

***Do L2 Proficiency and L1 Reading Strategies Affect Persian EFL Learners' Use of English Reading Strategies? Threshold Hypothesis Revisited***

**Mohammad Rahimi**

*Shiraz University, Iran*

**Firooz Sadighi**

*Shiraz University, Iran*

**Zahra Alimorad Dastkheyr**

*Shiraz University, Iran*

Research in the area of reading comprehension strategies (RCSs) suggests that not all learners use these strategies in the same fashion and that various factors affect the type and frequency of the strategies used by second/foreign language learners. This study attempted to investigate the effect of two factors, namely, L2 proficiency and L1 reading strategies on the use of FL semantic and syntactic RCSs of Iranian university EFL learners. To this end, data were gathered from ninety-seven Persian learners. Results of the study indicated that L2 proficiency did not have any significant effect on the use of L2 semantic and syntactic RCSs. However, L1 semantic RCSs were found to have a significant effect on the use of L2 semantic RCSs. Moreover, the interaction of L1 syntactic strategies and L2 proficiency had an impact on using L2 semantic strategies. The implications of the study along with suggestions for further research have also been provided.

**Key words:** Reading comprehension strategies; semantic strategies; syntactic strategies; threshold hypothesis

## INTRODUCTION

Over the last few decades, within the field of education, a gradual but significant shift took place resulting in less emphasis on teachers and teaching and greater stress on learners and learning. One of the consequences of this shift was the focus on the use of language learning strategies (LLSs) in second/foreign language (L2) learning and teaching (Riazi, 2007). Within L2 education, a number of definitions of LLSs have been provided by key figures in the field. For example, Oxford (1992/1993) provided almost the most comprehensive definition of LLSs:

Specific actions, behaviors, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability (Oxford, 1992, 1993, p. 18).

From among the four language skills -- namely, reading, writing, speaking, and listening -- reading comprehension is considered to be the most important skill, especially for L2 learners. This skill was so important to language learning and teaching that by the end of the first quarter of the twentieth century an approach named the "reading approach" emerged which underlined reading as a tool for language learning and emphasized reading skills for foreign languages (Brown, 2000).

In an EFL context such as Iran, reading is considered to be one of the most important language skills to be acquired because of lack of enough exposure to the spoken form of the target language. Stevenson (cited in Keshtkaran, 1979) states that a student in Iran needs a high degree of reading skill, applicable to all types of contemporary expository written material, more than he needs any other language skills. Zhang (2001, p. 175), too, maintains,

In 'input-poor' environments where students receive very little natural

exposure to their target language outside their course material and where there may be very limited opportunities for conversing with native or highly fluent speakers, the receptive skill of reading may assume particularly high importance.

That is why reading comprehension strategies (RCSs) have been given ample attention in research on language learning strategies. Koda (2005) believes that skillful readers continuously adjust their reading behaviors to cope with the text difficulty, task demands, and other contextual variables. They monitor their reading process carefully and take immediate steps when encountering comprehension problems. They are aware of their own cognitive and linguistic resources and are capable of directing their attention to the appropriate clues in the texts. These and similar behaviors which separate skilled from less-skilled readers are called strategic reading.

Paris, Wafik, and Turner (cited in Koda, 2005, p. 206) suggest six reasons why strategic reading is critical in school learning:

1. Strategies allow readers to elaborate, organize, and evaluate information derived from text.
2. The acquisition of reading strategies coincides and overlaps with the development of multiple cognitive strategies to enhance attention, memory, communication, and all learning.
3. Strategies are personal cognitive tools that can be used selectively and flexibly.
4. Strategic reading reflects metacognition and motivation because readers need to have both the knowledge and disposition to use strategies.
5. Strategies that foster reading and thinking can be taught directly by teachers.
6. Strategic reading can enhance learning throughout the curriculum.

In literature, a broad array of reading strategies is identified. Although differences in the reported strategies are modest, they are classified in different ways, as a consequence of researchers' own disparate views of reading processes and strategies (Koda, 2005). For instance, Block (1986) divides RCSs into two major classes: general strategies, which are applied

when the reader faces some problems in understanding the whole text, and local strategies, which are used when readers get caught in certain parts of the text. Anderson (1991), on the other hand, divides RCSs into five categories: supervising (used for monitoring progress for comprehension), supporting (used for regulating processing behaviors), paraphrasing (aiding local-information processing), establishing text coherence (assisting global text-information processing), and test-taking (used in accomplishing a particular task on a reading test).

Chavez (1994, p. 321) maintains that there are four levels of strategies which are used in the derivation of meaning:

- (a) supertextual strategies which help reveal the cultural framework into which the text is embedded;
- (b) contextual strategies which uncover the syntactic structure of cohesion underlying the text;
- (c) intratextual strategies which are aimed at individual constituents within the text primarily on the lexical level; and
- (d) subtextual strategies which translate text-bound (concrete) into text-independent (interpretative) meaning.

The strategy categories adapted by Chavez (1994) form the theoretical framework of this study. Specifically, the focus of this study is on the contextual (syntactic) and intratextual (semantic) strategies, their respective contributions to the construction of meaning, and the attention they are afforded in the teaching of L2 reading.

## LITERATURE REVIEW

Although literature reveals a number of studies that have compared L1 and L2 reading comprehension strategies all over the world (e.g., Carrell, 1989; Chavez, 1994; Hauptman, 1981; McLeod & McLaughlin, 1986), there is a comparative dearth of research in this area in Iran. In fact, the only study found by the present researchers is Kamyab (1987), which compares the use of only one strategy, i.e., the strategy of employing syntactic and semantic

cues in reading in English and Persian by Persian speaking EFL learners. However, in general, studies seem to confirm guesses that L1 and L2 strategies appear to differ at lower levels, and that the L2 strategies approach those of L1 as L2 proficiency develops (Lapkin & Swain, 1977; Oller, Bowen, Dien & Mason, 1972).

Khaldieh (2001) studied the role played by knowledge of both *iraab* (the inflectional grammar of the written Arabic) and vocabulary in the reading comprehension of American learners of Arabic as a foreign language (AFL). Two groups (46 participants), proficient and less-proficient, of non-native readers of Arabic read an expository text, wrote an immediate recall protocol in their first language to measure their overall reading comprehension, and completed a vocabulary task and an *iraab* task. Whereas the analysis of the data revealed that vocabulary knowledge had a significant main effect, *iraab* was found not to have a significant role in reading comprehension. The results of the study suggested that reading comprehension is independent of the knowledge of *iraab* and depends mainly on vocabulary knowledge.

Shokrpour (2001) investigated the extent to which differences in the use of syntactic, semantic, and register cues in the text can be attributed to differences in language proficiency and register complexity of the text as well as to the interaction between language proficiency and text difficulty. One hundred and eighteen EFL young adult first year students enrolled in a General English course in the English Department of the University of Medical Sciences in Iran participated in this study. The results indicated that high, intermediate, and low proficiency readers made different proportions of syntactically-, semantically-, and register-based appropriate responses in their tests in EFL, showing the effect of language proficiency and different reading strategies used by different levels of proficiency. As the texts became more complex in terms of register, the proportion of acceptable and appropriate responses decreased, which denoted the effect of text difficulty and also the change in strategy as EFL texts become more complex. She concluded that readers with a high level of proficiency in English have an interactive strategy of using both their bottom-up and top-down skills whereas low

proficiency students were found to be less sensitive to contextual information in the text. However, she stated that due to the complexity of the reading process and the strategies used by the readers, there is more to FL reading than language proficiency of the readers.

Stevenson, Schoonen, and Gloppe (2003) examined two hypotheses about processing of global content in second language reading: the inhibition hypothesis and the compensation hypothesis. A three-dimensional classification scheme was used to compare 22 Dutch high school students' reading strategies in Dutch (L1) and English (L2). Results showed that the readers used higher proportions of "Language-Oriented strategies," "Regulatory strategies," and "Above-Clause strategies" in English than in Dutch. On the whole, the readers focused more on language in the text in English, with little evidence that this inhibited them in focusing on global text content. The readers did not compensate for language problems by focusing more on global text content in English.

Nassaji (2003) investigated the role of higher-level syntactic and semantic processes and lower-level word recognition and graphophonic processes in adult English as a second language (ESL) reading comprehension. In particular, the study examined the extent to which these processes could discriminate skilled from less-skilled readers in a sample of fairly advanced ESL readers. Measures of reading comprehension, syntactic, semantic, word recognition, phonological, and orthographic processing skills were used as the instruments of the study. The results revealed that lower-level component processes such as word recognition and graphophonic processes, in addition to higher-level syntactic and semantic processes, contributed significantly to the distinction between skilled and less-skilled ESL readers. These findings suggest that efficient lower-level word recognition processes are the integral components of second language reading comprehension and that the role of these processes must not be neglected even in highly advanced ESL readers.

Landi and Perfetti (2007) used event related potentials (ERP) to compare adult skilled and less-skilled comprehenders on a set of semantic and phonological processing tasks. The results revealed that skilled and less-

skilled comprehenders showed no differences in their ERP response during a phonological processing task. Their findings provide neurophysiological support for the hypothesis that less-skilled comprehenders have weakness in semantic processing that may contribute to their comprehension difficulties.

As seen, in all the studies reported above, the three variables L1 reading strategies, L2 proficiency, and L2 RCSs are related to one another and affect each other in one way or another. The aim of the present study is to investigate the effect of L1 semantic and syntactic RCSs as well as L2 proficiency on the use of L2 semantic and syntactic RCSs. In fact, according to the threshold hypothesis, readers will not be able to read effectively until they develop some proficiency in the target language; in that case, they will be able to transfer their L1 reading strategies to L2 reading, even though the threshold level is liable to vary from task to task and from reader to reader. In other words, whether or not a reader has reached the threshold level may be the deciding factor in his/her success or failure in L2 reading (Lee & Schallert, 1997).

Since L1 reading strategies and L2 language proficiency are two main variables to be investigated in the present study, it is hoped that the results of this study would shed more light on the relationship between these two variables and L2 reading comprehension strategies of Iranian EFL learners.

## **CONTEXT AND SETTING OF THE STUDY**

Existing research on RCSs has heavily relied on the learners' strategy use patterns in second language contexts. In EFL contexts, on the other hand, research on RCSs has mostly been conducted in situations which are quite different from that of Iran. For one thing, in the majority of language classes, language institutes, universities, and schools, teacher-centered approaches still prevail. In spite of the claims made regarding the use of communicative approach, the dominant method of language teaching in most schools and some university courses (general English, mainly) is still grammar-translation

method. The best and the most successful language institutes use Audio-Lingual Method. Thus, the traditional structural approaches, where the teacher is the authority in the classroom, are still dominant in Iran (Moradi, 1996; Rahimi, 1996; Razmjoo & Riazi, 2006; Yarmohammadi, 2000). As a result, very little attention, if any, is paid to learner autonomy and strategy instruction. That is why strategy-based studies seem quite urgent in the EFL context of Iran.

In addition, in the past three decades, due to a variety of economic, social and political reasons, Iranian EFL learners have had little or no chance of face-to-face communication with the native speakers of English. To make the situation worse, only a small number of language learners have easy access to the internet and other media such as satellite TV. Accordingly, the most important source of language exposure for Iranian EFL learners is reading. Hence, investigating reading comprehension strategies seems particularly important.

A further characteristic of this context is reflected in the type of reading practices employed in Iranian language institutes and universities. Iranian instructors mostly employ a bottom-up approach to reading, where the students work with short texts under the close guidance of the teacher. One aim of such an instruction is to explore the reading passage in details, dealing with such aspects of the text as grammar and vocabulary meaning. There is no or little room for extensive reading and strategy instruction in reading courses in Iranian universities.

Furthermore, distinctive features of Persian language and its differences with English make the present study significant. Two important characteristics of Persian are its alphabet and particular way of writing. Although Persian is alphabetic, its orthography is completely different from that of English. The alphabet of Persian is completely different from English in terms of physical shape; it is similar to Arabic. Another difference between Persian and English is the way in which the letters combine to make words, the direction of writing (from right to left), and grapheme-phoneme regularity. According to Nassaji (2003, p. 270), "this orthographic property of Persian seems to have a



significant effect on the way Persian readers read Persian as their L1.” Baluch and Besner (cited in Nassaji, 2003, p. 271), too, point to this orthographic difference between English and Persian with regard to the manner in which vowels are represented in print in Persian. In Persian written texts, short vowels are not typically represented. In addition, while English is an SVO language, Persian is an SOV. These unique characteristics of Persian scripts make them different from English ones and these differences might influence the way Persian readers read English and Persian texts and might even lead to “different information-processing mechanisms” (Nassaji, 2003, p. 270) and, as a result, to the use of different reading comprehension strategies. Therefore, given the characteristics of the Iranian EFL context as well as the unique features of Persian, further research into the RCS use of this group of EFL learners seems imperative. This study attempts to fill this gap by investigating the patterns of semantic and syntactic RCSs among Iranian EFL learners.

To achieve the above goal, this study investigated the influences that L1 reading strategies and L2 proficiency may have on the syntactic and semantic reading comprehension strategies employed by Iranian EFL university students while reading L2 texts. In order to investigate these issues and fill this gap, this study seeks to answer the following research questions:

- (1) Is there any difference between the use of semantic and syntactic strategies in L1 and L2?
- (2) Do students’ L2 proficiency level and L1 RCSs affect their use of syntactic and semantic strategies in L2 reading comprehension?

## **METHOD**

### **Participants**

A convenient sample of 97 undergraduate Iranian English majors (male =

27, female = 70) participated in the study. All of the participants were Persian native speakers at different academic levels, i.e., freshmen (N=22), sophomores (N=13), juniors (N=33), and seniors (N=29).

### **Instruments**

Four instruments were utilized for data collection purposes in this study. The first instrument of the study was a Test of English as a Foreign Language (TOEFL) to determine the proficiency level of the participants.

The second instrument was a rational-deletion English cloze test adapted from Brown (1980). The test was used to make the participants involved in a reading comprehension task so that the researchers would later be able to elicit from the participants the strategies they had used while doing the test. The readability of the text was 8.7 using Flesch-kincaid Grade Level formula. Deleting every 7th word in the text has rendered a total of 50 blanks. This cloze passage seemed valid and reliable for the research purpose because Brown (1980) has obtained a reliability index of 0.95 and a criterion-related validity of 0.90. However, to further verify the reliability of the test, its reliability was calculated by KR-21 method in the present study. The obtained reliability was 0.91. The cloze test was scored by the acceptable-word method. The words considered acceptable in Brown (1980) were also counted acceptable in this study.

The third instrument was a Persian cloze test taken from Saadat and Rahimi (in review). Like the English cloze test, this test, too, was employed to make the participants involved in doing a reading comprehension test so that they would later report the strategies they used while doing the test. The test was excerpted from *Mesl-e Hame-ye Asrha* (Like all the afternoons) (Pirzad, 1981). The text was a short story of 709 words, and the difficulty level of 8 to 9 (average) according to a version of the Flesch formula modified for the Persian language (Dayyani, 1990). It contained a total of 47 blanks. The difficulty level of the English and the Persian texts was almost similar. Using KR-21 method, the researchers of the present study obtained a

reliability index of 0.73 for this cloze test.

The last data collection instrument was a questionnaire in which the participants had to indicate what particular types of strategies they used in completing the cloze tests (See Appendix). This questionnaire was brief and worded in simple terminology with which the participants were quite familiar. The questionnaire was taken from Chavez (1994). It was designed according to a hierarchical structure in which the main questions (reflecting the areas of syntax, morphology, and semantics) branched off into sub-questions (constituent targets of those strategies) which were evenly distributed across syntax, morphology and semantics. The first five questions (1-5) related to semantic strategies and the last five (9-13) related to syntactic strategies were the focus of the present study and the three questions in between (6-8) related to morphology were discarded.

One of the researchers translated the questionnaire into Persian and then she asked two assistant professors of TEFL at Shiraz University to back-translate the text into English in order to ensure the validity of the translation. The translations and the original text were then compared to confirm the validity of the Persian translation.

The reliability of the new version of the questionnaire estimated by Cronbach's alpha was 0.77 when the index was used with the English cloze test and 0.72 when it was used with the Persian cloze test.

## **DATA COLLECTION AND ANALYSIS PROCEDURES**

In order to collect the data for the present study, first, the proficiency test was administered. Based on the obtained scores, the participants were divided into three groups on the basis of the distribution of their scores. 27 percent of the participants who got the highest scores constituted the high group; 27 percent who got the lowest scores formed the low group. From the remaining participants, the ones whose scores overlapped with the scores of the participants assigned to the high and low groups were eliminated from the

study and the rest were considered as the mid group.

Then, in the next class session, the students in each class received the Persian and the English cloze tests in a counterbalanced manner. That is, some of the students took the Persian cloze test first and some others the English cloze test; next, those who had taken the Persian cloze test, took the English one and vice versa. After doing each test (Persian and English) the students completed the strategy questionnaire. Each student took the questionnaire twice; once after taking the Persian cloze test and then after the English test.

After the required data were collected, matched t-tests and multiple analysis of variance (MANOVA) were run to analyze the data and answer the research questions.

## RESULTS AND DISCUSSION

### Research Question one: Is there any Difference Between the use of Semantic and Syntactic Strategies in L1 and L2?

In order to find out whether there were statistically significant differences between the use of overall semantic and syntactic strategies in L1 (Persian) and L2 (English), a series of matched t-tests were run. The results of these tests are presented in Table 1.

**TABLE 1**  
**Paired Samples T-Tests for English and Persian Semantic and Syntactic RCSs**

	Mean	t	Effect size	Sig.
English semantic	3.26	2.78	0.07	0.006
English syntactic	2.38			
Persian semantic	4.23	16.83	0.74	0.000
Persian syntactic	0.69			
English semantic	3.26	-5.30	0.22	0.000
Persian semantic	4.23			

English syntactic	2.38	7.71	0.37	0.000
Persian syntactic	0.69			

T-test significant at 0.01

As the results show, for both English and Persian, semantic strategies have been used more frequently than syntactic strategies. For English, the mean of semantic strategy use is 3.26 and that of Syntactic strategy use, 2.38; similarly, for Persian, the mean for semantic strategies is 4.23 and that of syntactic strategies, 0.69. The results of the t-test show that these differences are significant, indicating that the participants of the study have used significantly more semantic strategies than syntactic ones in both Persian and English. In other words, they have paid more attention to the meaning of the words rather than to their grammatical features while reading. This difference is more conspicuous in Persian since the effect size for the difference between semantic and syntactic strategies is a very large one, i.e., 0.74, as compared to that of English, 0.07, which is a low effect size (Cohen, as cited in Phakiti, 2003). With respect to L1, the results were quite predictable. Native speakers, while reading a text, in order to comprehend it, do not usually pay conscious attention to the structure and attend to the meaning (McLeod & McLaughlin, 1986). With respect to reading in L2, as learners advance in their L2 proficiency, their syntactic processes become automatic and they can, in addition, use more semantic processes in L2 reading (Nassaji, 2003; Shokrpour, 2001). In fact, when the use of strategies become automatic, in self-reports, the learners do not report using them. That is the reason why they did not report using syntactic strategies as much as semantic ones while reading in L2, albeit, as mentioned, the effect size is low indicating that the difference is not that much significant.

With respect to cross-language differences in strategy use, as the data in Table 1 reveal, the participants used syntactic strategies more frequently in L2 reading than in L1; nevertheless, semantic strategies were used more frequently in L1 reading than in L2 reading. A likely explanation for these findings can be the fact that as mentioned above, structural approaches

dominate language classes and grammar constitutes an integral part of teaching English in Iran. In addition, unlike their native language, Persian, the students learn the grammar of English consciously; as a result, they pay more attention to grammar than meaning while reading an English text, whereas, in Persian, they pay more attention to meaning than sentence structures. The moderate effect sizes for the differences between semantic strategies as well as syntactic strategies in Persian and English confirm the above claim. As Table 1 indicates, the moderate the difference between English and Persian Semantic strategies is 0.22 and that of English and Persian syntactic strategies, 0.37, both being large.

These findings are in line with the findings of previous research such as those of Stevenson, Schoonen, and Glopper (2003), and Landi and Perfetti (2007), who found that L1 readers seem to use semantic cues more than L2 readers because lack of proficiency in L2 makes them more text-bound and leads them to pay conscious attention to grammatical features of the texts they read.

Nevertheless, the same findings are in contrast to the findings of some other studies. For instance, Khaldieh (2001) found that in the case of Arabic as a foreign language, reading comprehension is independent of the knowledge of *iraab*, which is part of syntax and depends mainly on vocabulary knowledge. However, one can argue that English and Arabic languages are very much different from each other and comparing their syntactic structures may not be justified.

### **Research Question Two: Do Students' L2 Proficiency Level and L1 RCSs Affect Their Use of Syntactic and Semantic Strategies in L2 Reading Comprehension?**

In order to see if Persian syntactic and semantic strategies as well as L2 proficiency of the participants affect their use of English syntactic and semantic strategies, a test of MANOVA was conducted. Table 2 illustrates the results.

**TABLE 2**  
**Tests of Between-Subjects Effects for the Effect of L2 Proficiency and Persian**  
**RCSs on the Use of English Semantic and Syntactic RCSs**

Ind. Variable	Dep. variable	F	Sig.	Effect size
L1 syntactic strat.	L2 syn. strat	3.91	0.06	0.04
	L2 sem. strat.	1.93	0.16	0.02
L1 semantic strat.	L2 syn. strat	0.47	0.49	0.00
	L2 sem. strat.	11.84	0.00**	0.12
L2 proficiency	L2 syn. strat.	1.15	0.08	0.05
	L2 sem.strat.	2.56	0.32	0.02
Proficiency*L1 syntactic strat.	L2 syn. strat	0.27	0.76	0.00
	L2 sem. strat.	4.13	0.01*	0.08

\*\* $p < .01$     \*\* $p < .01$

The results presented in Table 2 shows no main effect for the proficiency level of the participants on their use of L2 semantic and syntactic RCSs. This finding is in line with Alptekin's (2006, p. 504) who suggests that "L2 readers, even those with advanced levels of L2 proficiency, seem to behave more like inefficient L1 readers, who are unable to reduce their reliance on the text irrespective of their degree of familiarity with thematic content".

Another justification for the lack of effect of proficiency level on their use of RCSs can be the fact that, according to Hong-Nam and Leavell (2006), once language learners reach a high level of language proficiency, "their need to consciously administer and deliberate about their learning choices becomes less necessary" (p. 410). They maintain that high-proficient L2 learners' learning process becomes so intrinsic and well-established that they need only be conscious of their process when they face a very difficult or novel learning task. Bereiter (cited in Hong-Nam & Leavell, 2006) describes that this internalization results from "the deepest and most thorough understanding" (p. 23), and states that the process becomes "so incorporated into the way we perceive the world and comprehend communications ... [we] should not have to remember to transfer the learning, but experience it

'automatically'"(p. 24). This being the case, "advanced learners' habitual and successful application of language strategies may be so internalized that they do not report what has become for them an automated process" (Hong-Nam & Leavell, 2006, p. 411). Considering the fact that participants of the present study were of a relatively high level of L2 proficiency (mean of TOEFL = 525), one can conclude that their automatic application of reading strategies can be the reason for not reporting them in the self-report questionnaire.

As for the effect of Persian semantic strategies, one can see a significant main effect on the English semantic strategies ( $F=11.84$ ,  $p<0.01$ ), though with a small effect size (0.12). The results with respect to the effect of Persian semantic strategies can be explained in the light of the threshold hypothesis. In fact, referring to their mean scores for the TOEFL test (Mean=525) which is relatively high, one can argue that their L2 proficiency is high enough to enable them to transfer their first language semantic reading strategies to their L2 reading. On the other hand, with respect to syntactic strategies, as Shokrpour and Gibbons (2000) argue, Persian syntactic strategies cannot be easily transferred to English while Persian semantic strategies seem to be more amenable to transfer (Shokrpour & Gibbons, 2000). It seems that the threshold hypothesis does not apply to L1 syntactic strategies, at least when L2 semantic strategies are concerned. The following factor might help explain this finding. The difference between English and Persian syntactic structures might hinder the process of transferring L1 syntactic strategies to L2 reading comprehension. It might even be the case that these strategies interfere with L2 reading. As Yorio (1971) maintains, syntactic structures of the readers' native language tend to lead them into channels foreign to the syntax of the language being read. In this case syntactic interference makes L2 reading comprehension more difficult.

The findings of this study with respect to the main effect of L1 RCSs on L2 RCSs are in agreement with Shokrpour and Gibbons (2000), Verhoeven (1990), and Perkins, Brutton, and Pohlman (1989), which all support the existence of a "linguistic threshold" below which the readers are not able to



interact adequately with the text and cannot transfer their L1 reading strategies to their L2 reading.

With respect to the main effect of syntactic RCSs, as Table 2 indicates, one cannot see any main effect for L1 syntactic strategies on the use of L2 syntactic and semantic strategies. Once again, it can be claimed that the threshold hypothesis only applies to the semantic strategies but not to the syntactic ones.

With respect to the interactions between the variables, as revealed in Table 2 only one interaction, i.e., the interaction between level of proficiency and Persian syntactic strategies turned out to affect the use of English semantic strategies ( $F=4.13$ ,  $p<0.05$ ) with a low effect size (0.08). Hence, syntactic strategies can show their effect only in interaction with the level of proficiency on the use of L2 semantic strategies.

In order to further analyze the data, with respect to the interaction between proficiency level and L1 syntactic strategies, the data were split into two halves with respect to L1 syntactic strategy use; one for the L1 high syntactic strategy users and the other for the L1 low syntactic strategy users. Then for each group, the effect of proficiency level on the use of L2 semantic strategies were examined. As Table 3 shows, one cannot see any significant difference among different proficiency levels in using L2 semantic strategies for the L1 High syntactic strategy users. However, this difference turned out to be significant with respect to the L1 Low syntactic strategy users ( $F=23.52$ ,  $p<0.01$ ) with a moderate effect size (0.32).

**TABLE 3**  
ANOVA for the Effect of Proficiency on L2 Semantic Strategies  
in L1 High & Low Syntactic Strategy Users

Proficiency	F	Sig.	Effect size
L1 high strat. Users	1.10	0.35	0.10
L1 low strategy users	23.52	0.00	0.32

ANOVA significant at 0.01

The results of the post hoc analysis for the L1 low syntactic strategy users showed a significant difference between the high and low proficiency levels

in using L2 semantic strategies, on one hand, and the mid and low proficiency levels, on the other hand. This interaction between the L1 low syntactic strategy use and proficiency level and its effect on the L2 semantic strategy use can be explained in the light of “threshold hypothesis” once more. In effect, those who are low strategy users in their L1 can apply the strategies they use to L2 while reading a text only when they reach a certain proficiency level. In fact, It can be said that since Persian readers are proficient in their L1, it would be expected that they use more strategies in their L2 than L1 because of a greater need for strategic intervention in the L2 (Chavez, 1994). So, the fact that Persian readers used less syntactic strategies can be attributed to their high proficiency in Persian. The effect of the interaction between L1 syntactic strategies and high L2 proficiency on the use of L2 semantic strategies can be justified by the use of the “threshold hypothesis” and the fact that because of English and Persian syntactic differences this interaction did not have any significant effect on the use of L2 syntactic strategies.

## **CONCLUSION**

This study demonstrated that there is a “linguistic threshold”, below which the readers are not able to interact adequately with the text. Results of the present study indicated that high L2 proficiency students were able to transfer their L1 reading semantic strategies to their L2 reading comprehension while low L2 proficiency students were not able to do so. Persian syntactic strategies, however, were not amenable to transfer. The reason could be huge differences between English syntactic structures and those of Persian.

The results of the present study have implications for teacher training and teaching. Pedagogically, these findings suggest that EFL reading practitioners should be made aware of the key role of semantic strategies in EFL reading instruction and consider ways to incorporate activities and tasks into their syllabuses in order to enhance the efficiency of using these strategies.

One way of encouraging the development of efficient semantic strategies in L2 reading involves instructional practices that are especially designed to target the use of these strategies. An example of this approach would be including an extensive reading component into L2 reading instruction by encouraging L2 readers to read as much as possible, read for their own enjoyment while focusing on the meaning of what is read rather than on form (Renandya & Jacobs, 2002). Extensive reading may not only provide a meaningful and motivating context for reading (Mason & Krashen, 1997) but also an opportunity for developing general language proficiency and consolidating syntactic and lexical knowledge (Nation, 1997).

Regarding the threshold level, the findings have implications for the teaching of reading. Being aware of language thresholds and the factors which may affect them, the reading teacher will be able to decide when and where to emphasize language instruction to help low proficiency readers and when to start focusing on higher level strategies (Laufer & Sim, 1985).

It can be suggested that knowing the meanings of words or having good knowledge of L2 grammar may not be enough for efficient reading. According to Nassaji (2003), a good reader is one who is also able to process words and their relationships in texts as efficiently as required for fluent processing and understanding of texts. In particular, word recognition and graphophonic processes should receive systematic attention in situations where the target language uses an orthography different from the readers' L1 orthography (Nassaji, 2003). Further studies in these areas would be revealing.

In the case of our EFL Iranian students, reading is the most important skill in their academic or learning context. As reported in Dhieb-Henia's (2003) study, a traditional approach to reading comprehension fails to equip students with highly developed and positive strategies required for comprehending the text they read. We need to help learners become efficient readers and enhance their reading ability. They need to be moved from dependence on the teacher to more independent and autonomous reading. This independence can be gained by making them efficient in the use of certain strategies.

## **LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH**

This study has employed a convenient sampling procedure because it was not possible to do random sampling procedures. Therefore, the intact classes were used as they were. Further studies are clearly needed in which the participants would be selected based on probability sampling procedures.

Further studies are recommended with a larger number of students from different cultural backgrounds to find out if the same strategies are used in reading and if the students in other contexts and at different levels use different strategies. Therefore, this study opens a number of avenues for further research. We need to know the extent to which specific patterns of strategy use we found in Iran would occur in other cultural settings.

It must be noted that results based on self-report questionnaires like the one used in this study have limitations. Specifically, Mokhtari and Sheorey (2002) asserted that self-report surveys do not report what learners do, rather, what they claim to do, and thus “one cannot tell with absolute certainty from the instrument alone whether students actually engage in the strategies they report using” (p. 8). In order to get a more comprehensive picture of students' strategy use, they encourage the simultaneous use of interviews and observation.

It is also important to note that all the tasks used in this study were written tasks, so part of the relationships among the different tasks and with the reading comprehension might be due to the fact that they all shared the need to process visual symbols. Thus, future research is needed in which both written and oral measures, particularly for assessing the readers' syntactic and semantic knowledge are employed.

L1 reading proficiency was not controlled in any systematic manner in this study. Future research should examine the extent to which the role of the linguistic component processes in L1 reading varies as a function of L1 reading proficiency. This issue might be best explored by selecting participants with varying degrees of L1 and L2 reading proficiencies.

Still, studies of first- and second-language reading of languages other than English and Persian using other methodologies are clearly needed.

### **AUTHOR INFORMATION**

*Mohammad Rahimi* is an assistant professor in the Dept. of Foreign Languages and Linguistics of Shiraz University, Iran. His current research interests are writing feedback and language learning strategies. His recent publications include *The role of teacher's corrective feedback in improving EFL learners' writing accuracy* (2009) and *Factors affecting the use of language learning strategies by Iranian EFL learners* (2008) with A. Riazi and S. Saif.

Email: rahimim@shirazu.ac.ir

*Firooz Sadighi* is professor of English language and linguistics at the Dept. of Foreign languages and linguistics of Shiraz University, Iran. His research areas are 'foreign language learning/ L2 acquisition', 'linguistics: syntax, semantics, and phonology', 'psycholinguistics' and 'syntactic argumentation'.

Email: firoozsadighi@yahoo.com

*Zahra Alimorad Dastkheyr* is a Ph.D. candidate of TEFL in Shiraz University, Iran. Her research interests are FL reading comprehension, testing, methodology, and discourse analysis.

Email: zalimorad@yahoo.com.

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