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An Investigation into the Interrelation of the First and the Foreign Languages Reading Comprehension Proficiencies: Linguistic Interdependence Versus Balance Hypotheses

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Abstract

This research investigated the efficiency of either the Linguistic Interdependence Hypothesis (LIH) or the Balance Hypothesis (BH) for the possible association of the first and the foreign reading comprehension proficiencies for EFL learners. The impact of the participants' "age" and "gender" were also assessed for this interrelation. Hence, a total of 52 Persian monolinguals and 156 bilinguals (Iranian learners of English, Arabic and French) were selected randomly and recruited for the study. The needed data were obtained via four validated reading comprehension tests of GMAT, TOEFL, DELF, and ALPT as the research instruments. Statistical analyses revealed a strong positive connection between the learners' first and second languages reading comprehension as a support for LIH which implies the existence of a general reading comprehension competence involved in reading comprehension tasks of different languages. No statistically significant effects were found for the roles of "gender" and "age" in L1 and L2 reading competence interconnection.

Keywords: Balance Hypothesis, Linguistic Interdependence Hypothesis, EFL Learners, General Reading Comprehension Competence.

1. Introduction

Psycholinguistic perspectives range widely due to the possible effects of bilingualism on additional language learning and cross-linguistic transfer in the educational realm. The issue of first language literacy skills transfer has attracted a number of practitioners and researchers to find more about cross-linguistic influence and interactions. There have been many empirical studies with contradictory results about the beneficial or adversary effect and interaction of L1 or L2 proficiency levels (e.g., Cummins 1989; Baker 1993).

Cummins (1989) made the distinction between the two underlying language skills: Basic Interpersonal Communicative Skills (BICS) that deals with the fluency in the second/foreign language, acquiring the "surface" skills of speaking and listening, and Cognitive Academic Language Proficiency (CALP) which deals with academic demands and focuses on language use in de-contextualized contexts. In line with the latter, Cummins' LIH, known as "dual-iceberg", deals with the relationship of the first and the additional

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languages and posits that, along with the different surface linguistic features, some proficiencies are common across languages and are transferable in the case of necessity.

The Linguistic Interdependence Hypothesis (LIH) claims that a second or foreign language learner benefits from a common linguistic basis that connects the first and the additional languages below the surface structures. Consequently, the learner would be capable of transferring the language skills if a threshold of proficiency is reached on the part of the additional language (Cummins, 1989). Cummins' groundbreaking hypothesis has prompted many researchers to study the conceptualization of transfer in their researches.

Cummins' studies (1989, 1991) have shown that the reading, writing, and lexical awareness of bilinguals are connected. This may come from the fact that conceptual information would transfer from L1 to L2 (Umbel et al., 1992). Cummins and Swain (1986) also discovered that bilingualism can promote aspects of meta-linguistic awareness. In addition to bilinguals' superiority on language awareness and language forms, Baker (2006) showed higher social advantages and enhanced communicative sensitivity of bilinguals.

On the other hand, Macnamara (1986) attempted to explain his BH in the way that a bilingual child pays for his/her second language skills by a decrease in his/her first language proficiency. In other words, the second/foreign language development results in the deterioration of linguistic skills of the first language considering the limitations of cognitive assets (Khaghaninejad 2020). The same interpretation is in line with UNESCO's Linguistic Mismatch Hypothesis (LMH) that offered a different explanation referring to the point that the discrepancy between the home language and that of the school may lead to an academic retardation (UNESCO 1993).

As years go by and texts get more complex, reading comprehension will become increasingly important and comprehension difficulties will become increasingly detrimental to effective learning. Nowadays, good reading comprehension remains the most important key for educational purposes and learning. Consequently, reading comprehension as one of the abilities that are most often evaluated all over the world is one of the principal targets of education (Cornoldi and Oakhill, 2013). Hence, research on the possible facilitative or debilitative impacts of reading comprehension proficiencies of the first and the additional languages deserve more empirical scrutiny.

This study attempted to check whether the bilinguals of English, Arabic, and French using Persian as their first language grow a kind of "balanced literacy" for their L1 or L2 competencies on reading comprehension tasks in line with McNamara's BH or compatible with Cummin's LIH, an improvement may happen for L1's reading ability as the result of L2's reading skill development. Moreover, the possible effects of "gender" and "age-range" were scrutinized regarding the LIH and BH. Furthermore, it examined whether BH or LIH were language-specific or could be generalized for various language learning contexts. Consequently, the following research questions are formed:

- Which one of BH or LIH is supported when reading ability of Iranian foreign language learners is concerned?
- Are BH and LIH generalizable to different language learning contexts or language-specific?

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 Do the "gender" and the "age" of the foreign language learners have any effects on BH and LIH efficiency when L1 reading comprehension ability is concerned?

2. Literature review

According to Bialystok, Craik and Ryan (2006) and Baker (2007) reading activates related conceptual/perceptual awareness and interrelated linguistic skills to achieve an exchange of knowledge from one person to another. Reading is undoubtedly one of the major instructional activities in both first and second language and can be viewed as a multi-component process including variant processes of decoding, semantic and syntactic processing, and textual awareness (Grabe, 2009) or can be defined psycholinguistically by Goodman (1967) who considered it as a guessing game in which the readers' guesses are either confirmed or rejected as the text progresses.

The findings in this realm have been both contradictory and controversial (Tamimy et al. 2022). On the one hand, some believe that L1 reading deficiency can transfer to L2 even when the two languages have dissimilar syntactic structures (e.g., Farahani and Khaghaninejad 2009; Baker 2011; Jiang 2011; McBride et al., 2012; Li and Clariana 2019). On the other, some have documented that when a bilingual develops skills in one of his two languages, s/he pays for it by a decrease in competence in the other (e.g. Mcnamara 1986; Ray and Meyer 2011). As one of the proponents of LIH, Peregoy and Boyle (2000) pointed out that, the literacy of first language provides an experiential base for literacy development in the second language so that a set of language functions can also be available in L2 context. Reading ability across languages are separate but interrelated phenomena; bilinguals may be highly competent readers in L1 but not in L2 (Ray and Meyer 2011).

Yamashita (2002) documented that both the first language reading ability and the second language proficiency were significant predictors of the second language reading ability. In another study, Bossers (1991) examined the interrelationship between the first and the second languages reading ability with Turkish foreign language learners. The study indicated that L1 reading and L2 ability had significant roles in L2 reading comprehension development. Jiang (2011) also confirmed the remarkable contribution of L2 language proficiency to L2 reading comprehension performance.

Pae (2018) examined the possible relation between the L1 and the L2 reading and writing proficiencies and suggested that L1 proficiency could be a significant predictor of L2 reading and writing, supporting the interdependence of first and second languages receptive and productive skills. In the same vein, Blom et al. (2021) found an empirical support for the association of L1 and L2 skills focusing on 56 English language learners whose mother tongue was Arabic. Van Weijen, Riglaarsdam and Van den Bergh (2019) examined the dependence of writing skill in the first and second languages investigating the writing proficiency of 120 Canadian Dutch learners and found that participants had had approximately similar performance on various writing tasks of both languages. As a support for LIH, this may imply that the skill of writing stems from a common cognitive competence and is interdependent among different languages.

"Age" has often been a critical and an important issue of bilingualism in a variety of studies and a bulk of evidence has indicated that adult and mature bilinguals acquire the second language faster while the children were able to achieve native-like competence before six years of age in terms of phonology (e.g., Long 1990, Khodadady and Khaghaninezhad 2012; Schulz and Grimm 2019). According to Newport (1990), "age" as an important factor between acquisition and proficiency can influence younger learners to apply heuristic strategies more efficiently. Furthermore, other variables such as attitudes and motivation can also strongly impact the proficiency level of adult learners (Gardner 2001).

The controversy on differences between male and female language learners had been an interesting topic for the vast body of empirical research works (Pavlenko, 2001; Lakoff, 2004; Sudaryanto, 2015). Some researchers have investigated "gender" differences in their studies and found female learners outperforming male learners in reading comprehension (e.g. Wu 2014) and some have detected no gender-related differences in this regard (Phakiti 2003). For example, Nero and Zulkiply (2020) found that males and females had had an identical performance on reading comprehension tasks however, their performance were slightly better for perceiving the printed texts than the digital ones. Some other researchers have reported that males had better reading comprehension performances than females (e.g., Scarcella and Zimmerman 1998). Yet, the literature is full of inconsistent findings regarding gender as a variable and the direction of the found differences is often ambiguous.

To recapitulate, these interactions between gender and language proficiency had made educational and societal implications differing from giving women less access to a second prestigious language and restricting their bilingualism (Baker 2006) to superiority of female language learners in general language proficiency (Bowey 1995) even though the superiority of females in bilingualism has been challenged by Ellis (2008) depending on the motivation and incentive of the language learners.

3. Method

3.1 Participants

This study examined the possible interrelationship of L1 and L2 reading comprehension competencies of Iranian language learners of English, Arabic and French with different genders and age-groups. From a total of 208, 168 bilinguals were equally divided into adult (22 years old and above) and teenager (between 13 to 19 years old) Iranian L2 learners (including 52 English learners, 52 Arabic learners, 52 French learners) in addition to a group of 52 Iranian monolinguals who were selected through a convenience sample selection procedure from the MA students of Shiraz University and the learners of foreign language learning institutes and were recruited for study. For exploring the effect of "gender", the participants were also classified into two equal groups of male and female language learners.

3.2 Instruments

Four reading comprehension tests were employed to measure the participants' reading comprehension ability in both Persian (their mother tongue) and the languages they had learnt.

 Persian reading comprehension test_ It consisted of 35 items in multiple-choice format selected from the GMAT (a kind of aptitude assessment test) reading comprehension test items (Sedaghat 2007). It included seven passages of different difficulty levels about general topics, each followed by five comprehension items. Although, these reading comprehension test items have been used on Iranian An Investigation into the Interrelation of the First and the Foreign Languages Reading Comprehension Proficiencies: Linguistic Interdependence Versus Balance Hypotheses

national MA entrance exam and were supposed to be completely valid and reliable, it was piloted before the employment to estimate the allotted time. This test was designed to estimate the Persian reading comprehension of natives.

- English reading comprehension test_ It was a 35-item test including seven passages from the retired versions of TOEFL (Test of English as a Foreign Language), each with five test items of different types of reading comprehension test items (inferential, referential, etc.). The passages dealt with general issues excluding the technical topics. The test was piloted before the employment to obtain the estimated time to answer the questions.
- French reading comprehension test_ It consisted of 35 test items from seven passages from the retired
 versions of DELF (the international French proficiency test), each with five test items of different
 types of reading comprehension test items (information scanning, inferential, referential, etc.). The
 selected passages were about general issues and not the technical ones.
- Arabic reading comprehension test_ It consisted of seven passages whose comprehension was tested by
 five test items. These passages were selected from the reading comprehension section of ALPT (Arabic
 Language Proficiency Test) which is a universally validated test for the Arabic language proficiency
 from 2002 onward.

3.3 Data collection procedure

The participants were given two reading comprehension tests, one in their L1 and the other in their L2 languages which assessed their reading comprehension competence in both their first and foreign languages. The participants were divided into four groups of adults-male, teenagers-male, adults-female and teenagers-female to compare and describe their performance on the two reading comprehension tests. Their performances on L2 reading comprehension tests were compared to their performance on L1 reading comprehension test and also to that of the monolinguals who would take only Persian reading comprehension test. Taking "gender" and "age" as two potentially influential variables, the performance of different age and gender-groups were compared to see any significant effects. In this way, the impacts of foreign language reading ability, "age" and "gender" on the first language reading comprehension would be illuminated. If L2 reading comprehension was found to be similar to the L1 reading comprehension, it would support the LIH which posits that L1 reading ability could be exploited on L2 reading tasks. Otherwise, if there was a meaningful difference between L1 and L2 competencies, BH would be supported.

4. Data analysis and discussion

4.1 Results

According to Table 1, there were strong and positive relationships among the reading comprehension of Persian and English (r_1 =.91), Persian and French (r_2 =.86), and Persian and Arabic (r_3 =.84). It was also found that reading comprehension can explain 82 percent of the variance in respondents' scores in Persian-English, 73 percent of the variance in Persian-French and 70 percent of the variance in Persian-Arabic bilinguals.

Table 1: Correlations Coefficients among Reading Tasks of Different Languages

		Persian RC1	English RC1	Persian RC2	French RC2	Persian RC3	Arabic RC3
Persian RC1	Pearson Correlation	1	.918**	.532**	.613**	.566**	.477**
	Sig. (2-tailed)		0	0	0	0	0
	N	52	52	52	52	52	52
English	Pearson Correlation	.918**	1	.507**	.620**	.578**	.489**
RC1	Sig. (2-tailed)	0		0	0	0	0
	N	52	52	52	52	52	52
Persian RC2	Pearson Correlation	.532**	.507**	1	.868**	.530**	.527**
	Sig. (2-tailed)	0	0		0	0	0
	N	52	52	52	52	52	52
French	Pearson Correlation	.613**	.620**	.868**	1	.597**	.544**
RC2	Sig. (2-tailed)	0	0	0		0	0
	N	52	52	52	52	52	52
Persian	Pearson Correlation	.566**	.578**	.530**	.597**	1	.849**
RC3	Sig. (2-tailed)	0	0	0	0		0
	N	52	52	52	52	52	52
Arabic RC3	Pearson Correlation	.477**	.489**	.527**	.544**	.849**	1
	Sig. (2-tailed)	0	0	0	0	0	
	N	52	52	52	52	52	52

According to Table 2, the bilinguals with English, French and Arabic as their foreign languages were superior to the monolinguals (Persian speakers) in terms of Persian reading comprehension test. Additionally, as it is indicated English bilinguals ($\overline{X}_{RC1} = 14.9$) outperformed French and Arabic bilinguals ($\overline{Y}_{RC2} = 14.2$, $\overline{Z}_{RC3} = 13.4$) on their first language reading comprehension test.

Table 2: Comparing Monolinguals and Bilinguals on Reading Comprehension Tasks

	N	Minimum	Maximum	Mean	Std. Deviation
Monolinguals Reading Comprehension	52	5.00	24.00	12.1154	5.05132
Persian Reading Comprehension1	52	5.00	28.00	14.9231	6.41030
English Reading Comprehension1	52	7.00	31.00	15.9808	6.61398
Persian Reading Comprehension2	52	5.00	27.00	14.2115	4.68346
French Reading Comprehension2	52	7.00	25.00	14.2308	4.41306
Persian Reading Comprehension3	52	6.00	29.00	13.4808	5.45387
Arabic Reading Comprehension3	52	5.00	28.00	12.7500	5.19002

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Table 3: Descriptive Statistics of Teenager and Adult Performances on Reading Tasks

Age		N	Mean	Std. Deviation	Std. Error Mean
Monolinguals Reading	Teenager	26	8.8846	2.56635	.50330
Comprehension	Adult	26	15.3462	4.87395	.95586
Persian Reading	Teenager	26	10.0000	3.44093	.67482
Comprehension1	Adult	26	19.8462	4.64493	.91095
English Reading	Teenager	26	11.3077	2.44572	.47964
Comprehension1	Adult	26	20.6538	6.15105	1.20632
Persian Reading	Teenager	26	11.4231	3.16447	.62060
Comprehension2	Adult	26	17.0000	4.30813	.84489
French Reading	Teenager	26	11.3077	2.60414	.51071
Comprehension2	Adult	26	17.1538	3.89556	.76398
Persian Reading	Teenager	26	9.6154	2.78678	.54653
Comprehension3	Adult	26	17.3462	4.67283	.91642
Arabic Reading	Teenager	26	9.6923	2.78236	.54567
Comprehension3	Adult	26	15.8077	5.26892	1.03332

Two independent-samples t-tests were employed to compare the mean scores of teenagers and adults on reading comprehension tasks. The first independent-samples t-test was employed considering "age" as the independent variable. Table 3 shows the superiority of adult monolinguals and bilinguals' mean scores on reading comprehension tasks over teenager monolinguals and bilinguals. Additionally, adult English bilinguals ($x_1 = 19.8$) outperformed both adult French ($x_2 = 17.1$) and Arabic ($x_3 = 15.8$) bilinguals on their second language reading comprehension task. It also shows that teenager Arabic bilinguals had the lowest performance (x = 9.6) among the bilinguals on their foreign language reading comprehension tests. Furthermore, it shows that all three groups of bilinguals performed than Persian monolinguals on Persian reading comprehension test.

Table 4: Comparing the Performance of Adults and Teenagers on their L1 and L2 Reading Tests

	Levene's Test for Equality of Variances					t-test for Equ			
							-	95% Con	fidence
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval Differ	
								Lower	Upper
Monolinguals	9.919	.003	-5.981	50	.000	-6.461	1.080	-8.631	-4.291
Reading Comprehension			-5.981	37.873	.000	-6.461	1.080	-8.648	-4.274
Persian Reading	2.799	.101	-8.685	50	.000	-9.846	1.133	-12.121	-7.569
Comprehension1			-8.685	46.088	.000	-9.846	1.133	-12.12	-7.564
English Reading	22.071	.000	-7.199	50	.000	-9.346	1.298	-11.953	-6.738
Comprehension1			-7.199	32.712	.000	-9.346	1.298	-11.988	-6.704
Persian Reading	3.234	.078	-5.320	50	.000	-5.576	1.048	-7.682	-3.471
Comprehension2			-5.320	45.895	.000	-5.576	1.048	-7.687	-3.466
French Reading	3.724	.059	-6.362	50	.000	-5.846	.918	-7.691	-4.000
Comprehension2			-6.362	43.625	.000	-5.846	.918	-7.698	-3.993
Persian Reading	6.466	.014	-7.245	50	.000	-7.730	1.067	-9.873	-5.587
Comprehension3			-7.245	40.786	.000	-7.730	1.067	-9.885	-5.575
Arabic Reading	10.628	.002	-5.233	50	.000	-6.115	1.168	-8.462	-3.768
Comprehension3			-5.233	37.937	.000	-6.115	1.168	-8.481	-3.749

As can be seen in Table 4, the difference in mean scores for all teenager and adult monolinguals and bilinguals were statistically significant (p-value < 0.05). Therefore, it shows that age (teenager or adult) can be considered as a significant factor for the reading comprehension performance of monolinguals and bilinguals.

Table 5: Descriptive Statistics of Male and Female Participants for Reading Tasks

Gender		N	Mean	Std. Deviation	Std. Error Mean
Monolinguals Reading Comprehension	female	26	12.884	5.022	.985
	male	26	11.346	5.059	.992
Persian Reading Comprehension1	female	26	15.423	6.119	1.200
1	male	26	14.423	6.771	1.328
English Reading Comprehension1	female	26	16.345	5.966	1.170
•	male	26	15.615	7.305	1.432
Persian Reading Comprehension2	female	26	14.423	5.005	.981
•	male	26	14.000	4.427	.868
French Reading Comprehension2	female	26	14.353	4.566	.895
•	male	26	14.107	4.342	.851
Persian Reading Comprehension3	female	26	13.769	5.515	1.081
F	male	26	13.192	5.484	1.075
Arabic Reading Comprehension3	female	26	13.153	5.917	1.160
	male	26	12.346	4.426	.868

As Table 5 depicts, both female and male monolinguals and bilinguals had almost similar performances on their reading comprehension tasks based on their mean scores. For comparing the males and females' performances on reading comprehension tasks, the second independent-samples *t*-test was conducted to explore any significant difference. As it is discernible, there was no significant difference in the mean scores of males and females' performances. Therefore, "gender" was not an important factor in reading comprehension proficiency of monolinguals and bilinguals.

Table 6: Comparing the Performance of Male and Female Participants on Reading Tasks

	Levene's Test for Equality of Variances					t-test for Equality of Means			
	F	F Sig.	g. t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Monolinguals Reading	.007	.935	1.100	50	.276	1.538	1.398	-1.269	4.346
Comprehension			1.100	49.997	.276	1.538	1.398	-1.269	4.346
Persian Reading	.504	.481	.559	50	.579	1.000	1.790	-2.595	4.595
Comprehension1			.559	49.497	.579	1.000	1.790	-2.596	4.596
English Reading	1.796	.186	.395	50	.694	.730	1.849	-2.984	4.446
Comprehension1			.395	48.081	.695	.730	1.849	-2.988	4.449
Persian Reading	.790	.378	.323	50	.748	.423	1.310	-2.209	3.055
Comprehension2			.323	49.265	.748	.423	1.310	-2.210	3.056
French Reading	.003	.953	124	50	.901	153	1.235	-2.636	2.328
Comprehension2			124	49.874	.901	153	1.235	-2.636	2.328
Persian Reading	.020	.889	.378	50	.707	.576	1.525	-2.487	3.640
Comprehension3			.378	49.998	.707	.576	1.525	-2.487	3.640
Arabic Reading	1.198	.279	.557	50	.580	.807	1.449	-2.103	3.718
Comprehension3			.557	46.308	.580	.807	1.449	-2.109	3.724

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4.2 Discussion

This study probed into the effect of foreign language proficiency of Iranian EFL learners on their first language proficiency on two reading comprehension tasks of Farsi as their first language and English, French and Arabic as their foreign languages. LIH is supported by the study's findings, i.e., literacy is transferred across languages and foreign reading comprehension ability has positively affected the first language reading comprehension ability rather than having any detrimental effects. This is in line with what was documented by Baker (2011) and Jiang (2011) and Khaghaninejad et al. (2021) which referred to the activation of the general reading comprehension ability for reading comprehension tasks of different languages.

This study suggested that as the bilinguals become more proficient in their L2 reading comprehension, their L1 reading comprehension ability would be enhanced simultaneously. This refers to the transfer of proficiencies across languages. These findings highly supported Cummins' (1989) proposal which accentuated that languages may influence one another and are interconnected in bilinguals. The "age" unlike the "gender" of the language learners was found to be an effective parameter on the conveyance of reading ability from the L2 to the L1.

Linguistic skills interdependence is also shown not to be language-specific. In other words, English, French and Arabic languages reading comprehension proficiencies as foreign languages were found to be effective and influential on first language reading comprehension with different degrees. Similar findings were found by Abu-Rabia (2011) with Russian-English students, Jiang (2011) with Chinese-English students, Bossers (1991) with Turkish-Dutch, and Bournot-Trites and Reeder (2001) with French-English students.

Male and female monolinguals did not differ in terms of their Farsi reading comprehension proficiency but there was a statistically meaningful difference between adult and teenager participants; the adult participants outperformed the teenagers on their reading comprehension tasks. The findings of this study implied that bilinguals of English, French, and Arabic achieved higher reading comprehension scores depending on the age of the participants as an imperative factor.

5. Conclusion

This study was initiated by looking at BH and LIH and checking their efficacy regarding reading comprehension transferability from L1 to L2; in different terms, this study tested the idea that foreign language reading proficiency has either facilitative or detrimental effects on the first language reading proficiency considering the mediating roles of the "age" and the "gender" of the language learners.

Reading comprehension has become an important facet of literacy education and its role is undeniably important in both additional language learning and academic success. What was found in this study can be an empirical justification for the promotion of foreign/second language reading comprehension in monolingual communities. The exposure of language learners to L1 or L2 reading comprehension tasks provides good opportunities to increase their general reading comprehension proficiency. Furthermore, the

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findings implied that the development of reading comprehension in either of the first and the second/foreign languages would advance the general reading comprehension capacity of learners.

In addition to providing useful information about the nature of BH and LIH in the realm of foreign language teaching, the study provided gainful insights for teachers, curriculum designers and EFL learners to consider the effect of age on reading comprehension of bilinguals and monolinguals. Adult bilinguals considerably had better performance in comparison to the teenagers that necessitates language teachers to apply age-appropriate materials. It may imply that educators can take account of diversity of reading comprehension materials in their L1 and L2 to facilitate the bilingual education and their general language proficiency.

تحقيق العلاقة المتبادلة بين كفاءات فهم القراءة باللغات الأول والأجنبية والترابط اللغوي مقابل فرضيات التوازن

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الملخص

أجريت هذه الدراسة بهدف تقصي فعالية فرضية الترابط اللغوي (LIH) أو فرضية التوازن (BH) للعلاقة المحتملة بين كفاءات الفهم القرائي في اللغة الأم واللغة الأجنبية لمتعلمي اللغة الإنجليزية لغة أجنبية، دُرسَ أيضًا تأثير "عمر" المشاركين و "جنسهم" على هذه العلاقة. وأختيرت مجموعة مكونة من اثنين وخمسين شخصًا يتحدثون باللغة الفارسية ومائة وستة وخمسين شخصًا ثنائي اللغة (متعلمون إيرانيون للغة الإنجليزية والعربية والفرنسية) اختياراً عشوائياً، جُمِعَت البيانات المطلوبة من خلال أربعة اختبارات للفهم القرائي التي تُحقِقَ من صحتها وهي GMAT و TOEFL و TOEFL. وأظهرت التحليلات الإحصائية وجود ارتباط موجب قوي بين الفهم القرائي لـ L1 و L2 لدى المتعلمين كدعم لـ LIH مما يدل على وجود كفاءة عامة للفهم القرائي تشترك في مهام الفهم القرائي للغات مختلفة. ولا توجد تأثيرات ذات دلالة إحصائية تعزى إلى متغيري الجنس والعمر لدى المشاركين في مهام الفهم القرائي.

الكلمات المفتاحية: فرضية التوازن، فرضية الترابط اللغوي، متعلمى اللغة الإنجليزية لغة أجنبية، الكفاءة العامة للفهم القرائي.

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