More Than Words: Inferential and Incorrect Units Recalled

Cindy Brantmeier

Introduction

People make inferences routinely in comprehending their surroundings, and these inferences are a critically important feature of human cognition. The fact that such inferences can lead one astray, and that people can recollect vividly events that they only inferred, is a small price to pay for the inventiveness and adaptiveness of the human mind.

(Roediger and McDermott, 2000:123)

Correct and incorrect inferences about incoming information are a natural outcome of the cognitive system. During the silent act of reading, as readers go from a literal to an interpretive understanding of a text, inferences are made. Little research has been conducted on L2 inferences (Horiba, 1996), and no L2 studies have specifically examined male/female inference generation. One goal in most advanced levels of L2 instruction at the university level is to prepare students for the target language literature courses by developing reading skills such as summarizing, paraphrasing, skimming, scanning and making inferences. In most advanced levels of instruction, students are supposed to follow essential points of authentic written discourse and move beyond this by drawing inferences. They process words, sentences and the relationship between them.

Many questions on standardized reading exams expect readers to demonstrate a surface level of understanding and also to generate inferences. For example, in the reading section of the Test of English as a Foreign Language (TOEFL), to demonstrate the ability to analyse meaning, the comprehension questions specifically ask examinees to
identify inferences. Furthermore, the guidelines for proficiency-based global assessments of L2 reading label the ability to make inferences as an advanced reading ability. In the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines (1999) for reading, the description of a Distinguished reader includes, ‘able to relate inferences in the text to real-world knowledge and understand almost all sociolinguistic and cultural references by processing language from within a cultural framework.’ Likewise, in the Second Language Evaluation Reading Test of French in Canada, the description of the highest level of reading proficiency states, ‘ability to understand most complex details, inferences and fine points of meanings; ability to read with good comprehension specialized or less familiar material.’ In a discussion about L1 skilled readers, Underwood and Batt (1996) claim that true comprehension requires the ‘construction of a mental model in which the formation of inferences acts to link the individual propositions in a unified representation’ (217). In a recent report on revisited directions in reading research, Bernhardt (2003) comments on the process of inferring and how L2 readers need to attach a relevant or meaningful semantic field to words in order to fully understand authentic texts. As demonstrated, making inferences while reading a text is generally viewed as a more advanced skill, and the goal of many advanced L2 language courses is to teach students to go beyond the literal meaning of texts by understanding meanings that are not directly stated in the text. After this level is reached, students enter the target language literature courses where they are expected not only to infer meaning but also to produce a critical understanding of the text. (See Alderson, 2000 Chapter 2 for an extended discussion about the difficulty involved in defining levels of understanding.)

While reading authentic texts the connections between sentences are not always obvious, and sometimes during the process of reading readers must access existing knowledge to understand the relationships between characters and actions. When making inferences, the reader supplements basic literal understanding with prior knowledge. Bartlett (1932) investigated the role of schema in L1 reading and claimed that when readers recall texts they use a schema to integrate new information into an organized, mental framework. Since the 1980s, a plethora of research that examined the role of schemata in L2 reading comprehension (Carrell, 1981; 1983; Johnson, 1981; Hudson, 1982; James, 1987) has revealed that what students already know (the knowledge stored in their existing cognitive domain) significantly affects their comprehension of L2 reading materials. But knowing that prior knowledge affects reading comprehension is not enough (Nassaji, 2002) and therefore the present study attempts to reveal the nature of the units recalled.

Studies on inferences

It is common knowledge that there is more to reading than understanding the ideas expressed directly in the text. Readers often go beyond the explicit text by making inferences (Kintsch, 1974; Van Dijk and Kintsch, 1983). The act of drawing inferences is often viewed as a more advanced reading skill (Pressley and Afflerbach, 1995). Research that examines inferring is relatively recent in first language reading and psycholinguistic research, and is scant in L2 reading research. Keenen et al. (1990) review the variety of testing procedures used to analyse inferences in L1 studies, and they also show that the majority of studies on inferencing focus on word-level inferencing and not on connected discourse levels. Graesser and Kreuz (1993) contend that situational factors are key in research on inferences. For instance, the type of text, the participant’s orientation to the text, the criterion task the participant expects and characteristics of the participant (such as prior knowledge of a text’s topic) are all variables involved drawing inferences. Zwaan and Brown (1996) show the importance of inferencing as readers build mental models during the reading comprehension process. Hammoudou Sullivan (2002) points out that making generalizations about inferencing from L1 studies is problematic because the methods and procedures are inconsistent across studies. However, the fact that L1 researchers are considering inferences as a key variable in the studies demonstrates the significance of inferencing in the reading process.

As is evident from the L1 studies, readers make inferences to fill in meaning voids in a text. Lee and Van Patten (1995) talk about the importance of inference to second language learners. Students may be unfamiliar with words and expressions in a script, but they may deduce meanings through the process of inferring. When discussing L2 reading, they refer to Perkins’s (1983) notion of elaborative function of schemata and how readers rely on background knowledge to draw inferences from the content of the text. The study of inference as a key variable in L2 reading studies began with Hammoudou Sullivan (1991). This investigation examined the differences in inferencing according to topic familiarity and levels of language proficiency. She found that beginner students of French drew more overall inferences from the texts than did the more advanced readers, but the advanced readers that indicated greater familiarity with the topic of the
From the review of research on inferencing in both L1 and L2 studies, it is evident that inferencing is a critical part of the reading process and, as indicated, different methodologies have resulted in different answers to the question about whether an inference is drawn. It is important to note that none of the studies analyse male and female differences in inferencing.

Gender differences in L2 reading

Bügel and Buunk (1996) reported that the topic of text is a significant variable explaining differences by gender among scores obtained on the reading part of the national foreign language examination in the Netherlands. More specifically, males achieved higher scores than females on the multiple choice comprehension items for essays about laser thermometers, volcanoes, cars and football players, and females scored higher than males on the comprehension tests for essays on text topics such as midwives, a sad story and a housewife's dilemma. With native English speaking men and women enrolled in Spanish courses, Young and Oxford (1997) reported no significant differences by gender for text topics such as economics, the presence of foreign cultures in work, leisure and history. They also found no differences by gender in the familiarity ratings with passage topics or background knowledge of any of the passages. With students studying German as a second language, Schueller (1999) revealed that, in some cases, males outperformed females only in multiple choice questions and never in open-ended questions with a passage about a fairy tale. Brantmeier (2003) found that male and female readers from the intermediate level of Spanish language instruction scored significantly better on both multiple choice questions and written recalls for passages with high self-reported familiarity levels. More specifically, men achieved higher scores than females on comprehension tasks for a passage about boxing, and females achieved higher scores than males on comprehension tasks for a passage about a frustrated housewife. With the same passages and comprehension tasks, no reported differences were noted between males and females who were enrolled in advanced level Spanish courses (Brantmeier, 2002). The contrasting findings in studies that have examined gender and passage content suggest need for further investigations of this nature.

Brantmeier (2003) found significant gender differences in the number of idea units recalled from authentic texts by second language readers at the intermediate levels of language instruction, but not at the advanced stages of acquisition (Brantmeier, 2002). If the same recall assessment tasks are assessed in terms of other criteria (Hammadou Sullivan, 2002),
data may yield further results. The present study uses the same research design and methods as Brantmeier (2002; 2003) and utilizes participants from the intermediate level of language instruction (Brantmeier, 2003) to examine the quality of units recalled from L2 texts in order to provide a richer and more in-depth understanding of male and female comprehension. This study goes beyond counting word-level criteria and analyses more than isolated words. It looks at the inferential and incorrect ideas (isolated words or groups of words) recalled by gender.

Method

The present study was designed to address the relationships between the following variables (a) reader’s gender and correct inferences drawn, (b) reader’s gender and incorrect idea units recalled.

Participants

All 78 subjects (29 men and 49 women) were enrolled in a fifth-semester Spanish class at a midwestern university. This course counts toward a major or minor in Spanish and it is an elective course that is taken between the intermediate and advanced levels of Spanish. One goal of the course is to prepare learners for the level of reading, writing, and speaking necessary to be successful in the advanced language, literature and civilization courses. The course, conducted entirely in Spanish, entails the reading of encyclopedia-like passages and short stories written by Hispanic authors. By the time the students have completed this course, they should have a general synopsis of the histories and cultures which make the Spanish-speaking world what it is today. Only those students who had previously taken second-year Spanish at the university were included in this study. To further ensure homogeneity of subjects, only students whose native language was English were included, and only those students who completed all tasks on both days were included in the study.

Reading passages

Most texts used at the intermediate level of language instruction include a plethora of authentic short stories by male and female authors, and works by Elena Poniatowska and Julio Cortázar are often incorporated in syllabi. The short stories ‘La casita de sololoi’ by Poniatowska and ‘La noche de Mantequilla’ by Cortázar were selected for the present study. The Cortázar passage is about male spectators at a boxing match and all of the characters are men. The Poniatowska passage focuses on a frustrated mother and wife who visits her college room mate, and all the characters are women. Both short stories are often used in anthologies for the intermediate level of instruction. The stories were not used in their entirety. Each vignette consisted of about one and a half pages of text and contained approximately 600 words. For the present study, each passage was also analysed for syntactic complexity using Barry and Lazarte’s (1995) rubric. Syntactic complexity was defined by the number of embedded clauses per sentence for each of the reading passages (see Barry and Lazarte, 1998 for a detailed description on how to determine levels of syntactic complexity). The researcher and an assistant separately identified the embedded clauses for each passage, and then compared those results. The total number of embedded clauses for the passage on boxing was 98 and the total number for the passage about a frustrated housewife was 94. Both passages were given to students in an introduction to literature course to identify words that caused them difficulty, and instructors and supervisors for the course were also consulted about the glossed words. Ultimately, each passage contained the same number of glossed words. A description of key concepts in the title was included more than half a page length above the title of the passage because the titles contained unfamiliar and misleading terms (Brantmeier, 2001; 2002; 2003).

Written recall

With the written recall there is no tester interference. There are no retrieval cues provided as is the case of sentence completion and multiple choice comprehension tasks. The written recall protocol asks readers, without looking back at the passage, to recall and write down as much as they can of what they have just read. This protocol does not influence a reader’s understanding of the text (Bernhardt, 1991). The emphasis on the quantity of correct information recalled with written comprehension assessment tasks has been used widely (Carrell, 1983; Barnett, 1986; Lee, 1986a; 1986b; Khalidieh, 2001; Brantmeier, 2002; Maxim, 2002; among others) and is completed in the learner’s native language, English (Lee and Ballman, 1987; Bernhardt, 1991; Wolf, 1993; Brantmeier, 2002).

Topic familiarity

Participants completed a questionnaire that included information such as sex, age, major, native language and number of years of Spanish
study in high school and university. Topic familiarity was assessed via multiple-choice questions with five possible choices that ranged from 'I was really familiar with this topic' to 'I was not familiar with this topic at all'. The five-point scale was used to encourage more precision in rating and encouraged respondents to show greater discrimination in their judgements.

Procedures
The experiment was conducted in subjects' regular classrooms during regular class time during the fifth week of classes. All subjects read both passages and completed written recalls for both passages on two different days. The researcher and instructors for the courses were present during all data collection sessions. For methodological purposes, the order of presentation of the male content passage and the female content passage were counterbalanced (Steffenson et al., 1979; Johnson, 1981). The order of presentation was also counterbalanced according to the readers' gender (Bacon, 1992). Students were instructed not to look back at any previous pages while reading and completing all tasks.

Data analysis
Using Riley and Lee's (1996) criteria for a 'correct unit of analysis', which may be an idea, proposition or a constituent structure, the researcher and two trained assistants divided the reading passages into idea units. More specifically, a literal unit was classified as a correct fact based on the usual meaning. The total number of literal idea units possible from the boxing passage was 20 and for the housewife passage was 25. In each participant's written recall for both passages, the total number of correct literal ideas units was calculated. In some instances, isolated words were counted as a literal idea unit. No embellishments or distortions of the original text were counted as a literal unit. Then, the researcher and two trained assistants counted the inferred propositions in each participant's written recalls (Barry and Lazarte, 1998). An inferred unit was classified as 'a step beyond the text, using generalizations, synthesis and/or explanations' (Hammadou Sullivan, 2002). Again, an inferred unit could include an isolated word that was not in the original reading but was 'inferred' from the text. Finally, the number of incorrect idea units (including both incorrect literal and inferential units) was counted for each written recall. These incorrect idea units could also consist of an isolated word that was clearly incorrect. The incorrect inferential units included information that contradicted the text (Barry and Lazarte, 1998).

The literal and inferred units were then compared to the texts again to ensure that the information in the written recall appeared in or was implied in the reading passage. The investigator and two assistants scored the written recalls and reported an intrarater reliability of 0.96. Then incorrect idea units were compared to the texts to be sure that the information recalled was not correct in any way.

In the present study the independent variables were reader's gender and passage content, and the following were identified as the dependent variables: self-reported topic familiarity, number of correct literal idea units recalled, number of correct inferences recalled, number of incorrect idea units recalled. The recall scores (number of literal units recalled; number of inferences recalled; number of incorrect idea units recalled) were submitted to an ANOVA for reader's gender with repeated measures on the dependent variables.

Results

Topic familiarity
To measure self-reported degree of topic familiarity, a five-point Likert scale that ranged from 'I was really familiar with this topic' to 'I was not familiar with this topic at all' was utilized. The five-point scale was used to encourage more precision in rating. The participants answered the topic familiarity question after completing all comprehension assessment tasks (Brantmeier, 2002). The lower the mean score, the more familiar the subjects were with the passage topic. Results revealed that the male participants were more familiar with the passage on boxing (M = 3.00, SD = 1.07) than the females were (M = 3.79, SD = 0.80), and the female participants were more familiar with the passage about the frustrated housewife (M = 2.82, SD = 0.78) than the males were (M = 3.51, SD = 1.02). The results of the Kruskal Wallis non-parametric test indicated that there was a significant difference in self-reported topic familiarity ratings with male and female learners for both of the texts (p < 0.05) (Brantmeier, 2003).

Recall: literal, inferential and incorrect idea units for boxing passage
The range of scores for the three types of idea units for the boxing passage as well as sample means and standard deviations are listed in
Table 1.1  Ranges, Mean Scores and Standard Deviations for Idea Units Recalled by Gender for Boxing Passage

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literal Idea Units</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Min</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>- Max</td>
<td>-</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>- M</td>
<td>5.5</td>
<td>6.6</td>
<td>4.8</td>
</tr>
<tr>
<td>- (SD)</td>
<td>2.7</td>
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<tr>
<td><strong>Inferred Idea Units</strong></td>
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<td></td>
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<tr>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>- Min</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Max</td>
<td>-</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>- M</td>
<td>1.1</td>
<td>1.4</td>
<td>1</td>
</tr>
<tr>
<td>- (SD)</td>
<td>1.5</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Incorrect Idea Units</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>- Min</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Max</td>
<td>-</td>
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<td>5</td>
</tr>
<tr>
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<td>1.4</td>
</tr>
<tr>
<td>- (SD)</td>
<td>1.4</td>
<td>1.2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Note: n = 78 subjects, 29 males and 49 females.

Table 1.1. For this passage the maximum number of literal idea units recalled was 17 and the minimum was 1 idea unit recalled. As Brantmeier (2003) indicated, the results of the ANOVAs yielded significant interactions between independent variables readers’ gender and the boxing passage content as they affect dependent variable recall of total idea units (F(1, 76) = 8.26, p = 0.01, η² = 0.10).

In further analysis of the recalls, the results of the ANOVA (Table 1.2) revealed a significant interaction between independent variables readers’ gender and the boxing passage content as they affect dependent variable literal idea units recalled (F(1, 76) = 8.43, p = 0.01, η = 0.09).

Figure 1.1 illustrates this significance and Figure 1.2 graphically displays the distribution of literal ideas/units by gender. The results of the ANOVA revealed no significant interactions between readers’ gender and the boxing passage content as they affect inferential idea units recalled as well as incorrect idea units recalled.

Recall: literal, inferential and incorrect idea units for housewife passage

For the passage about a frustrated housewife, the range of scores for the three types of idea units as well as sample means and standard deviations are listed on Table 1.3. For this passage the maximum number of literal idea units recalled was 20 and the minimum was 1.

As Brantmeier (2003) reported, the results of the ANOVAs yielded significant interactions between readers’ gender and housewife passage content as they affect recall of total idea units (F(1, 76) = 15.90, p = 0.00, η = 0.18). The results of the ANOVA (Table 1.4) revealed a significant interaction between independent variables readers’ gender and frustrated housewife passage content as they affect dependent variable literal idea units recalled (F(1, 76) = 12.77, p = 0.00,
Discussion

The hypothesis that content of texts affects L2 reading comprehension is not new. However, examinations on male and female differences and similarities in L2 reading are innovative (Chavez, 2001). Data from a prior study (Brantmeier, 2002) across various levels of instruction indicate that male and female L2 readers are not familiar with the same topics and that reader’s total correct idea units recalled from authentic texts is affected by gender at the intermediate level of instruction (Brantmeier, 2003). The findings in the present study relate to (a) the literal idea units generated by male and female readers with different passage content, (b) the inferential idea units generated by male and female readers with different passage content and (c) the incorrect understandings by gender with different passage content.

In the present study, significant differences were found in self-reported topic familiarity levels by gender with the two passage topics: male readers reported being more familiar with the boxing passage than female readers did, and female readers were more familiar with the passage about a frustrated housewife than the males. Prior L1 research on passage content and gender predicted significant differences in comprehension scores achieved by male and female readers (Doolittle and Welch, 1989; Hyde and Lynn, 1988). In the present study, with readers from the intermediate level of Spanish language at a university in the USA, there were significant differences in the literal idea units recalled by both men and women for both passages. Women were able to ‘read the lines’ (Gray, 1960) better for a passage in which they reported high levels of topic familiarity, and their male counterparts recalled more ideas that were directly stated in the text with higher reported familiarity levels. Both men and women accurately recreated the explicit text plot with passage topics of higher familiarity.

With the boxing passage, the data for the present study indicate that the interaction of reader’s gender and passage content does not significantly affect inferential units generated during a written recall
with readers from the intermediate level of instruction. The male readers indicated higher familiarity with the passage on boxing, and they recalled significantly more literal idea units than the female readers. But, an examination of the generated inferences for this passage revealed no differences between male and female readers. These results indicate that even though male readers report more familiarity with the topic of boxing than female readers, they do not generate a higher average of inferences from that passage at this level of instruction. Both male and female readers recalled an average of only one inference from this passage. To be sure that inferences could be generated from the boxing passage, the vignette was given to ten different native speakers of Spanish. The readers were asked to complete the written recall procedure. The results revealed an average of seven different inferences from this passage. Readers may not have supplemented their basic, literal understanding with prior knowledge to generate inferences in the written recall procedure. These findings contradict Barry and Lazarte’s (1998) findings where readers with high knowledge of the passage content generated more inferences in their written recalls even with texts of greater difficulty.

In the present study, the boxing passage may be slightly more difficult than the housewife passage in that it includes more embedded clauses. However, it is difficult to make comparisons between these two studies because knowledge of passage content was determined via different tasks, which could have affected the outcome. Hammadou Sullivan (2002) found that the assessment task used to measure comprehension could affect whether or not inferences were generated. Readers may not report inferences of their own accord in their reconstruction of the ideas presented in a text during a written recall procedure. The task that the reader is expected to attend to after reading may affect the outcome (Bernhardt, 1991; Graesser and Kreuz, 1993; Wolf, 1993). Perhaps readers at this level of instruction would be able to answer open-ended questions related to meanings not directly stated in a text. Hammadou Sullivan (2002) reported that participants (male and female) produced more inferences with the oral, open-ended questions than with the free, written recalls. In the present study, male readers indicated being more familiar than female readers with the topic of boxing, but male readers did not produce more inferences than female readers in the written recalls with that text. Readers may be accustomed to revealing textually implicit understandings while recalling ideas from a text. In verbal reports while reading, Horiba (1996) found that L2 intermediate readers of Japanese reported more frequently on analysis of words and sentences, never commenting on inferences. A closer look at the frequency data in the present study (Figure 1.3) reveals that more than half of the total number of female participants did not generate any inferences from the boxing passage, but that almost half of the male participants generated at least one inference from this passage. The most frequent

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
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<tbody>
<tr>
<td>Between</td>
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<td>158.19</td>
<td>158.19</td>
<td>12.77</td>
<td>0.00*</td>
</tr>
<tr>
<td>Within</td>
<td>75</td>
<td>916.76</td>
<td>12.39</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>1074.95</td>
<td>-</td>
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</table>

**Table 1.4 ANOVA Table for Frustrated Housewife Passage by Gender**

**ANOVA of Inferences Recalled for Frustrated Housewife Passage by Gender**

<table>
<thead>
<tr>
<th>Source</th>
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<th>SS</th>
<th>MS</th>
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<tbody>
<tr>
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<td>13.92</td>
<td>13.92</td>
<td>7.72</td>
<td>0.01*</td>
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<td>75</td>
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<tr>
<td>Total</td>
<td>76</td>
<td>147.41</td>
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Note: *p < 0.05.
inference made by the male participants was the following: 'Napoles is a confident boxer.' In the passage, Napoles is the boxer who wins the match. The only inference made by the female readers was: 'Walter seemed restless.' Walter is a spectator at the boxing match, and the women may have inferred this idea from his dialogue with the other male spectator.

With the housewife passage, the present study revealed that females reported higher levels of topic familiarity than males, and the female readers generated one more inference than male readers for that passage. Generating inferences consists of relating the reading to relevant existing schemata, and female readers may have been able to supplement the propositional text base with prior knowledge to generate more inferences on the written recall. Perhaps text familiarity motivates female readers to gain a deeper reading of the text. The most frequent inferences reported by the female readers for this passage were: 'The two women seemed to trust each other' and 'One woman was bored with her routine lifestyle.' The only inference generated by the male readers was the following: 'The passage emphasizes the differences between the two houses that each woman lives in.' Females may be more accustomed to generating inferences in a narrative like fashion that is similar to the recall procedure, that is, they are used to synthesizing and explaining a text (Hammoudi, 2002). First language researchers have found that women more than men typically choose to elaborate on situations with descriptions of feelings (Coates, 1996), and that this talk can take a more narrative like style. Perhaps the written recall procedure utilized in the present study favoured female readers because of the narrative like style, and therefore included more inferences. However, female participants only generated one more inference than their male counterparts for only one passage. If open-ended questions were used that required male readers to integrate text information with stored knowledge, perhaps males would also generate inferences. More research needs to be conducted on differences in inferencing with varied comprehension assessment tasks by gender before any generalizations can be made.

As indicated earlier, the ability to generate inferences is often used to characterize good comprehenders. The data from the present study revealed that male and female readers recall more direct, literal ideas from a text with familiar content. The data from this study also revealed that female readers draw more inferences from a familiar text than their male counterparts. More research that examines inferencing abilities between male and female readers needs to be conducted in the second language setting where these abilities are assessed by means of different tasks and across levels of language instruction.

Data for the present study also indicate that the interaction of reader's gender and boxing passage content does not significantly affect incorrect units generated. There were no gender-linked differences in the incorrect idea units recalled from both passages. This finding indicates that at this level of language instruction, topic selection may not predispose one gender to recall more incorrect idea units than the other. With both male and female readers, distortions of the original text did not occur with familiar and unfamiliar texts, and details were not exaggerated. At the intermediate stages of second language acquisition, when male and female readers encounter familiar and unfamiliar text topics, the recollections of the stories are not distorted in their written recalls. With students from third semester Spanish and a Spanish conversation course, Sellers (2000) reported that highly anxious students tended to experience more interfering thoughts than the less anxious readers. The present study utilizes students from fifth semester Spanish, so perhaps anxiety was not a factor because students are more accustomed to reading in a foreign language by the time they reach this level of language instruction.

In summary, in the present study, the surface ideas (literal ideas) of the texts are affected by gender and content, but the inferential ideas recalled from the texts were not always affected by gender and content. The incorrect ideas recalled from the texts were never affected by gender and content.

Limitations and suggestions for future research

The degree of variation within gender groups should also be discussed. In the present study no significant differences were found within gender groups. In other words, within the group of female participants no significant differences were revealed, and the same can be said for the male participants. It is important to note that in the present study there was not a balance of men and women. All participants were enrolled in an intermediate level Spanish course at the university, and Chavez (2001) reports that women outnumber men four to one in romance language courses, and the higher the level of instruction, the wider this gap becomes.

Methods used to assess comprehension may be biased by gender. Future studies should examine the effects of assessment tasks by gender with gender-neutral texts. More research needs to be done on the
procedures involved in generating literal recall, inferences and incorrect recalls with L2 texts (Nassaji, 2002). At higher levels of language instruction, are more inferences drawn with these same passages? Would word frequencies or specific vocabulary input affect recalls? Would oral recall protocols be more appropriate for inference generation at this level? In the present study, types of inferences were not analysed because of the low numbers of inferences generated by the intermediate level learners. A future study could examine the types of inferences (bridging or elaborate) that are generated by readers at more advanced levels with these same passages (Keenen et al., 1990).

Conclusion

At the intermediate level of language instruction, topic familiarity does influence male and female ability to recall literal idea units from an authentic L2 text. It is well documented that in order to fully understand many texts, readers also need to make inferences about the relationships between characters and actions. More studies need to be conducted with different passage topics and assessment tasks before generalizations can be made concerning gender. The complicated nature of meaning construction during the reading process can be appreciated further by considering inferences drawn by men and women with different topics, varied comprehension tasks and varied instructional levels. Overall, topic familiarity should be recognized as influencing literal and inferential idea units recalled from a text. Therefore, instructors should make attempts to allow topic familiarity to facilitate performance rather than allowing its absence to hinder performance.

References


