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From Japanese to Elvish: Comparing Different Writing Systems

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Abstract

In terms of literacy, the combination of orthography – the conventional spelling system of a language – and second language (L2) acquisition is not widely studied. The research thus far comprises auditory or verbal acquisition - showing that an L2 learner studying a language phonetically similar to their own would have greater ease in acquiring the L2.¹ While similar phonetics play a part in ease of L2 acquisition, the research focuses mainly on grammar and debates providing corrective input versus no input when learners make a grammatical error. Although many studies demonstrate how phonetics and grammar contribute to L2 learning, they neglect to examine how a language's orthography affects L2 reading comprehension. Due to these limits, the present study aims to determine how L2 learners comprehend sentences when provided a language with a writing system different from their own.

Literary Analysis Contrastive Analysis

The theory of contrastive analysis states that languages are less challenging to learn because of either grammatical or phonetic similarities between them. In Kortmann's 1996 study of this theory, the focus is primarily on Latin, providing the basis for grammatical and linguistic systems of most modern languages. Since Latin stands as the standard, there are structural similarities between many different languages. This theory is an area of comparative linguistics concerned with the comparison of two or more languages. This also brings attention to the idea that having fluency or proficiency in multiple languages causes conflict in the mind of the L2 learner.² Comprehension of two or more languages was later proven to have little impact

on the further teaching of languages in schools. Learners who were already proficient in multiple languages did not face the aforementioned difficulties in learning additional languages. However, the contrastive analysis did serve to demonstrate "error analysis," which is when L2 learners understand the mistakes they are making when practicing their L2. However, the theory does not reveal where these learning difficulties stem from.³

Kortmann's study also focuses on the comparison of typography, structural differences, and similarities between languages that lend to the development of all writing systems. Ultimately, there is a conventional design between different writing systems. This becomes relevant when comparing different languages because the strict script of a language, without knowledge of how different characters sound, alters how the language learner remembers the written language.⁴

Contrastive analysis also calls into question a "parallel corpus," an anthology of written work in its original language and its subsequent translation into the target language.⁵ Comparison of grammar is thus allowed across different written languages and reveals the similarities and differences between one's first language (L1) and their second. L2 learners often start by reading texts specifically written for language-learners, using basic phrases and tenses because they aid the learner in gaining literate comprehension in their target language. In classroom settings, this study is particularly relevant and focuses on teaching students using these translated works, before correcting their grammar based on discussions surrounding these works.

However, contrastive analysis is not always predictive of L1 to L2 comprehension and acquisi-

1 Bernd Kortmann, *Adverbial Subordination: A Typology and History of Adverbial Subordinators Based on European Languages* (Berlin: Walter de Gruyter & Co, 1996); Stefan Gries, "What is Corpus Linguistics?" *Language and Linguistics Compass* 3, no. 5 (September 2009): 1225-1241, <https://doi.org/10.1111/j.1749-818X.2009.00149.x>; Akbar Azizifar, "The Effect of Grammatical Consciousness Raising Task on Iranian EFL Learners' Reading Comprehension," *Procedia - Social and Behavioral Sciences* 192, (June 2015): 252-259, <https://doi.org/10.1016/j.sbspro.2015.06.036>; Esther Geva, "Learning to Read in a Second Language: Research, Implications, and Recommendations for Services." (2006).

2 S.P. Corder, "The significance of learner's errors," *IRAL: International Review of Applied Linguistics in Language Teaching* 5, no. 4 (1967): 161-170, <https://psycnet.apa.org/doi/10.1515/iral.1967.5.1-4.161>.

3 Kortmann, 1996.

4 Gries, 1225-1241.

5 Ibid.

tion.⁶ It is also noted that even if there are grammatical patterns present in a learner's L1 that also appear in their L2, it is common for the learner to misuse those grammatical concepts when learning the L2. Not only this, but difficulties in comprehending an L2 also occur regardless of the learner's L1. Essentially, the similarity between a person's L1 and L2 does not affect how difficult it is to learn the second language.

This present study focuses primarily on grammatical differences between languages, instead of the actual writing systems. Specifically, it looks at the individual characters used in the different writing systems. Pertaining to the Romance languages that use the same Latin writing system, the grammatical structure of sentences is the primary focus of study. However, these particular languages all use the same or similar systems of orthography. There are no current studies that specifically focus on reading comprehension between L2 learners who are studying languages with different writing systems from their own.

The Effect of Grammatical Consciousness on Reading Comprehension

Azizifar⁷ researches the impact of the Grammatical Consciousness Raising task when studying English as an L2 by observing 14 to 15-year-old Iranian women learning English in high school. This study focuses primarily on reading comprehension of the English language as an L2 from learners whose L1 is Farsi (or Persian, as it is known to the Western world.) In this study, they use Consciousness Raising (CR) in which tasks designed by Svalberg are used to raise the learner's Language Awareness (LA). Fundamentally, the learners are focusing on aspects of their L2 that also exist in their L1, whether they are aware or not. The learners in this particular study were asked to draw conclusions based on the texts that they read in their L2.

Azizifar also focuses on creating consciousness, or awareness, of reading comprehension for the learners as they read in their L2 by using the Grammatical Consciousness Raising Task.⁸ Such tasks allow learners to analyze the differences between their L1 and L2, possibly through the use of a basic grammar exercise,

and then allows learners to discuss their findings with their peers. Consciousness Raising (CR) then enables the learners to discuss what they have learned while focusing on the grammar of the text. This discussion allows them to achieve a better social and cultural understanding of the text, as well as a better grasp of how the L2 works. CR, as described in this study, may often be the primary approach used by many teachers when teaching an L2. The L2 learners can draw connections between their L2 and their L1, while also intentionally noting the differences between the two languages. After discussing the connections between the languages and their attention to grammar, the learners pay more attention to their language output.⁹

In contrast to other studies, Azizifar's study includes a post-reading conversation about the text. Given different aptitudes of language acquisition between each learner, the post-reading conversation will most likely heighten the understanding that each learner has of the text, even among differences in language learning aptitude. Regardless of their initial comprehension, conversing with others will give them different perspectives on what they have learned. This conversation, subsequently, will encourage all learners to think more critically about their L2.

Learning to Read in a Second Language (L2)

When teaching L2 learners to read, specifically children,¹⁰ two principal ideas are relevant to comprehension: central processing and typological differences between the learners' L1 and L2. The central processing framework¹¹ states that if the comprehension of information a student has in their L1 is similar to comprehension of information in their L2, then how the learner processes this information should be similar. For example, L2 learners who have acquired literacy in their L1 should have some degree of transfer of skills when they are attempting to gain literacy in their L2. On a biological level, information processing of the written word occurs in the same area of the brain, therefore allowing some potential overlap in how the learner interprets their L2. However, it is essential to note that this is not true of all languages. Despite this shared information processing center, an overlap is

6 Lourdes Ortega, *Understanding Second Language Acquisition* (London: Hodder Education, 2009).

7 Azizifar, 252-259.

8 Ibid., 252-259.

9 Ibid., 252-259.

10 Geva, 2-6.

11 Ibid.

not guaranteed. This is because L2 learning difficulties can occur in many instances, regardless of the learner's L1.¹²

The typological framework's relevance to this orthographic study states that different languages have different orthographic depths. For instance, English is deeper orthographically than languages such as Spanish or German¹³ because of the spoken, audible phonetics and how they relate to each written syllable. By studying the typographical differences between different languages, it becomes possible to determine how L2 learners are processing the script. There are different processing paths for different writing systems. For instance, alphabetical systems like the Romance languages are comprehended differently from those of character-based writing systems such as Chinese or Japanese. These differences have led to the reasoning that if a child L2 learner's L1 is alphabetic and their L2 has a character-based writing system (or vice versa), then the learner will have difficulties in processing and interpreting the written L2 due to less overlap in the brain's processing of the text.

These difficulties have led to conclusions about the occurrences of reading disabilities, such as dyslexia, because of the varying difficulties in the writing systems of different languages.¹⁴ Geva's study, one of the most recent, focuses on orthographic linguistics and SLA. However, Geva's primary focus is on pre-pubescent L2 learners; therefore, it is less relevant for the present study in which we investigate post-pubescent L2 learners. Adults have a more extensive range of outside knowledge, as well as more developed brains than children. For the present study, monolingual college students whose L1 is English, ranging from ages 18-21, will be studied to determine if the languages Japanese, Hindi, Elvish (from J.R.R. Tolkien's *The Hobbit* and *The Lord of the Rings* series), Korean, Russian, and Chinese have writing systems that are easier or harder to understand given the student's lack of prior experi-

ence studying the languages.

The specific orthographies for each of these languages, although most of them are of Asian origin, include a unique design and set of characters. Japanese includes three written languages- Kanji, Hiragana, and Katakana. Kanji uses symbols which derive from Chinese, while Hiragana and Katakana use symbols which indicate syllable sounds within a word.¹⁵ This study focused on Hiragana. Hindi uses the Devanagari script, which has 11 vowels and 35 consonants.¹⁶ Elvish, or Quenya, is an unofficial language created by author J.R.R. Tolkien. It contains many accent marks and emphasis on harsh vowels within its script.¹⁷ Korean, like Kanji, also derives from Chinese using an alphabet called "Josoeng gyeol" and the written syllables are blocks.¹⁸ Russian contains 33 letters- 11 vowels, 21 consonants, and two signs; ъ, ы.¹⁹ Chinese uses characters which correspond to individual phonetic sounds.²⁰ All of the orthographies in this study differ from the Latin alphabet and from each other. The following research questions explore these differences.

Research Questions

In order to determine the varying levels of difficulty in learning languages that were not constructed based on the Latin alphabet, L2 learners that had only language learning experience with Romance languages participated in this study. The following questions were asked during this study:

- I. Is any language's writing system easier to comprehend for L1 English speakers given no previous experience studying the L2s presented?
- II. Are there any distinct similarities or transfer of knowledge between the L1 English alphabet and any of the L2s presented?
- III. Did the participants' methods for studying the written languages impact how much they absorbed?

L1 English speakers were asked to study a

12 Ortega, 82-84.

13 Geva, 2-6.

14 Ibid.

15 Shoko Mugikura, "Japanese Writing, A Beautifully Complex System," *Smashing Magazine*, March 6, 2012, <https://www.smashingmagazine.com/2012/03/japanese-a-beautifully-complex-writing-system/>.

16 "A Guide to Hindi - The Hindi alphabet," BBC online, <http://www.bbc.co.uk/languages/other/hindi/guide/alphabet.shtm>.

17 "How to Speak Elvish," WikiHow, December 7, 2016, <https://www.wikihow.com/Speak-Elvish>.

18 Simon Ager, "Korean alphabet, pronunciation and language," <https://www.omniglot.com/writing/korean.html>.

19 Julia Rochtchina, "Russian Alphabet." Russian Alphabet with Sound and Handwriting, <http://www.russianforeveryone.com/RufeA/Lessons/Introduction/Alphabet/Alphabet.htm>.

20 Ager.

Quizlet set and then take a multiple-choice test based on the information they had just learned. The results of the multiple-choice tests were recorded for accuracy. The results of the tests measure how much the participants had retained and were then able to regurgitate.

Methodology

Participants

Seven students were asked to participate in this study. All of them were English L1 speakers studying at Arcadia University, with ages ranging from 19-21 years. They all had previous experience studying Romance languages throughout their primary and secondary education. There were three male and four female students; their respective areas of study were Criminal Justice, Political Science, Computer Science, Mathematics, History, Accounting and Video Communications.

Language Learning

Each participant first studied the same Quizlet set. They were given two written words to learn in each language (Japanese, Hindi, Elvish, Korean, Russian, and Chinese) but not told what the language was. First, they were shown the word for “thank you” and then each character of the word. The same process was repeated with the word for “parents.” Each participant reviewed the study set at their own pace. Some rapidly clicked through the set while others carefully studied each letter. Some spoke their thoughts out loud, while others remained silent throughout their studying process.

Testing

After studying each set, each student took the same online test. The test consisted of 12 multiple choice questions, the first six asking for the correct translation of “thank you” in each language. The participants answered the same questions for the word “parents.” Each question provided five possible answers with only one being correct. Table 1 highlights the percentage of correctly identified answers for each question.

Table 1

Question Number	Percentage of Participants that Answered Correctly
Question 1 (Japanese “thank you”)	25%
Question 2 (Hindi “thank you”)	62.5%
Question 3 (Elvish “thank you”)	87.5%
Question 4 (Korean “thank you”)	100%
Question 5 (Russian “thank you”)	87.5%
Question 6 (Chinese “thank you”)	75%
Question 7 (Japanese “parents”)	57.1%
Question 8 (Hindi “parents”)	85.7%
Question 9 (Elvish “parents”)	42.9%
Question 10 (Korean “parents”)	71.4%
Question 11 (Russian “parents”)	100%
Question 12 (Chinese “parents”)	71.4%

Results

The study reflected the results of participants with a wide range of comprehension. However, the results strongly suggested a few consistent conclusions:

- I. Russian was the easiest for the participants to comprehend, given 87.5% were able to recognize the translation for “thank you” and 100% recognized the correct translation for “parents”.
- II. There was a distinct transfer between the participants’ L1 and L2 when prompted with Elvish. Two of the participants, who spoke out loud as they studied, noted that the Elvish word for “parents” looked similar to the word “para” from Spanish. It is also similar to the spelling of the word in English.
- III. The participants’ own studying methods directly altered how well they performed on the test. Those that stayed fixated on each character for extended pe-

riods performed far better than those that only rapidly clicked through the set - not focusing on the individual characters but instead rushing to read the next word.

Discussion

As previously stated, all participants were monolingual L1 English speakers, who all had previous experience studying the following languages: Spanish, Italian, German, French, Latin, and Hebrew. The results of this study suggest that the more similar the scripts appeared to their L1 English, as observed when looking at the results of the Russian questions, the easier it was for the participants to learn and then recognize when presented with a multiple-choice question.

It is also worth noting that the Korean writing of “thank you” was correctly recognized by all of the students due to the length of the word. In this way, the participants were not remembering specific characters but memorizing the length of the word and, therefore, were still able to distinguish it from the other ones provided.

This study did not take into account the levels of anxiety experienced by the learners during the study portion. However, they were all given the same information before and after the test. All participants understood they could click through the set at their own pace and, even if they did not get a perfect score, their results would not negatively impact their grade or the study. The atmosphere aimed to keep all participants comfortable and relaxed as they studied and then took the test.

Many of these participants repeated the words to themselves and seemed to study the length of the words as opposed to the individual letters or characters being used. Only one participant received a perfect score on the exam, after studying by clicking back and forth between the Quizlet study set and associating different characters with different actions or people. For instance, the Korean character “ ” was a “desktop computer” and the Russian character “Д” was “a car driving off into the distance”.

Conclusion

This study suggests that L1 monolingual English speakers have an easier time recognizing characters from the various writing systems that are most similar to their own. From this, we can then determine that there must have been some knowledge transfer, as those letters in the Russian alphabet which closely resembled those in the English alphabet were easiest

for the participants to differentiate and recognize. However, the participants noticed immediately when one word was much longer than the other four options in a question, which may have led to skewed results. For instance, “thank you” in Korean was significantly longer than the other options presented; therefore, all 7 participants were able to identify it correctly.

This study was conducted on a college campus; therefore, the primary investigator brought the test to the participants. This resulted in a constant flux of environment. Some of the participants studied and took the test in a classroom. Others were able to participate from the comfort of their housing accommodation. The primary setting for this study being a small college campus also contributed to the small participant number. It is encouraged that future studies collect a greater pool of participants. There was also not a time limit for how long each participant had to study the Quizlet set. For this reason, some of them skimmed through the set in less than 5 minutes while others focused more intently on committing each one to memory for up to 10 minutes.

Ultimately, more controlled study and testing environments and more uniformity within the questions themselves would lead to a more accurate representation of how different writing systems are perceived and learned by L1 English monolingual speakers. L2 learners are also more inclined to notice and focus on the similarities between their own L1’s writing system and the writing system for the L2 they are studying. Such as in Azizifar’s study, the participants utilized Consciousness Raising, where they focused on similarities rather than differences between their L1 and the other languages presented. Therefore, it is possible to conclude that when presented with an unfamiliar text, language learners will be more inclined to use the knowledge they have of their L1 to comprehend an L2.

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