

## L1 and L2 Reading Strategies Connection: A Review of Past Studies

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Doi:10.5901/mjss.2016.v7n1s1p306

### Abstract

*This study reviews past studies in first language (L1) strategies and second language (L2) strategies comparison. The similarities of strategies in both languages can be seen in the transfer of L1 strategies in L2 reading; however, the extent of transfer and the type of strategies being transferred are varied in different studies. The differences in strategies across languages lie mainly in the overall number and frequency of strategies and the preferred strategy types. Suggestions for future research are also provided at the end of the study.*

**Keywords:** reading, strategies, first language, second language, connection

### 1. Introduction

How L1 reading and L2 reading are related has been examined in a plethora of studies in the past (Grabe and Stoller, 2013). Among them, some studies are comparing L1 and L2 reading strategies as they serve as important indicators of reading processes (Yau, 2009; Lin and Yu, 2013). However, these studies are varied in participants, L2 proficiency level of participants, and their findings. It is necessary to compare these studies and summarize and compare their findings. This study aims to examine studies on L1 and L2 reading strategies over the past and focuses on two aspects: 1) the transfer of L1 strategies in L2 reading; 2) the overall strategy use pattern in both languages.

### 2. Review of Past Literature

This section firstly discusses method and criteria in selecting past literature on the research topic: connection of L1 and L2 reading strategies. Past research has also been classified into different categories with regard to the transfer of L1 strategies in L2 reading.

#### 2.1 Criteria in Source Selection

The selection of sources or past literature is based on the following criteria: 1) all the studies are closely relevant to the research topic: L1 and L2 reading strategies connection; 2) most studies are up-to-date: out of the 10 selected studies, 7 of them (70%) were conducted after 2003, with 6 out of the 7 conducted after 2005; 3) all selected studies were of high-quality, with 7 out of 10 (70%) studies published in high-ranking journals based on data from "The SCImago journal and country Rank" (a portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database)

#### 2.2 Literatures Supporting Conditional L1 Reading Strategies Transfer

This section discusses studies which are in favor of transfer of L1 strategies in L2 reading. Taillefer and Pugh (1998) view second language (L2) proficiency as a prerequisite condition for the transfer of first language (L1) strategies in L2 reading. Thirty nine French students were divided into three groups based on their strength or weakness on two independent variables: L1 reading proficiency and L2 language competency. The study found that only for the group strong at both variables (Str-Str group), the strategic approach is similar and the transfer of strategies seems automatic with positive behavior maintained at 93% level in passing from L1 to L2. However, groups weak on either one or both

variables move strategically from good to poor or from poor to worse.

Taillefer and Pugh (1998)'s findings were echoed in the study conducted by Tsai et al. (2010) who found distinctive pattern of L1 and L2 reading strategies for skilled and less skilled readers (Based on their scores on L2 proficiency tests). For skilled readers, no significant difference were found among all five categories of reading strategies across languages, suggesting a smooth transfer of L1 reading strategies in L2 reading. For the less skilled readers, on the other hand, major difference were found in nearly all five categories of strategies between two languages, indicating different reading processes in L1 and L2.

The two studies above both found a large degree of strategy transfer in nearly all categories for skilled readers. The less skilled readers, however, were hindered by their low L2 proficiency and unable to transfer effective L1 reading strategies in L2 reading. This finding is in line with the threshold hypothesis (Cummins, 1976) which believes a threshold level of L2 proficiency must be obtained for the transfer of L1 reading skills or strategies in L2 reading.

However, some studies found transfer of certain type of strategies even among low proficiency L2 readers. Davis and Bistodeau (1993) compared English and French reading strategies for two groups of participants, the native reader of English (NRE group) and the native reader of French (NRF group). In the NRE group, participants with shorter L2 learning experience and at undergraduate level, three times more top down than bottom up strategies were found in L1 as compared to L2, suggesting limited L2 proficiency might prevent the transfer of higher-level strategies. However, no significant difference existed among the metacognitive comments for NRE group, proving similar pattern of metacognitive strategy pattern in both L1 and L2 regardless of participants' L2 proficiency. In the NRF group, participants with longer L2 learning experience and studying at postgraduate level demonstrated similar strategy pattern across languages. Mean proportion of top down strategies were significantly higher as compared to bottom up strategies regardless of language for NRF group.

Consistent with previously mentioned studies, Davis and Bistodeau (1993)'s study found large degree of L1 strategy transfer among proficient L2 readers and low degree of L1 cognitive strategy transfer for less proficient L2 readers. However, the transferability of L1 metacognitive strategies is not hindered by low L2 proficiency, providing contradictory results to threshold hypothesis.

Similar to Davis and Bistodeau (1993)'s findings, Yau (2009) in the study on Taiwanese adolescent's L1 and L2 reading strategies found significant correlation between strategy use in L1 and L2 reading, supporting the common underlying proficiency (Cummins, 1979). Relatively high correlation between the use of metacognitive strategies across languages was also detected, suggesting the transfer of metacognitive strategies regardless of L2 proficiency level. High-performing readers in this study were found to be better able to apply effective L1 strategies in L2 reading as compared to low-performing readers due to their enhanced awareness on the interaction of L1 and L2 reading. One thing worth noting in this study is the similar strategic approach found in reading classical Chinese texts and English texts.

Other studies also proved the existence of strategy transfer to different extent. Pearson et al. (1996) explored the reading strategies adopted by successful and less successful Latina/o readers in English and Spanish. Four types of transferred strategies were identified for successful readers: questioning, rereading, evaluating and monitoring indicating an enhanced awareness of the relationship between two languages for successful readers. The less successful readers were found unable to apply knowledge of Spanish to enhance English comprehension and vice versa.

Kong (2006) explored reading strategies employed by 4 ESL Chinese learners in reading both English and Chinese. Some common and transferable reading strategies were found across languages including using text structure, invoking prior knowledge and evaluating reading content. The most frequently used strategies in both languages are applying text structure knowledge and knowledge of themselves and the content knowledge in figuring out the author's point of view. All participants demonstrated different degrees of strategy transfer across languages and participants with higher L2 proficiency level might find it easier to transfer higher-level cognitive and metacognitive strategies as compared to participants with lower L2 proficiency level.

Maarof and Yaacob (2011) also detected certain degree of L1 strategy transfer for secondary Malaysian students at varying English proficiency level with some common types of strategies found in both L1 and L2 reading. However, the study failed to categorize the strategies being transferred and did not mention any difference in strategy transfer across different L2 proficiency groups. The results of this study also could not be generalized due to limited number of participants (9).

Lin and Yu (2013) compared L1 and L2 reading strategies for English as foreign language (EFL) college students at varying reading levels in Taiwan. Participants in this study demonstrated similar preference pattern in three reading strategy categories. The use of metacognitive strategies, in particular, were found readily shared across languages, which is in line with previously mentioned studies (Davis and Bistodeau, 1993; Yau, 2009). Higher-proficiency group employed more effective metacognitive strategies as compared to lower-proficiency group in their L2 reading which is in line

with previously mentioned studies (Davis and Bistodeau ,1993; Yau,2009; Pearson et al. ,1996).

The above 8 studies share something in common: 1) they all recognize large degree or some degree of L1 strategies transfer in L2 reading; 2) most of these studies recognized the active role of L2 proficiency in strategy transfer from L1 to L2. However, these studies are varied in some aspects: 1) the extent of strategy transfer: large extent of transfer of strategies in all categories were found in some studies while only a few types of transferrable strategies were detected in other studies; 2) the type of participants for L1 strategy transfer: some studies believe only participants with threshold L2 proficiency level were able to transfer all types of L1 strategy in L2 reading, while other studies view metacognitive strategies transferrable for all participants, regardless of their L2 proficiency level. Table 1 briefly summarizes the findings of the 8 studies in terms of strategy transfer.

**Table 1.** L1 Strategy Transfer in L2 Reading

Authors	Participants	Types of participants for L1 strategy transfer	Types of transferred strategies
Taillefer and Pugh (1998)	39 French students with varying L1 and L2 proficiency	Participants strong at both L1 and L2	General strategies Local problem-solving strategies
Tsai et al. (2010)	222 Taiwanese EFL undergraduates	Skilled L2 readers	Textual content Concrete technique Task perception Problem solving
Davis and Bistodeau (1993)	8 Native English readers (NRE) and 8 native French readers (NRF) with better L2 proficiency	NRE and NRF	Top-down, bottom-up and metacognitive strategies for NRF Metacognitive strategies for NRE
Yau (2009)	144 grade-11 students	Skilled and less skilled readers	Cognitive, metaconitive, support strategies
Pearson et al (1996)	11 successful and less successful Latina/o readers	successful Latina/o readers	questioning, rereading, evaluating and monitoring
Kong (2006)	4 ESL Chinese learners	Different degree of transfer among all participants	using text structure, invoking prior knowledge and evaluating reading content
Maarof and Yaacob (2011)	9 secondary Malaysian students at varying English proficiency level	All participants	Skimming, slowing down, paying close attention and other support strategies
Lin and Yu (2013)	36 EFL Taiwanese college students at varying reading level	All participants	Metacognitive strategies

### 2.3 Literatures Disproving of or Uncertain about Strategy Transfer

Despite above mentioned studies supporting L1 strategy transfer in L2 reading, there are a few studies disprove or uncertain about strategy transfer from L1 reading to L2 reading. Pritchard and O'Hara (2008) studied strategy use among 20 native Spanish speakers with proficient English and Spanish reading proficiency. Contradictory to other studies, proficient bilingual readers in this study were found to process their L2 reading in a word-by-word manner, not being able to transfer high-level monitoring strategies into their L2 reading.

In 1997, Tang explored 8 Chinese EFL students' strategy use in Chinese and English. Though a similar strategy use pattern was detected in this study, the author was not sure about any transfer of strategies as he did not investigate which strategy or strategies were specifically developed in L1 and L2.

The two studies mentioned above revealed the complexity of L1 strategy transfer in L2 reading. In addition to L2 proficiency, the text type might exert extra influence on reading strategy choice (Pritchard and O'Hara, 2008). In the meantime, more precise procedure needs to be developed to investigate strategies specifically developed for L1 and L2 for bilingual readers. Table 2 gives brief information on the above mentioned two studies.

**Table 2.** Studies Disproving or Uncertain about Strategy Transfer

Authors	Participants	Strategy Transfer
Pritchard and O'Hara (2008)	20 native Spanish speakers with proficient English and Spanish reading proficiency.	No transfer of high-level comprehension of monitoring strategies
Tang (1997)	8 Chinese EFL students	Uncertain

### 3. Analysis on the Results of Past Studies

This section is going to summarize and compare the strategy use pattern in L1 and L2 reading in the above mentioned studies.

Despite a similar strategy use pattern in L1 and L2 reading was found in most studies, difference in specific strategy use difference was also detected in these studies. The difference was mainly in the following aspects: 1) overall number and frequency of strategy use; 2) preferred strategy type. Table 3 lists the specific similarities and differences in reading strategy use in both L1 and L2.

**Table 3.** Strategy Use Similarities and Differences in L1 and L2 Reading

Authors	Strategy Use Similarities	Strategy Use Difference
Davis and Bistodeau (1993)	Similar pattern for higher L2 proficiency group Similar metacognitive strategy use pattern for both groups	Higher strategy transfer was inhibited by limited L2 proficiency
Schoonen and Glopper (2003)	Similar strategy use pattern	Considerable proportional difference : lower content-oriented strategies and higher proportion of above-clause strategies in L2
Kong (2006)	Transfer of strategies to certain degree	Much more explicit strategy in L2 , much more vocabulary-related strategy in L2
Tang (2006)	Similar strategy use pattern	Greater number of and more frequent strategy use in L2
Pritchard and O'Hara (2008)	Did not mention	More monitoring and content-oriented strategies in L1, less monitoring and more sentence specific strategies in L2
Yau (2009)	Relatively similar pattern for skilled readers and between classical Chinese and modern English	metacognitive and cognitive strategies preferred in L1, support strategies preferred in L2
Tsai et al. (2010)	Similar pattern among skilled readers	Different pattern among less skilled readers
Lin and Yu (2013)	Similar metacognitive strategy use pattern	More frequent and diverse strategy use in L2 , support strategies preferred in L2, fewer cognitive strategies in L2

Table 3 reveals the fact that despite transfer of L1 strategies in L2 reading to certain extent, differences between L1 and L2 reading strategies were found in most studies. Five studies noted the difference in preferred strategy type in L1 and L2, suggesting readers tend to use more higher-level, top-down strategies in their native language while more lower-level, bottom-up strategies in second language. Three studies found more frequent and diverse strategy use in L2.

### 4. Conclusion and Suggestion for Future Research

A review of past studies suggest that the connection of L1 and L2 reading strategies exist in the way that L1 strategies are transferred to L2 reading to different extent. However, reading strategies in both languages are also different in overall number, frequency and proportion. Dispute still exist on the extent of L1 reading strategy transfer, type of L1 strategies being transferred, the role of L2 proficiency in L1 strategy transfer, and difference in overall number, frequency and preferred type of strategies in both languages. One possible reason behind the dispute might be the difference in participants and the categorization of strategies. More comparable studies are needed to investigate strategies employed in L1 and L2 reading for participants sharing similar L2 proficiency level and background knowledge.

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