A study was designed to investigate a problem of university level second language (L2) reading comprehension courses, namely, whether to treat reading as a problem of language or of reading strategies. The subjects were six undergraduates who had completed a standard English as a Foreign Language (EFL) reading comprehension course, and a control group of six teachers, non-native speakers of English, working in fields unrelated to language teaching. Three passages from a text on anthropology were used to test the following reading strategies: skimming for key words and phrases, finding the implication, distinguishing between main and peripheral points, recognizing the author's intent, and contextual guessing. Students were interviewed individually after they had studied the passages without the aid of dictionaries. Students who had difficulties with a passage were given a native language Hebrew translation of the passage. Data indicate that the ability to use reading strategies in Hebrew did not transfer to English. Generally, the control group subjects were able to apply reading strategies in L2. This indicates that good reading ability is primarily a function of language competence. Data also suggest that without sufficient lexical knowledge students make inferences drawn from their own common sense, opinions, or biases. (AMH)
Does the EFL Reader need Reading Strategies more than Language? -

Some Experimental Evidence

Batia Laufer & D.D. Sim

Underlying the problems which can confront the EFL teacher at University level in Advanced Reading Comprehension courses there is a basic dilemma. The dilemma is whether, at that language learning level, to treat reading more as a problem of language than of reading strategies, or vice-versa.

If it is believed that EFL reading is more a problem of language, then improvement in L2 reading would require improvement in language proficiency. Therefore valuable learning time should be devoted more to direct language work rather than to teaching strategies for reading.

If however, E.F.L. reading is more a problem of strategies and many of these are similar in L1 and L2, then presumably L2 reading could be improved by teaching strategies either in the L1, or in the L2. Direct L2 work would appear to be secondary in importance.
The Literature

The literature on the subject provides evidence for both hypotheses. It is extensively documented in Alderson, "Reading in a Foreign Language - A Reading Problem or a Language Problem?" in ‘Reading in a Foreign Language’, eds Urquhart & Alderson, Longman (forthcoming).

For example, the results of the Mexican studies (Barrera & Vasquez 1953) and some Canadian studies (Barik & Swain, 1975) indicate the possibility of transfer of reading ability in either direction, (from L.I. to L.2, or from L.2. to L.1.).

The Mexican Indian was able to transfer his first language reading ability to the second language reading task, while the Canadian French "immersion" children were able to transfer the strategies learned in the second language back into their first language.

According to Ulijn (1978) and Ulijn & Kempen (1976), poor Foreign Language reading comprehension is due to what they call "conceptual knowledge - the meaning of the words and subject-knowledge".

Alderson, Bastien & Madraza (1979) suggest that as the linguistic or conceptual difficulty of the text increases, the importance of foreign language proficiency increases, and that of first language reading ability decreases.

Clarke (1979) suggests that there may exist a "language competence ceiling", which hampers the good L.I. reader in his attempts to use
effective reading behaviours in the foreign language. "Limited control over the language 'short-circuits', the good reader's system, causing him to revert to poor reader strategies when confronted with a difficult or confusing task in the second language". The implications of Clarke's work are that foreign language competence is required before transfer of reading strategies can occur.

The study

The present study was designed to investigate the same problem, i.e., whether effective or ineffective reading in the L.2. is due to L.2. competence or lack of competence, or is it due to the ability or inability to apply reading strategies.

However, the study differs from previous studies. These tend to be, as Alderson puts it, quantitative in nature, and most results tend to disregard the individual differences in favour of the similarities across individuals.

A second feature of previous studies is that the results (for which raw scores were usually obtained by multiple choice and cloze tests, or variations on them) measure product rather than examine process. A researcher might demonstrate that a student got a right or wrong answer to a reading comprehension question, but not necessarily how he got it.
The subjects

As we were interested in both product and process, we decided to test a small sample of subjects, but to interview them orally in great detail. In practice, working with each informant took approximately three hours.

We also decided to interview informants in their mother tongue, Hebrew, in order to eliminate any difficulty they might have in expressing themselves in English.

The subjects were divided into two groups, a test group and a control group; each group consisting of six informants.

The test group comprised 6 first-year undergraduates who had completed the standard reading comprehension course of 100 hours of instruction (plus weekly homework) in which they had been explicitly taught reading comprehension strategies. Their E.F.L. proficiency had been rated as lying between 55 and 65% as a final course grade, that is neither very good, nor very weak.

The control group consisted of 6 University teachers. All are non-native speakers of English and work in various departments unrelated to language-teaching. No member of the control group has ever received any formal training in R.C. strategies either in their L.I. (Hebrew or Arabic) or the L.2, English. However, in all cases, their competence in English is high. Each subject stated that in the course
of lecturing and research, he has been exposed, for years, to the
literature in English in his field. We were in a position to verify
this.

The test

The test used in the study consisted of three passages taken from
"Male & Female" by Margaret Mead (Morrow, 1949). The subject matter,
although anthropological, is not obscure and is of general interest.

From the language and conceptual points of view, the lexicon,
structures and style were difficult. We predicted that the student
group would have difficulty in understanding it, but not such as to
be unable to cope with it in terms of both reading and answering questions.

Reading Strategies tested in these passages were as follows:

Skimming for key words and phrases
Finding the implication
Distinguishing between main and peripheral
Recognizing the author's intent
Contextual guessing.

These strategies are assumed to be similar for all languages.
Method

Informants were given the three test passages, one by one, with no time constraint, so that each passage could be read and re-read as much as they wished. Dictionaries were not permitted, however, as we were interested in obtaining evidence of the maximum extent to which informants used linguistic clues in contextual guessing.

After each passage the informant was interviewed. He was first asked, in his L.I., to answer an oral question related to the reading strategies we were testing. When the answer was incorrect the student was asked how he had arrived at his answer, in terms of the linguistic clues in the passage itself, the knowledge he brought to bear on the text and the reading techniques he had used. While questions differed in detail from individual to individual according to the varied reactions and answers obtained, we tried, however, to examine minutely the reasoning process on which answers were based.

In the interview, students thought aloud in their L.I. and by immediate retrospection attempted to retrace the reasoning by which they had arrived at their answers to the comprehension questions on the texts.

When questioning on each one of the passages was completed, students who had difficulties with particular passages were given a recognized Hebrew translation of the same passage, and were then asked the same questions testing the same reading strategies.
This was done in order to see how the application of reading strategies differed across the two languages. In other words, to see how language difficulties in the L.2 affected the application of reading strategies, as compared with their application in the L.1, where no language difficulties existed.

Where an informant had no difficulties with the reading passage, the translated text was not given (in the case of the control group) and it was assumed that his L.1 reading could be no worse than in the L.2.

Thus, in terms of testing the reading product, we compared:

a. the reading performance of the same informants for the same strategies in both the L.2 and L.1.

b. the reading performance in L.2 for the same strategies of two groups: on the one hand, informants with, let us say, intermediate L.1 competence, 1 year exposure to academic reading material and formal training in reading strategies; on the other hand, informants with high L.2 competence, high exposure to reading material, but no formal training in reading strategies.

Our speculations were the following: if L.2 reading were a problem of applying reading strategies, then those informants who were unable to apply reading strategies in L.2 would presumably do as badly in L.1; also informants with training in reading strategies should do no worse than those without this training.
If, on the other hand, L.2 reading were a problem of L.2 competence, then the results for the same students would differ for L.2 and L.1; and also the control group would do better due to its higher L.2 competence.

As for the process, the detailed interviews aimed at discovering how the informants arrived at the correct or the incorrect answer and especially how they detected meaning on the basis of incomplete information in L.2.

Results in terms of Product

a. Test Group. In general, comparison of responses of the same six informants, across both the L.1 and the L.2, shows that:

Informants had no difficulty whatsoever in applying the selected reading strategies in their L.1. We would like to assume that this was because of transfer to the L.1 of the L.2 Reading Strategies, acquired on their E.F.L. Reading comprehensive Course. But it might have been due to informants' reading ability in their L.1 developed before coming to the University. However, no formal course in L.1 reading strategies is taught in Israeli high schools.

Yet, despite their ability to apply Reading Strategies in the L.1, none of the informants could use the same reading strategies as effectively in the L.2. The detailed information obtained in the interviews showed clearly that it was language difficulty that produced a reading block.
The more difficult a passage was language-wise, for the informant, the less the student could handle the comprehension questions. Also within the group, the students with fewer language difficulties answered better.

The fact that they were able to use reading strategies in the L.1 translated version of test-pieces was of no help in the L.2 original version, which had been given before the translation.

Thus, even if transfer of reading strategies does occur from L.2 to L.1, this transfer does not automatically make good L.1 readers into good L.2 readers, since L.2 reading seems to be a function of L.2 competence.

b. Control Group. In the case of the control group not one of the 6 informants showed difficulty with the application of the reading strategies we tested in the L.2, although, as we have already stated, none of them had received any formal instruction in reading strategies in either the L.1 or the L.2. Where these informants did experience language difficulties, the difficulties were minor and therefore did not seriously impede informants' reading. These informants were not given the translated version of the test pieces since we assumed that if they performed certain reading tasks well in L.2, they could do it no worse in L.1. Thus we assumed they were good L.1 readers.

We attribute their good performance mainly to their high L.2 competence. It is probably this higher competence and exposure to reading material that compensated for lack of formal training in
reading strategies. In fact, these strategies were probably naturally acquired by the subjects of the control group as they received more and more exposure to reading.

To sum up, our results in terms of product showed that:

a. good L.1 readers are not necessarily good L.2 readers or, similarly, poor L.2 readers are not necessarily poor L.1 readers.

b. readers with higher L.2 competence and higher exposure to reading seem to display better reading performance in L.2 than readers with lower competence with formal training in reading strategies.
Results in terms of process

The material collected in the interviews indicates that when understanding is partial, the process of interpretation takes the following form:

1. The student anchors himself to lexical items rather than to sentence structure or larger discourse items.

   a. He clings to known lexical items, or those he thinks he knows, but which he actually confuses with other words, as in the following example:

The original sentence:

"This nurturing behaviour, this fending for females and children instead of leaving them to fend for themselves, as the Primates, may take many different forms."

Error: 'nurturing' confused with 'natural'
       'fending'  " " 'finding'
       'leaving',  " " 'living'

The student's interpreted version:

"Instead of living natural life, natural behaviour, females and children find many different forms of life."

* For illustrations of more misinterpreted sentences see Appendix.
b. As for the unknown words, sometimes he tries to guess them, but is fully prepared to disregard them, as in the following example:

*The original structure:*

In complex society, a large number of men may escape the burden of feeding females and young by entering monasteries and feeding each other.

*Errors:*

'escape the burden' - ignored

'enter monasteries' - ignored

Information non-existent in the text added.

*The student's interpreted version:*

'In complex societies (as opposed to simple ones where men bring food) females can also provide food, thus men and women feed each other.'

When he does try to guess, he tends to look for clues in the word itself, its morphology, and its resemblance to words in other languages, rather than using other contextual clues as in the following sentence:

*The original sentence:*

'There again we see how tenuous the urge of the male to provide for his own children is, for it can so easily be destroyed by different social arrangements.'

*Basic error:* 'tenuous' wrongly guessed as 'strong' having been related to 'tenure' and the Latin 'tenire'
The student's interpreted version:

'... now strong the urge of the male to provide for, his own children is, for it...'

In this particular case, the discourse clue 'for' was completely ignored, so that neither the context of the sentence, nor the whole paragraph was of any help and a different meaning was inserted.

To this lexical picture which he has created, and to which he is now committed, he adds whatever relevant knowledge he has, whether textual or extra-textual. In principle it is a useful strategy, but it seemed, in the experiment, to defeat its purpose in the following case.

If the first type of knowledge namely that obtained from the text, is itself a misinterpretation, this can lead to even further misinterpretation. When the reader's second type of knowledge, i.e., extra-textual or "knowledge of the world" consists of attitudes different from those of the author of the text, the information in the text may be distorted into a false construct, to suit the reader's conviction. In the experiment the subjects in the test were unable to perceive this unreality. They were convinced they were right, until later confronted by the same context in the L.1.
The most striking example of this, occurred in a passage where the author discussed biological differences between men and women, and clearly implied that boys and girls should get a different education. Informants, however, when asked whether the author advocated the same or a different education for girls and boys, insisted that the author was advocating the same education for boys and girls.

Interviews revealed that the clue for this misinterpretation was the student's common sense - "Nobody today would dare to suggest different education for men and women, certainly not a woman writer."

This suggest that, "bringing knowledge to the text", as it is called, can, when there is insufficient linguistic knowledge to support it, be dangerous, as biased opinion may be introduced into subjects' interpretation of the passage, regardless of the linguistic facts.

On the other hand, when the same informants were faced with the same text in the L.1, the wrong interpretation disappeared once they were able to rely on familiar linguistic clues.

3. Step 3 of the process of detecting meaning on the basis of partial information revealed in the study was, that the informant, having anchored himself firmly in his own lexical and ideational interpretation, then imposed a sentence structure on the idea he had already arrived at via his lexicon and his previous knowledge, as in the following case:
The original sentence:
but in most societies, adolescence is a period of re-examination, and possible re-orientation of the self towards the expressed goals of society.

**Basic Errors:**
- 'adolescence' confused with 'adolescents'
- 're-orientation of the self' - ignored
- 're-examination by the adolescent' confused with 'examination by society'!

The interpreted version:
In most societies, the goal of society is to examine adolescents.

Thus 'goals of society' was made the subject of the sentence and 'adolescence' the object. A false interpretation was imposed on the sentence by the interpretation of the structure of the whole sentence.

Thus it seems that syntactic clues are exploited least, if at all, or at most wilfully ignored in favour of what seems to fit the interpreter's own notion of what the text said.

From this investigation of process we might suggest a tentative answer to the question of the nature of the threshold of language competence required before reading strategies can be successfully applied (see Cummins, Clarke, Alderson). This threshold seems to
be mainly of a semantic nature since words proved to be the main landmarks in detecting meaning. Knowledge of words seemed to be more important than familiarity with subject matter, since in controversial matters such familiarity may, as we observed, prejudice the interpretation. We found that, as discourse markers tended to be disregarded in favour of word meaning, it seems reasonable to suggest that this threshold is more semantic than discourse based; and last of all, is it syntactic. In our study, syntactic clues were not exploited or were wilfully ignored. In Ulijn & Kempen's study it was found that reading comprehension is little dependent on syntactic analysis of the text sentences.

Conclusions and Implications for Teaching

It would be dangerous to draw too many conclusions from an experimental investigation involving a relatively small sample, despite the extensive and detailed nature of the interviews, and the care taken to avoid imposing a hypothesis onto the evidence obtained.

However, it seems reasonable to suggest that there are here clear indications of a number of points which we consider may be relevant to current approaches in teaching E.F.L. reading for academic purposes, in circumstances such as ours, i.e., a non-immersion situation.
1. Higher order reading strategies appear to be ineffectual if the lower order language base is too insecure.

   a. Skimming the text to locate key words or phrases was ineffective when informants were not familiar with these phrases. They attached themselves, for minimal comprehension security, to familiar but not necessarily key items.

   b. Where the reading strategy involved making the distinction between main and peripheral matter, the subjects tended, in some cases, to cling only to what they understood, whether it was main or not. What was more, these subjects had in any case no linguistic means of deciding what was main or peripheral.

In other instances, where the informants were able to locate a main point by means of linguistic clues, they were, however, more often than not unable to say what the point was. That is, they were competent to locate in the L2, but not to comprehend.

   c. Where the reading strategy involved detecting implication in one text or the authors' intent in another text, some students, because of partial understanding and prejudicial previous knowledge, read into the text what they wanted it to say, rather than what it actually said. This appeared to show that reading between the lines was not feasible where the lines themselves were incorrectly or partially read.
d. When students were asked to guess selected unknown words, correct guessing was impeded in two ways. In some cases they did not move outwards from an apparently familiar word into its context, and appeared to prefer to take the easier way out by associating it with other, similar-sounding words. In other cases the informants did try to make use of the wider context, but the contextual clues were themselves unknown, and therefore, even with such strategically sound intentions, these clues could not be exploited.

Moreover, it is possible that these reading strategies are acquired anyway through exposure to reading (as in the case of our control group) and not necessarily by formal training. Therefore we might ask ourselves whether our students would not in fact benefit more from our devoting time to teaching language than to reading strategies.

2. The solid language base in (1) above appears to be substantially lexical, since, as we have mentioned, students look first and principally for lexical clues. Lexical misinterpretation seemed to be the chief cause of poor reading comprehension, while syntactic clues tended to be overlooked in the process of detecting meaning.

It would also seem that students must have this solid lexical base, as reliance cannot be placed on expansion of a narrow base by contextual guessing.
If (1) above is correct, i.e., that higher order reading strategies appear to be ineffectual on an insecure language base, then the question can be asked, should we use authentic texts as the language medium for introducing reading strategies? This may be especially questionable as many authentic texts are stylistically complex or even badly written. Possibly, to achieve our purpose, it would be desirable, despite claims to the contrary, to "doctor" them. It may be even better to introduce texts written by teachers with the teaching aim in mind: or if we do use authentic texts they must be carefully chosen to suit the reading purpose, which is not easy.

Students do not necessarily read as teachers would like them to read. Teachers assume or hope that their students use the maximum of textual and extra-textual clues to reduce the unknown and arrive at the point. In the circumstances of the experiment, a different reading emerged. Informants seemed to be applying the principle of "taking the line of least resistance", that is, the easy way out.

while the teacher would like to believe that the student is using contextual clues to guess the meaning of an unknown word, the reality is that the student clings to the word itself and does not move forward or back from it.

while the teacher thinks that the student is using the sentence structure as one of the clues for detecting meaning, the reality is
that the student imposes a sentence structure on what suits his own notion of what the sentence means.

While the teacher hopes that the student is constructively trying to bring his knowledge of the world to the subject matter of the text; the reality here was that he sometimes applied a biased opinion to create a false hypothesis.


APPENDIX

Examples of Misinterpreted Sentences

1. Original
'The young male learns that when he grows up, one of the things he must do in order to be a full member of society, is to provide food for some female and her young.'

Error: 'provide' confused with 'prevent'.

Interpretation
'The young male learns that when he grows up, one of the things he must do in order to be a full member of society, is to prevent food from some female and her young.'

Error: 'tenuous' guessed as 'strong'.

Interpretation
'There again we see how strong the urge of the male to provide for his own children is, for it can so easily be destroyed by different social arrangements.'
Original

But in most societies, adolescence is a period of re-examination, and possible re-orientation of the self towards the expressed goals of society.

Errors: 'adolescence' confused with 'adolescents'.

're-orientation of the self' - ignored.

're-examination' (by the adolescent) - understood as 'examination by society'.

Interpretation

'In most societies the goal of society is to examine adolescents.'

Original

't's nurturing behaviour, this fending for females and children instead of leaving them to fend for themselves, as the primates do, may take many different forms!

Errors: 'nurturing' confused with 'natural'.

'fending' " " 'finding'.

'leaving' " " 'living'.

Interpretation

'Instead of living natural life, natural behaviour, females and children find many different forms of life.'
In complex societies, a large number of men may escape the burden of feeding females and young by entering monasteries and feeding each other.

Errors: 'escape the burden' - ignored.
'enter monasteries' - ignored.
information non-existent in the text - added.

Interpretation
In complex societies (as opposed to simple ones, where men bring food), females can also provide food, thus men and women feed each other.

Original
If we survey all known human societies, we find everywhere some parts of the family, some set of permanent arrangements by which we assist females in caring for children while they are young!

Errors: 'survey' confused with 'survive'.
parts of the sentence ignored.

Interpretation
Each society needs to survive, therefore there is an arrangement to achieve it.
7. **Original**

In a society where mobility is enjoined on every citizen and each man should die a long distance from the class he comes from, the danger that the spouse will get out of step is very great.

**Errors:**
- 'enjoined' confused with 'enjoyed'
- 'get out of step' - guessed as 'get out of social class'

**Interpretation**

In a society where mobility is enjoyed by every citizen and each man should die a long distance from the class he comes from, the danger that the spouse will change his class (by marriage) is great. (Therefore, two people from different social classes will have difficulties in adjusting to each other.)

---

Some social invention was made under which males started nurturing females and their young. We have no reason to believe that the nurturing males had any knowledge of physical paternity.

**Errors:**
- Ignoring unknown items.
- 'nurturing' confused with 'natural'

**Interpretation**

Females more naturally respond to the physical needs of children, men do not have it naturally, they have to learn it.
9. Original
'Male fighting fish do make bubble-nests and only capture the female long enough to squeeze her eggs out of her!'  

Error: 'squeeze out' guessed as 'press to'.

Interpretation
'Male fighting fish do make bubble-nests and only capture the female long enough to press her eggs to her (so as to protect her).'

10. Original
'Among our structurally closest analogues - the primates - the male does not feed the female.'

Errors: ignoring the unknown: 'primates', 'analogues'

Interpretation
'The male does not feed the female.'

11. Original
'The woman's activities may shrink to skinning and cooking and preserving the catch.'

Errors: 'shrink to' - ignored.
'catch' - understood as a verb.

Interpretation
'Women catch the food and prepare it.'