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INFERENCE: PROCEDURES AND IMPLICATIONS FOR ELT

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INTRODUCTION

Inferencing 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); there fore, 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 s 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**,1 briefly , discuss the implications for the learning/ teaching of English as a foreign language.

PAR T1. 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).

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).

• Smells (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 ac-

tivated 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: Brown & Yule 1983:191-194; Halliday & Hasan 1976; Malkmjaer 1991:463-464; Nunan 1993:21-32; Salkie 1995).

Repetition
• *'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 *'dairyproduct'* (the hyperonym)

- '*They've also got a **Labrador.** He's adorable, but the **little devil** has chewed every shoe in the house*.'

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, 1 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
- *'/ don't need a new* **computer.** *The* **one** *I 've got works fine.'*
- *'/* **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: */ think the wine has got to my head. -* B: **So,** *no more wine for you?*

Continuation after a brief digression
- *They had one of those mynah birds -1 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
- */* **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 *TheWire,* 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)

(7) ***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:

(8) *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 con- tribution more informative than is required.
Maxim of Quality
Do not say what you believe to bg 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 POLITENESS PRINCIPLE (Leech, 1983)		
Tact maxim:	Minimise cost to	Maximise benefit to other
Generosity Maxim:	Minimise benefit to self other	Maximise cost to self
Approbation Maxim:	Minimise disparise of other	Maximise disparise of self
Modesty Maxim:	Minimise praise of self	Maximise disparise of self
Agreement Maxim:	Minimise disagreement	Maximise agreement
Sympathy Maxim:	Minimise antipathy	Maximise sympathy
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.

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" underline 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 *"/ was wondering if someone in 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 etal. 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 mat 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, *'Iwalked into a house'* will be understood to implicate that the house was not mine (Levinson 1983:1:26).

• 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 maxim 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 ***opt out*** (i.e. make it clear that they are unwilling to adhere to it)
- They may be faced with a ***clash*** (i.e. be unable to fulfil one maxim without violating another).
- They *can flout* (or ***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'.

(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.)

A: *Does your dog bite?*

B: *No.*

(Speaker A reaches down to pat the dog. The dog bites his hand).

A: *Ouch! Hey! You said your dog doesn't bite.*

B: *He doesn't. But that's not my dog.*

(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 '... *but this is not my dog',* or could have answered *'It's not my dog'.* Of course, speaker A could have been more explicit and not expect that B would interpret *'your dog'* as *'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:

(11a) *Open the door.*

(11b) *Walk up to the door, turn the door handle clockwise as far as it will go, and then pull gently towards you.*

(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 a explosive device. In the second context, response (a) would be less than informative (not to mention lethal).

Implicature & 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[2]. 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.

(12) A: *Where's Bill?*

B: *There's a yellow VW outside Sue's house.*

(From Levinson 1983:112)

➢ Does B seem to be co-operative?

➢ What is B's intended message?

➢ How can A understand B's message?

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 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 Sa//y, *let's play marbles.*

Mother: /tow *is your homework getting along, Johnny?*

(From Levinson 1983:1 12.)

➢ 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 writers 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 1983:301). 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 & reference. For successful inference, listeners/ readers need to iitcurately identify the entities to which speakers/ writers refer (within or outside me 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.
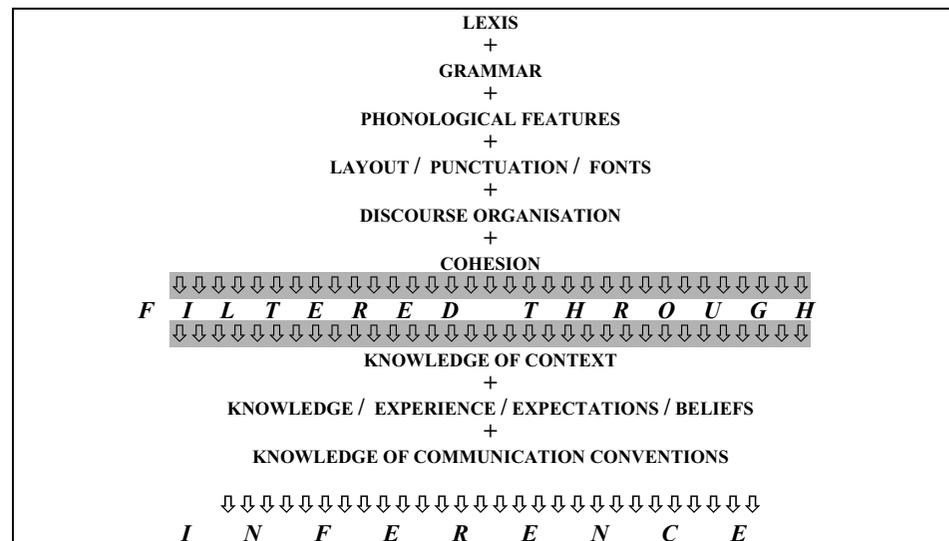

Table 4. Inference: clues and procedures.

PART2. 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 every day language. (See also 'LISTENING & 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 hi 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 & 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 exemplify the clues and thought processes that can be used in order for learners to infer the meaning of *'cyanide'* (adapted from Gabrielatos 1994).

(20)

Woman freed after retrial on friend's death	
A WOMAN who left <u>cyanide</u> in her kitchen cupboard which killed a party guest who thought it was sugar was freed yesterday after admitting manslaughter.	➢ it can be found in a kitchen ➢ it can kill ➢ it looks like sugar
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.	Learners need to use the cohesive ties indicated by 'who', 'her', 'which', 'who' and 'it'.
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. Mrs O'Mahoney, aged 41, pleaded guilty to manslaughter on the grounds that she was "grossly negligent" by leaving the poison in her larder among food. Her plea of not guilty to murder was accepted by the court. 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. "She had no motive or any reason to kill this man. She got on very well with him," he added. (From the Guardian, 24 May 1994.)	➢ it shouldn't be in the kitchen ➢ it's a poison Learners need to identify and use the following clues: - 'by' as signalling cause, - 'the poison' as a given entity, which refers to 'cyanide', - 'larder' as a synonym for 'kitchen cupboard', and - 'food' as relating to 'kitchen'. ➢ it's rat poison

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*[1] 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 which 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 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 to the readers' working out unintended implicatures (e.g. be misled to believe that the writer wants to be ironic or humorous).

The following table outlines potential learner problems and proposed solutions.

A. COMPREHENSION

Problem
- Learners may understand the meaning of the words/ expressions in a text, but fail to understand the speaker's/ writer's intended meaning.

Solutions
- Focusing not only on decoding of surface meaning, but also on interpretation.
- Teaching of grammar & lexis in context and through texts rather than isolated sentences.
- Using of authentic or authentic-like texts, and avoiding exposing learners only to texts where meaning is expressed (over)explicitly.
- Informing learners of relevant cultural aspects.
- Guiding learners to use their knowledge, experience & beliefs consciously and flexibly.

Problem
- Learners get discouraged by unknown lexis and give up easily.

Solution
- Training in identifying available clues & using them flexibly.

B. PRODUCTION

Problems
- Learners may communicate unintended messages through being over/under-explicit or using the wrong register, although they are grammatically accurate.
- Learners may communicate unintended messages through the use of communication strategies.

Solutions
- Avoiding asking learners to be (over)explicit at all times.
- Teaching learners the use as well as the meaning of lexis.
- Training learners in understanding the amount of information the listener/ reader needs or expects.

Raising learners' awareness of the potential problems arising from the use of communication strategies and training them to check for and clarify misunder standings.

Table 5. Summary of teaching implications

NOTES

1. This is a revised version of my article 'Inference: Procedures & Implications for TEFL', which was published in TESOL Greece Newsletter 63 & 64 (September & December 1999). The original article was born as an essay during my MPhil, was transformed and expanded into lecture notes for the component 'Discourse Analysis & TEFL' of the RSA/Cambridge Diploma course, (PROFILE, 1994-1999), as well as my talks 'Grammar Teaching: A Discourse Perspective' (15th International Publishers' Exhibition, Athens, May 1998), 'Receptive Skills: Discourse & Psycholinguistic Perspectives' (20th TESOL Greece Annual Convention, March 1999), 'Inference: How it Works' (16th International Publishers' Exhibition, Athens, May 1999) and 'Grammar Teaching: A new perspective' (IATEFL Greece Event: Ways Ahead, Athens, November 1999). The revisions are largely based on my lecture notes for the component 'Pragmatics & Discourse Analysis for ELT' of the MA English Literature & Language, University of Indianapolis Athens (September-December 2000). This version: November 2001.

2. 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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