities like those expressed by 'ought' and 'should' . They also survive in the context of compound sentences formed by the connectives 'and' , 'or', 'if…then' (and their equivalents), and in complex sentential operators which allow the presuppositions of the component parts to ascend to become presuppositions of the whole. Presuppositions thus distinguish themselves by the ability to survive in various linguistic contexts.

IV) DEFEASILITY

The notion of defeasibility is crucial in pragmatics. Most of the pragmatic inferences exhibit this property. An inferences is said to be defeasible if it is possible to cancel it in some situation (or context). Defeasibility (or context sensitivity) is one of the properties that distinguishes presuppositions from entailments . A given sentences, for example , always produces the same set of entailments. This, however, dose not seem to be true of presuppositions. As Levinson (1983:186) observes, " one of the peculiar things about presuppositions is that they are liable to evaporate in certain context , either immediate linguistic context or the less immediate discourse context, or in circumstances where contrary assumptions are made". Consider the following example given in Levinson (1983):

26. At least John won't have to regret that he did a Ph.D.
        >>27. John did a Ph.D.

But if the participants mutually know that John failed to get into a doctoral course, the speaker may use sentence (26) with no consequent presupposition (27) arising. This is so because the presupposition (27) evaporates because the participants mutually know that the putatively presupposed fact does not obtain . This phenomenon of presupposition failure or presupposition cancellation is know as defeasibility feature. Here is another instance of presupposition cancellation:

28. Sue cried before she finished her thesis.
29. Sue died before she finished her thesis.

Sentences (28) and (29) both have the same syntactic structure but the utterance of each seem to produce a different presupposition. The utterance (28) produces presupposition (30), whereas (29) produces presupposition (31) below:

30. Sue finished her thesis .
31. Sue did not finish her thesis.

This is so because in (29) the presupposition (30) is blocked or cancelled by our general knowledge of the world . We know , for example, that dead people cannot complete their incomplete tasks ; a dead person therefore , cannot finish her unfinished thesis. The point about defeasibility, thus, is that presuppositions do not always survive. Contrary beliefs held in a context , for example , cause presupposition to evaporate without any sense of semantic or pragmatic anomaly(Thorat,2002:77) . The most general level affecting presupposition behaviour is the context provided by background knowledge. Among other levels is the context of the surrounding syntactic structures. There is no doubt that there are many other kinds of intra-sentential cancellation or suspension of presuppositions as could be seen from what is known as the projection problem for presuppositions.

It emerges from the above discussion that presuppositions share a number of common properties. For example :
I. They are background assumptions .
II. They are tied to aspects of surface structure .
III. They survive in a number of linguistic and non-linguistic contexts.
IV. Unlike entailments, they are defeasible .
These features shared by presuppositions may be used as criteria to distinguish and differentiate presuppositions from entailments on the one hand and implicatures on the other.

IMPLICATURES

The term implicature was first introduced by the philosopher. H. Paul Grice in a series of lectures he delivered at Harvard in 1967.
It was intended to serve the function speakers mean more than what they actually say . An implicature may be said to be the extra meaning attached to, but distinct from, the sense of the utterance. The term implicature signifies what a speaker implicates (as opposed to what he actually says) and its approximation arrived at by the hearer by making use of some inferences mechanism.

In order to distinguish implicatures, Grice differentiated between three categories of meaning , viz. (i) what is said, (ii) what is conventionally implicated, and (iii) what is non-conventionally implicated. Grice divided implicatures into two distinct categories-conventional implicatures and conversational implicatures. In a conventional implicature, what is implicated derives from the conventional meaning of the words used (Grice, 1967, rpt. 1989:25).

When a speaker says, 'He is an Englishman; he is, therefore, brave',
for example, he implicates that 'his being brave follows from his being an Englishman'. This implicature seems to result from the conventional meaning attached to the use of the word 'therefore'.

Conventional implicatures, however, are not a very interesting category. In fact, the main focus of Grice's analysis is to identify and explain conversational implicatures', which belong to the category of non-conventional implicatures. It is this category with which we are concerned here. Henceforth, therefore, unless there is a specific mention of other categories of implicatures, we shall use the term 'implicatures' to signify ' conversational implicatures ' .

In the Gricean framework implicature is conceived as a species of inference, distinct nd different from entailment and presupposition .
Entailment, as we have seen , is a purely semantic relation known as logical consequence, whereas the very notion of implicatures was conceived in order to account for the extra meaning attached to utterances in interactional situations. Implicatures share some of the properties of presuppositions (especially features concerning defeasibility), but they differ from presuppositions in many respects. Presuppositions, for example, are inferences regarding background assumptions against which the main point of an tterance is asserted.

Implicatures, on the other hand, are inferences arrived at by relating the contextual assumptions to the principles and maxims of standard conversational practice. Another difference between implicatures and presuppositions is that implicatures are attached to the semantic content of an utterance (and are therefore non-detachable) , whereas suppositions seem to be built into the linguistic structure of sentences that give rise to them(and are therefore detachable).

Grice classified implicatures into three categorise on the basis of the speaker's attitude toward the maxims as follows :
     (i) Implicatures arising from the observance of the maxims,
     (ii) Implicatures arising from violation of a maxim, and
     (iii) Implicatures arising from the flouting or exploiting of a maxim.

The first category (i) includes cases in which no maxim is violated (or at least cases in which it is not clear that any maxim is violated).
Grice illustrates this category with the following examples:

    32. A: I am out of petrol.
         B: There is a garage round the corner .
    33. A: Smith doesn't seem to have a girlfriend these days .
         B: He has been paying a lot of visit to New York lately.

In both these examples, speaker B implicates that which he must be assumed to believe in order to preserver the assumption that he is observing the maxim of relation. (32.B), for example, implicates that the garage is, or at least may be, open, and that it has, or at least may have, petrol to sell; and (33. B) implicates that Smith has, or may have, a girlfriend in New York. Besides there seems to be no violation of any maxim . Levinson (1983) calls the implicatures of this sorts as standard implicatures .

In the second category (ii), we have implicatures arising from violation of a maxim. There may be said to be three ways in which a conversational maxim can be said to be violated – (a) deliberate and conscious violation of a maxim (as in case of an attempt to mislead or deceive the addressee(s), (b) inadvertent violation of a maxim (as in case of a violation resulting from the speaker's beliefs based on wrong or inadequate knowledge or information), and (c) a conscious violation of a maxim which may be explained by the supposition of a

clash with another maxim. The second (Gricean) category of implecatures (ii), however, covers only the third type of violation of a maxim (c), namely cases where the violation of a maxim may be explained by the supposition of a clash with another maxim. Consider, for example, the following short talk exchange between two friends, A and B, who are on their tour to France and are talking about a mutual acquaintance C:

> 34   A: Where dose C Live?
>   B: Somewhere in the south of France .

Here B seems to violate the first maxim of Quantity – 'Make your contribution as informative as is required (for the current purposes of the exchange). This infringement of the maxim can be explained only by the supposition that B is aware that to be more informative would be to say something that infringes the second maxim of Quality – 'Don't say what you lack adequate evidence for' . B, therefore, may here be said to implicate that he dose not know in which town C lives.

The third category (iii) covers cases that involve exploitation, or flouting, of a maxim for the purpose of getting in a conversational implicature by means of something of the nature of a figure of speech. In such cases, though some maxim appears to be violated, it is violated only at the level of 'what is said ' . The hearer, here, is entitled to assume that the maxim, or at least the overall cooperative principle, is observed at the level of what is implicated. Cases of irony, metaphor, etc. may be said to result from this kind of flouting or exploiting of a maxim. Consider a case of an ironical statement, in which A says to B, "C is a fine friend ", when A and B both know that this is obviously not the case. The statement here may be said to implicate the contrary of what is said, viz 'C is not a good friend, and perhaps, not a friend at all'.

There are thus different types of implicatures. Different pragmaticists, focusing on different aspects, have classified implicatures in different ways. Gice, for example, classified implicatures into two categories : generalized implicatures and particularized implicatures . Levinson classified them into categories of standard implicatures and (by extension) non-standard implicatures. Gazdar identified two more categories : scalar implicatures and clausal implicatures, and so on and so forth.

PROPERTIES SHARED BY IMPLICATURES

Implicatures possess certain common features, which may be construed as test for identifying and separating them from other types of inferences. Grice (1967, rpt. 1989:39-40) specified five such properties which, he said, implicatures 'must possess' . Levinson (1983:114-118), following Grice, named these properties as (i) defeasibility (or cancellability), (ii) non-detachability , (iii) calculability, (iv) non-conventionality, and (v) indeterminacy and/or multiplicity of meaning. Levinson further claimed that properties (i) to (iv) taken together as necessary conditions "are only jointly sufficient for an inferences to be considered an implicature .

I)DEFEASIBILITY

Defeasibility, or context sensitivity is a general feature of pragmatic inferences. Implicatures, unlike entailments, share this property with presuppositions. Consider the following, for example:

> 35. There are twenty delegates attending the seminar.
> +>36. There are not more than twenty delegates attending the seminar.

Utterance (35) may be said to implicate (36) (an instance of scalar Quantity implicature). Implicatures can however be suspended or overtly denied without a sense of contradiction. Consider the following, for example:

> 37. There are twenty delegates attending the seminar, if not more.
> 38. There are twenty delegates attending the seminar; twenty-five, in fact.
> 39. There are twenty (and may be more) delegates attending the seminar.

In (37) the implicature to (36) seems to be suspended by mentioning an if-clause, whereas utterance (38) seems to implicate (39) rather than (36). Besides, an implicature may just disappear (or not arise at all) in a context where it is clear both to the speaker and the addressee that such an inference could not have been intended. Implicatures are thus defeasible, and can drop out in certain linguistic and non-linguistic contexts.

II) NON-DETACHABILITY

Implicatures are attached to the semantic content rather than to the linguistic form of what is said. We cannot, therefore, detach implicatures from an utterance simply by changing the words of the utterance for synonyms. Imagine a situation, for example, where two friends A and B both know that their common friend C has recently made a mess of things. Now, if A says to B:

    40. C is a genius

        He may be said to implicate (41).

    41. C is foolish

This implicature (41) (vide ironic interpretant), being attached to the semantic content of the utterance (40), continues to exist even if we replace the utterance by any other synonymous expression as in (42):

    42. (i) C is extraordinarily brilliant.

        (ii) C is an exceptionally clever person.

        (iii) C is a distinguished scholar.

An implicature is, thus, standardly non-detchable. [There are however, certain implicatures (especially those arising under the maxim of manner) that are specially linked to the form of the utterance (Levinson, 1983:116)]. As we have already observed, this property of non-detachability serves to distinguish implicatures from presuppositions. For presuppositions, unlike imlicatures, are attached to the form rather than to the meaning of what is said. They are therefore detachable. Consider the following, for example:

    43. Salim didn't manage to score a a goal.

        seems to presuppose (or pragmatically imply):

    44. Salim tried to score a goal.

The presupposition to (44) is due to the expression 'manage to', and if we want to avoid conveying the presupposition (44), we can do so by finding alternative ways of communicating the same truth conditional content that would lack the said presupposition. Thus we can say (45), for example, in place of (43), and thereby avoid the presupposition (44).

    45. Salim didn't score a point .

The utterance (45) seems at least to be semantically and truth conditionally equivalent to (43), but it lacks the inferences to (44). Presuppositions, in contrast to implicatures, thus do seem to be detachable.

III) CALCULABILITY

The third distinguishing feature of implicatures is that they are calculable. The presence of a conversational implicature, according to Grice (1967, rpt. 1989:31), must be capable of being worked out.

For an implicature may be intuitively grasped, but as Grice says, "unless the intuition is replaceable by an argument, the implicature (if present at all) will not count as a conversational implicature: it will be a conventional implicature". For every putative implicature,i it is be possible to construct an argument of the type suggested by Grice for deriving it. It should be possible to show, for example, how from the conventional meaning (or the sense of the utterance) on the one hand, and the cooperative principle on the other, it follows that an addressee would make the inference in question to preserve the assumption of cooperation.

IV) NON-CONVENTIONALITY

An implicature is not part of the conventional meaning of the utterance which generates it. It is by definition non-conventional.

For as Grice says, you need to know 'conventional force' of an utterance before you can calculate its implicatures in a context.

Implicatures cannot, therefore, be part of that meaning. Besides, it is possible for an utterance to be true even if its implicature is false, and vice versa as in the following example:

> 46. Jane hit Jim .
> +>47. Jane didn't kill Jim by hitting him.

Here (46) seems to implicate (47) by maxim of Quantity [an instance of a scalar implicature]. For if Jane had killed Jim by hitting him, to say just (46) would in fact be to withhold information in a non-cooperative way. But then a speaker may, with an intention to mislead the addressee, say (46) even in a situation where (46) is true and (47) is false. The additional information (subtly) incorporated in the implicature (47) is thus not part of the conventional meaning of the utterance (46).

V) POTENTIAL INDETERMINACY AND MULTIPLI-CITY OF MEANING

As Levinson (1983:118) observes, "an expression with a single meaning can give rise to different implicatures on different occasions, and indeed on any occasion the set of associated imlicatures may be not be exactly determinable ". He illustrates the point with the following example:
      48. Hani is a machine .
 An utterance of (48), could be taken to mean any one or more than one (and perhaps all) of the following :

     49. (i) Hani is efficient.
         (ii) Hani lacks emotional touch .
        (iii) Hani never stops working .
        (iv) Hani puffs and blows, etc.

Implicatures may , thus in some cases (as in metaphorical usages and tautologies) have a certain indeterminacy which is incompatible with the stable determinate senses usually assumed in semantic theories.

Besides these five properties, implicatures may be said to possess other properties as well. Levinson, for example, observes that implicatures are freely reinforcible (Sadock's claim), and that 'generalized conversational implicatures' seem to be universal in nature thoughAbdul-Wahim(200:280)rejects this fact assuring that"..cultural logic makes Arabic native speakers over-informative and more direct when they use their language in verbal behaviour." It dose not, however, fit in the scope of this short paper to provide an exhaustive inventory of the types of implicatures and of their properties.A future work will deal with them. A passing mention of a few sample examples is therefore sufficient to give the feel of the tremendously vast and an extremely vital area in communication covered by implicatures.

CONCLUSIONS

Entailments, presuppositions and implicatures play vital role in the organization and management of conversational interaction. Entailments account for the literal meaning of the sentences /sentence

parts uttered ; presuppositions account for the background assumptions and shared knowledge (world view) against which utterance in conversational make sense; and implicatures account for the additional non-literal but contextually relevant inferred portion of meaning in a conversation. Together, these inferencing mechanisms enable interlocutors to fulfil their conversational goals more effectively.

<u>**NOTE:**</u> The following symbols used in the paper stand for the expressions given below:

      A 11- B: A entails B

      A>> B: A presupposes B

      A+> B: A implicates B

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