

THE ROLE OF COGNITIVE MECHANISMS IN MAKING INFERENCES¹

FRANCISCO JOSÉ RUIZ DE MENDOZA IBÁÑEZ
University of La Rioja

ABSTRACT. Discovering the nature and role of inferential mechanisms in language understanding is a distinctly common concern in work carried out both within Cognitive Linguistics and Relevance Theory. Cognitive linguists increasingly tend to see language-related inferences as a matter of the activation of relevant conceptual structures. This is generally accepted by relevance theorists; however, they tend to play down the importance of such structures in favour of pragmatic principles. This is evident in their treatment of phenomena like metaphor and metonymy, which are explained by them as a question of deriving strong and weak implicatures. In this paper we revise this treatment and argue in favour of dealing with metaphor and metonymy as cognitive mechanisms which provide us with explicit meaning or, as relevance theorists would put it, with sets of “explicatures”. This allows us to reformulate the implicature/explicature distinction and to reconsider the way it works in relation to other phenomena which are also of concern to relevance theorists, like disambiguation in conjoined utterances.

1. INTRODUCTION

Linguistic messages have to be understood in their contexts. In this paper –following some recent trends in linguistics– ‘context’ is taken to mean not simply the context of

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situation in the Firthian sense but a richer notion which includes all the knowledge which the speaker brings to bear at the moment of producing and interpreting utterances. In discourse, this knowledge consists of fairly stable sets of assumptions which have been called by cognitive linguists *idealized cognitive models* or ICMS² (see Lakoff 1987) and temporary assumptions, all of which come in degrees of strength. Temporary assumptions are typically inferential in nature. In this connection, relevance theorists follow Sperber & Wilson (1986) in making an interesting distinction between two levels of inferencing. One of the levels involves the production of explicated meaning or *explicatures*; the other is a matter of implicated meaning or *implicatures*. An explicature is the fully developed propositional form of a linguistic expression. This notion, which is contrasted with the classical one of *implicature*, has received a great deal of attention and has undergone considerable elaboration, particularly in the study of discourse coherence (cf. the study of discourse connectives like *so* and *after all* in Blakemore 1987, 1988, 1992 and of some conjunction phenomena in Carston 1993, and Wilson & Sperber 1993) and even in the understanding of speech acts which are considered as *higher-level explicatures* (see Wilson & Sperber 1993, and especially Blakemore 1992, where this notion is treated in some detail). Relevance theorists generally recognize that the identification of explicatures potentially involves three subtasks: reference assignment, disambiguation, and enrichment. The two first subtasks have generally been treated in the pragmatics literature and it is not difficult to accept that they contribute to the generation of explicatures; however, the third subtask is a new proposal and has required special attention by relevance theorists (Carston 1988; Recanati 1989). In this paper, we shall first revise and refine the notion of enrichment; we shall distinguish between enrichment as a parametrization of the generic conventionalized meaning pertaining to intentionally vague expressions and enrichment as the explicitation of the way in which discourse connections are established. Then we shall argue for the existence of other procedures for explicature generation which are not related to enrichment; more specifically, we shall propose mitigation –a procedure which is the converse of enrichment– and conceptual mappings as defined by cognitive linguists (see, for example, Lakoff 1993; Lakoff & Johnson 1980; Lakoff & Turner 1989) to qualify as such procedures. Our approach has at least two consequences for Relevance Theory: one is that we contend that the conventional value of expressions has a more important role in triggering inferential processes than what relevance theorists have so far recognized; the other is that we draw the (perhaps fuzzy) boundary line between what is explicitly and what is implicitly communicated at different places. The final outcome is

2. Other alternative names in the literature are *frames*, *schemas*, *scenarios*, and *scripts*. See Taylor (1989), and Ungerer & Schmid (1996) for updated descriptions and revisions of all this terminology, since each term carries different presuppositions about the object of study.

intended to endow the relevance-theoretic framework with greater cognitive adequacy and to make it compatible with recent findings in cognition.

2. IS THE IMPLICATURE/EXPLICATURE DISTINCTION NECESSARY?

Consider the following exchanges:

(1)

John: Why don't we row upstream to the island?

Peter: That's five miles away.

(2)

Traveller: How far is it to Birch Wood?

Local resident: That's five miles away.

For (1) imagine a context in which John and Peter have been rowing down a river in a small boat for pleasure, but Peter is already tired of rowing. Peter's response to John's suggestion is relevant only if Peter believes that his tiredness may become manifest to John and carries with it the implication that he does not really want to get as far as the island. In (2), the local resident's response to the traveller only attempts to answer his question without any further implication. Observations like this are commonplace in Gricean pragmatics where implications like the one in our first example are thought to obey pragmatic principles of some sort and are not very interesting any longer. But what may be interesting is to note that there are two possible levels of inferencing involved in the utterance *That's five miles away*. In (2) only one of these levels plays a role, while in (1) the two are needed. Thus, in the local resident's answer in (2) *that* is understood to refer to 'Birch Wood', which is five miles away 'from the specific location where both the traveller and the local resident are talking'. The two processes here involved, fixation of reference and completion, are inferential since they go beyond what is actually coded in the linguistic expression. But at the same time they are built out of the expression itself. This is not the case with the processing of Peter's response in (1) where his interlocutor is expected to understand that Peter is not willing to row up to the island because Peter finds that five miles is too much for him to row in his present physical conditions. For this information to be retrieved by John, he not only needs to bring to bear *complementary* information but also *supplementary* information, i.e. an additional relevant set of assumptions which will allow him to work out what the speaker actually means. But this process is not always carried out on the basis of what is literally said; the utterance may require some previous development along the lines of what we have illustrated for the example in (2). Thus, for (1), before we obtain the

implicature that Peter does not want to row up to the island, we need to develop the utterance *That's five miles away* into something like “The island John refers to is five miles away from where John and Peter are”. Since implicatures are not obtained directly from what is said in the linguistic expression but they need to be worked out on the basis of fully developed propositions, the relevance of the notion of explicature becomes all the more evident.

Consider now the utterance:

(3) John almost hit me.

which is ambiguous in various ways: it may mean that John tried to hit the speaker but did not succeed; or perhaps John had a desire to hit the speaker and he barely refrained himself from doing it; or it might have been the case that John wanted to hit someone else, missed him, and nearly reached the speaker by mistake. The ambiguity is easily resolved in context but it requires making explicit the way in which “almost” applies:

(4)

(a) John tried to hit the speaker and John almost succeeded in hitting the speaker.

(b) John wanted to hit the speaker and John almost carried out this action.

(c) John wanted to hit Peter but instead John almost hit the speaker.

Each of the explicatures in (4) may be exploited to convey additional information in the form of implicatures. Thus, among other possibilities, (4a) may imply that the speaker was more skillful than John and was able to avoid being hit; (4b) may suggest that John was really angry at the speaker; finally (4c) may be used to indicate that sometimes John is blind to the consequences of what he does. As is easily noted, it is not possible for the language user to obtain the relevant implicatures unless the explicatures are correctly worked out beforehand. Thus, the idea that the speaker managed to get out of John's reach so as not to be hit cannot be obtained from (4b), and the same applies to the rest of the cases.

The notion of explicature comes quite close to what Bach (1994) has called *implicature*. Bach makes a threefold distinction between what is actually said (for him, this is what is explicit), what is implicated, and what is implicit in what is said. To illustrate his view, if I say *Mary has finished* what is explicit is the propositional content of what was actually said, i.e. the idea that Mary has stopped doing something or has completed a task. A contextually-driven expansion like “Mary has finished washing the dishes” would be an implicature. Other implications, which are conceptually independent propositions, would qualify as implicatures. For example, *Mary has finished* may implicate that now the addressee can ask her out. For Bach (1994: 141) implicatures are “built out of what is said”, while implicatures are completely separate and inferred from

it. The essential difference with the relevance–theoretic approach is that, for Bach, it is not correct to suppose that the propositional significance of an utterance is exhausted, as Carston (1988) suggests, between what in Relevance Theory is considered the explicit and the implicit (what is implicated). Instead, Bach contends that what is said is explicit, and that there is “a distinct category, the implicit, between the explicit and the implicated” (Bach 1994: 141). However, it may be argued that what Bach sees as a problem is perhaps the main strength of the implicature/explicature distinction. Thus, what is said may not always need further development by the addressee for the speaker to achieve his communicative goals. For example, it may be totally unnecessary to derive an explicature like “Mary has finished washing the dishes” in order to understand that by saying *Mary has finished* the speaker is giving the hearer a hint that he can now ask Mary out. But the principle of relevance does not impose that type of requirement. If the hearer is only waiting for Mary to stop doing whatever it is that keeps her busy and prevents her from going out with him, the basic assumption schema provided by *Mary has finished* will need no expansion. The extra effects provided by such an expansion would not be necessary in that situation, and therefore it would be ruled out as irrelevant³. As a result of this, Bach’s distinction between what is said and what is implicit but not implicated, although not incorrect, is unnecessary from the communicative standpoint. Accordingly, we shall stick to the twofold implicature/explicature distinction, with the refinements which will be proposed below.

3. ENRICHMENT

For Sperber & Wilson (1986) an explicature is the development of the logical form encoded by an utterance. In the previous section, we have seen how this may be achieved by means of reference assignment, disambiguation and what we have called “completion”, which would be considered by relevance theorists as a form of what Sperber & Wilson name *enrichment*. An interpretation is an enrichment of another interpretation when it contains the same information and more (cf. Sperber & Wilson 1986: 189). Thus, “the island is five miles away from here” is an enrichment of “the island is five miles away”.

3. The principle of relevance sets constraints on the amount of development required by the basic assumption schema provided by an utterance. Otherwise we could come up with redundant overextensions of explicatures. In our example, we could have overextended the explicature even more by attaching to it a conclusion as follows: “Mary has finished washing dishes, so she has time to go out”. However, this conclusion is but an implicated premise which the hearer had already retrieved from the context before he has to interpret the utterance *Mary has finished*. This premise combines with the information in the utterance to allow the hearer to reach the implicated conclusion that he can ask Mary out. For further discussion of the overextension problem as applied to other cases of explicature generation, see Carston (1988: 42-44).

Recanati (1989) calls this form of enrichment by completion *saturation* and distinguishes it from *strengthening*. The distinction is already implicit in Sperber & Wilson's account; however, they have not made it explicit and have chosen to devote more attention to the form of enrichment which Recanati names strengthening, perhaps because it is less obvious than saturation. To give an example of enrichment by strengthening, consider the following utterance discussed by Sperber & Wilson (1986: 189):

(5) It will take some time to repair your watch.

In their account, this sentence is a truism since watch-repairing is an activity with a temporal duration and therefore inherently irrelevant. Therefore, we conclude that the speaker must have meant something more than what is literally expressed. In general, the utterance is used to mean that the activity will take longer than the hearer expected. For Sperber & Wilson, an utterance provides us with an assumption schema which must be enriched with the help of the context, as was the case with the island example above. The presence of "manifestly vague" terms in an assumption schema works as an indication of where it might be enriched. In cases like this, what the language user has to do is find the first accessible enrichment of the concept which is relevant enough for the context given; thus "some time" might be at least one second, at least one hour, at least one week, and so on, each of these interpretations being an enrichment of the preceding one. In the context of (5), the first accessible enrichment of "some time" which is consistent with the principle of relevance is a specification that the time it will take to repair the watch is at least more than would normally be expected.

Although illuminating in some respects, Sperber & Wilson's explanation of how enrichment works in (5) places too much weight on the inferential side of processing. Compare (5) with (6):

(6) It will take time to repair your watch.

Probably most speakers of English would use (5) and (6) indistinctly to mean that the repairing process will be longer than what is usually expected. However, the expressions *take time* and *take some time* are not always completely interchangeable:

(7)

(a) You should take time to explain fully.

(b) ?You should take some time to explain fully.

(8)

(a) These things take time.

(b) ?These things take some time.

An explanation for this is that the two expressions actually code different meanings and therefore yield different explicatures. While *take some time*, as was evidenced in example (5), may be paraphraseable as “take a certain amount of time; in any case longer than expected”, *take time* means something like “take a relatively long period of time; in any case, at least as long as needed”. In a context in which someone is expecting his watch to be repaired in a reasonable period of time, (6) would indicate the hearer that the process will be long, at least as long as needed. By further implication (this time an implicature), the hearer will be able to understand that his watch is in a poorer condition than he thought and accordingly that repairing it will take longer than he expected. Evidently, the second part of this implicature is not produced when processing (5), since the same information has explicature status. Note in this respect that if we were to apply Sperber & Wilson’s rationale without modifications, the two expressions *take time* and *take some time* would have to be enriched in the same way, both being vague and truistic expressions, and as a result they would be fully interchangeable, which is not always the case, as evidenced by the examples in (7) and (8). Thus, the slight oddity of (7b) originates in that it is a strange piece of advice to direct someone to take longer than usual over an explanation. The situation would be different if instead of a directive speech act we had a report, as in

(9) He took some time to explain fully,

which might even be taken as a critical remark or a complaint about the prolixity of the person’s explanation. Then, expressions like (8a) are often used as explanations or even as warnings that something is the case. Their generic character favours the use of *take time* instead of *take some time*, which is more easily associated with specific events.

It may be observed that the enrichment process works for both examples in a slightly different way from what Sperber & Wilson seem to assume. The two explicatures “take longer than expected” and “take a long time, as much as needed” are not produced by enrichment since they are somehow coded in their respective linguistic expressions. Instead, since enrichment comes about as a result of contextual requirements (including our encyclopedic knowledge) a likely explicature both for (5) and (6) will contain a rough estimate by the hearer of the minimum amount of time required. If the hearer would normally expect his watch to be repaired in two days, *some time* may mean “more than the usual two days, probably three or four, perhaps a whole week”; it would much less likely mean “a whole month” and even less so “a year”. What this suggests is that, in these cases, the process of enrichment actually boils down to a question of parametrizing very generic conventionalized values in relation to a context. As a result of such a process, we may come up with a “richer” conceptualization in the sense that it entails the literal content of the initial expression.

Similar observations apply to other cases of enrichment like those described by Carston (1993) in relation to some conjunction and juxtaposition phenomena. Consider the following utterance, borrowed from Carston (1993: 27):

(10) He handed her the scalpel and she made the incision.

For Carston, there are many possible interpretations of (10), but a very common one, which matches our normal assumptions about the cooperative interaction between nurses and doctors, would be:

(11) He handed her the scalpel and a second or two later she made the incision with that scalpel.

Since the proposition in (11) entails the rather less accurate information in (10) we may assume that (11) is an enrichment of (10). However, we may also note that the specification “and a second or two later” also involves a parametrization of the rather imprecise meaning which derives from the sequential description of the two events. We must note that the same explicature arises from juxtaposing the two sentences in (10):

(12) He handed her the scalpel; she made the incision.

We also note that we may do violence to our regular encyclopedic knowledge by reversing the order of the two sentences both in the conjunction and the juxtaposition, which makes the precedence relationship independent of the use of *and*:

(13)

(a) She made the incision and he handed her the scalpel.

(b) She made the incision; he handed her the scalpel.

The role of *and*, as Carston (1993: 42) has convincingly argued, is not to establish precedence or causal links between events but simply to indicate that the hearer is to process the resulting complex sentence as a single pragmatic unit. This explains, among other things, why the two following examples have strikingly different interpretations:

(14)

(a) I ate somewhere nice last week; I ate at Macdonald’s.

(b) I ate somewhere nice last week and I ate at Macdonald’s.

In (14a) the first sentence responds to the question “where?”, while the second has a mere amplificatory function. This is obviously not the case for (14b).

There are other possible relations between conjoined and juxtaposed sentences. Let us consider another example, this time taken from Wilson & Sperber (1993: 11):

(15) Peter’s not stupid. He can find his own way home.

Following up on an idea first put forward by Blakemore (1987, 1988), Wilson & Sperber argue that (15) has two interpretations which would be encouraged by the following reformulations:

(15')

- (a) Peter's not stupid; so he can find his own way home.
- (b) Peter's not stupid; after all, he can find his own way home.

In (15a) the first clause is evidence for the conclusion in the second clause; in (15b) it is the second clause that provides evidence for the conclusion in the first. Wilson & Sperber follow Blakemore in arguing that discourse connectives like *so* and *after all* do not encode concepts (i.e. they are not truth-conditional). What they do is constrain the inferential phase of comprehension by pointing to the type of inference process the hearer is expected to follow; that is, discourse connectives are procedural, which would explain our lack of direct access to the information they encode. However, this line of reasoning misses an important fact: the purported inferences on the type of relationship which holds between the sentences linked by means of discourse connectives may also be obtained without the help of the connectives. In fact, an adequately "enriched" version of (15) will take the form of either (15a) or (15b). This strongly suggests that *so* and *after all* rather than procedural constraints on inference are simply ways of making explicit part of the conceptual make-up of the full propositional interpretation of (15). In so doing, they rule out part of the inferential process to derive the relevant explicatures. However, since sometimes discourse connectives may have more than one value, disambiguation may be needed, as with *so* in (16) below:

(16)

- (a) This is Mary's car; so, she must be at the party.
- (b) John hit Mary; so, she cried.

In (16a) *so* introduces a logical conclusion; in (16b) a consequence or effect.

Furthermore, these connectives are not content but grammatical items operating on a suprasentential or discourse level, which does not mean that they are not conceptual as Wilson & Sperber claim. Interestingly, the same considerations apply to Carston's analysis of *and* which specifies its grammatical function at discourse level, but –also unlike what she claims– no constraint on the type of inferential work to be carried out.

Our observations on discourse connectives and on the truistic expressions *take time* and *take some time* combine to offer a subtly different picture from the one provided by relevance theorists on the notion of enrichment. In some cases we may simply need completion or saturation with information directly derived from the context (e.g. *Mary is ready* may be developed into *Mary is ready for the dance*); this process is

grammatically motivated. In cases involving a manifestly vague expression, like *take some time*, enrichment may be strongly guided by the conventional value assigned to it; this value is generic and has to be parametrized in relation to the context (note that here the role of the context is not to supply missing information but to help upgrade the existing one); the process is semantically (i.e. conceptually) motivated. In conjunction and juxtaposition enrichment is the result of making explicit the way in which two or more propositions are related; this time, the process may be cued by the ordering of the propositions (as in precedence relationships), or it may be carried out on a purely inferential basis by consistency with very generic schemas like cause–consequence or premise–conclusion. Such generic schemas may be coded by discourse connectors which therefore play no direct role in enrichment processes, although they may need disambiguation, which is a separate subtask in the production of explicatures.

4. MITIGATION

Consider the following exchange:

(17)

A: Say, this suitcase weighs tons!

B: You bet. That’s really a heavy one.

In this exchange speaker A has uttered a sentence which is literally false, but he is not taken to mislead by his interlocutor, whose response is but a corroboration of what he believes is A’s communicative intention. Interestingly enough, the false statement uttered by A seems to entail B’s confirmatory assertion. This situation is exactly the reverse of what happened with enrichment where the intended interpretation was a “stronger” version of what was said: now the actual interpretation is entailed by what is said. In fact, B’s assertion is a corroboration of part of the explicit interpretation of A’s utterance: the idea that the suitcase A is talking about is extremely heavy for A. This interpretation results from playing down the strength of A’s assertion and may be regarded as an explicature obtained by mitigation. There are other implications which may be derived with the help of supplementary information. For example, if it is clear from the context that A is completely unable to lift the case, A’s utterance may be interpreted as a call for help. If A is obviously capable of lifting the case by himself with relative easiness in spite of its weight, B may think that A only seeks B’s admiration. If A’s wife has packed the case to the limit, A’s assertion may simply be intended to draw attention to this fact and to his attitude to it (e.g. he may be shocked, sick of it, and so on). Finally, we may observe that mitigation works, like some forms of enrichment, on the basis of scalar concepts such as quantity and frequency. Thus ‘some time’ and

‘weighs tons’ involve quantity while expressions like *Johnny always behaves* (which may mean, if said by a joking mother, ‘Johnny usually behaves’) and *I’ve told you a thousand times* (which usually means ‘I’ve told you many times’) involve frequency⁴.

The account given above is at odds with the standard relevance-theoretic treatment of hyperbole given by Sperber & Wilson (1986: 235). If we applied their analysis to example (17) above, A’s utterance would be taken to convey the strong implicature that the suitcase is extremely heavy, plus other weaker implicatures like the ones we have mentioned above. Sperber & Wilson avoid discussing whether it is possible to derive explicatures from a hyperbole (other than those obtained by disambiguation and reference assignment) probably because enrichment cannot be applicable to them and they are too tied to their own definition of explicature as “development” of the logical form of an utterance. Our discussion of hyperbole above, however, supports the idea that an explicature is not always the result of the development of a logical form; for that reason, explicatures are better described as “adaptations” of the semantic content of utterances to make them meet contextual requirements. Furthermore, our account of hyperbole allows us to differentiate the central from the weaker implicatures better than Sperber & Wilson’s. Consider A’s statement in (17) again. Imagine that it is taken to be a request for help. This implicature would be more central than others like:

(18)

The speaker is not strong enough to lift that suitcase.

The speaker should not try to lift heavy weights.

The speaker is always bothering me.

The speaker should carry his own luggage.

If we did not accept that hyperbolic expressions convey both explicatures and implicatures, the latter in different degrees of centrality, then we would have to allow for the possibility of having more than one implicature bearing the same degree of centrality. In this view the implications that the suitcase is very heavy and that the speaker is asking for help to carry it would be on a par. This not only runs counter to our intuition but is also problematic on an explanatory basis since it would entail postulating that an utterance may keep a central implicature constant, independently of the context, and then have a whole range of other equally central implicatures which would vary with the context.

4. The relationship between scalarity and enrichment/mitigation is evidenced by the fact that different expressions making use of the same scalar concept may have the same explicature. For example, *Johnny sometimes behaves*, if said by a proud mother in a context in which it is clear that Johnny’s behaviour is better than what is literally said, may be developed into ‘Johnny usually behaves’; the same explicature is obtained -as we have seen- by mitigating *Johnny always behaves*.

Finally, accepting that mitigation may have a role in deriving explicatures is less difficult once we note that, like some forms of enrichment, this procedure works on scalar concepts and is sensitive to entailment relationships. However, we still want to propose one more way of deriving explicatures.

5. MAPPINGS AND THE ENTAILMENT TEST

Carston (1988) has proposed a test for implicatures which she calls the *functional independence criterion*. In essence what this principle states is that an explicature will always entail the basic assumption schema from which it is derived. Implicatures, on the other hand, are not entailed and to that extent they are independent of the assumption schema. Carston's criterion has been criticized by Recanati (1989) mainly on the grounds that it makes the mistake of using a formal property of propositions (i.e. entailment) to define explicatures as opposed to implicatures. Instead, he suggests that what defines a communicated assumption as an implicature is the way it is recovered in the interpretation process. In fact it could happen that an implicature entails the basic assumption schema by accident. Let us try to illustrate Recanati's argument. If the speaker says:

(19) Someone will call you.

meaning that Jim will call the hearer, we may obtain this implication either by reference assignment, which would make it an explicature, or by supplying an implicated premise from the context. Imagine that the speaker wants to warn the hearer that Jim will call him but does not want anyone present to know who he is talking about. "Jim will call the addressee" would be an implicature which would accidentally entail the basic assumption schema in (19).

Another problem for Carston's test comes from our previous analysis of the hyperbole in (17) where the entailment relationship is simply reversed, i.e. an explicature does not entail but is entailed by the initial assumption schema. Even if we accepted the standard relevance-theoretic view, which gives implicature status to what we regard as an explicature, we would still have the weird situation in which an implicature is entailed by the explicit information.

Our discussion suggests, very much in line with Recanati's observations, that the distinction between implicatures and explicatures depends more on the type of inferential process than on the formal properties of the relations between the propositions involved. Implicatures, as we have remarked above, seem to be produced by invoking supplementary information from the context, which will form part of a

premise-conclusion schema. Explicatures, on the other hand, seem to be produced on the basis of the blueprint provided by the semantic structure (rather than the logical form) of the utterance and are obtained by means of a number of procedures. Among them, relevance theorists have discussed disambiguation, reference assignment, and enrichment. In the previous section we have proposed another one, mitigation. Now we want to propose that what cognitive linguists call metaphoric and metonymic mappings (cf. Lakoff & Johnson 1980; Lakoff & Turner 1989; Lakoff 1993) are to be added to this list of procedures. A conceptual mapping is a set of correspondences between two conceptual domains, one of which (called the *source*) helps to structure and reason about the other one (called the *target*). These sets of correspondences are organized in systems which can be given quite generic labels. One well-known example of this is Lakoff's (1993) discussion of the LOVE IS A JOURNEY mapping. In it the lovers correspond to travellers in a journey, the love relationship to the vehicle, difficulties in the relationship are impediments to travel, the lovers' common goals are the destination, and so on. Of course, as Lakoff himself has pointed out, it is possible to see other goal-oriented activities (e.g. a business, a career) in terms of a journey. This context of conventionalized relationships allows us not only to interpret but also to explore possible implications of many metaphorical expressions. Consider the expression *We're getting nowhere* as said by one of two lovers about their love relationship. In the context of correspondences of LOVE IS A JOURNEY, we understand that the love relationship is having difficulties because it is not making any progress to achieve common goals; we further understand that if the lovers are doing things together, these are not the type of things that will help their relationship thrive; we may also reason that it is possible for the lovers to improve their relationship by changing their love-related activities (i.e. that they may have success if they "take a different road"). These are clearly explicatures since they are the result of the language user exploring a relevant part of the domain of love (as cued by the linguistic expression) in terms of its counterpart in the domain of journeys. Of course other explicatures may be possible, but one of them is more central than the others (i.e. more immediately accessible). The criterion to assign explicature status to all these implications is that they are all logical consequences of the target domain of the metaphor directly derivable by applying to the target domain of the mapping the same reasoning schema that structures the source domain. Of course the development of the explicatures is regulated by contextual requirements but, as with the other cases of explicature generation, this is done only by way of adaptation to the context. It is only when we make use of the context to obtain supplementary information -which takes the form of an implicated premise in a reasoning formula of the premise-conclusion type- that we are faced with implicatures in a strict sense. For example, imagine that Mary is tired of her relationship with Peter and she feels she wants to put an end to it. The utterance *We are getting nowhere* may be intended to convey this

feeling by implication provided Mary can trust that Peter is aware that she would never keep on with a relationship which has no clear goals. But in a context where Mary does want to save her relationship with Peter, the same utterance could be interpreted as a way of calling his attention to the problem or even as a complaint that he has been unaware of the situation. Other many weaker implicatures would be possible, among them:

(20)

- (a) The hearer is never mindful of the speaker's problems.
- (b) The speaker may be no longer in love with the hearer.
- (c) The hearer may no longer be in love with the speaker.
- (d) Speaker and hearer had better do something about their problem.
- (e) Love relationships are very delicate.
- (f) The speaker is not being fair with the hearer.

Metonymic mappings also play a role in deriving explicatures. While a metaphor is a mapping across discrete conceptual domains a metonymy is a mapping carried out within a single domain⁵. Consider the following examples:

(21)

- (a) Freud is tough to read.
- (b) Hamlet has given a remarkable performance.

In (21) we have two examples of metonymy which can be paraphrased respectively:

(22)

- (a) Freud's writings are tough to read.
- (b) The actor playing Hamlet has given a remarkable performance.

Both paraphrases are part of the explicatures for the two metonymic expressions in (21) and are the basis on which to construct possible implicatures. For example, (21a) may be used as a warning to the hearer who is eager to read all of Freud's writings; (21b) may be used by the speaker to show his admiration for the actor playing Hamlet. In any case, the paraphrases in (22) are developments (or adaptations) of the basic blueprint provided by the linguistic expressions in (21). Let us see how this development takes place. In (21a) we have a case of what I have elsewhere called a *target-in-source* metonymy, while in (21b) what we have is a *source-in-target* metonymy (cf. Ruiz de Mendoza 1998b, 1999). In effect, Freud's writings, the metonymic target, are part of our encyclopedic knowledge about him (the source); on the other hand, the metonymic target

5. The difference between metaphor and metonymy is not as simple, but lack of space prevents us from going into specific details here. However, the reader may be referred to Ruiz de Mendoza (1997, 1998b) for further discussion.

in (21b) is a certain actor, and the role of Hamlet is a subdomain of our knowledge about that actor. That is, in (21a) the metonymic source is the matrix domain in the domain-subdomain relationship, while in (21b) it is the metonymic target that has that status. In both cases the metonymic target is profiled by the predicate of the linguistic expression. Thus, in (21a) we know that only difficult to understand material may be hard to read and in (21b) we know that performances are given by actors not by characters.

One interesting fact of the relationship between a matrix domain and its subdomains in metonymic mappings is that only the matrix domain is available for anaphoric reference. This is probably due to the fact that each of the two metonymy types mentioned above serves a very distinct communicative purpose which bears on the type of explicature which it will produce. Thus, while the explicature for (21a) is the rather vague idea that the speaker is referring to Freud's writings in general, the explicature in (21b) has a specific person as its referent. This may be more readily seen if we compare these two other examples:

(23)

- (a) Chrysler has reported a record profit of \$3.7 billion this year.
- (b) Pass me the salt, please.

In (23a) –which is a target–in–source metonymy– it is not clear, and it does not matter much, who has been in charge of reporting the benefit (of course someone working for Chrysler, maybe a sales committee, maybe a head accountant, maybe a spokesman...). In (23b) –which is a source–in–target metonymy– the speaker is referring to a salt-cellar or any other clearly identifiable container where the salt is. Now, it may be noticed that whenever the target domain of a metonymy is a vague domain of reference, this domain is never selected for anaphoric reference in conjoined utterances:

(24)

- (a) Freud is tough to read but he is not boring at all.
- (b) Chrysler has reported a record profit of \$3.7 billion this year but it has laid off hundreds of workers.
- (c) ? Freud is tough to read but it (= his written production) is not boring at all.
- (d) ? Chrysler has reported a record profit of \$3.7 billion this year but they (= the people in charge of employment regulations) have laid off hundreds of workers.

“Freud” and “Chrysler” are well-developed domains of reference, which makes them available for anaphoric reference. Their metonymic targets, on the other hand, provide us with domains of reference which are either vague or too difficult to describe accurately; as a result the mapping in these cases involves a reduction of the source domain in the sense that it only brings out a rather imprecise part of it. Contrast (24a) with the examples in (25) below:

(25)

- (a) Freud is on the top shelf but be careful because its pages are brittle.
- (b) Freud is on the top shelf and he is not boring at all.
- (c) ? Freud is tough to read but its pages are brittle.
- (d) ? Freud is not boring at all and he is on the top shelf.

In (25a) we understand that at least part of Freud's work is on the top shelf, probably in book format. The predicate *is on the top shelf* indicates that the speaker is not referring to an abstract entity (Freud's ideas), but to a physical entity which occupies a place in space. While Freud's writings (in the non-physical sense) were a subdomain of Freud in (24a), now we find that the writings are in turn a subdomain of the physical format in which they are recorded (e.g. a book or a collection of books). It is this new matrix domain that serves for anaphoric reference in (25a). The possibility of (25b) is based on the fact that the predicate *is on the top shelf* profiles our knowledge about Freud in such a way that it calls for a double metonymic mapping as a result of which both 'Freud' and 'book' qualify as matrix domains. The strangeness of (25c), however, is due to the fact that in it Freud is only seen as the author of material to read (as prompted by the predicate *is tough to read*), but the mapping process stops there in such a way that there is only one matrix domain involved (i.e. 'Freud'). A similar reasoning explains why (25d) is another infelicitous example, even though it apparently contains the same information as (25b): the question is that the predicate *is not boring at all* in (25d) exclusively profiles Freud as an author and is no cue for the activation of the book domain, while in (25b) it is required to get from the domain of Freud to that of book, a process which is mediated by the subdomain concerning Freud's ideas.

Figure 1 below diagrams the situation which licenses (21a) and (24a), while figure 2 captures the situation which makes possible (25a) and (25b):

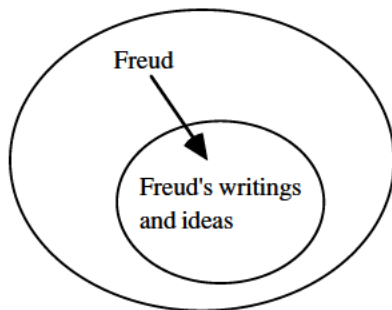


Fig. 1

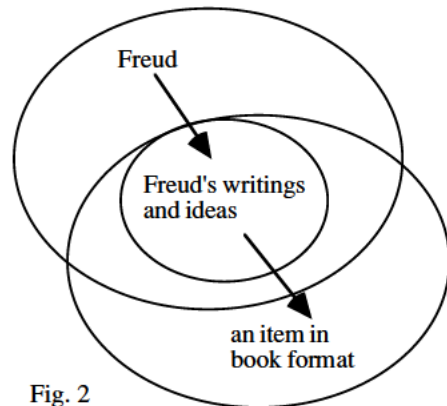


Fig. 2

It may be seen that in the examples in (25) both ‘Freud’ and ‘book’, which are well-developed matrix domains, are available for anaphoric reference, while the rather more imprecise domain concerning Freud’s writings, his ideas, philosophy, etc., is not. This observation, together with our analysis of the examples in (24), tends to substantiate the hypothesis that metonymies of the target-in-source type –contrary to what is the case with metaphor and with source-in-target metonymies– yield explicatures which are intently vague. The purpose of this type of metonymy is usually to help the language user to come to terms, in an economic fashion, with a conceptualization which is hard to pin down accurately.

Apart from the evidence given, there are several additional reasons why metaphoric and metonymic mappings qualify as procedures for producing explicatures. One is that conceptual mappings, like the other explicature-deriving procedures, are mental operations intended to make the meaning of utterances consistent with the context and our knowledge of the world. Another one is that metaphor and metonymy are often conventional in two ways: by becoming lexicalized in a language; by exploiting (more or less creatively) a conceptual correspondence in a conventionalized system. It would be difficult to think of implicatures as forms of conventionalized meaning since this would mean that they are derived directly from the linguistic expression, which is exactly what happens with explicatures⁶.

6. FINAL REMARKS

The debate over the implicature/explicature distinction is evidently not exhausted by the ideas put forward in this paper. Further work is required not only within the present domains of emphasis within Relevance Theory –where a large amount of research is being carried out in the field of connectives– but also, as we have tried to show, within domains –like hyperbole, metaphor, and metonymy– which have been erroneously treated exclusively in terms of implicated meaning. Also, we have shown that the extreme inferentialist position taken by relevance theorists is not tenable. Linguistic expressions contain much more conventional meaning than is recognized by extreme

6. Grice’s notion of conventional implicature is not relevant here (cf. Grice 1989). Grice treated conventional implicatures as linguistically encoded concepts which made no contribution to the truth condition of the utterances but rather to their implicatures. It follows that since discourse connectives like *but*, *moreover*, and *so* do not contribute to the truth conditions of sentences, they fall on the implicit side. However, as has been shown in our discussion above, which follows partially Wilson & Sperber’s, discourse connectives are a matter of explicitness.

inferentialists; this does not preclude inferential activity from taking place but places it in a different perspective, as we have been able to see.

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