

Reading in Two Languages: A Comparative Miscue Analysis

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ABSTRACT

The purpose of the present study is to investigate what miscue analysis, a method described as a “window” into the reading process, can reveal about first and second language reading. Two participants, native English speakers proficient in Spanish, read and retold two folktales: one in English and one in Spanish. The researcher performed a full miscue analysis on each reading and compared the results between the first and second languages. The results indicate that even these two readers, who are proficient in the second language, experienced different types of miscues and at varying frequencies between the first and second languages. Although the miscues did not impact the readers’ comprehension of the English-language text, they did result in lower comprehension of the Spanish-language text.

INTRODUCTION

A number of studies have used miscue analysis in second language reading research (Almazroui, 2007; Coll & Osuna, 1990; Domínguez de Ramírez & Shapiro, 2007; Girgin, 2006; Honeycutt, 1982; Miller et al., 2006; Parsons & Lyddy, 2009; Stevenson, Schoonen, & de Glopper 2007; Vakali & Evans, 2007; Wurr, Theurer, & Kim, 2009). However, no study has used it primarily as a direct measure of comparing first and second language reading. The present study serves as a means of what a comparative miscue analysis will reveal about first and second language reading. More specifically, it will examine what comparative miscue analysis can show in terms of miscue types and corrections, semantic and syntactic acceptability and the overall construction of meaning of a text in both the first and second languages. The study is also a starting point for further research in comparative miscue analysis in first and second language reading.

MISCUE ANALYSIS AND SECOND LANGUAGE READING

Goodman (1969) developed miscue analysis as a means of understanding the reading process by comparing the observed responses (what the reader says) and the expected response (what is in the text). By comparing these miscues, Goodman found that not only could one study a reader’s weaknesses, but their strengths as well. Goodman, Watson and Burke (2005) assert that miscue analysis reveals degrees of a participant’s reading proficiency and knowledge of reading. They further postulate that miscue analysis not only demonstrates the knowledge that a reader brings to the text, but is also useful in identifying strategies used by the reader to overcome difficulties while reading.

Miscues are not mistakes but rather a deviation made by the reader from the expected text on the page. Miscues are, in fact, a reflection of what the reader predicts the author of the text is

trying to communicate, and it is through this reflection that the interaction between reader and text takes place. Although researchers and teachers have traditionally used miscue analysis as a tool for understanding reading in children and primarily in a first language context (Martens, 1997; Rhodes & Shanklin, 1990), McKenna and Cournoyer Picard (2006) assert that miscue analysis continues to be a popular and valuable tool in assessing, understanding, and monitoring the progress of readers.

However, researchers have also utilized miscue analysis in studies involving readers of various ages and second language settings (Almazouri, 2007; Clarke, 1978; Coll & Osuna, 1990; Honeycutt, 1982; Sergent, 1990). Paulson (2001) employed retrospective miscue analysis as a means of understanding the reading process of a non-traditional student in a community college environment. Wurr, Theurer, and Kim (2009) also used retrospective miscue analysis with three adult English language learners. Researchers have also used miscue analysis in studies focusing on learners with special needs who were also English language learners (Girgin, 2006; Vakali & Evans, 2007).

Although miscue analysis relies on oral reading, there have been several studies that support its use in terms of reading in a second language (Parsons & Lyddy, 2009; Stevenson, Schoonen, & de Glopper, 2007). Domínguez de Ramírez and Shapiro (2007) used oral reading as a measure of first and second language reading fluency amongst Spanish-speaking learners of English, while Miller et al. (2006) used oral reading to study bilingual children and found that reading skills developed as did oral language. Therefore, oral reading, as used in miscue analysis, is an appropriate tool for understanding what readers experience when reading in a first and second language.

COMPARATIVE MISCUÉ ANALYSIS

The purpose of this study is to identify what miscue analysis can reveal about differences in reading in first and second languages through an analysis of an oral reading in English and Spanish. Given that this is a preliminary investigation to determine whether any differences exist, the study will examine the reading of two participants who are proficient in the second language. The researcher chose this case study approach in order to first determine whether a comparative miscue analysis would in fact yield information about reading in two languages before developing the study further with more participants.

The researcher chose participants who are proficient in the second language for several reasons. First, since the participants are proficient in the second language, the researcher hypothesized that this would reduce the impact of second language proficiency on the participants' ability to construct meaning from the text. Second, by beginning work in comparative miscue analysis with readers who are proficient in the second language, the results will serve as a starting point for future studies to involve participants who are not proficient, or who have varying degrees of proficiency, in the second language. In sum, if a comparative miscue analysis will reveal differently in readings among participants who are proficient in the second language, than it will also serve as a tool for working with those who are not. Furthermore, as stated by Alderson and Huhta (2011), "there appears to be a threshold of S/FL proficiency beyond which reading ability in the L1 can transfer to reading in the S/FL" (p. 38). Therefore, by analyzing the reading of participants who are proficient in the second language, the

results may also demonstrate the readers' ability to transfer reading skills from the first to second language.

In light of this previous research, and given the complexity of second language reading, a comparative miscue analysis may be a viable tool for identifying similarities and differences in first and second language reading. The present study will address the following questions:

1. What will a comparative miscue analysis reveal about first and second language reading?
2. What types of miscues does a reader experience in the first and second languages?
3. How will a reader address corrections in the first and second languages?
4. How will miscues affect overall text comprehension for a reader in the first and second languages?

METHOD

The present study employed a comparative miscue analysis to examine the reading experiences of two participants while reading in their first language compared to reading in their second language. The study used quantitative descriptive approaches to collect and analyze the data generated by the comparative miscue analysis. Since the data gathered through the readings was a one-time event, the quantitative descriptive data presents information such as number and types of miscues, correction rates and syntactic and semantic acceptability. The methods for data collection and analysis are discussed in the subsequent sections.

Participants

The researcher recruited participants through a graduate program in Applied Linguistics at a large Midwestern university. The department also employed these students as teaching assistants. The researcher chose these particular students for this study for several reasons. Since the goal of this research is to determine differences between first and second language reading, the researcher hypothesized that proficiency in the second language would eliminate some degree of the reliance on bottom-up decoding.

The two participants in this study, Mandy and Ronald, were both first-year graduate students of applied linguistics and teaching assistants in the Department of Foreign Languages and Literature. Ronald was 25 years old and studied Spanish for four years in high school and three years at the postsecondary level and spent one year living in Uruguay. In addition to teaching Spanish at the university, he also completed a semester of student teaching at the secondary level. Mandy was 26 years old and also studied Spanish for three years in high school and for four years at the university level during her undergraduate studies. She also spent two years living and working in Costa Rica, where she taught technology courses in English at a local school. Mandy also taught elementary school in the United States. Both Ronald and Mandy were enrolled in the Master's program in order to continue their studies in Spanish with the goal of returning to teaching Spanish in public schools at the secondary and elementary levels, respectively.

As graduate students, they are experienced readers in English and as students doing graduate level work in Spanish linguistics and teaching beginning-level university courses, they have a high level of Spanish-language proficiency. Although no formal measurement of proficiency was implemented, the researcher established that Mandy and Ronald are proficient

speakers of Spanish based on the language requirements for the graduate program set forth by the university. According to the information provided by the university for potential graduate students, applicants must be able to read, write, speak, and understand the language of study accurately in academic and everyday settings. ‘If such ability is not evident from the application (coursework, recommendations, time spent in target culture) it will be verified by phone or personal interview with a faculty member in the appropriate language’” (Graduate Committee, 1997). Furthermore, admittance to the program requires that the applicant has a 3.5 grade point average in all undergraduate coursework in language, linguistics, and literature of the target language. Neither Mandy nor Ronald required an interview to establish language proficiency for admission to the program. Given the admission requirements of the program, as well as the study abroad experiences and academic work that Mandy and Ronald had completed at the time of the study, the researcher determined that they are proficient in Spanish and are proficient readers.

Materials

According to Goodman, Watson, and Burke (2005), texts chosen for miscue analysis should be new to the reader, yet include concepts that are familiar, and fiction should contain a clear storyline with recognizable themes. Mandy and Ronald read two folktales, one in Spanish and one in English. Akpinar and Öztürk (2009) and Linse (2007) support the use of folktales for teaching language and culture to language learners because they have simple plots and contain repetitive language patterns that make them accessible to learners. The researcher chose folktales because they contain a clear series of events and typically contain a lesson to be learned, and as a result, a certain measure of text comprehension. Folktales also contain metaphorical and idiomatic language and require readers to construct meaning from a bottom-down approach. This provides yet another measure of text comprehension that can be assessed during the retelling of the stories during miscue analysis. Therefore, although the participants in this study are proficient adult second language readers, folktales can still provide a challenge for them in terms of reading and the construction of meaning.

Mandy and Ronald read a Bolivian folktale in Spanish, “El Rey de Los Ratones”, (in Bierhorst, 2003) that is 650 words in length. The English text for the study was “The Three Army Surgeons” (in *The complete Grimm’s fairy tales*, 1980) which is 1,400 words in length. The length of the English text was considerably longer than the Spanish language text in order to ensure that the reading would generate an appropriate number of miscues. The researcher hypothesized that a longer story in English would result in a similar number of miscues as a shorter text in Spanish. Although the participants were proficient in the second language, the researcher took into account the effect of mental translation during second language reading. Finally, consistent with Goodman, Watson, and Burke (2005), the text chosen for miscue analysis should be at least 500 words and produce a sufficient number of miscues in order to develop a well-rounded picture of the reading process. Therefore, although both folktales were of different lengths, they still conformed to the guidelines set forth by previous work in miscue analysis.

Readability

Goodman, Watson, and Burke (2005) define readability as “the ease or difficulty with which a reader constructs meaning” (p. 39). A number of researchers (Fernández-Huerta, 1959;

Laroche, 1979; Parker, Hasbrouck, & Weaver, 2001; Russell, 1950; Schultz, 1981; Spaulding, 1951, 1956; Vari-Cartier, 1981) have tackled the issue readability of texts in a foreign language. Although formulas such as the Flesch Reading Ease determine readability based on average sentence length and average number of syllables per word (Flesch, 1948), they are intended for texts that will be read in the reader's first language, English. They do not consider the challenges that a reader faces in a second language. Young (1999) acknowledges this in her study of simplified versus authentic texts where she states that even a readability scale intended for Spanish "does not take into account students' background knowledge, strategy use, text structure, and SL proficiency, all of which influence the comprehensibility of a text" (p. 352).

For the purposes of this study, and given that no previous work has used miscue analysis to compare reading patterns of two languages, the researcher chose to use texts of similar readability levels based on scores intended for native speakers of both Spanish and English. The participants read only authentic texts in both English and Spanish with no modifications to either story in terms of vocabulary or grammar. This is consistent with Wilde (2000) who states, "the point is to explore the reader's *pattern* of miscues, not to establish a reading level by counting the *number* of miscues" (p. 31). To that end, the researcher calculated the English language story, "The Three Army Surgeons", using the Flesch-Kincaid Readability Test, which yielded a score of 68, or the equivalent to an estimated Grade 8 reading level. The researcher used the Fernández-Huerta Readability Test for the Spanish language story, "El Rey de los Ratones", that yielded a score of 85, which indicates that a text is easy to read, one of the levels of the Fernández-Huerta Readability Test. These two scores, based on readability tests targeted towards native speakers, indicate that the two folktales were of similar levels of readability and would provide a consistent text.

Procedure

The researcher used Procedure I outlined by Goodman, Watson, and Burke (2005). The authors recommend this procedure for researchers because it serves to examine each miscue separately, while taking into account the impact of the reader's linguistic and contextual background knowledge, while also looking at the strategies employed by the reader. The examination of each miscue and each reader's approach to the text and strategies used to construct meaning from it in both the first and second languages are the basis for this study.

At the beginning of the data collection sessions, the researcher provided instructions for the readings to the participants. The researcher explained that the participants were to read each story out loud, the Spanish one first and then the English one, and that their readings would be recorded. The researcher also told the participants that they would be expected to retell as much of the reading as possible after they had finished each story. Participants first read the entire text in Spanish aloud. At the conclusion of the reading, participants retold as much of the story as possible in English. The researcher chose English, the participants' first language, for the retelling in order to ensure that the retelling was truly an exercise in text comprehension, rather than the participants' Spanish-speaking skills. The researcher also asked several additional questions specific to each story to check for comprehension. The participants then repeated the process with the English folktale. The participants read first in Spanish to control for a "warm-up" effect that influences the results of the reading in Spanish had the participants first read in English. Having the participants read first in English is inauthentic; it is unlikely that readers approach a second language reading task by first engaging in a native language one.

Data Collection

The researcher collected the data in one session with each participant. The miscue analysis yielded quantitative data such as total time reading each folktale, the total number of miscue generated, the number of different types of miscues, the number of miscues that were syntactically and semantically acceptable, whether or not the miscue created a change in meaning in the text, whether or not the miscue was graphically similar to the text, and the correction rate of all miscues. The instrument used for this portion of the data collection follows models proposed by Goodman, Watson and Burke (2005).

The researcher also collected multiple measures of qualitative data. The first measure of qualitative data was the retellings provided by the participants after they finished each reading. The participants were also asked to explain the moral of each story as an additional qualitative measure to gauge comprehension.

RESULTS AND DISCUSSION

Both Mandy and Ronald had similar numbers of miscues in English and Spanish, as well as similar reading times. For instance, both participants experienced at least 20 miscues in each reading, with similar rates of miscues by word count in English, 14% and 17%, and in Spanish, 34% and 32%, which shows a higher rate of miscues per text length in the second language. While total time on task was also similar for both participants in both languages, it took relatively the same amount of time for Mandy and Ronald to read nearly half as many words in Spanish as in English.

Table 1. Comparison of Total Miscues and Time on Task by Subject and Language

	Mandy	Ronald
Total Miscues		
English	20	24
Spanish	22	21
Miscues per Word Count		
English (1,400 words)	.014	.017
Spanish (650 words)	.034	.032
Time on Task		
English	5:41	5:53
Spanish	6:08	5:42

These data alone might suggest that the readings by both participants in each language were similar. However, as Table 2 shows, there were differences in the types of miscues for the two readers in each language. Both Mandy and Ronald had higher percentages of substitution miscues in Spanish than in English.

Table 2. Comparison of Miscues by Type

	Mandy	Ronald
Substitution		
English	.45	.30
Spanish	.50	.45
Repetition		
English	.05	--
Spanish	.35	.25
Insertion		
English	.25	.35
Spanish	--	.10
Transposition		
English	.20	.15
Spanish	--	.05
Omission		
English	.05	.20
Spanish	.15	.15

However, the substitutions made in English were typically whole words, while in Spanish the reader substituted only part of a word, such as an adjective or verb ending. For example, Ronald substituted “anything” for “everything” and Mandy substituted “should” for “shall.” In Spanish, however, Ronald substituted “me pides” for “me pidas” and Mandy substituted “necesitas” for “necesites”.

Mandy and Ronald had very few repetitions in English, and much higher rates in Spanish. The majority of the repetitions made in Spanish were of the sounding-out nature, where the readers repeated the word bit by bit before moving on. Both readers relied more heavily on phonics and word-level decoding in Spanish than in English, as evidenced by the higher rates of repetitions in Spanish. This is consistent with López (2008), who states that readers must be able to automatically recognize and decode grammatical aspects of language in order to not only make sense of a text, but to also predict upcoming words and sentences. Nonetheless, “FL students not only require overt knowledge of target language grammar but a great amount of hours of reading as well to be capable of using the former automatically to help them in reading” (López, 2008, p. 184). Therefore, while this automaticity may be the case in their first language, the high rates of repetitions in Spanish would indicate otherwise; there still remains a need to stop and decode and reflect on words and sentences in order to construct meaning in the second language.

Mandy and Ronald had much higher percentages of insertions and transpositions in English. In Spanish, Mandy had neither any insertions nor transpositions, while Ronald did experience one insertion and two transpositions. The higher rates of these types of miscues in English suggest that both readers were better able to manipulate language and predict upcoming text in the first language more than in the second.

In terms of omissions, Mandy and Ronald both had equal amounts while reading in Spanish. All of Mandy’s omissions made sense both syntactically and semantically. Only one of Ronald’s three omissions did not meet these same criteria, as he read “con un” as simple “con”; however, he did correct the miscue. In English, Mandy had only one omission. She read “running about” as simple “running”. It was syntactically and semantically acceptable and she

did not correct it. Ronald had four omissions in English that did not make sense semantically, none of which he corrected. These omissions demonstrate a predicting strategy; the reader is constructing meaning and creating a parallel text but the text does not match his or her expectations. On the other hand, it may represent a short-term memory overload, challenging the reader to choose the most necessary words, indicative of a sampling strategy.

The results show that there were differences in the types of miscues experienced by both readers in English and Spanish. Of the first twenty miscues analyzed, 5% of Mandy's miscues were repetitions in English, while 35% were repetitions in Spanish. Ronald had no repetitions in English; however, this type represented 25% of his first twenty miscues in Spanish. The higher percentages of repetitions in Spanish represent a greater reliance on word-level decoding in the second language. Neither reader displayed a similar need to sound out as many words in English.

Mandy and Ronald experienced more insertion and transposition miscues in English rather than Spanish. Mandy had 25% insertions and 20% transpositions in her English reading, compared with none in Spanish. Ronald had 35% insertions and 15% transpositions in English with 10% and 5% respectively in Spanish. This higher instance of insertions and transpositions suggests a greater ability to manipulate and predict text language English. These two readers were unable to access this same level of processing in Spanish by the need to decode text, as indicated by the number of repetitions.

Not all miscue types resulted in such stark differences between languages. Mandy had 5% omissions in English and 15% in Spanish. Ronald has 20% in English, and 15% in Spanish. Almost all of the omissions in both languages were small words or prepositions. Such omissions indicate that these readers, perhaps to free up short-term memory, may have chosen to skip over those words that they believe will not interfere with the construction of meaning.

In terms of substitutions, Mandy and Ronald demonstrated consistent patterns in the two languages. However, the specific kinds of substitutions did vary between languages. For both Mandy and Ronald, most substitutions in English were complete words or phrases, while in Spanish the substitution was isolated to part of a word, such as a verb or adjective ending.

Mandy and Ronald had very similar correction rates in both Spanish and English. In English, both readers corrected 25% of their first 20 miscues. Along with the high accuracy of the retellings, this indicates that while reading in their native language, Mandy and Ronald are able to construct meaning without correcting a high number of miscues. These numbers show that Mandy and Ronald are in control of the reading. They are able to identify those miscues that interfere with comprehension and correct them.

In Spanish, however, the correction rates are considerably higher when compared to English. Mandy corrected 45% of her miscues in Spanish, and Ronald corrected 50%. Many of the corrections in Spanish were repetition miscues, again demonstrating a heavier reliance on word-level decoding, indicating that the readers remain text-bound in Spanish by sounding out words. Although the correction rate is higher than in English, both readers are again correcting at relatively the same rate. This consistency reveals that Mandy and Ronald were not correcting every single miscue but rather maintain some control over the language and are aware of when they need to make a correction.

Ronald and Mandy experienced the same miscues in the same locations within the English text. Both readers inserted the word "the" in "next morning," transposed "said he" to "he said" and substituted "to cut" for "and cut." Mandy and Ronald both inserted "the" into "where the dirt was (the) deepest." These similar miscues indicate that the readers were using predicting strategies and choosing language that will make the text of the story fit to what they believe will

happen next. Although these miscues do not create major changes in the meaning of the story, one other common miscue does. Ronald omits the word “at” in “snatched at the pile of money” while Mandy substituted “this” for “at the.” This miscue creates a shift in meaning from the character taking some of the money to taking all of it. Although this shift in meaning is not crucial to the overall outcome of the story, it again demonstrates a predicting strategy that Mandy and Ronald foresee the character taking all of the money, rather than just some of it. These miscues reveal common strategies and ideas that Mandy and Ronald share while reading this story in their native language.

There were only two common miscues in Spanish. Mandy and Ronald read “lo que necesites” as “lo que necesitas.” This changes the mood from the subjunctive to the indicative, thereby changing the meaning in the sentence from “whatever you may need” to “what you need.” This change alters the meaning considerably in the text as the subjunctive mood in Spanish serves to convey that the mouse is in the service of the girl, which is not the case.

In the second common miscue, Ronald transposed in this instance and read “que ya estaba” as “ya que estaba.” Mandy omitted the “ya” and simply read “que estaba.” Ronald’s miscue indicates a predicting strategy by manipulating the words to fit patterns he has previously experienced in Spanish. Mandy, on the other hand, may be reading this part of the sentence two ways. The omission could be a strategy in which Mandy is choosing to leave out words that are unnecessary to the overall meaning of the sentence.

The results showed that for Mandy and Ronald miscue types vary between the first and second languages. The rate of substitutions remained consistent across both languages, which indicates the use of predicting strategies, a skill that these two readers are able to transfer from the first language to the second.

The results also revealed much higher percentages of repetitions in Spanish. Mandy and Ronald, although proficient in the second language, relied more heavily on phonics in the second language. This corresponds with a high percentage of miscues in Spanish that are graphically similar to the text. Consistent with Wright (1996), repetitions and corrections show that the reader is struggling to process print for understanding and is attempting decoding accuracy at the expense of comprehension (p. 7).

The percentages of insertions and transpositions were higher in English than in Spanish, suggesting that while reading in their native language, these two readers not only predicted what came next in the story, but also adapted the language of the text to match their ideas. Predicting is a skill that may be challenging for readers in the second language, as shown by the extremely low percentages of these miscue types in Spanish.

Concerning omission type miscues, the results suggest that Mandy and Ronald omitted unnecessary words while reading. While reading in English, Mandy and Ronald omitted certain words deemed unnecessary in order to construct meaning. For example, in English, Ronald read “who was to” as simply “who” while Mandy read “with which” as just “which.” However, in Spanish, they omitted words, which could be the result of an overload on the short-term memory. For instance, Ronald omitted “se encuentra” and “voy a ir” and Mandy consistently omitted the preposition “ya”. This would indicate that as readers Mandy and Ronald are again trying to transfer skills from the first language reading processes to the second. This is consistent with Clarke (1980) who described the Short-Circuit Hypothesis as when “limited control over language ‘short circuits’ a good reader’s system, causing him or her to revert to poor reader strategies when confronted with a difficult or confusing task in the second language” (p. 206). In this particular scenario, an overwhelming amount of the second language could result in a short-

circuit situation in which the reader uses omissions as a coping strategy. In a study of second language reading, Alptekin and Erçetin (2010) also found “L2 processing places a heavier demand on working memory, causing participants to switch their attention from processing to storage task demands” (p. 213).

The results showed that miscues that make sense syntactically remained consistent between the English and Spanish for Mandy and Ronald, indicating that these two readers predicted form and grammatical structures when reading in Spanish. As Wurr (2003) stated, readers may focus more on form rather than meaning when they read for academic purposes in the second language.

Table 3. Effects of Miscues on Sentences in Texts

	Mandy			Ronald		
	Yes	No	Partially	Yes	No	Partially
Makes sense syntactically						
English	.90	.10	--	.70	.30	--
Spanish	.85	.15	--	.75	.25	--
Makes sense semantically						
English	.85	.15	--	.55	.45	--
Spanish	.55	.45	--	.55	.45	--
Creates change in meaning						
English	.05	.85	.10	.10	.75	.15
Spanish	.10	.55	.35	.20	.45	.35
Graphically similar to text						
English	.30	.20	.05	.24	.60	.16
Spanish	.80	--	.05	.90	.10	--
Miscue corrected						
English	.25	.75	--	.25	.75	--
Spanish	.55	.45	--	.50	.50	--

For these two readers, miscues that make sense semantically were lower in Spanish or consistent with the same miscues in English. The results showed that while these two readers experienced a high number of miscues that make sense semantically in the first language however, they experienced fewer in the second. Wright (1996) hypothesized that this may occur as a result of the reader being more focused on word-level accuracy, in this case, pronouncing the words in the second language correctly. This is consistent with high levels of repetitions, and miscues that are graphically similar to the text, as experienced by both Mandy and Ronald.

This study revealed that both readers corrected their miscues twice as much in Spanish as in English, but they did not correct every miscue. They actively selected which miscues to correct to some degree, as discussed by Carrell, Carson, and Zhe (1993) and Hood (1996). This is also consistent with the findings of Barkon (1993) who concluded that a good reader determines how much time and effort he or she must spend on a word or word-group during reading.

The results showed that miscues by these readers in Spanish had a greater effect on sentence-level meaning than in English. For both readers, this was about half of the miscues experienced in Spanish, compared to one tenth or less in English. This suggests that while Mandy and Ronald predicted grammatical form in Spanish, they still struggled with predicting

meaning while reading and relied on existing knowledge to fill in the gaps. Mandy and Ronald described a scene in which the girl wished for her fiancée to be “as a sheep” in the sense that he would do whatever she wished of him. In their retellings, both readers reported that the fiancée had been physically turned into a sheep. The idea of being a metaphorical sheep was lost on both readers, and they resorted to what they knew structurally about fairy tales: that magic often transforms people into other beings. This is consistent with Stanovich (2000) who states that readers struggling with word-level decoding may resort to this kind of top-down processing in order to construct meaning. Melby-Lervåg and Lervåg (2011) also found that both decoding and oral language skills are important pieces of second language reading and reading comprehension.

The results indicated that even for these two readers, second language proficiency is still a barrier to comprehension. The evidence for this lies in the numbers of repetitions, corrections, and the high levels of graphic similarity of the miscue to the text. This left the readers text-bound at times; they were unable to interact with the story on a deeper level. When reading in English, however, miscues allowed the readers to interact more with the text. The data demonstrate this in the higher levels of insertions and transpositions, which allowed the readers to be more creative and interactive with the text. However, as Goodman, Watson, and Burke (2005) point out, “even proficient readers do not always correct unacceptable miscues because they may not consider the miscue significant to their development of meaning” (p. 69). Although neither Mandy or Ronald were able to recall the same level of detail of the folktale in Spanish, there was some evidence that they were able to construct meaning holistically: they were both able to correctly identify the moral of the story. Mandy reported that the moral of the story in Spanish was “be humble and be happy with what you have” and Ronald said, “be content with what you’ve got and be careful what you ask for.”

LIMITATIONS

There are several limitations to the study. The primary limitation lies in the fact that miscue analysis has not previously been used to compare first and second language processes as it was in the present study. This study was not a replication of previous work, but rather an initial investigation; a small step toward a new body of research using miscue analysis as a comparative tool.

This study was limited to two participants, which makes generalizability difficult. However, this is also consistent with miscue analysis, the basis of which is on an individual’s reading. Participants read each story only once, which may have limited their comprehension of the story in Spanish. In reality, a second language reader may have to read a story several times in order to comprehend it fully. These were readers deemed to be proficient in the second language because they were graduate students in a Spanish language program, however the possibility of variance in level of proficiency between them must still be taken into account. Nonetheless, the two participants who participated in this study did yield similar results in terms of types of miscues experienced and levels of reading comprehension in both languages. Further investigation using readers with varying levels of second language proficiency, including beginning, intermediate, and advanced level language learners, results that are more generalizable may emerge.

Given that this was an initial study, it is important that texts used in future studies generate a sufficient amount of miscue as prescribed by Goodman, Watson, and Burke (2005). Although fewer than 25 miscues were generated in each reading in the present study, the results

still revealed some differences between languages, and therefore support further investigation. While only the first 20 miscues were analyzed in the present study, a greater number of miscues would yield a more in-depth portrait of a reader and provide the basis for further analysis. In a second language situation, this may also be useful in evaluating at what point a reader becomes overwhelmed linguistically and how they cope with the cognitive overload in order to construct meaning.

CONCLUSION

What can miscue analysis reveal about first and second language reading? Miscue analysis has shown that these two readers exhibit different patterns while reading in their first and second languages. Although Mandy and Ronald are proficient in Spanish, language still proved to be an obstacle in text comprehension. If readers proficient in the second language struggle with comprehension because of language, then surely readers at other stages of language proficiency, such as beginning or intermediate second language learners, may have even greater difficulty in achieving comprehension. Furthermore, learners who are highly proficient with native-like fluency, may experience greater success at transferring first language reading skills and strategies to a second language reading task. Lee and Schallert (1997) found that high proficiency second language learners are more successful in drawing on their first language reading skills during a second language reading task. Barkon (1993) maintains that low second language proficiency significantly takes away from the comprehension of second language texts, as readers need to focus more on word-level decoding. Shokrpour and Gibbons (2000) draw similar conclusions but take into account another aspect of second language reading: text complexity. This includes word frequency, sentence and word length, language convention, structure and syntax, level of required background knowledge, and purpose of the text. In a second language-reading scenario, there may be a number of vocabulary words or grammatical structures that the reader has not yet learned. The researchers found that low second language proficiency and text complexity have significant negative effects on comprehension.

Second, while readers may be aware that they do read differently in the first language as opposed to the second, they may not be aware as to how, or to what extent, they read differently. Although both readers in this study reported that they have to pay more attention to language while reading in Spanish, they did not understand how this came through in their reading. They were not aware that while spending time on repetitions, that they were in effect redirecting their attention away from the construction of meaning of the text.

This study shows how comparative miscue analysis can reveal differences in first and second language reading. By conducting a miscue analysis in the first and second languages researchers will be able to identify ways in which reading differs across both languages. Furthermore, this comparative miscue analysis serves as the starting point for future studies in comparing first and second language reading.

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ENDNOTES

¹ Miscues labeled as either *yes* or *no* only in the categories of syntactic and semantic sense and corrections.

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