This paper explains the importance of inferencing to effective communication, discussing how it is achieved and focusing on English-as-a-Second-Language (ESL) education. Part 1, "Background," examines clues provided by speakers and writers, also looking at clues and thinking processes used by listeners and readers in order for successful inferencing to occur. It draws upon pragmatics, discourse analysis, and psycholinguistics, offering examples of effective and ineffective communication and discussing the use of specific clues and procedures. Part 2, "Implications for ELT," examines implications for the learning and teaching of ESL, focusing on ESL materials and cultural content, grammar, lexis, listening and reading, lexical inference, and speaking and writing. (Contains 32 references.) (SM)
INTRODUCTION

Inferencing (commonly referred to as 'reading/listening between the lines') is essential for effective communication for two reasons. Firstly, the conventional meaning of lexis is not always a clear indicator of the intended message of speakers/writers (e.g. Grice, 1975). Secondly, "discourse rarely provides us with a fully explicit description of a situation" (Eysenck, 1990: 224); therefore, we usually have to fill in the missing information (see also Clark & Clark, 1977: 96-98). It seems wise then for foreign language teachers and materials writers to take account of the clues and procedures involved in language interpretation.

But how is inferencing achieved? That is, how do we understand more than (or even something different from) what the actual words seem to denote? What knowledge and clues do we use? What processes take place in our minds? As far as ELT is concerned, what are the implications for decision-making, materials-writing and classroom practice? In other words, what is it that teachers and materials writers need to know about inferencing, and how can they translate this knowledge into teaching materials and procedures?

In Part 1 I discuss the clues provided by speakers/writers, as well as the clues and thinking processes used by listeners/readers in order for successful inferencing to take place. This outline will draw on Pragmatics, Discourse Analysis and Psycholinguistics. I will also provide examples of (in)effective communication, and will discuss the use of specific clues and procedures. In Part 2, I briefly discuss the implications for the learning/teaching of English as a foreign language.

PART 1. BACKGROUND

CONTEXT

It is a truism worth restating that language is not used in a vacuum, but in specific situations, by people who want to achieve specific purposes. The physical, social and psychological background in which language is used has been termed 'context' (see Brown & Yule, 1983: 36-46; Crystal, 1991: 79; Halliday & Hasan, 1989: 5-9; Levinson, 1983: 23). The basic elements of context are:

- Participants: speaker(s)/writer(s) and (actual or intended) listener(s)/reader(s).
- Relationship between participants.
- Topic.
- Setting (place & time).
- Purpose (what speakers/writers want to achieve).

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Language out of context has only potential for meaning. In other words, the same sentence/utterance can have different meanings in different contexts. For example, let us examine the meaning of question (1), asked in two different contexts:

(1) What do you think?

- **Context A.** Two friends shopping. One of them tries on a pair of shoes, looks at the other and asks: 'What do you think?' (= Do you think they suit me? / Should I buy them?)
- **Context B.** Wife comes into the house all wet. Husband asks: 'Is it raining?'. Wife answers 'What do you think?' (= Of course it is!)

An interesting observation is that whereas in context A the speaker is asking a genuine question, in context B the speaker doesn't expect a response.

A useful distinction has been made between context (as defined above) and co-text, that is the text preceding and following the stretch of language we aim to interpret (Brown & Yule, 1983: 46-50. See also TEXTUAL COHESION and NEW & GIVEN INFORMATION IN DISCOURSE below).

In order to further clarify the nature and use of contextual knowledge, I would like to stress the following points.

- Contextual knowledge is not an either/or affair, but depends on the number of contextual elements that a listener/reader knows.
- In cases when listeners/readers have partial knowledge of the context they can use the given elements of the context, as well as the co-text and relevant background knowledge to infer the missing contextual elements.
- Full knowledge of the context is not always essential for successful interpretation (see Levinson, 1983: 22-23). Brown & Yule (1983: 59) present the "principle of local interpretation", which "instructs the hearer not to construct a context any larger than he needs to arrive at an interpretation".
- When listeners/readers try to interpret language out of context they use "a set of background assumptions about the contexts in which [the particular stretch of language] could be appropriately uttered" (Searle, 1979 in Levinson, 1983: 8).

**BACKGROUND KNOWLEDGE**

Apart from knowledge of language and context, listeners/readers need to make use of background knowledge relevant to the context in order to interpret the messages of speakers/writers. For example, let us take the following exchange:

(2) A: What time is it?
    B: Well, the postman's been already.

(From Brown & Yule, 1983: 226)

In order for A to make use of B’s reply, A doesn’t just need to understand the language, but also to know what time the postman usually comes.

A number of models have been proposed regarding the way knowledge is represented in the mind and used in interpretation. What seems to be common to the different models is that we keep stored in our minds stereotyped representations of places, situations, event sequences, participants etc. (Brown & Yule, 1983: 238-255; Clark & Clark, 1977: 166-168; Eysenck, 1990: 261-273; Singer, 1990: 98-110). For example, when the topic is 'going to the dentist' the knowledge we will activate may include any of the following:

- **Place & organisation** (e.g. waiting room and surgery – which we expect to be next/near to each other).
- **Objects**, their position and layout (e.g. chairs and magazines in the waiting room; dentist's equipment in the surgery), as well as their expected size, weight, texture, colour etc.
- **Participants** (e.g. dentist, secretary, nurse, other patients) and their roles.
- **Activities** (e.g. drilling, filling a tooth), their sequence and their results.
- **Sounds** (e.g. drilling).
Inference: Procedures and Implications for ELT

• Smell (e.g. camphor).
• Feelings (e.g. anxiety).

These representations are modified and expanded according to our experience. When interpreting language, the nature and quantity of knowledge that is activated will depend on the particular context, co-text and our needs. Let us consider example (3) below in a 'dentist' context:

(3) I tried to read to keep my mind occupied, but the sound kept reminding me of what was to follow.

It is clear that we don’t need to activate all possible elements of knowledge for successful interpretation of (3).

TEXTUAL COHESION

Definition & Typology

We can define cohesion as the ‘glue’ which links the elements of a text (Crystal, 1991: 61; Richards et. al., 1992: 62). Speakers/ writers can help listeners/ readers interpret texts by:
• Referring to something outside the text (exophoric co-reference); e.g. ‘Not this one, the other one’.
• Referring to something in the text (endophoric co-reference). This can be reference to what has already been mentioned (anaphoric co-reference), or reference to something that follows (cataphoric co-reference).
• Signalling the relation between parts of the text (e.g. addition, comparison, contrast, cause, result).
• Making explicit the sequence of events (e.g. enumeration, use of tenses).
(Brown & Yule, 1983; Halliday & Hasan, 1976.)

Please note that the lexis creating cohesion are not necessarily found in adjacent sentences; cohesion can still exist when the cohesive devices are further apart. The tables below provide an outline of the different ways in which speakers/ writers can create cohesion (sources of categories: Ball, 1986; Brown & Yule, 1983: 191-194; Halliday & Hasan, 1976; Malkmjaer, 1991: 463-464; Nunan, 1993: 21-32; Salkie, 1995).

Repitition

• ‘Crunchy Crisps. The crunchiest crisps you’ve ever tasted.’
• ‘The more you know about whiskey, the more you appreciate Brand X.’

Lexical Relations

Synonymy & Antonymy
• ‘I came home feeling exhausted. ... There was a message on the answering machine about a party, but I was so knackered I just ignored it.’
• ‘The teacher’s enthusiasm can make even the most indifferent learner show interest in the lesson.’

The second example shows that cohesion through synonymy/ antonymy can also be created when the two words are not the same part of speech.

Hyperonymy & Hyponymy
• ‘Although he likes milk, he won’t touch other dairy products.’
Here ‘milk’ (the hyponym) is a type of ‘dairy product’ (the hyperonym).

Related Lexis
• ‘They’ve also got a Labrador. He’s adorable, but the little devil has chewed every shoe in the house.’
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This is an example of what Halliday & Hasan (1977: 274-277) term “general noun” (here devil, modified by little).

Co-Reference

Exophoric

- *As for Bill, I don’t think we should wait any longer.*

Endophoric

- *Mr Peterson was here yesterday evening. He seemed to be fine.* (Pronouns)
- *‘True, Ed’s got a fast car, but mine is more reliable.’* (Possessive adjectives)
- *‘I’ll try to reason with him first. If that fails, I’ll take him to court.’* (Deixis)

Substitution

- *‘I don’t need a new computer. The one I’ve got works fine.’*
- *‘I am a social smoker, and so is my husband.’*

Ellipsis

- *‘Your second assignment is much better than the first ---.*
The word ‘assignment’ is not repeated.

Connectives

Addition

- *The room was small and cramped with furniture.*

Amplification

- *Not only was the air-conditioning out of order, but the window was also stuck.*

Corroboration

- *It does rain here a lot. As a matter of fact it’s raining right now.*

Contrast

- *Although her leg hurt, she managed to walk home.*

Contradiction

- A: So you’re a professor now? - B: *Actually, I’m an assistant professor.*

Cause / Effect

- *Because of the strong wind the flight was delayed for two hours.*

Inference

- A: *I think the wine has gone to my head.* - B: *So, no more wine for you?*

Continuation after a brief digression

- *They had one of those mynah birds - I think aunt Esther used to have one - *anyway* what was strange about this bird ...*

Change of topic

- *So you can’t come tonight. Pity. *Anyway*, have you heard about Amanda?*
Summing up

- So, in a nutshell, the trip was a disaster.

Clarification

- I mean, what's the point of trying to help him if he won't appreciate it?
- Just increasing traffic fines is papering over the cracks. In other words, it won't work in the long run.
- You need to cut down on carbohydrates, that is pasta, rice etc.

Enumeration

- Now, first of all you should decide how much you're willing to spend.

Hypothesis

- But what if the bank was closed?

Sequence

- He checked that all windows were shut and then left the office.

Caveats

Halliday & Hasan (1977: 4) argue that cohesive relations as outlined above define a stretch of language as a text; in other words such relations help readers/listeners decide whether "a passage of language which is more than one sentence in length ... forms a unified whole or is just a collection of unrelated sentences" (op.cit.: 1). Brown & Yule (1983: 199-204) express a number of caveats regarding this view of cohesion. The ones which are directly relevant to our discussion follow.

The presence of cohesive ties does not ensure that a sequence of sentences should be treated as a text. Although quite a lot of cohesive devices are used in (4) below, the result is not a unified text.

(4) Cooking is seen by some as an art. Some artists become famous after their death. Life after death is a belief shared by most religions. Religious conflicts sometimes result in war.

Availability of cohesive devices alone does not ensure successful interpretation. In (5) below, the reader needs to have the necessary context and background knowledge in order to understand the function of and information in the text.

(5) From the beginning Trans Am struck a truce between Progressive, Shellac-like rock and low-cost avant electronica. No two Trans Am records are alike – on the earlier The Surveillance, traces of electronica were masked by a full-blown homage to garage rock, while Futureworld contains just a one guitar-driven track.

(From The Wire, Issue 182, April 1999).

NEW & GIVEN INFORMATION IN DISCOURSE

Speakers/writers usually use linguistic devices to mark entities (people, objects, ideas, information etc.) as 'new' or 'given'. In the narrow sense, 'new' entities are the ones which are mentioned for the first time, or are mentioned again after a long stretch of text; 'given' are those the speaker/ writer has already mentioned. 'New' entities are introduced by naming or by the indefinite article; for 'given' entities the definite article or a pronominal reference is used (see Brown & Yule, 1983: 169-179). Consider (6) and (7) below:

(6) It is a battle about how far countries are willing to accept constraints on domestic policy ... The battle is putting huge strains on the World Trade Organisation.

(From The Economist, 8.5.1999)
Music companies may soon be able to stop worrying about piracy on the Internet. Instead, they will need to start worrying about what they are for. (From The Economist, 8.5.1999)

In reality, what speakers/writers treat as 'new' or 'given' is influenced by what they expect their listeners/readers will have in mind when interpreting a particular stretch of text (see Brown & Yule, 1983: 169-189; Clark & Clark, 1977: 91-93). Example (8) below illustrates the point:

Ted bought an expensive computer system, but only after a week the screen broke down.

Here the treatment of 'the screen' as a given entity is based on the assumption that the previous mention of a 'computer system' has lead listeners/readers to think of all the components of such a system, and therefore 'screen' was on their minds when listening to or reading the second part of the text.

**COMMUNICATION CONVENTIONS & IMPLICATURE**

The notion of implicature was introduced by Grice (1975) to account for the distinction between what is said and what is implicated by a speaker, or in other words "what the speaker can imply, suggest, or mean, as distinct from what the speaker literally says" (Brown & Yule, 1983: 31). Leech (1983: 17 & 30-35) uses the terms "sense" ("meaning as semantically determined") and "force" ("meaning as pragmatically, as well as semantically, determined"). He stated that "the force will be represented as a set of implicatures".

Grice's point of departure, and the cornerstone of his proposal, is that human interaction has a set of purposes, or a "direction" mutually recognised and accepted by both interlocutors (Grice, 1975: 45-48). He summarised those shared conventions in the Co-operative Principle and its Conversational Maxims (see Table 1). Grice presents his framework more as a proposal to build upon than a fully worked out theory, and leaves several issues open to further discussion. For instance, he recognises the possibility of the need for more maxims (tentatively proposing a fifth: "be polite"). Leech (1983) introduces a set of further principles, each with its own maxims. He particularly highlights the Politeness Principle as a "necessary complement" of the co-operative principle (op.cit: 80) (see Table 2).

**CO-OPERATIVE PRINCIPLE** (Grice, 1975)

Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you engaged.

**Maxim of Quantity**

Make your contribution as informative as is required. Do not make your contribution more informative than is required.

**Maxim of Quality**

Do not say what you believe to be false. Do not say that for which you lack adequate evidence.

**Maxim of Relation**

Be relevant

**Maxim of Manner**

Avoid obscurity of expression. Avoid ambiguity. Be brief (avoid unnecessary prolixity). Be orderly.

Table 1. The Cooperative Principle and its maxims
THE POLITENESS PRINCIPLE (Leech, 1983)

<table>
<thead>
<tr>
<th>Tact maxim:</th>
<th>Minimise cost to other</th>
<th>Maximise benefit to other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generosity Maxim:</td>
<td>Minimise benefit to self</td>
<td>Maximise cost to self</td>
</tr>
<tr>
<td>Approbation Maxim:</td>
<td>Minimise dispraise of other</td>
<td>Maximise dispraise of self</td>
</tr>
<tr>
<td>Modesty Maxim:</td>
<td>Minimise praise of self</td>
<td>Maximise dispraise of self</td>
</tr>
<tr>
<td>Agreement Maxim:</td>
<td>Minimise disagreement</td>
<td>Maximise agreement</td>
</tr>
<tr>
<td>Sympathy Maxim:</td>
<td>Minimise antipathy</td>
<td>Maximise sympathy</td>
</tr>
</tbody>
</table>

THE IRONY PRINCIPLE (Leech, 1983)

If you must cause offence, at least do so in a way that doesn’t overtly conflict with the Politeness Principle, but allows the bearer to arrive at the offensive point of your remark indirectly, by way of implicature.

Table 2. The Politeness and Irony Principles

What seems to have been excluded from the discussion of implicature is the manipulation of pauses and phonological features in spoken language, as well as punctuation and letter-type in written language. It can be argued that manipulation of such features aiming at leading listeners/readers to work out implicatures is compatible with Grice’s proposals, as these features can be used by speakers/writers to flout the Maxim of Manner. Let us take (9) as an example:

(9) As a reward Baldrick, take a short holiday. ... (2" pause) ... Did you enjoy it?
    (From the BBC video Black Adder the Third, BBCV 5713, 1995)

The pause before the question helps the listener to identify the duration of the pause as the duration of the ‘short holiday’.

Maxims & Culture

A debatable aspect of the Principles and Maxims described above is their universality. Grice (1975) seems to imply that they are culture-independent, since he makes no mention of culture-specific maxims or ways of working out implicatures. Similarly, Levinson (1983: 120-121) argues for the universality of conversational implicatures on the grounds that “if the maxims are derivable from considerations of rational co-operation, we would expect them to be universal in application, at least in co-operative kinds of interaction”.

Conversely, Keenan (1976) argues that “in developing such notions, philosophers likely reflect on conversational conduct as it operates in their own society”. Keenan, after investigating the communication conventions in Malagasy (the language of Madagascar) discovered the following.

- Speakers are not expected to observe the Quantity Maxim and regularly provide less information than is required even if they have the information the listener needs. This is because in a closed community “new information is a rare commodity” and the ones who have new information “are reluctant to reveal it”, as having access to information that others don’t have gives them “some prestige” over the others (op.cit. 70). Keenan (1976: 76-77) notes that the Quantity Maxim is more likely to be disregarded when the information is significant, the interlocutors are not familiar with each other, or the speaker is a man. This leads to the interesting observation that in Malagasy society “the same utterance may have different conversational implicatures, depending on whether the speaker is a man or a woman ... for a woman may be expected to answer the question fully if they have the information desired” (op.cit.: 78).
- Use of an indefinite expression to refer to an individual (e.g. I see a person) does not lead listeners to infer that the person is not familiar to the speaker. This is because in Malagasy society
it is considered bad luck to refer to someone using their personal name, and prefer to use a nickname, the person’s occupation, sex or age, or even refer to someone as ‘person’ (Keenan, 1976: 72-74).

Furthermore, Gumperz (1982) and Jupp et al. (1982) discuss cases of intercultural miscommunication, several instances of which are attributed to "misreadings of intent" between interlocutors. Let us examine the following examples.

- A house painter (American) is visiting the house he is assigned to paint, looks at some paintings on the wall and asks the owner (British) "Who's the artist?" The owner answers "The painter is not well known. He's a modern London painter named X." The painter hesitates and says "I was wondering if someone in the family was an artist." The source of the misunderstanding here is the lack of knowledge on the part of the owner of the fact that the question was meant to be complimentary of someone in the household— in the same way that a guest, by noticing a musical instrument in the house, may ask "Who's the musician?". (Source: Gumperz, 1982: 144-145)

- A South Asian applicant is being interviewed by a British interviewer (both are male). Towards the end of the interview the interviewer asked "Why are you applying for this particular job?" The applicant failed to understand that the question was meant to elicit the aspects of the job that the applicant found appealing and/or relevant to his career. Instead he understood the question as meaning "Why do you want a job?" and responded accordingly. This was also the interpretation of a number of other South Asians asked by the researchers. (Source: Jupp et al., 1982: 252)

In both cases above, the misreadings seem to stem from the interlocutors failing to detect the culture specific clues which were meant to lead them to recognise the existence of the underlying implicature. Another reason for the misreadings may be that utterances that carry conventional implicatures in one culture may be taken at face value by speakers from another culture, and vice versa. Furthermore, Coulthard (1985: 53) notices that "one complicating problem for foreigners is that speech communities differ in the relative weight they give to positive and negative politeness and the amount of politeness they require in informal situations."

Types of Implicature

Implicatures can be categorised in two ways, according to whether they depend on (a) the Co-operative Principle and its Maxims, and (b) a particular context.

a. Regarding the Co-operative Principle & Maxims.

- **Conventional**: They are not derived from the Co-operative Principle and its Maxims, but are "attached by convention to particular lexical items or expressions" (Levinson, 1983: 127). Leech (1983: 26) gives the example of good luck and bad luck. Although their structure is similar (good/ bad + luck) their straightforward meaning/use is distinctly different: 'good luck' is a wish, whereas 'bad luck' expresses sympathy.

- **Non-conventional**: They are not part of the conventional meaning of linguistic expressions. Listeners/ readers need to use available clues to work out the non-conventional implicatures of speakers/ writers (Grice, 1975: 50; Levinson, 1983: 117).

b. Regarding Context.

- **Generalised**: They don't depend on a particular context for their interpretation. For example, 'I walked into a house' will be understood to implicate that the house was not mine (Levinson, 1983: 126).

- **Particularised**: They can only be worked out with knowledge of context.

For examples see IMPLICATURE & INFERENCE AT PLAY below.

Maxims & Speaker/ Writer Options

As regards the maxims outlined above, speakers have the following alternatives (Grice, 1975: 49; Levinson, 1983: 104 & 109):

- They can **observe** a maxim (i.e. adhere to it).
- They can **violate** a maxim (i.e. secretly not adhere to it).
They can \textit{opt out} (i.e. make it clear that they are unwilling to adhere to it).
They may be faced with a \textit{clash} (i.e. be unable to fulfil one maxim without violating another).
They can \textit{flout} (or \textit{exploit}) a maxim (i.e. clearly and purposefully fail to fulfil a maxim).

The last option presents the greatest interest for our discussion, as it is the one which speakers/writers exercise to communicate meanings beyond the conventional meaning of the words they use. The following two examples show Grice's maxims 'in action'.

\begin{enumerate}
\item[(10)] (Context: A and B are strangers. B is waiting outside a shop; a dog is sitting beside him. B is aware of the presence of the dog. A is on his way into the shop.)
\begin{enumerate}
\item A: Does your dog bite?
\item B: No.
\end{enumerate}
\begin{enumerate}
\item (Speaker A reaches down to pat the dog. The dog bites his hand).
\item A: Ouch! Hey! You said your dog doesn't bite.
\item B: He doesn't. But that's not my dog.
\end{enumerate}
\end{enumerate}

(Adapted from Yule, 1996: 36)

In (10) we have a clear instance of lack of co-operation. Although B did tell the truth (his dog doesn't bite) he did not give the information that A actually asked for (i.e. if the dog beside B bites). B chose to ignore the relevance of 'here' and 'now' (i.e. understand that in the particular context A was seeking information about the dog present, which he mistook for B's dog). To use Grice's terms, speaker B observes the Quality maxim, but violates the maxims of Quantity and Relation; for example, B could have added \textit{... but this is not my dog}, or could have answered \textit{It's not my dog}. Of course, speaker A could have been more explicit and not expect that B would interpret \textit{your dog} as \textit{the dog sitting beside you}. We can assume that A's choice was based upon the assumption that B shared the same culture / communication conventions.

Let us compare the two versions in (11) below:

\begin{enumerate}
\item[(11a)] Open the door.
\item[(11b)] Walk up to the door, turn the door handle clockwise as far as it will go, and then pull gently towards you.
\end{enumerate}

(From Levinson, 1983:108)

The main difference between (11a) and (11b) is that the second text gives much more detailed information. It is impossible to answer the question without information about the context. For example, text (a) would be effective as a command from an officer to a soldier, or a straightforward request from one friend to another. In those contexts, a speaker using version (b) could well be understood as expressing irony or implying that the listener is rather dim, as he/she violates the maxim of quantity by giving more information than needed. On the other hand, (b) would be preferable in the context of an expert giving information on how to open a door which is connected to an explosive device. In the second context, response (a) would be less than informative (not to mention lethal).

\section*{ImpliCarature \& Inference at Play}

In this section I will examine examples of the clues and thought processes employed by listeners/readers in order to infer successfully, as well as examples of how speakers/writers create style and effect. In my discussion I will be referring to the responses and comments of participants in the lectures and talks'. Readers are invited to recreate the interactive conditions of those sessions by reading the examples and responding to the prompts & questions before reading the commentary.

\begin{enumerate}
\item[(12)] A: Where's Bill?
\item B: There's a yellow VW outside Sue's house. (From Levinson, 1983: 112)
\end{enumerate}

\begin{itemize}
\item Does B seem to be co-operative?
\item What is B's intended message?
\item How can A understand B's message?
\end{itemize}
Of course, B could be much more helpful and answer 'I think he is at Sue's, because his car is parked outside her house'. Still, such a straightforward answer is only one option. B prefers to give A some relevant facts and let him/her draw conclusions. What is more, in some contexts it might be safer for B to let A draw his/her own conclusions. Let us follow A's (probable) train of thought:

I haven't received a straightforward answer, but still believe that B does want to answer my question. Let me see how I can use the clues that B gave me: I know that Bill owns a yellow VW and that he's a friend of Sue's. So I think that B wants to tell me that as far as he/she knows Bill is at Sue's.

The clues used here are:
- Shared knowledge/experience.
- Belief that the speaker wants to be helpful.
- Belief that the speaker has information that (as far as he/she knows) is valid/correct.

(13a) Where's the cheese sandwich?

➢ What does the speaker want to know?
➢ What response do you expect?

Look at the answer (13b).

(13b) He's sitting over there by the window.  
(Adapted from Yule, 1996: 20).

➢ Is this a relevant/helpful answer?
➢ How did the participants manage to understand each other?

This is an exchange between two waiters. Referring to customers by their order is quite common in such contexts. What is more, we expect that the first waiter asked the question in order to serve the right customer. The clues used here are:
- Shared knowledge/conventions
- Knowledge of context

It should be mentioned here that lack of knowledge of the 'restaurant' context would make it difficult for a reader/listener of this exchange to understand that the 'cheese sandwich' is actually a customer.

(14) Johnny: Hey Sally, let's play marbles.
Mother: How is your homework getting along, Johnny?  
(From Levinson, 1983: 112.)

➢ What does Johnny's mother want?
➢ How do we understand that?

The participants understood the mother's response (as indeed would Johnny) as a command for Johnny to finish his homework before doing anything else. Although the response is grammatically a question, it doesn't function as one. That is, the mother does not require a report on the progress of Johnny's homework, as it is clear that Johnny is not working on it right now. The clues used here are:
- Context (mother-child relationship)
- Co-text: Johnny's stated intention to play marbles.
- Knowledge of the conventions/rules applying in that context (play is allowed only after schoolwork or house chores have been completed).

(15) Patience walked into a room. The chandeliers burned brightly.  
(From Clark & Clark, 1977:97-98.)

➢ Where were the chandeliers?
Most participants ‘saw’ the chandeliers in the room Patience walked into. What is interesting is that no explicit connector is there to signal this. Participants were able to infer the location of the chandeliers combining the following clues:

- **Proximity:** the two sentences are one after the other, therefore, readers expect a link.
- **Time/ space sequence:** like a camera we follow Patience into the room and with her see the chandeliers.
- **The definite article (‘the chandeliers’):** the writer treats the chandeliers as ‘given’. But what has already been introduced is the room; therefore readers are led to infer that there is a close link between ‘room’ and ‘chandeliers’.
- **Shared knowledge/ experience:** chandeliers in a room are consistent with our experience.

Readers would find it more difficult or even impossible to draw this inference if the second sentence were ‘The crocodiles looked hungry’, as this would contradict expectations of what a room may normally contain.

(16) *Mary got the picnic supplies out of the car. The beer was warm.*

(From Clark & Clark, 1977:97-98.)

- Where was the beer?
- Where were the picnic supplies?
- What did the picnic supplies include?

All participants understood that the beer was part of the picnic supplies. It is interesting that some participants did not even feel there was anything to infer, as the text seemed straightforward and explicit to them. This is an indication that in familiar contexts inference procedures are quick. Participants also ‘saw’ that the picnic supplies were in a picnic basket, which was in the boot of the car, and that the supplies also included sandwiches, soft drinks, fruit and dessert. It should be mentioned here that readers who are not familiar with the activity of picnicking would be expected to find the connection between ‘beer’ and ‘picnic supplies’ much less straightforward, even if they had the meaning of ‘picnic’ explained to them. The clues used here are:

- **Proximity.**
- **The definite article.**
- **Shared knowledge/ experience.**

(17) A: *Look at me! I'm fat and ugly.*
B: *Come on, you're not fat!*

(From Gabrielatos, 1995: 15.)

- What is the second speaker’s intended message?
- How is it expressed?

Superficially, A seems to be making a statement. Nevertheless, the fact that A says that in the presence of B leads B to infer that he/ she is invited to make a comment. Similarly, although B does not make a negative comment explicitly, A clearly receives the message that B thinks (or wants A to think) that A is ugly. Here the source of the insult (or joke) is the omission of ‘and ugly’ in B’s response. To return to A’s prompt, what makes its function clear is that B cannot avoid commenting on A’s statement; even silence would be understood as an insult/ joke. This case illustrates how the Irony Principle (Leech, 1983) can be put to use (for a detailed analysis of the mechanisms of humour see Nash, 1985). It is interesting to notice that participants did not question for a moment the function of A’s ‘statement’ as a prompt. The clues used here are:

- **Context:** A’s comment is made in the presence of B.
- **Quantity Maxim and/or Irony Principle:** B’s response addresses only part of A’s prompt.

(18) *“That young girl” [the android] added unexpectedly “is one of the least benightedly unintelligent organic life forms it has been my profound lack of pleasure not to be able to avoid meeting.”*

(From Life the Universe and Everything, Douglas Adams, Pan Books, 1982: 138.)

- How is style/ effect created in (18)?
Here the reader’s attention is drawn by the flouting of the maxims of Quantity (wordiness of expression) and Manner (series of negatives). It is exactly because readers would need to make extra effort to untangle the web of negatives that this excerpt is effective. Expressing the content of the text in a concise and straightforward way (e.g. ‘That young girl is one of the most intelligent organic life forms I have had the misfortune to meet’) would diminish the effect on the reader.

A similar effect is produced by the wordiness and series of interlocking parenthetical comments/explanations in (19) below.

(19) “You are a driver,” he said, “and I use the word in the loosest possible sense, i.e. meaning merely somebody who occupies the driving seat of what I will for the moment call – but I use the term strictly without prejudice – a car while it is proceeding along the road, of stupendous, I would even say verging on the superhuman, lack of skill.”

(From The Long Dark Tea-time of the Soul, Douglas Adams, Pan Books, 1988: 120.)

SUMMARISING COMMENTS

Decoding vs. interpretation. Understanding the conventional meaning of lexical and grammatical structures is only the first step towards successful interpretation of linguistic messages.

Following, breaking & bending the rules. Grice presented the Co-operative Principle and its Maxims as “guidelines for the efficient and effective use of language in conversation to further co-operative ends” (Levinson, 1983: 101). But following these guidelines (or ‘rules’) is only one option. Table 3 below outlines the options speakers/writers have, as well as the potential consequences for verbal expression and communication.

| Obeying the rules (Observing maxims or opting out) | • Communication is explicit & straightforward.  
| • Expression can lack flavour/interest.  
| • The force of any offence/friction is maximised. |
| Breaking the rules (Violating maxims) | • Miscommunication.  
| • Communication of untruths. |
| Bending the rules (Flouting maxims) | • Flexibility of expression.  
| • Creation of interest/style/effect.  
| • Humour.  
| • Any offence/friction is indirect/milder |

Table 3. Summary of interaction options and their effects.

Inference and reference. For successful inference, listeners/readers need to accurately identify the entities to which speakers/writers refer (within or outside the text).

Context creation. When listeners/readers have partial knowledge of context they can use textual information, the elements of context they know, and relevant background knowledge to infer the missing contextual elements.

Inferencing procedures. We can see inferencing as a combination of identifying available helpful clues and filtering them through knowledge of a number of elements. Table 4 below gives an outline of those clues and elements.
PART 2. IMPLICATIONS FOR ELT

ELT MATERIALS & CULTURAL CONTENT

Since different cultures may have different communication conventions it would be wise to help learners become aware of the conventions governing the use of the target language. Failure to do so will lead learners to assume that the conventions of their native language/culture apply when using the target language. Since English is used as a first language by a variety of cultures, teachers and materials writers need to address the problem of selecting which variety of English they are going to teach (e.g. British, American, Australian). What is more, learners need to become aware of the fact that some of the conventions governing the variety they are learning may not (fully) apply to other English speaking cultures.

Awareness can be achieved by using either authentic texts, or specially constructed texts which successfully simulate authentic use. Of course texts alone cannot raise learners’ awareness; teachers need to guide learners to discover relevant cultural aspects of communication, as well as provide support in the form of explanations and further input.

GRAMMAR

It would be wise to combine the manipulation of grammatical structures (e.g. transformations) with awareness-raising regarding the potential implicatures (particularly conventional ones) that may arise from different surface structures (Leech, 1983: 22; Levinson, 1983: 125). In Leech’s terms, learners should be taught not only the ‘sense’ but also the potential ‘force’ of a structure. Presenting language through texts (as opposed to ‘model’ sentences in isolation) will facilitate that objective.
Requiring learners to produce full, over-explicit or uniform answers at all times (e.g. for the sake of practising a certain structure) can also prove problematic. Uniform answers may create the impression that there is only one correct/acceptable way of expressing an intended meaning. Use of over-explicit language by learners may lead native listeners/readers to understand unintended implicatures. Similarly, if learners expect over-explicit messages, they may be confused and discouraged by the elliptical nature of everyday language. (See also 'Listening and Reading' below).

LEXIS

Although teaching vocabulary through lexical relations (synonymy, antonymy, hyponymy) can be a very effective technique, teachers need to help learners become aware of the differences as well as the similarities within lexical sets. Particularly regarding antonymy, learners need to understand that negating the opposite of a word does not always give the original meaning (e.g. 'not bad' does not communicate the same meaning as 'good').

Therefore, it seems that apart from the meaning of lexical items learners need to be taught their use, so that they don't lead listeners/readers to draw unintended conventional implicatures. Magee & Rundell (1996) provide interesting data for the expression 'not exactly'. Their analysis of the British National Corpus revealed that native speakers use this expression in an ironic way 60% of the time, whereas analysis of the Longman Learners' Corpus showed that learners used this expression ironically in only 12% of the instances. Also learners used the expression far less frequently than native speakers.

Awareness of register and genre is also important, as use of words(expressions which are too formal or too informal for the particular context can lead listeners/readers to misread the learner's message or intentions. For example, the use of formal language in an informal context may be perceived by listeners/readers as intended to create social distance, or to convey humour/ irony.

LISTENING AND READING

Learners are aware of their linguistic shortcomings, and, consequently, lack confidence. As a result, they tend to pay more attention to the propositional level of the utterance. More simply, they are preoccupied with understanding the meaning of individual words. Therefore, learners may fail to work out intended implicatures, and, as a result, fail to understand the intended meaning of the speaker/writer. Since communication depends on more than the meaning of lexis and grammatical structures, reading and listening lessons should help learners move beyond merely understanding isolated lexis/structures (see also Gabrielatos, 1998: 52).

The main goal of learners is to be able to understand texts targeted at native speakers. But speakers/writers, having a native-speaker audience in mind, will assume certain shared knowledge/assumptions with their listeners/readers, which learners may not have. Learners may be helped by the following:

- Knowledge of the learners' language/culture on the part of the teacher will lead to informed decisions regarding the support learners need in order to work out implicatures successfully. Of course, teachers themselves should also be aware of cultural elements relevant to the target language.
- If the learners' level permits, authentic texts should be used. When specially constructed texts are deemed necessary, care should be taken so that they are not unnaturally explicit (i.e. containing only straightforward propositions).
- Questions in receptive skills lessons should not focus solely on facts/ideas that have been explicitly expressed or conventionally implicated. Students need to be guided to identify and work out the speaker's/writer's non-conventional implicatures.
- Effective listening skills development needs to incorporate awareness-raising on how stress, intonation and tone of voice can provide clues for the speaker's intended implicatures.
LEXICAL INFERENCE

In language learning, one very useful application of inferencing is understanding the meaning of unknown lexis in a text. This is an indispensable enabling skill as it not only increases the effectiveness of learners' receptive skills, but also helps learners develop their lexical competence independently (see also Gabrielatos, 1995; Nuttall, 1996: 62-76).

Using text (20) below I will outline briefly the clues and thought processes that can be used in order for learners to infer the meaning of 'cyanide'.

(20)

<table>
<thead>
<tr>
<th>Woman freed after retrial</th>
<th>it can be found in a kitchen</th>
</tr>
</thead>
<tbody>
<tr>
<td>on friend's death</td>
<td>it can kill</td>
</tr>
<tr>
<td>A WOMAN who left cyanide</td>
<td>it looks like sugar</td>
</tr>
<tr>
<td>in her kitchen cupboard</td>
<td></td>
</tr>
<tr>
<td>which killed a party guest who thought it was sugar was freed yesterday after admitting manslaughter.</td>
<td></td>
</tr>
<tr>
<td>Tricia O'Mahoney was jailed for life for murder in March 1991, but the Court of Appeal ordered a retrial after new evidence came to light.</td>
<td></td>
</tr>
<tr>
<td>Yesterday she was jailed for four years at the Old Bailey - the time she had spent in custody - after Judge Neil Denison decided she had suffered enough.</td>
<td></td>
</tr>
<tr>
<td>Mrs O'Mahoney, aged 41, pleaded guilty to manslaughter on the grounds that she was &quot;grossly negligent&quot; by leaving the poison in her larder among food. Her plea of not guilty to murder was accepted by the court.</td>
<td></td>
</tr>
<tr>
<td>Glyn Cooper, aged 51, died at Mrs O'Mahoney's house in Streatham, south London, during a party while she was making him a cup of coffee. He picked up a jar of rat poison thinking it was sugar, said Rock Tansey QC, defending.</td>
<td></td>
</tr>
<tr>
<td>&quot;She had no motive or any reason to kill this man. She got on very well with him,&quot; he added.</td>
<td></td>
</tr>
<tr>
<td>(From the Guardian, 24 May 1994.)</td>
<td></td>
</tr>
</tbody>
</table>

I would like to stress the following:

- Learners should be alerted to the fact that clues may not be found in only one place in the text, and should be trained to look for clues throughout the text and combine them.
The inference-steps leading to the final inference need not all be accurate. Skilled readers regard those inference-steps as working hypotheses, which can be discarded or refined in the light of new clues. In the example above the initial inference 'It is/ can be found in a kitchen' was later discarded.

SPEAKING & WRITING

As regards oral production, Blum-Kulka & Olshtein (in Tarone & Yule, 1989: 107) suggest that learners operate along the lines of "the less confident you are that you can get the meaning across, the more words and contextual information you use". Tarone & Yule (1989: 113) conducted a study in which a 'speaker' had to give instructions to a 'hearer'. The subjects were either both native or both non-native speakers. Tarone & Yule reported that "typically the non-native speaker group provided more detail than the native speakers seemed to feel necessary".

Apart from providing more information than needed/expected, learners may opt to use neutral/unmarked rather than idiomatic language, either because such language is beyond their linguistic ability or because they do not feel confident enough. Finally, learners may choose to simplify their message, or communicate part of the intended message when they are not confident that their linguistic resources are adequate to express the full message.

This can prove problematic as the use by learners of more/less explicit or unidiomatic language, or the communication of more/less information than required in the particular context may be perceived by listeners (particularly those for whom English is a first language) as floutings of the maxims of Quantity and/or Manner. In such a case, listeners may be led to work out unintended implicatures.

The issues discussed above point towards caution in the teaching of certain communication strategies, that is strategies which help learners to compensate for their imperfect mastery of the language when faced with a communicative need (see Corder, 1983; Ellis, 1985: 180-188; Tarone, 1983). Communication strategies are divided into achievement and reduction strategies. Achievement strategies aim at the communication of the whole message as perceived by the speaker. Relevant examples of achievement strategies are: circumlocution (e.g. 'describing' a lexical item), paraphrasing, and lexical substitution (using related lexis). Reduction strategies aim at either communicating an imperfect or simplified message, or communicating a message other than the one intended initially, that is, a message that is within the speaker's linguistic abilities. By being over- or under-explicit, and by using words/expressions that are loosely related to the ones that accurately express their intended message, learners may lead listeners/readers to draw unintended inferences.

Blum-Kulka & Levenston (1983) provide an example from Serbo-Croat learners of English: "Serbo-Croat 'pametan' is used where English uses either 'sensible' or 'clever'. Serbo-Croat speakers tend to use 'clever', even when the context demands 'sensible'. They will thus often give a connotation of 'cunning' quite unwittingly when they use 'clever' in the wrong context."

Another case in point is the unintended implicatures communicated by mis- or over-use of circumlocution and paraphrasing. Text (21) below is an amusing example.

(21) The way I see it, these days there's a war on, right? And, ages ago, there wasn't a war on, right? So, there must have been a moment when there not being a war on went away, right? And there being a war on came along. So, what I want to know is: how did we get from the one case of affairs to the other case of affairs?

(From the BBC video Black Adder Goes Forth, BBCV 5714, 1995).

This is said by a rather dim character in the series. The roundabout manner of asking the simple question "How did the war start?" is intended to stress this aspect of the character and create a humorous effect. Unfortunately, this is also an indication of the effect learners may create unintentionally through uncritical use of certain communication strategies.

When it comes to written language, teachers need to ensure that learners do not regard explicit cohesive markers (e.g. furthermore, nevertheless) as the only or best option they have to help readers understand the relations between parts of their message. Learners should be made aware of the

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importance of information structure and assumed shared knowledge with the readers. Overuse of explicit cohesive markers may be perceived by readers as flouting of the Quantity maxim, resulting in the readers' working out unintended implicatures (e.g. the reader may be misled to believe that the writer wants to be ironic or humorous).

The following table outlines potential learner problems and proposed solutions.

<table>
<thead>
<tr>
<th>COMPREHENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem</strong></td>
</tr>
<tr>
<td>Learners may understand the meaning of the words/expressions in a text, but fail to understand the speaker's/writer's intended meaning.</td>
</tr>
<tr>
<td><strong>Solutions</strong></td>
</tr>
<tr>
<td>Focusing not only on decoding of surface meaning, but also on interpretation.</td>
</tr>
<tr>
<td>Teaching grammar and lexis in context, and through texts rather than isolated sentences.</td>
</tr>
<tr>
<td>Using authentic or authentic-like texts, and avoiding exposing learners only to texts where meaning is expressed (over)explicitly.</td>
</tr>
<tr>
<td>Informing learners of relevant cultural aspects.</td>
</tr>
<tr>
<td>Guiding learners to use their knowledge, experience and beliefs consciously and flexibly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problems</strong></td>
</tr>
<tr>
<td>Learners may communicate unintended messages through being over/under-explicit or using the wrong register, although they are grammatically accurate.</td>
</tr>
<tr>
<td>Learners may communicate unintended messages through the use of communication strategies.</td>
</tr>
<tr>
<td><strong>Solutions</strong></td>
</tr>
<tr>
<td>Avoiding asking learners to be (over)explicit at all times.</td>
</tr>
<tr>
<td>Teaching learners the use as well as the meaning of lexis.</td>
</tr>
<tr>
<td>Training learners in understanding the amount of information the listener/reader needs or expects.</td>
</tr>
<tr>
<td>Raising learners' awareness of the potential problems arising from the use of communication strategies and training them to check for and clarify misunderstandings.</td>
</tr>
</tbody>
</table>

Table 5. Summary of teaching implications

**NOTE**

1. Since the lectures and talks were task-based, both versions also draw on the discussions with students and participants, whom I would like to thank.
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Organization/Address: Department of Linguistics and Modern English Language, Lancaster University, Lancaster, LA1 4YR, UK

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E-Mail Address: cgabrielatos@lancaster.ac.uk

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