Adolescent Understanding of Communicative Intention in History Texts: A Developmental Analysis

by

Diane J. Salter

A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Department of Human Development and Applied Psychology
Ontario Institute for Studies in Education of the
University of Toronto

© Copyright by Diane J. Salter 1997.

Doctor of Philosophy 1997
The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L’auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L’auteur conserve la propriété du droit d’auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-28049-7
ABSTRACT

Many studies have shown that while high school students are generally competent in grasping the surface content of historical text, they fail to recognize historical accounts as reconstructions, based on an author's belief, a belief based on either factual evidence or on opinion. This exploratory study assessed developmental changes in a.) adolescents' ability to distinguish between factual and inferential claims made by the author, b.) the relationship between recognition of the stance/attitude/intention of the author and the ability to evaluate the quality of statements presented as evidence and c.) adolescents' ability to denote, by means of cognitive, metarepresentational terms, the author's attitude towards statements used as evidence. These abilities allow students to detect the author's communicative intention in historical text and acknowledge both what the author meant by the text and what message the author wanted the reader to take from the text.

Ninety-two (92) subjects, drawn from grade 9 (25), grade 13 (42), and first year college (25), answered written questions about an important Canadian historical event recounted from either a French Canadian or an English Canadian perspective. The data indicated that students appeared to reason differently in dealing with the two accounts. In this Toronto based sample, most students were more inclined to disregard the potential for bias in the account written from the English Canadian perspective. Secondly, students' detection of bias, as shown by their ability to evaluate the quality of the evidence statements, correlated with their recognition of the stance or attitude of the author towards the text. Thirdly, students' ability to denote the attitude of the author towards particular statements, by using appropriate cognitive terms related to their evaluation of evidence.

The findings indicated that students' ability to identify the rhetorical properties of text may be an important cognitive component of historical understanding. Recognition of the author "behind the text" seemed to facilitate a more objective evaluation of the acceptability of evidence in both accounts and allowed some students to evaluate evidence presented with less interference from prior belief bias.
ACKNOWLEDGEMENTS

I would like to express my appreciation to a number of people whose support and guidance were central to the successful completion of this thesis.

First, I would like to express my gratitude to my advisor, Dr. David Olson. How fortunate I have been, during my doctoral program, to have had the opportunity to discuss the ideas that formed the theoretical foundation of this thesis with a leading expert in the field of language and cognition. Dr. Olson’s encouragement, support and wisdom inspired me throughout the research process.

I would also like to thank my committee members Dr. Keith Oatley and Dr. Keith Stanovich. The ideas and concepts discussed in their classes on narrative, research design, critical thinking and cognition have in many ways guided and contributed to the development of this thesis.

I also wish to acknowledge the support of Dr. Samuel Wineburg at the University of Washington. His inspiring writing on students’ understanding of history has contributed significantly to many of the ideas that I have developed in this thesis. In addition, our electronic “conversations” have guided the development of the suggestions for future research that I have presented in this thesis.

I would also like to express my gratitude to my husband, Bill Menzo. His continual support both academically, in discussing the ideas and concepts described in this thesis, and emotionally, in providing the support for me to continue in my post graduate program has been vital to the successful completion of my goal.

I would also like to express my thanks to the staff and students at Silverthorn Collegiate in Etobicoke and at Sheridan College in Oakville who participated in this research. In particular, I would like to acknowledge the support of Bernie Rubenstein, the head of the history department at Silverthorn Collegiate, in accommodating my data collection with grade 9 and OAC history students.

Finally, I would like to acknowledge the financial support that I received in support of this thesis from the Social Sciences and Humanities Research Council of Canada.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td>viii</td>
</tr>
<tr>
<td>EPIGRAPH</td>
<td>ix</td>
</tr>
</tbody>
</table>

## CHAPTER I: INTRODUCTION

1.1 Overview                                   1
1.2 Organization of thesis                     3

## CHAPTER II: THEORETICAL FRAMEWORK

2.1 Text comprehension                         4
2.2 The text as “the truth”                    6
2.3 The authorless text                        7
2.4 Intention                                  9
2.5 Recognizing audience-directed authorial intention in text 14
2.6 Model of audience: What is the role of the reader in text comprehension 15
2.7 Recognizing audience-directed authorial intention in historical text 20
2.8 Understanding of cognitive terms and historical understanding 27
2.9 Rationale and hypotheses                   29

## CHAPTER III: RESEARCH DESIGN

3.1 General method                             33
3.2 Subject selection                          33
3.3 Task administration                        34
3.4 Instruments                                36
   3.4.1 Evaluation of evidence                 39
   3.4.2 Students’ recognition of stance       48
   3.4.3 Students’ competence with cognitive terms 51
3.5 Summary                                    53
CHAPTER IV: RESULTS

4.1 Overview 55
4.2 Hypothesis 1 and 2: Evaluation of evidence 56
   4.2.1 Student generated evidence 62
   4.2.2 Forced choice of evidence 64
4.3 Hypothesis 3: Recognition of stance 65
4.4 Hypothesis 4: Recognition of attitude of the author and the evaluation of evidence 68
4.5 Hypothesis 5: Performance on cognitive term test 73
4.6 Hypothesis 6: relationship between performance on cognitive terms and acceptability ratings of evidence 75
4.7 Comparison of the Toronto Times and Montreal Matin accounts 77
4.8 Summary 81

CHAPTER V: GENERAL DISCUSSION

5.1 Introduction 82
5.2 Evaluation of evidence 83
5.3 Recognition of stance 87
5.4 Cognitive terms 91
5.6 Understanding the rhetorical properties of text and historical understanding 95
5.7 Educational implications 98
5.8 Limitations and delimitations 101
5.9 Suggestions for future research 102
5.10 Conclusions 105
5.11 Epilogue 107

REFERENCES 108

APPENDICES 114

APPENDIX A: Informed consent - high school students 114
APPENDIX B: Informed consent - college students 115
APPENDIX C: Glossary of terms 116
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mean acceptability rating of item sets</td>
</tr>
<tr>
<td>2</td>
<td>Evidence type given by students for Toronto and Montreal account by grade</td>
</tr>
<tr>
<td>3</td>
<td>Evidence type given by students for Toronto and Montreal account</td>
</tr>
<tr>
<td>4</td>
<td>Mean score by grade for forced choice categorization</td>
</tr>
<tr>
<td>5</td>
<td>Comparison of stance recognition Toronto Times/Montreal Matin</td>
</tr>
<tr>
<td>6</td>
<td>Recognition of attitude of author by grade</td>
</tr>
<tr>
<td>7</td>
<td>Intercorrelations among the primary variables of stance and mean evidence ratings of high inference statements</td>
</tr>
<tr>
<td>8</td>
<td>Mean cognitive term score by grade</td>
</tr>
<tr>
<td>9</td>
<td>Percentages of students who correctly selected cognitive terms by grade, term and account</td>
</tr>
<tr>
<td>10</td>
<td>Cognitive term score and mean acceptability ratings of &quot;Opinions&quot;</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

FIGURE 1 Some properties of the formation and interpretation of text 19
FIGURE 2 Shemilt's levels of historical understanding related to understanding of intention in history 26
FIGURE 3 Montreal Matin evidence acceptability rating scale 40
FIGURE 4 Toronto Times evidence acceptability rating scale 41
FIGURE 5 Nature of the evidence statements 44
FIGURE 6 Forced choice questions 47
FIGURE 7 Scoring criteria for recognition of stance 50
FIGURE 8 Cognitive term questions 52
FIGURE 9 Major variables 54
FIGURE 10 Mean acceptability ratings of evidence statements by grade, city and evidence type 58
FIGURE 11 Mean acceptability ratings of “Opinions” by grade 61
FIGURE 12 Mean acceptability ratings of “Opinions” by city and by recognition of stance/attitude of the author in the Montreal Matin, question 1 72
FIGURE 13 Comparison of Montreal Matin and Toronto Times articles 79
FIGURE 14 Comparison of affect terms used in the Toronto Times and Montreal Matin accounts 80
FIGURE 15 How source of the account influenced historical understanding 89
FIGURE 16 How recognition of stance and understanding of metalinguistic terms influenced evaluation of “Opinions” presented as evidence 90
FIGURE 17 The understanding of authorial intention in history 94
FIGURE 18 Factors related to the understanding of the rhetorical properties of text that contribute to historical understanding in the reading of historical accounts 97
LIST OF APPENDICES

APPENDIX A: Informed consent - high school students 110
APPENDIX B: Informed consent - college students 111
APPENDIX C: Glossary of terms 112
“History, then, is a science of a special kind. It is a science whose business is to study events not accessible to our observations, and to study these events inferentially, arguing to them from something else which is accessible to our observation and which the historian calls ‘evidence’ for the events in which he is interested.”

(Collingwood, R.G. in History and historiography ed. Robin Winks, 1985)
CHAPTER 1

INTRODUCTION

"The English start wars and want the French to finish them."

1.1 Overview

While awareness of the past is in many ways essential to our well-being (Lowenthal, 1985), acquiring knowledge about the past usually requires a reliance upon the accounts of others about past events. Awareness of the potential for bias or point of view in an author’s account of an historical event is, therefore, an essential component of successful comprehension of any historical text.

This thesis investigates adolescents’ evaluation of statements that are presented in two opposing historical accounts. In addition, relationships between students’ ability to differentiate between qualitatively different types of claims made by the author, recognition of the author’s stance towards the text and competence with metalinguistic terms that denote the author’s stance towards evidence statements will be assessed.

How does a reader “take” assertions that are presented in historical text? For example, is the statement “The English start wars and want the French to finish them” taken as information that is a representation of the “way that the world is” and accepted as factual, or, are these words taken as a representation of an author’s belief about “the way the world is” and viewed as an opinion?

The reconstructive nature of history makes it difficult, if not impossible, to declare any statement as a “fact” with the absolute
certainty that can be conferred in other disciplines such as science or mathematics. However, statements can be differentiated based on the degree of appeal to verifiable evidence versus the degree of inference or opinion contained in the statement. Therefore, valid historical interpretation should not be dismissed as unachievable because of the relativistic nature of evaluation. Relativism can be avoided by appeal to the quality of the evidence statements provided in support of the historical claims. To avoid confusion in distinguishing between the types of statements that will be discussed in this thesis, statements appealing to verifiable evidence will be called “Factoids” because they are fact like, for example, “Training and instruction manuals were in English only.” Statements based mainly on opinion, for example, the epigraph to this chapter “The English start wars and want the French to finish them”, will be called “Opinions”.

The focus of the current thesis is to evaluate readers’ recognition of an author’s audience-directed intention in historical accounts and to assess how this relates to historical understanding, as demonstrated by the evaluation of evidence in two opposing accounts. The current study relates research on text comprehension (Roth & Anderson, 1988; McNamara, Kintsch, Songer and Kintsch, 1996; Anderson, 1984; Trabasso & Suh, 1993) with the notion of communicative intention (Searle, 1983; Olson, 1993, 1994, 1996) and issues relevant to historical knowledge and historical understanding (Wineburg, 1991, 1994; Seixas, 1993, 1996; Shemilt, 1987).
1.2 Organization of thesis

In Chapter II, the theoretical framework guiding the research will be described. Chapter III presents a detailed account of the methodology of the study including a description of the subjects, the procedures for task administration and the development of the scoring criteria. Chapter IV describes the statistical analyses performed on the data and reports the results of that analysis. The final chapter, Chapter V, discusses the results of those analyses, drawing some conclusions as to the role of the recognition of authorial intention in the reading and interpretation of historical documents. As well, Chapter V outlines limitations and implications of this research and presents recommendations for future research.
CHAPTER II

THEORETICAL FRAMEWORK

2.1 Text comprehension

The emphasis of this research is on the role of the reader in text comprehension and the cognitive components related to the reader's evaluation of evidence presented in historical accounts. Over the past two decades, reading researchers have described models of reading comprehension from a variety of different cognitive perspectives including a problem solving framework (Anderson, Reynolds & Goetz, 1971; Tierney & Pearson, 1988), the role of topic knowledge (Anderson & Pearson, 1984), structural features (Graesser, and Bower, 1990; Kintsch & Vipond, 1979; Kintsch & van Dijk, 1978), coherence (Halliday & Hasan, 1976) and vocabulary (Beck & McKeown, 1991). All of these analyses focus on the recovery of textual structure or literal recall rather than evaluating students' skills at the level of interpretation and synthesis of text.

Recently, cognitive psychologists interested in the nature of reading comprehension have begun to consider the importance of a constructionist approach to reading comprehension that acknowledges more fully the interaction between the reader and the text in the reader's search for meaning (Singer 1990; Booth, 1994; Graesser, Singer, & Trabasso, 1994; Trabasso & Suh, 1993; Mc Namara et al 1996). Many texts present facts but fail to present information in a way that allows students to achieve an understanding that goes beyond the surface content of the text (Bruer, 1993). Recent research has focused
on the reader's ability to recognize implicit messages conveyed in the
text and on how syntactic and lexical choices made by the writer either
facilitate or impede the reader's ability to recognize the author and the
authorial intention behind a text (Flower, 1989, Graessar & Kreuz,
1993). In addition, research has increasingly focused on how readers'
beliefs are influenced by the inferential links made between the
reader's background knowledge and text information (Norris, & Phillips,
1994).

Many studies have shown that background beliefs play a crucial
role in reading comprehension (Anderson, 1984) and that reader's prior
beliefs are highly resistant to change (Henle, 1962; Roth & Anderson,
1988; Markovits, & Nantel, 1989). Studies have also shown that when
readers are presented with contradictory evidence about a topic, they
tend to interpret subsequent evidence in a way that allows them to
maintain their initial beliefs (Lord, Ross & Leper, 1979; Klaczynski &
Gordon, 1996). Recent research on reading comprehension in history
(Voss & Silfies, 1996) has examined the interaction that takes place
during text processing between the text content, the reader's prior
knowledge and reading comprehension skills. In the Voss & Silfies'
study, learning from texts in which causal relations between given
events were made explicit was related to reading comprehension skill
and not prior knowledge whereas learning from text with a less
developed causal structure relied primarily on prior knowledge. They
propose that these findings suggest that learning from text is
constrained by both the learner's own characteristics and the nature of
the text contents.
2.2 The text as “the truth”

Ideas about both the nature of reading and the purpose of text have changed throughout history. According to Olson (1994), the first clear conception of the literal meaning of text appeared in Maimonides’s *Guide for the Perplexed* (1190/1963). Prior to the 12th century, the text was considered as an object of reverence rather than an object of study. Maimonides’s advice on interpretation of Scripture when adapted by Christians, provided new explanations for the Christian mysteries by describing text as a product of the mind of the author and the author’s “audience-directed intentions” (Olson, 1994, p. 152)

In historical writing, ideas about the role of the author/historian have also changed over time. Whether the historian’s role is to compile information and present the “facts” or rather to reconstruct the past on the basis of evidence and propose an interpretation of that evidence, may be dependent upon the era (Veyne, 1983) and/or the prevailing educational philosophy (Levstik, 1996). Similarly, the reader may be expected to absorb the information as a neutral account of past events or to reflect upon and question the literal text seeing it as a representation that conveys the perspective of a particular author. Historical understanding, therefore, can mean anything from memorizing a list of dates to the recognition of the reconstructive nature of history, allowing for the possibility of multiple interpretations of past events. In this contemporary view, the reader’s competence at achieving understanding may be dependent not only upon the reader’s level of reading comprehension and prior knowledge, but upon the reader’s epistemological stance towards the text. In other words, whether the reader approaches the text as an unquestionable
account of the “truth” or as one of several interpretations that may be evaluated by assessing the quality of the information presented in support of the perspective expressed, will affect a reader’s historical understanding.

2.3 The authorless text

Several researchers have described how textbooks often present information as absolute truths written in the universal present without including text based clues about how the text is to be taken (Geisler, 1994; Latour and Woolgar, 1979; Olson, 1994). Studies have noted how text variables such as text coherence and elaboration of text content influence text comprehension in science (McNamara, Kintsch, Songer & Kintsch) and in history (Voss, J.F. & Silfies, L.N. (1996).

In the recent past, consideration of the author’s intentions expressed through written text has increasingly focused on the author’s conception of audience and on what the writer wants the reader to think or do. According to Olson (1994), critical reading of a text requires the reader to analyze how the author wants the text to be interpreted and understood. However, recognition of the author’s reader-directed intention in text is difficult for students faced with accounts that seem to be “authorless”. Mental terms and expressions of the intention or attitude of the author towards the propositions presented in school texts are often deleted by editors (Olson, 1994).

Recently, writers of historical text books have recognized these shortcomings and have tried a variety of techniques to address the criticisms of how history is typically presented in school text (Paxton, in press). One method has been to include conflicting accounts of historical events, written in a journalistic fashion, as an attempt to
encourage students to evaluate information from different perspectives. However, research demonstrating the pervasiveness of prior belief bias suggests that these efforts will only succeed for those students who are able to acknowledge and evaluate new evidence that disconfirms their pre-existing biases as well as evidence that compliments their prior beliefs.

According to Seixas (1996), the structures of historical understanding are not only developmental but also cultural and as such, may be dependent upon personal historical experience. Wineburg (1994) has also noted that individuals grow up in homes "with a distinct history and a distinct perspective on the meaning of larger historical events" (p. 4). In this way, the stories of our parents and ancestors shape our interpretation of historical events and our evaluation of accounts may differ with our cultural perspective, a perspective that shapes our background beliefs.

What skills do students require to critically evaluate new information that may contradict with their preconceived world view? Several studies have evaluated differences in reading strategies used by expert readers in their evaluation of text content. Expert/novice studies suggest that students are generally discouraged from engaging in the kind of dialogue with texts that is common practice for experts. According to Geisler (1994), students are not taught to use rhetorical reading strategies or to consider how a text may provide insufficient information for the reader to evaluate the view presented by the author. Geisler argued that school texts present information as autonomous in nature because they are written to be learned rather than criticized or interpreted. While experts are encouraged to recognize that knowledge claims are not absolute, students are encouraged to disregard their own opinions and experience and view the
text as something to be accepted and memorized rather than questioned and interpreted.

Wineburg (1994) identified differences between historians and high school students in their reading of historical text. According to Wineburg, the epistemological stance taken by the reader shaped and guided the meanings derived from the text. Typically, student think-aloud protocols indicated that the textbook was considered as factual information, providing a neutral account of events. Although the students could accurately answer literal and inferential questions about the text, they did not recognize the bias or audience-directed intention of the author.

In contrast to the student protocols, the historians' comments indicated a recognition that the literal text reflected the perspective of the author. Historians referred to the author directly rather than merely noting the ideas expressed by the author. This type of interactive reading enables the reader to consider the the intention of the author. In this context, audience-directed intention refers to the message that the author directs towards the reader.

2.4 Intention

The concept of intention is an important psychological concept in that human behaviour is generally "intentional", meaning, conscious, purposeful and deliberate. However "intentionality" is also used in a philosophical sense to refer to characteristics of linguistic entities (Chisholm, 1956; Dennett, 1978). Drawing from the speech act theory formulated by J.L. Austin (1962), Searle (1993) prefers to define philosophical intentionality as those mental states which are about or directed toward objects and states of affairs in the world. According
to Searle, not all mental states and events have intentionality. The distinction can be made by determining if the belief or desire is directed towards something, as in a belief about an event, rather than being undirected, as in the case of anxiety, which may or may not have a specific referent.

Searle (1993) traces a route from mental states to linguistic states by describing the problem of meaning as the problem of getting from the sounds that are uttered to the illocutionary act. In other words, “..how does the mind impose intentionality on entities such as sounds or marks?” (p.27). According to Searle, an utterance can have intentionality just as a belief can have intentionality. However, in the case of a belief, the intentionality is intrinsic; in the case of an utterance, intentionality is derived.

In this view, the mind imposes intentionality on entities that are not intrinsically intentional, such as words and sentences, by intentionally conferring conditions of satisfaction between the mental state and reality. Conditions of satisfaction refer to the degree of fit between the mind and the world. For beliefs, the conditions of satisfaction require that the belief maps on to the world for a “mind to world” direction of fit. If the conditions of satisfaction are met, we say that the belief is true. If we recognize that our belief is false, we can make it true by changing the belief to achieve a “mind-to-world” direction of fit. Desires, on the other hand, have a “world-to-mind” direction of fit. Hence, in order to fulfil a desire, an agent may need to change the world in order to make the world match the mental state.

Beliefs and desires are expressed linguistically through illocutionary acts, which consist of a propositional content presented with an illocutionary force. Searle delineated five basic categories of illocutionary acts which, according to Searle, are derived from
fundamental features of the mind. These features organize mental acts into language. Briefly, these five categories are described as:

1. **assertives** - where we tell our listeners (or readers) how things are
2. **directives** - where we try to get them to do things;
3. **commissives** - where we commit ourselves to doing things
4. **declarations** - whereby we bring about changes in the world by our utterances
5. **expressives** - where we express feelings and attitudes (Searle, 1983).

These categories of speech acts are expressions of intentional states and can therefore be described in terms of their direction of fit in the same way that conditions of satisfaction are applied to beliefs and desires. For example, assertives, like beliefs, should have a word-to-world direction of fit, in that, for a statement to be true, its conditions of satisfaction must match the way the world is. Directives and commissives, on the other hand, have a world-to-word direction of fit in that, if they are to be fulfilled, the world must be changed to fit their conditions of satisfaction. Expressives, in general, lack the requirement of a world-to-word or word-to-world direction of fit, as they are an expression of a feeling, an opinion or an attitude. Expressives, such as cheering, are often accompanied by assertives which again have their own conditions of satisfaction. For example, in the comment “Great, well done!”, the former makes up the expressive, the latter the assertive.

Two of these categories of speech acts, “assertives” and “expressives” are central to the notion of authorial communicative intention as related to text comprehension. The theoretical model of text comprehension proposed in this paper, extends Searle’s notion of the speech act class of “assertives” to incorporate sub-classes of assertives. According to Searle’s classification of speech acts, assertives should tell the listener how things are. Assertives should
have a word-to-world direction of fit, in that, for a statement to be true, its conditions of satisfaction must match the way the world is. In text, authors often assert as facts information that is merely a surmise or an opinion of the author. The author’s claim may be based on verifiable evidence (the word to world direction of fit is accurate and the statement is likely true) or based on the author’s opinion, an interpretation of information based on personal perspective or personal values (the word to world direction of fit may or may not be accurate and the statement may or may not be true) even if offered as true.

Assertions may also be made to justify a claim. This justification may be valid, based on warrant, or invalid (weak), based mainly on the author’s opinion or on weak supporting evidence. Successful reading comprehension requires recognition that the “assertions” presented in text should be evaluated by the reader based on the quality of supporting information presented in the text. The reader must distinguish between the qualitatively different kinds of claims, presented as assertions in text.

Readers’ competence at detecting the distinction between claims based on warrant and claims based on opinion is particularly important in the critical reading of historical text where a regard for potential bias in an author’s account of an historical event is an important aspect of historical understanding. In the proposed theoretical model, authorial bias refers to the author’s point of view and what the author wants the reader to believe about the event and possibly, how the author hopes that the reader may behave subsequent to the reading.

While assertives offer a statement as a “fact” about the way the world is, expressives usually reflect the attitude of the speaker towards the assertive. Expressives can often be persuasive to the listener, especially if the listener’s own attitude towards the content
of the message is unformed (Axsom, Yates and Chaiken, 1987).
Attitudes have been defined as general evaluations that people make about themselves, other persons, objects or issues (Petty & Cacioppo, 1986). One important function of attitudes is to permit individuals to express their central values or beliefs (self-expression or self-identity function (Shavitt, 1990). Attitudes may be expressed linguistically as assertions, for example, “I hate spinach”. This statement asserts an attitude (of dislike) towards a particular food, by the use of an emotion term (hate). However, the attitude itself is an internal, mental evaluation of an object, event or condition. Emotions, can be reflective of an individual’s attitude and are often physically recognizable. Of course, sometimes individuals consciously attempt to hide their emotions. Attitudes are therefore related to emotions in that sensitivity to the emotion of the speaker/author towards the content of a statement may help the reader to infer the attitude, and thereby the beliefs of the author. In discourse, (oral and written) recognition of the author's attitude towards the propositional content may help the listener or reader to understand the audience-directed authorial intention, the speaker/author’s meaning and how the author/speaker wants the reader to “take” the message that is being communicated.

Oatley and Johnson-Laird (1987) have proposed that emotions serve a communicative function by facilitating both intrapersonal and inter-personnel communication. In face-to-face discourse, the emotional attitude of the speaker is transmitted both physically (“body language” and facial expression) and through the words spoken. There is evidence that facial expressions that denote certain specific emotions are universal and easily recognized by most individuals (Ekman, 1994; Ekman & Friesen, 1975). In contrast, implicit text based
indicators of the emotional reaction of the author towards the words may be be polysemous in nature. Detection of these text based emotional indicators may facilitate awareness of the author behind the words, allowing more effective evaluation by the reader of the message that is being communicated.

2.5 Recognizing audience-directed authorial intention in text

The problem of discovering intended meaning in text was addressed by Grice (1957, 1983), who showed that a theory of language must differentiate between the “sentence meaning” and the “speaker’s meaning”. Sentence meaning refers to the meaning of the actual words spoken, the linguistic meaning or propositional content of the statement, whereas the “speaker’s meaning” refers to the meaning intended by the speaker (the Intentionality of the author).

This intended meaning is often implied rather than explicitly stated. The pragmatics of language is concerned with the audience-directed intention, how the speaker or writer intends the “words” to be taken (Olson, 1986, 1994). However, when ideas are “put into words” one can never be certain that what is said or written will be taken in the way that it is intended.

For Searle (1979, 1993), the illocutionary force specifies the sincerity conditions of speech acts in oral communication. However, any message, idea or information may be analyzed as a “speech act” by considering both the idea or information, the propositional content of the message as well as the author’s attitude towards that information. The attitude is conveyed by the illocutionary force applied to the message. The theory of illocutionary force can be extended to include written communication. The illocutionary force of the message signals
the stance of the writer, s/he either believes the information to be true, hypothesizes, states the information as a fact and/or supplies evidence. In this context, stance may be defined as the attitude of the author towards the message expressed in the text. In reading, recognition of the stance or attitude of the author should signal to the reader how the text should be “taken” (i.e. good news vs bad news, fact or opinion) and what the author wants the reader to think or do after reading the text.

Since the author’s stance is often not stated explicitly, this aspect of intention may be unnoticed or misinterpreted by the reader. Both recognition of the illocutionary force of the statement and recognition of the emotion of the author towards the content facilitate understanding of the author’s audience-directed intention. If the reader recognizes statements as expressions of the author’s point of view, s/he is more likely to evaluate the information by assessing the evidence provided by the author in support of his/her claims.

2.6 Model of audience: What is the role of the reader in text comprehension?

Our conception of how communication occurs contains an implicit notion of the transmission of ideas and the exchange of information. Like the author, the audience/reader may believe, doubt or wonder about the content presented and speculate upon the author’s stance towards the content. Questions such as “Is the author presenting this information as an inference, an assumption or an assertion?”, and “Is the meaning to be understood as an assertive or an expressive?”, may help the reader to evaluate the illocutionary force of the statement. This questioning leads to recognition of the author’s perspective. This
aspect of intention, described as the illocutionary force, forms part of the meaning of the text; for interpretation to be successful, the reader must recognize the illocutionary force.

Olson (1993) suggested that a differentiation be made between reading comprehension and interpretation. He described interpretation as an awareness of the comprehension process or "conscious comprehension". According to Olson, interpretation is distinctive as the reader is required to model what the writer expects or wants the reader to think. Conscious comprehension, therefore, requires that a reader goes beyond an understanding of the literal textual content to reach an understanding of what the author wants the reader to think. Olson's description of interpretive reading contrasts with traditional, criterion-referenced reading comprehension measures that limit evaluation to the ability to read with an understanding of the propositional content of the text.

An "interpretive reading", as described by Olson (1994), is a reading that leads to the recognition of authorial intention. The model of text formation and interpretation (see Figure 1) defines this notion in some detail. The writer has a thought (e.g. the idea that X is Y). Additionally, the speaker has an attitude towards this thought, s/he either believes, doubts, infers or assumes that content. The writer's attitude is the writer's stance towards the information and is expressed by the illocutionary force with which the information is presented (see A, Figure 1). The content and attitude merge and are presented in the text (see B, Figure 1). For conscious comprehension to occur, the reader must recognize the propositional content and the author's attitude (see C, Figure 1). The reader may focus first on content by asking "what is the author saying, what is the literal meaning of this text?" in order to arrive at the gist of the information
and achieve a basic level of text comprehension. In addition, interpretation requires an understanding of the stance (attitude) of the author towards the content. One way to detect the author’s stance is for the reader to question the text by asking questions about the text presented.

Is the author:

a.) stating a fact about the world by presenting the information as an assertive

or

b.) giving an opinion about how the world might be by presenting the information as a suggestion, an expression of opinion, or an inference

After asking these questions about the text, the reader can evaluate the content presented and assume an attitude of belief, doubt or wonder regarding the information by asking questions about the reader’s attitude toward the text.

a.) Do I believe this information? Does the writer have warrant for saying so? What evidence is presented? How valid is this evidence?

b.) Do I agree with this information? Now that I know what s/he wants me to believe, I can evaluate the evidence presented. Do I agree or not?

When comprehension and interpretation are successful, the audience/reader will successfully reach an understanding of the author’s intention by integrating the propositional content with the author’s stance/attitude. To understand the author’s purpose, the audience must recognize the audience-directed illocutionary force of
the propositional content. This done, the reader is in a position to decide if s/he agrees with that author, and to form his/her own attitude toward the content expressed.

The reader's task is made more difficult by the fact that many historical text books are strings of statements presented as assertions without any explicit indicators of stance. The reader must assign stance and status to these seemingly anonymous accounts of past events.
Figure 1

SOME PROPERTIES OF
THE FORMATION AND INTERPRETATION OF TEXT

A

Author

Content
What is the author thinking?
Expressed in the propositional content, “X” is “Y”.

Attitude
Attitude towards the thought
The author may believe, doubt, wonder, infer or assume.
The illocutionary force applied to the statement suggests the author’s attitude i.e., the author may assert, suggest, request.

B

Text

Propositional Content
Author presents content
Author’s attitude, may be implied or explicit

C

Reader

Must determine the content.
1. Comprehension
   Recognizes that “X” is “Y”.

Must determine the attitude.
2. Conscious comprehension
   Recognizes the author’s attitude towards the content, what the author wants the reader to believe. By asking: Is the author: a.) stating a fact about the way the world is? (information presented as an assertive) or b.) giving an opinion about how the world might be? (information presented as a theory) c.) Do I agree with the author?
   Must determine reader’s attitude.
2.7 Recognizing audience-directed authorial intention in historical text

As described earlier in this paper, Wineburg (1991, 1994) identified differences between historians and high school students in their reading of historical text. These findings may be related to speech act theory by extending the notion of speech acts to the understanding of authorial intention. The students in Wineburg’s study accepted the historical text as a set of assertions, as neutral statements of fact about the way the world was. The text was understood as assertive and the intention of the author was not questioned. Indeed, the issue of authorship rarely arose in the students’ protocols. In contrast, professional historians recognized that the text presented an expression of the author’s belief that reflected the bias of the author. Students took the text as assertions, expressed as truths, but failed to see them as expressions of belief, whereas historians questioned the author’s right or warrant to express their ideas as truths, treating them rather as conjectures. For example, in response to the following text passage: *Major Pitcairn screamed at us: “Lay down your arms, you lousy bastards! Disperse, do you hear me! Disperse, you lousy peasant scum!” At least, those were the words that I seem to remember. Others remembered them differently.... one historian commented “Nice way for the novelist to cover up the fact that they (the words) were probably never spoken.”* (Wineburg, 1994, p. 118.)

Wineburg proposed that the historian’s level of comprehension resulted from the interaction between two simulated readers, the “actual reader” and the “mock” or implied reader. The actual reader is the overall monitor of the meanings constructed. The mock reader is
the hypothetical reader who allows the rhetorical devices in the text to influence him. The interaction between these two voices is demonstrated in the protocols of the historian. This type of reading enabled the historians to distinguish between the intent of the author, the rhetorical form and the meaning taken by the historians as readers. Comprehension of the text surpassed the words and phrases used in the text to "embrace intention, motive and purpose, and plan - the same set of concepts we use to decipher human action" (Wineburg, 1991, p.500). This aspect of reading comprehension is central to the skilled reading of any text and, according to Wineburg (1991), is rarely addressed in the school curricula.

Students’ ability to understand the intention of the author can also be related to the four developmental levels of historical understanding described by Shemilt (1987). Based on interviews with 160 children from age 7 to 15 in the British school system, Shemilt described four different levels of adolescent understanding of evidence and ideas about what historians do. This developmental model may serve to clarify cognitive differences that lead to differing conceptions of history and understanding of authorial intention. (see Figure 2).

At the first level described by Shemilt, historical knowledge was seen as a given. Knowledge about the past seemed to be construed solely in terms of tradition, what is “known to be right” or “known to be wrong”; this orientation allows for no uncertainty in history. What is “known” is “known with the same certainty as the facts of science” (Shemilt, 1987, p.46). The historian operates as a type of “memory man” who reads all of the sources and remembers what he has read. Pupils at this stage tended to cite the source as evidence for the truth. Students failed to grasp that the source may have more than one
meaning and no differentiation was made between source interpretation and source comprehension.

At this level, the intention of the author, as understood by the student, would be construed as a desire to retell the facts. The author has ‘knowledge’ about the past event and simply reports or retells what happened. This retelling is presented as an assertive with a correct word-to-world fit; the author is telling about the way things were, how the world was. The author is viewed as “The Reporter”, presenting a statement of fact rather than an expression of opinion. In fact, this is just how most texts present their statements (Latour and Woolgar, 1979, in Geisler, 1994, p. 12). Typically, textbooks contain mainly what Latour and Woolgar call Type 4 statements, presented as claims about things in the universal present tense.

At the next level, history was seen as something to be discovered. Students recognized that historical truth was negotiable and used words such as “bias”. Use of these terms seemed to indicate the beginning of an understanding that there may be more than one possible way to answer questions of fact and interpretation. Shemilt noted that conceptual understanding of sources was deficient in that students failed to recognize inferences as inferences. Evidence was now described as “privileged information about the past”. Evidence was construed as something that could be criticized but was not seen as a basis for inference. Shemilt argued that for pupils at this level of understanding, the historian’s picture of the past is reassembled from evidence rather than reconstructed on the basis of evidence. The historian was seen as one who could accurately identify an accurate picture of the past. There was a tendency to accept and use technical vocabulary without fully understanding the terms or their referents.

In this case, the intention of the historian would be understood
as the desire to reassemble knowledge about the past from the evidence provided, as in the reassembling of a jigsaw. The historian’s message would still be seen as assertive, as statements of facts appropriately organized rather than an expression of the author’s belief. The historian merely puts the pieces back together “correctly” to show the world as it was. The author is viewed as “The Assembler”.

At the third level described, historical knowledge was seen as something to be worked out by rational process. Students were now able to differentiate evidence from information. Interpretation of history was viewed as the testing of an hypotheses made by the historian against evidence provided in documents and historical artifacts. Students acknowledged that the historian began with an idea (an hypothesis) and then tested the hypothesis against the available evidence. Students now accepted the possibility that evidence could be used to disprove an hypothesis, whereas, at earlier levels of understanding, negative evidence was not acknowledged. Historians were now described as going beyond the scouring of records to unearth “the truth”. Students were aware that conclusions about historical events were inferred rather than read from the sources. However, students generated few ideas about how the historian might formulate an hypothesis, indicating incomplete conceptualization of the process of acquiring historical knowledge.

This third level indicated a shift in the type of thought to an interpretive level, making it possible for historical accounts to be perceived as an expression of belief rather than an assertion of fact. When rational process and the role of interpretation are acknowledged, the students’ views about the author become important. As a result, the student now begins to question the validity of the source. This type of questioning may be intermediary, that is, necessary but not
sufficient for the full recognition of authorial intention. It is now possible for the audience to view the message as an expression of the author’s views and author’s belief about the historical evidence. The author is now considered as “The Interpreter”.

At the final level described by Shemilt, students’ responses showed that they were beginning to recognize historical text as a reconstruction, or model, of the past events. However, Shemilt noted that even when history was viewed as a reconstruction of past events, the meaning was assumed to be “constant in time and space”. Typically, students had difficulty understanding that the meaning of the words in a document may have differed from the time they were stated to the time when heard by today’s audience. The adolescent neither interpreted events in context nor saw a need to interpret the event in context. Shemilt suggests that students at this stage are limited in their understanding of how contextual knowledge can be used as background information. For example, students rarely noted the significance of the social and cultural milieu at the time of the event. Although they may pose questions that evaluate the source’s reliability, such as “Who wrote this? Is this author to be trusted?”, they rarely sought to establish the *meaning* of what was said by asking questions such as “What would these words have meant to people living at the time it was produced?” (Shemilt, 1987, p.59). These were the very questions posed by Maimonides (1190/1963) in his advice regarding the interpretation of the Christian mysteries (see Olson, 1994).

At this level, the intention of the author is recognized as the desire to reconstruct what *might have been*, presented as an expression of a theory, rather than to retell what was, presented as an assertion of fact. The reader can now recognize the author as “The
Reconstructor” with a purpose and a point of view of his or her own. The ability of students to form these assumptions about the authors’ perspective and the author’s reader-directed intentions are of particular relevance to the present study.
Shemilt's Levels of Historical Understanding Related to Understanding of Intention in History

**Level 1**
**Report**
A retelling of the events/facts.

If historical knowledge is seen as a given, presumably the intention of the author would be seen as the intention to tell the facts, based on his/her knowledge of the past event.

Evidence = Knowledge.

Author is "The Reporter".

Report is presented as an assertive, fact.

(Recognition of author as person who selects and reconstructs evidence, formulates a theory, recognition of intention.)

**Level 2**
**Jigsaw**
A reassembling of the past events.

If historical knowledge is something to be discovered, the historian's intention would be to "reassemble" knowledge about the past from the evidence.

Evidence = Privileged information about the past.

Author is the "Jigsaw Assembler".

Reassembling is presented as an assertive/fact.

(Recognition of author as person who selects and reconstructs evidence, formulates a theory, recognition of intention.)

**Level 3**
**Interpretation**
An interpretation of the events by rational process.

If historical knowledge is something to be worked out by rational process, the student is now able to view the author as important, e.g., is author a rational or credible source? Does author have a point of view/bias?

Beginning to recognize that conclusions are inferred rather than found, relativism.

Author is the "Interpreter".

Interpretation is presented as a theory.

(Recognition of author as person who selects and reconstructs evidence, formulates a theory, recognition of intention.)

**Level 4**
**Reconstruction**
Reconstruction of the events based on inference from evidence.

If historical knowledge is seen as a reconstruction, the intention is seen as a reconstruction based on inferences and the beliefs of the author.

The stance of the author will affect how the event is reconstructed, what evidence is used to make an inference. Awareness of the historicity of evidence.

Author is the "Reconstructer."

Reconstruction is presented as a theory.

(Recognition of author as person who selects and reconstructs evidence, formulates a theory, recognition of intention.)
2.8 Understanding of cognitive terms and historical understanding

A fundamental skill of the historian involves the ability to discern potential bias or perspective contained in historical accounts. It has been shown that expert readers of historical text seek to assess the evidence presented by evaluating the author's stance, attitude and intention. Historians recognize how intention may influence authorial claims presented as fact or information. However, it is unclear how the expert reader detects the attitudes, feelings and beliefs of the author and how the authorial intention or stance is conveyed in text.

Biber and Finegan (1989) identified and described various stance styles found in English text. Stance styles are defined as the different ways that the lexical and grammatical expressions of attitudes, feelings or judgments towards the propositional content of a message are conveyed. In their research, Biber and Finegan studied the linguistic expression of attitude under two main topics: evidentiality and affect. Evidentiality referred to the speaker's expressed attitude towards knowledge, eg. certainty vs doubt. Affect involved a broad range of personal attitudes including emotions, feelings, moods and dispositions. Stance markers were divided into categories based on semantic and grammatical criteria and the frequency of occurrence for each category was computed. It should be noted that in this study, markers of stance were restricted to direct and explicit expressions of speaker attitude, such as "I am frightened by ...." and did not identify indirect or secondary expressions of stance such as "it frightens her".

By far the most common stance style found in the Biber and Finegan corpus was the style identified as 'faceless'. This style was marked by the relative absence of all affective and evidential stance
features. This stance style was identified as the main classification for 65% of the 500 texts in the entire corpus, including large majorities of biographies (78%), academic prose (75%) and press editorials (74%). It appears that in the majority of texts, identification of the stance of the author requires a reading that goes well beyond the words on the page if one is to detect the implied message and attitudinal stance of the author.

When direct and explicit expressions of the author’s attitude are absent, the reader must be able to recognize secondary expressions of stance that are generally descriptive, such as, “it was a sad day for Canada” rather than expressions of the speaker’s own feelings such as “I was upset by this event”. Previous research has pointed out that experts have the ability to detect these secondary expressions of attitude while novices fail to recognize the invisible author behind the text. What are the skills or abilities used by historians to identify authorial stance in texts that are generally “faceless”? Theoretical articles (Astington & Olson, 1990), and empirical studies (Olson & Torrance, 1987, Hall & Booth 1994) have addressed the relationship of cognitive word knowledge to metacognitive development and reading comprehension. Cognitive terms, such as think, infer, assume and imply are examples of language that is commonly used to talk about thinking. These terms allow aspects of thought to be brought into consciousness, allowing analysis and reflection on statements and beliefs (Olson, 1993).

According to Olson, critical reading of a text requires an analysis of how the author wants the text to be taken. This requires that the audience assign the appropriate illocutionary force to the text, which in turn, requires that the reader have knowledge of how expressions and texts are to be taken. This level of higher order thinking requires “competence with the set of concepts for managing how beliefs are to
be held and how statements are to be taken" (Olson, 1993, p.9).

Olson and Astington suggested that metacognitive and metalinguistic terms provide both language for thinking and language about thinking. Knowledge of cognitive terms may facilitate the recognition of the illocutionary force in texts. Specifically, the understanding of cognitive terms may be related to an individual's ability to discern variations in meaning by allowing discrimination among the types and levels of illocutionary force. For example, a reader equipped with the concept of inference may be able to detect an inference in a text and distinguish it from a more factual claim. In this way, the understanding of metalinguistic and metacognitive terms may help students to acquire competence with concepts marked by these specialized terms.

2.9 Rationale and hypotheses

In this introduction, I have described prior research on the nature of adolescents' historical understanding and research on the relationship between thinking and language. I have argued that the theory of speech acts and, in particular, the notion of illocutionary force, may provide the basis for an analysis of adolescents' understanding of historical text in that speech acts signal both content and intentional stance.

According to Searle's theory, the author has an attitude towards the propositional content of the statement. The statement is presented as a speech act with an illocutionary force that reflects the attitude of the author. Students might not recognize the propositional attitude of the statement. However, students who consider that the statement is made by an author with a particular point of view are more likely to question the propositional attitude and recognize that some statements
are based more on opinion than on verifiable evidence.

According to Searle, statements presented as assertions tell the reader how things are and should have a correct "word-to world" direction of fit; the propositional content should match the objective reality of the world. However, some assertions have a direct link to a verifiable, objective reality while others are based on inference.

In the case of statements that I have categorized as "Factoids" the link between the statement and the objective reality is direct. For example, the truth value of the statement "Training and instruction manuals were in English only" can be evaluated by appeal to verifiable evidence. In contrast, the statement "The English start wars and want the French to finish them" has a less direct link to an objective reality. The truth value of this opinion based statement must be assessed by evaluating the validity of the inference made by the author.

If these assumptions are correct, a reader should be able to discriminate between a "Factoid" and an "Opinion" and rate "Opinions" as less acceptable as evidence than "Factoids". However, the ability to discount "Opinions" as evidence requires an analysis of the validity of the inference. This type of analysis requires that students question the source of the opinion and the credibility of the supporting evidence. Therefore, students who are able to detect the attitude of the author towards the statements presented in text will be more likely to rate a statement based on opinion as less acceptable as evidence.

Little is known about how students' evaluate statements presented as evidence. In addition, prior research has not assessed how students' understanding of metalinguistic terms that describe the attitude of the author towards the text may be related to their evaluation of contradictory evidence statements. The current study was designed to evaluate these relationships by presenting students
with conflicting accounts of an historical event written in a similar rhetorical form. Students read fictional accounts about a real event in Canadian history presented from a French-Canadian and an English-Canadian perspective. The accounts were balanced in the number of facts and opinions presented as evidence in support of the author's perspective. After reading each account students completed a questionnaire designed to explore variables that may contribute to students' evaluation of the accounts. Specifically, the hypotheses of the current study are as follows:

1. Adolescents will be able to differentiate between the two types of evidence presented and will rate statements based on direct appeal to verifiable evidence ("Factoids") as more acceptable than statements based on inference from or interpretation of source evidence ("Opinions").

2. There will be a developmental progression in the ability to discriminate between "Factoids" and "Opinions" with students in higher grades being more likely to rate "Opinions" unacceptable as evidence.

3. There will be a developmental progression in students' ability to recognize the stance or attitude of the author towards the statements in a text.

4. Recognition of authorial attitude will be related to students' rating of "Opinions" as unacceptable as evidence.
5. There will be a developmental progression in students’ ability to identify the most appropriate cognitive term to indicate the author’s attitude towards statements composing an historical text.

6. Students’ ability to select appropriate cognitive terms will be related to their ability to discount the value of “Opinions” as evidence.
CHAPTER III

RESEARCH DESIGN

This chapter will provide a brief overview of the general methodology of the study followed by a detailed accounting of the study describing the sample, the instruments used for assessment, the administration and scoring of the tasks.

3.1 General method

Ninety-two (92) subjects, drawn from Grade 9 (25), Grade 13 (42), and first year College (25) participated in this study. Assessment of high school students was completed in school during their history class. Assessment of college students was done during class time as part of a critical thinking course. Subjects read two passages taken from documents provided in a high school history text. Students read each passage and responded in writing to the questions. The order of presentation of the articles was counterbalanced.

3.2 Subject selection

High school subjects were Grade 9 and OAC (Grade 13) history students at a suburban high school in Etobicoke, a city close to Toronto, Ontario. Grade 13 students in Ontario are considered as academically streamed, with grade 13 being a preparation for university admission. To qualify for university admission 6 OAC (Ontario Academic Credit) credits must be completed. For clarity I will refer to these students as Grade 13 in the description of this study. College students participated
as part of a first year course in critical thinking at a suburban community college located in Oakville, Ontario. The College students were enrolled in diploma programs leading to employment in the social services. These subject groups were chosen to assess developmental changes in historical understanding from early to late adolescence. Implications of the differences between the academically streamed Grade 13 students and the vocationally streamed College students will be discussed in the interpretation of the data.

3.3 Task administration

The researcher met with each group of Grade 9, Grade 13 and College students on two occasions. The tasks were administered to all students in the same grade at one time, during a 70 minute class period. At the first visit the researcher was introduced to the class by the classroom teacher. Students were told that they were being asked to participate in a research project about how students’ understand historical accounts. They were informed that they would be asked, during a regular class period, to read two accounts of an historical event and answer questions about each account. Because the classroom teacher was interested in viewing their answers, the students were informed that completing the written assignment was required as part of the students’ history course. However, students were told that if they did not wish to participate as a ‘research subject’, by having their questionnaires forwarded to the researcher after completion, their responses would not be included in the analyses of the data. No students chose to be excluded from the project. Consent forms were sent home by the classroom teacher to be signed by the parents of participating high school students. College students and high school
students over 18 years old signed their own consent forms. The consent form and covering letter explained that all of the results would be coded to assure anonymity of individual respondents (see Appendix A and B).

During the second visit, the researcher reminded the students that they would be asked to read two accounts and answer a questionnaire about each account. Each student was given a package containing one account and questions to be answered. After completing the questions on the first account, they were asked to return the first package to the researcher and take a second package. The order of presentation of the packages to the students was counterbalanced. Before the students began the researcher briefly went over each page in the questionnaire and described how some questions asked for the students to write a response, other questions asked them to make a choice of a or b, indicating that a statement was most like a “fact” or a “claim” and other questions asked them to rate statements along a continuum. Students were asked to rate statements, based on their opinion, as representative of from “least acceptable” to “most acceptable” evidence. Students were reminded to read each statement carefully and that a rating of 5 indicated that they thought the statement was acceptable and 1 indicated that they thought the statement was not acceptable. The written instructions for the cognitive term section asked students to choose “the word that best fits the following sentences”. The following specific verbal instructions were given to students to help them understand how to complete the multiple choice, cognitive term questions:

*Please have a look at page 2 in your set of questions. One of the things that I'm interested in is how people understand different words that are used to describe how people are thinking and feeling. I'm also interested in how people interpret messages that other people are trying to give. For instance, we often use words like say or think.
We use the words say and think often to refer to all kinds of saying and thinking. However, there are many other words for saying and thinking that give more information, such as how something was said, or the circumstances in which something was thought. For example:

John says he has won. OR John declares he has won.

Because of the word declares we know that he said it strongly and firmly.

Historians tell about past events based on how they have interpreted these past events. It’s often very difficult to know just what the author/historian believes about the piece he is writing. Is what he is telling us a fact or is it something that he believes (but it isn’t necessarily true, or not everybody believes it), like an opinion; is it something that he is guessing about, and suggesting to be true? I’m interested in how adolescents use the types of words that gives us clues about the perspective (or point of view) of the author and how adolescents interpret messages in historical documents. I’d like you to answer the following questions about each of the two newspaper reports that you will read.

Most people find this quite difficult to do, so take your time and think carefully about each word to choose the answer with the word that fits best. Sometimes the meanings of words are very similar but one word usually gives the sentence a clearer meaning.*

3.4 Instruments

The accounts that students read were taken from documents in a high school history text, specifically, fictional newspaper reports that described the same historical event from either the French Canadian (Montreal Matin) or the English Canadian (Toronto Times) perspective. The event described was the dismissal of Sir Sam Hughes as Minister of the Militia in 1916. Each article was presented separately to the students in a package containing the article and a questionnaire. The two fictional articles follow:
Toronto Times  November 1916

SIR SAM STEPS DOWN!

Sad news was announced in Ottawa today. Sir Sam Hughes is no longer the minister of Militia. The prime minister, bending to howls of criticism from Quebec, has dismissed this able, competent minister. Hughes has done more for the war effort than any other Canadian. He has recruited thousands of volunteers and raised thousands of dollars. Canada entered the war with only 3000 in the armed forces. By the end of 1915, thanks to Sir Sam's tireless energy and inspired leadership, more than 200,000 of our noble sons have taken their places on the battlefield.

Without Sir Sam's efforts how will Canada maintain its contribution to the war cause? Many English Canadians are angered by the reluctance of French Canadians to volunteer for overseas service. English Canadians are willing to defend the British Empire. The Empire that has done so much for Canada.

Sir Sam Hughes, through the force of his personality, has persuaded reluctant industrialists to invest heavily in the production of much needed war materials. We should be thankful that, through the contracts negotiated by the minister, tons of vital munitions are making their way to our soldiers at the front.

Montreal Matin  November 1916

HUGHES FIRED FROM CABINET

At long last, Prime Minister Borden has done the honourable thing! He has thrown Sir Sam Hughes, his incompetent minister of Militia, out of the Cabinet. Now, Hughes will be unable to do any more damage to Canadian unity. Hughes, more than any other person, has divided and torn this country apart with his policies.

Hughes has managed to antagonize everyone in Quebec. Those French Canadians who have volunteered for the English war have been insulted. The recruitment posters, training and instruction manuals are in English only. More importantly, promotions have only been given to the English-speaking officers. How can Hughes and other Canadians expect French Canadians to join in the war effort when they are treated so poorly?

As minister of Militia, Hughes has disgraced the nation by rewarding his friends and cronies with munitions contracts. These shady deals have allowed his friends to make millions at the taxpayer's expense.

Why should we spill one more drop of precious French-Canadian blood in Europe. Canada only wants Quebec in Confederation when we are willing to sacrifice for the British Empire. Britain started this war. Let Britain finish it.
After completing the first questionnaire students handed in the package and received a package containing the second article and corresponding questionnaire. The articles were comparable in length, each containing 5 paragraphs and with a comparable number of words (193, Montreal article/188 Toronto article). The Flesch-Kincaid readability statistics gave a reading score of 56 for both articles, representing a level of reading suitable for students with 6 to 10 years of schooling. Average sentence length was 13.1 words per sentence, average word length was 1.6 syllables and average paragraph length was 3.0 sentences per paragraph, indicating that most readers at the age and level of schooling of the subjects in this study could read the documents without difficulty. The articles were also comparable in the frequency of descriptive adjectives, adverbs and verbs used in the text.

Questions relevant to the text were designed by the researcher with advice from experts in literacy, cognition and critical thinking. Questions were presented to the students on a questionnaire and students recorded their responses. The questionnaire evaluated 3 components of students’ historical understanding: A.) students understanding of evidence, B.) students’ recognition of the author’s stance and C.) students’ competence with cognitive terms that characterize a type of historical statements, e.g. as an inference or as an assertion. The tasks included:

A. three tasks to evaluate students’ understanding of evidence:
   a.) evidence rating scale (8 statements for each account)
   b.) student generated examples of evidence (2 questions for each account)
   c.) forced choice task (4 choices for each account)
B. one task (2 questions for each account) to assess students' recognition of the author's stance and

C. one multiple choice task (4 questions for each account) to assess competence in selecting cognitive terms appropriate to characterizing historical statements.

The questionnaire was pilot tested in a post-graduate research group and in the field with high school students before the questionnaire was finalized. A detailed explanation of each of the three components evaluated follows.

3.4.1 Evaluation of evidence

A. a.) Evidence statements acceptability rating scale:

The questionnaire contained a list of statements drawn from the historical texts and selected from examples of evidence given by high school students in a pilot study. The list of evidence statements by account is shown in Figures 3 and 4. These statements were chosen to represent a variety of students' selections of appropriate evidence based on the accounts presented.

Students in the current study were instructed to rate the statements on a continuum from 1 to 5 as representing, in the student's opinion, least acceptable (1) to most acceptable (5) evidence. The order of the statements was mixed with four statements representative of "Factoids", statements based on warrant or verifiable data, such as, "The army increased from 3,000 to 200,000" and four statements representative of "Opinions", such as "The prime minister is bending to howls of criticism".

Montreal Matin Evidence Acceptability Rating Scale

Please rate each comment on a scale from 1 - 5 an examples of evidence that is least to most acceptable in support of the view expressed in the Montreal Matin that Hughes dismissal was justified.

<table>
<thead>
<tr>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hughes is no longer able to damage Canada</td>
</tr>
<tr>
<td>2. Hughes antagonized everyone in Quebec who volunteered.</td>
</tr>
<tr>
<td>3. The recruitment posters were in English only.</td>
</tr>
<tr>
<td>4. Hughes, more than any other person has divided the country.</td>
</tr>
<tr>
<td>5. Promotions were only given to English speaking Canadians.</td>
</tr>
<tr>
<td>6. The English start wars and they want the French to finish them.</td>
</tr>
<tr>
<td>7. Training and instruction manuals were printed in English only.</td>
</tr>
<tr>
<td>8. Hughes’ friends have made millions at the taxpayer’s expense.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Least Acceptable</th>
<th>Most Acceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Not good)</td>
<td>5 (Good evidence)</td>
</tr>
</tbody>
</table>

1 2 3 4 5
Figure 4

Toronto Times Evidence Acceptability Rating Scale

Please rate each comment on a scale from 1 - 5 an examples of evidence that is least to most acceptable in support of the view expressed in the Toronto Times that Hughes dismissal was wrong.

<table>
<thead>
<tr>
<th>Comment</th>
<th>Least Acceptable</th>
<th>Most Acceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He got 200,000 volunteers for the war.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. The Prime Minister is bending to howls of criticism.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. He has a lot of leadership qualities.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. His tireless energy has been inspiring to many.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. Promotions were only given to English speaking Canadians.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. Hughes has raised thousands of dollars for the war effort.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. The army has increased from 3,000 to 200,000.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. Hughes has done more for the war effort than any other Canadian.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
To establish a consensus on the degree of opinion in each evidence statement, experts were asked to rate each statement along a continuum ranging from "not opinion based", score of 1, to "strongly opinionated/high inference", score of 5. Opinionated was defined as "an expression of the author's opinion/an inference/subjective".

It is important to note that items rated by experts as high in opinion (over 4.0 on the 5 point scale) are considered to be based on inference from or interpretation of source evidence ("Opinions"). Therefore, they are less acceptable as evidence and should correspond with a low acceptability rating. Conversely, statements receiving a low opinion rating (under 2.0 on the 5 point scale) are considered to be based on direct appeal to verifiable evidence ("Factoids") and are justified in a high rating on the acceptability scale. Based on the mean expert opinion ratings, evidence statements were categorized into item sets based on the nature of the evidence statements (see Figure 5). For example, the statement from the Montreal article "Hughes is no longer able to damage Canada" had a mean expert rating of 4.7, indicating consensus that this is considered a high inference statement. In contrast, the statement "Promotions were only given to English speaking Canadians" received a mean expert rating of 1, indicating consensus that this is a factual, low inference statement. A corresponding example from the Toronto article "Hughes has done more for the war effort than any other Canadian" received a mean expert rating of 4.7, indicating consensus that this is a high inference statement ("Opinion"). The statement "The army increased from 3,000 to 200,000" received a mean expert rating of 1.0 indicating consensus that is is considered a low inference statement ("Factoid"). One statement "Hughes’ friends have made millions at the taxpayer’s expense, was excluded from the statistical analysis of students’
ratings because the expert rating was ambiguous, that is, not clearly “Factoid” or “Opinion”.

Mean scores of students’ rating of the evidence statements were computed for the item sets of “Factoids” and “Opinions”. Cronbach’s Alpha was computed to measure internal consistency for the item sets. The reliability coefficient for the 7 statements in the “Factoid” item set was .79. The reliability coefficient for the 8 statements in the “Opinion” item set was .80.
**Figure 5**

**Nature of the Evidence Statements/Mean Expert Opinion Rating**

**Montreal Matin**

<table>
<thead>
<tr>
<th>Factoids (mean expert opinion rating &lt;1.5)</th>
<th>Mean expert opinion rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and instruction manuals were in English only.</td>
<td>1.0</td>
</tr>
<tr>
<td>The recruitment posters were in English only.</td>
<td>1.0</td>
</tr>
<tr>
<td>Promotions were only given to English speaking Canadians.</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opinions (mean expert rating &gt;4.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes has antagonized everyone in Quebec who volunteered.</td>
</tr>
<tr>
<td>Hughes more than any other person has divided the country.</td>
</tr>
<tr>
<td>The English start wars and want the French to finish them.</td>
</tr>
<tr>
<td>Hughes is no longer able to damage Canada.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambiguous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes' friends have made millions at the taxpayer's expense.</td>
</tr>
</tbody>
</table>

**Toronto Times**

<table>
<thead>
<tr>
<th>Factoids (mean expert opinion rating &lt;1.5)</th>
<th>Mean expert opinion rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The army has increased from 3,000 to 200,000.</td>
<td>1.0</td>
</tr>
<tr>
<td>He got 200,000 volunteers for the war.</td>
<td>1.0</td>
</tr>
<tr>
<td>Hughes has raised thousands of dollars for the war effort.</td>
<td>1.3</td>
</tr>
<tr>
<td>Contracts that Hughes arranged have allowed tons of munitions to be sent to the front.</td>
<td>1.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opinions (mean expert rating &gt;3.5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes has done more for the war effort than any other Canadian.</td>
</tr>
<tr>
<td>He has a lot of leadership qualities.</td>
</tr>
<tr>
<td>His tireless energy has been inspiring to many.</td>
</tr>
<tr>
<td>The Prime Minister is bending to howls of criticism.</td>
</tr>
</tbody>
</table>
A. b.) The second evidence evaluation task required students to generate examples of evidence that supported the author's view by responding to the following question:

"On what evidence did the author base his view that Hughes' dismissal was justified?"

Since both accounts included “Factoids” and “Opinions”, students' responses to this question indicated the type of evidence that the students were more likely to notice and record. Students' responses were coded and a statistical analysis of the scores was performed to test for frequency of responses and association of type of responses given in each account.

Scoring of the student generated evidence statements was done by protocol analysis. Evidence statements were differentiated by the nature of the statements. Students' responses were scored as representing one of the following four classifications:

a.) “Opinion”, evidence that refers to a claim or inference based on speculation or conjecture made in the argument. An example is the following response: “Hughes has divided and torn the country apart”. This indicates evidence that is inference from or interpretation of source evidence.

b.) “Factoid”, a statement that refers to information in the article that could be traced to artifacts or documents. An example is the following response: “The army increased from 3,000 to 200,000. This indicates evidence that appeals to verifiable events or information.

c.) giving both high and low inference evidence. (Protocols contained an example of each type of evidence)
d.) giving no evidence. (Did not answer the question.)

All scoring was done by the researcher. A random sample of 25% of the protocols were coded by a second trained rater blind to the group assignment. Cronbach's Alpha was computed to measure the consistency of the rating and an inter-rater reliability score of .95 was obtained. After calculation of the reliability score all differences were resolved by discussion.

A. c). Forced choice questions.

Students were given a phrase based on the text and were asked to choose whether the statement was "a fact presented in the article" or "a claim or personal opinion presented in the article". A complete list of the forced choice questions is shown in Figure 6. The choice of "fact" vs "claim" was presented to encourage students to differentiate between statements based on subjective inference ("Opinion") and statements warranted by fact ("Factoid"). Statements were categorized as high or low inference by the examiner, and by graduate students, as determined by the previously described method for classification used in rating evidence statements (see p. 40-41). Six "Opinions" and two "Factoids" were presented to the students. Responses were scored as either correct or incorrect based on the following scoring criteria. If the student classified an "Opinion" statement as a "fact" or a "Factoid" statement as a "claim", those responses were scored as incorrect. If a student classified a "Factoid" item as a "fact", or an "Opinion" as a claim, those responses were scored as correct.
Forced choice questions

Instructions: Please choose the phrase that best fits the following sentences (choose a or b by circling your choice).

Montreal Matin
1. Sam Hughes did not want to leave his position.
   a.) a fact presented in the article
   b.) a claim presented in the article
2. If there were more bilingual posters, more French Canadians would enlist:
   a.) a fact presented in the article
   b.) a claim presented in the article
3. Recruitment posters, training and instruction manuals were in English only.
   a.) a fact presented in the article
   b.) a claim presented in the article
4. French Canadians did not join the war effort because of Hughes' policies.
   a.) a fact presented in the article
   b.) a claim presented in the article

Toronto Times
1. The prime minister did not want to dismiss Hughes.
   a.) a fact presented in the article
   b.) a claim presented in the article
2. Hughes has recruited thousands of volunteers and raised thousands of dollars.
   a.) a fact presented in the article
   b.) a claim presented in the article
3. Hughes is an able competent minister.
   a.) a fact presented in the article
   b.) a claim presented in the article
4. The prime minister has been pressured.
   a.) a fact presented in the article
   b.) a claim presented in the article
3.4.2 Students' recognition of stance

Recognition of the stance or attitude of the author towards the text was assessed on the basis of responses to two questions:

- "Why did the author write this article?"
- "What did the author think about this event?"

These questions were chosen to evaluate students' ability to infer the author's purpose in writing the article and their recognition of the audience-directed authorial intention. It was anticipated that the use of the cognitive term term "think", in the second question, might act as a clue to the student and elicit a response that referred to the mental state of the author in their answer.

The answers to these questions were scored as either "attitude stated" or "attitude not stated". A scoring criterion was developed by the researcher to score the students' written responses. Each response was evaluated on a "yes" or "no" basis by determining if the response indicated author's stance. Briefly, students' responses were scored as "yes", (attitude stated) if their statements included comments relevant to the emotional state or bias of the author. Examples of student responses that include this type of reference are "in the eyes of the author", "the author didn't like Hughes", "he was glad it happened" and "the author was offended".

Responses were scored as "no" (attitude not stated) if the statements given by the student described the event rather than the attitude of the author towards the event. Examples of student responses that include this type of reference are "the event was a step in the right direction", "the French Canadians shouldn't sign up because
they wouldn’t be treated fairly” and “it was good that Hughes was disposed of”. A second trained rater analyzed a random sample of 25% of the protocols. Cronbach’s Alpha was computed to measure the consistency of the scoring and an inter-rater reliability of .95 was obtained on response scores. After calculation of the reliability score all differences were resolved by discussion. The scoring criterion used is shown in Figure 7.
Scoring Criteria for Recognition of Stance

The following questions are to be scored on a YES or NO basis.

A
If YES to the following questions the subjects response is scored as “attitude stated”.

Does the subject’s response refer to the emotional state of the author?
   eg. "the author was glad".

Does the subject’s response refer to the feelings or attitudes of the author?
   eg. "the author was offended"
   "the author didn’t like Hughes"

Does the subject’s response refer to the author as biased?
   eg. "the author had a biased view of the war".

B
If YES to the following questions the subjects response is scored as “attitude not stated”.

Does the subject’s response describe the characters in the article rather than the author?
   eg. "the French Canadians shouldn’t sign up because they wouldn’t be treated fairly".

Does the subject’s response include affect terms that refer to the event rather than to the author’s emotional state?
   eg. "it was good that Hughes was disposed of".

Is the subject’s response limited to describing the event rather than the attitude of the author towards the event?
   eg. "the event was a step in the right direction".

NB. If subjects’ response includes Type A and Type B responses, the response is scored as “attitude stated".
3.4.3 Students’ competence with cognitive terms

After reading each account, a multiple choice task required students to select the best term out of four possible choices. For example, “The author __________ that if there were more bilingual posters, more French Canadians would enlist.”

a. asserts  b. concedes  c. implies*  d. proves.

Students were required to complete four statements relevant to each article (8 statements in total). A complete list of the statements by article is provided in Figure 8. The asterisk signifies the correct response.

Responses to the cognitive term statements were scored as either right or wrong. A total score for the cognitive term questions was computed for each student. In addition, subjects were assigned a pass or fail value based on their total score on the cognitive term test. As this test included eight statements that required students to select an appropriate term, a perfect score would be 8/8. A score of 4 correct answers was taken to represent a passing value and 3 or less as representative of a failing value.

The cognitive term statements were pilot tested by having doctoral students and experts in the field complete the questionnaire, choosing the term they deemed as most appropriate to complete the sentence.
### Cognitive Term Questions

#### QUESTIONS RE: THE TORONTO TIMES

1. The reporter who wrote this article ______________________ that the prime minister did not want to dismiss Hughes.
   a.) proves
c.) asserts  
b.) implies*
d.) knows

2. The author of the article tells us that Hughes has recruited thousands of volunteers and raised thousands of dollars. 
   This evidence is presented as ______________
   a.) an hypothesis  c.) an assertion*
b.) an inference  d.) a conclusion

3. The author writes that Hughes is an able, competent minister. This is:
   a.) evidence  c.) the truth  
b.) an inference*  d.) a conclusion

4. The author ______________________ that the prime minister has been pressured.
   a.) infers*
c.) gives evidence 
b.) proves  d.) states

#### QUESTIONS RE: THE MONTREAL MATIN

1. The author __________________ that Sam Hughes did not want to leave his position.
   a.) concedes  c.) proves
   b.) implies*  d.) asserts

2. The author __________________ that if there were more bilingual posters, more French Canadians would enlist.
   a.) asserts  c.) implies*
b.) concedes  d.) proves

3. The author writes that recruitment posters, training and instruction manuals are in English only. This information is:
   a.) an inference  c.) an assumption
   b.) an assertion*  d.) a hypothesis

4. The author __________________ that French Canadians did not join the war effort because of Hughes' policies.
   a.) concedes  c.) proves
   b.) infers*  d.) asserts
3.5 Summary

The current study was designed to assess adolescent performance on tasks related to the understanding of historical accounts. Subjects read two contradictory historical accounts and responded in writing to questions. The questionnaires were designed to assess understanding of evidence, recognition of authorial intention and competence in selecting appropriate cognitive terms. A summary of the primary variables is provided in Figure 9. The results of the statistical analyses are presented in Chapter IV.
### Figure 9

**Major Variables**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>How Measured</th>
<th>Scale of Measurement</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptability of Evidence Rating</td>
<td>1. Mean Factoid Statements 2. Mean Opinion Statements</td>
<td>Each statement scored on a scale from 1-5; mean score calculated for &quot;factoids&quot; and &quot;opinions&quot;.</td>
<td>To assess students’ evaluation of different types of evidence.</td>
</tr>
<tr>
<td>Student Generated Evidence</td>
<td>Protocol Analysis</td>
<td>Responses scored as Factoid, Opinion, Both, or None.</td>
<td>To assess the type of evidence noticed.</td>
</tr>
<tr>
<td>Recognition of Stance</td>
<td>Protocol analysis of students’ responses to two questions:</td>
<td>Students’ responses scored:</td>
<td>To assess students’ recognition of the author ‘behind’ the text.</td>
</tr>
<tr>
<td></td>
<td>“Why did the author write this...”</td>
<td>Yes - Attitude stated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“What did the author think ....”</td>
<td>or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to determine if the student referred to the attitude or belief</td>
<td>No - Attitude not stated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the author in the response.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Score obtained for Montreal and Toronto account.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence with Cognitive Terms</td>
<td>Score based on responses to 8 multiple choice questions.</td>
<td>Total possible score of 8. Students were assigned a pass or fail mark (&lt;4=fail) and a total score.</td>
<td>To assess students’ ability to select the best term to denote the type of statement, eg inference vs assertion)</td>
</tr>
<tr>
<td>Grade</td>
<td>Student grade level</td>
<td>Grade 9, Grade 13, College.</td>
<td>To assess developmental variation.</td>
</tr>
</tbody>
</table>
CHAPTER IV

RESULTS

4.1 Overview

This study investigated how recognition of the communicative intention of the author is related to students’ understanding of conflicting accounts of an historical event. Communicative intention refers to the author’s audience-directed intention, specifically, the message that the author directs towards the reader. This message is transmitted by the propositional content of the text and the stance of the author towards the text. The propositional content refers to the direct or literal message contained in the words and structure of the text. The stance of the author refers to the author’s attitudes, feelings or judgments towards the propositional content.

In this study the recognition of communicative intention was evaluated by assessing students’ ability to detect and comment on the attitude of the author towards the text. Historical understanding was evaluated by students’ ability to choose appropriate evidence in support of the author’s claim and by their ability to rate qualitatively different types of evidence in these accounts. These abilities were related to students’ competence with metacognitive terms.

In this chapter, the results of each hypothesis will be presented and the findings described within three categories: 1. Evaluation of Evidence, 2. Recognition of Stance, 3. Performance on Cognitive Term Task. Evaluation was based on students’ written responses to questions about two conflicting descriptions of an event in Canadian history.
4.2 Hypothesis 1 and 2: Evaluation of evidence

Students' ability to evaluate evidence presented in historical text was assessed in three tasks. In the first task, students rated the acceptability of statements presented as evidence. The statements were either based on direct appeal to verifiable evidence, “Factoids”, or based on an inference from or interpretation of source evidence, “Opinions”. Students rated each statement along a continuum from 1 to 5 as representing least acceptable (1) to most acceptable (5) evidence.

The first hypothesis predicted that adolescents would be able to differentiate between the two types of evidence presented and would rate statements based on direct appeal to verifiable evidence (“Factoids”) as more acceptable than statements based on inference from or interpretation of source evidence (“Opinions”). The second hypothesis predicted a developmental progression in the ability to discriminate between “Factoids” and “Opinions” with students in higher grades being more likely to rate “Opinions” unacceptable as evidence.

A repeated measures analysis of variance was performed with two repeated factors of city and evidence type and the grouping factor of grade. The city factor contrasted the Montreal and Toronto articles. The evidence type contrasted the mean rating of the item sets of “Opinions” and “Factoids”. The grade grouping contrasted Grade 9, Grade 13 (OAC) and College ratings.

The first hypothesis was supported by the statistical analysis. A comparison of students' mean acceptability rating of “Factoids” and “Opinions” (the evidence factor) showed a statistically significant difference, F(1,89, n=92) =131.66 p <.001. As shown in Figure 10 the mean ratings for “Factoids” are higher than the mean ratings for
“Opinions” across all grade levels. Students’ mean ratings by grade, city and evidence type are depicted graphically in Figure 10.

Note that the mean ratings of both “Factoids” and “Opinions” are higher for the Toronto account that for the Montreal account. A comparison between the Toronto and the Montreal article showed that the city effect was significant $F(1,89) = 8.96, p < .01$, indicating that the source of the account influenced the students’ acceptability rating.

The three-way interaction of grade by city by evidence type was significant: $F(2,89) = 5.22 = p < .01$. Figure 10 shows how the increase in the difference between “Opinion” ratings from Grade 9 to Grade 13 and College is larger for the Montreal account than for the Toronto account.

In addition, the separation between the mean rating for “Factoids” and “Opinions” varies with grade level and account. Note that the difference between the means of “Factoids” and “Opinions” is greater for the Montreal account than for the Toronto account. This indicates that for the Toronto account students differentiated less between “Factoids” and “Opinions” and there was no developmental variation.

For the Montreal account there was a developmental variation in the discrimination between “Factoids” and “Opinions”. As shown in Table 1, the difference between the mean rating of “Factoids” and “Opinions” in the Montreal account is greatest at the Grade 13 level (mean Factoids=3.9, mean Opinions=2.5, difference =1.4) followed by the College students (mean Factoids=4.0, mean Opinions=2.7, difference=1.3). Grade13 and College students differentiated the most between “Factoids” and “Opinions” in the Montreal account; grade 9 students showed the least ability to discriminate between Factoids (mean 3.8) and and “Opinions” (mean 3.2) in the Montreal account.
Figure 10
Mean Acceptability Ratings of Evidence Statements by Grade, City and Evidence Type

Note.
Exact means are shown in Table 1.
It should also be noted that the mean acceptability rating for “Opinions” across grades and in both accounts was greater than 2.5 on the 5 point scale indicating that most students accepted statements based on opinion as reasonably acceptable evidence. The exact means by grade, city and evidence type are reported in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Grade</th>
<th>Opinions</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Montreal Account</td>
<td>SD</td>
<td>Toronto Account</td>
<td>SD</td>
<td>Montreal Account</td>
<td>SD</td>
<td>Toronto Account</td>
<td>SD</td>
</tr>
<tr>
<td>9</td>
<td>3.2</td>
<td>.79</td>
<td>3.3</td>
<td>.62</td>
<td>3.8</td>
<td>1.1</td>
<td>4.2</td>
<td>.68</td>
</tr>
<tr>
<td>13</td>
<td>2.5</td>
<td>.85</td>
<td>3.0</td>
<td>.94</td>
<td>3.9</td>
<td>.98</td>
<td>4.0</td>
<td>.84</td>
</tr>
<tr>
<td>College</td>
<td>2.7</td>
<td>.90</td>
<td>3.2</td>
<td>1.0</td>
<td>4.0</td>
<td>1.1</td>
<td>4.1</td>
<td>.72</td>
</tr>
</tbody>
</table>

The main effect for grade was not significant. Two way interactions between grade and city, between grade and evidence type and between city and evidence type were not significant.

A simple effects analysis was used to follow up the 3-way ANOVA. An anova was used, rather than a post-hoc comparison, to test the prediction that there would be a developmental improvement in the mean ratings of students in higher grades for the opinion based statements. As a simple effects analysis one-way ANOVA’s by grade were performed on the four item sets (Montreal Matin “Opinions” and
“Factoids”; Toronto Times “Opinions” and “Factoids”). As shown in Table 1, students across grades identified “Factoids” as acceptable evidence in both accounts. There was not a significant city or grade effect for the “Factoids”. However, note that across grades “Factoids” are slightly less acceptable in the Montreal account (Montreal mean 3.8, 3.9, 4.0) than “Factoids” presented in the Toronto account (Toronto mean, 4.2, 4.0, 4.1).

Significant differences by grade were found only for the “Opinion” item set for the Montreal Matin. As shown in Table 1, for the Toronto Times account, there was no significant difference in the rating of “Opinions” between Grade 9, Grade 13 and College students (mean 3.3, 3.0, 3.2). All groups rated the statements as moderately acceptable. In contrast, for the Montreal Matin account, there was a statistically significant difference, with older students rating “Opinions” as less acceptable evidence than Grade 9 students (Grade 13 mean 2.5, SD = .85; College mean 2.7, SD = .90; Grade 9 mean 3.2, SD = .79, F(2,89) = 6.05, p<.01). This indicated that older students tended to be less accepting of statements with weak evidential warrant in the Montreal account while accepting of statements with low evidential warrant in the Toronto account.

The statements that comprised the “Opinion” item sets for each account are shown in Figure 11. Mean acceptability ratings for each statement by grade are shown for each statement. A separate ANOVA by grade was performed for the statement “The English start wars and want the French to finish them” as this was the only statement to receive a mean rating of less than 2.5 in any grade. While Grade 9 students appeared to accept this statement as acceptable evidence, as shown by the mean rating of 3.04, Grade 13 and College students were less likely to rate this statement as acceptable evidence, as shown by
the mean ratings of 2.04 and 1.76. This difference in means was statistically significant $F(2,89) = 12.42, p<.001$, indicating that students in higher grades were significantly less willing to accept this opinion based statement as evidence.

Figure 11

<table>
<thead>
<tr>
<th>Mean Acceptability Ratings of “Opinions” by grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Montreal Matin</strong></td>
</tr>
<tr>
<td>Hughes antagonized everyone in Quebec who volunteered.</td>
</tr>
<tr>
<td>Hughes is no longer able to damage Canada.</td>
</tr>
<tr>
<td>Hughes more than any other person has divided the country.</td>
</tr>
<tr>
<td>The English start wars and want the French to finish them.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Toronto Times</strong></td>
</tr>
<tr>
<td>Hughes has done more for the war effort than any other Canadian.</td>
</tr>
<tr>
<td>His tireless energy has been inspiring to many.</td>
</tr>
<tr>
<td>He has a lot of leadership qualities.</td>
</tr>
<tr>
<td>The prime minister is bending to howls of criticism.</td>
</tr>
</tbody>
</table>
4.2.1 Student generated evidence

The second measure of students' ability to recognize and evaluate evidence was assessed by students' written response to the question:

"On what evidence did the author base his view that Hughes' dismissal was justified?"

Students' responses were coded, as described in Chapter III, and a statistical analysis of the scores was performed to test for frequency of responses and association of type of responses given in each account.

A frequency tabulation of evidence type chosen by grade showed that for the Toronto account, in all grades, most students chose "Factoids" as evidence, for example "The army increased to 200,000". In contrast, for the Montreal account, students in all grades gave more "Opinions" as evidence, for example "Hughes stole from the tax payers to make his friends rich". Grade 13 students gave mainly "Opinions" or a combination of "Opinions" and "Factoids" for the Montreal account as shown in Table 2.
Table 2
Evidence Type Given by Student for Toronto & Montreal Account by Grade

Cells represent number of students in each category.

<table>
<thead>
<tr>
<th>Evidence Type</th>
<th>Grade 9 (n=25)</th>
<th>Grade 13 (n=42)</th>
<th>College (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Toronto</td>
<td>Montreal</td>
<td>Toronto</td>
</tr>
<tr>
<td>Opinion</td>
<td>7</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Factoid</td>
<td>11</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>Both</td>
<td>2</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

As shown in Table 3, from the sample of 92 students, only 11 gave "Opinions" for both reports and only 10 gave "Factoids" for both reports. Note that the most frequent combination for the two accounts was "Factoids" for the Toronto account and both "Factoids" and "Opinions" for the Montreal account. Cohen's Kappa statistic was used to examine the consistency of subjects' choice of type of evidence across the two accounts. Cohen's Kappa of .09 confirmed that there was minimal association between the types of statements given by students as evidence for the Montreal and Toronto reports.
Table 3

Evidence Type Given by Student for Toronto and Montreal Account
Cells represent number of students in each category. (n=92)

<table>
<thead>
<tr>
<th>Montreal Report</th>
<th>Opinions</th>
<th>Factoids</th>
<th>Both</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinions</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Factoids</td>
<td>5</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Both</td>
<td>2</td>
<td>21</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

n=92 Cohen’s Kappa .09

To summarize, a statistical analysis of the data comparing the type of evidence statements given by students for each account, showed that although both accounts were comparable in the number of "Factoids" and "Opinions" they contained, there was minimal association between the type of evidence statements that students gave as supportive evidence in the Toronto and the Montreal accounts of the event.

4.2.2 Forced choice of evidence

Students’ ability to categorize statements as “a fact presented in the article” or “a claim presented in the article” when presented with a forced choice was assessed. Most students correctly categorized “Opinions” as claims, with a mean score of 4.8 on the six high inference statements. As well, most students correctly categorized
"Factoids" as facts, with a mean score of 1.7 on the two low inference statements. There was no grade effect as shown in Table 4. The results of this analysis suggested that most students are able to categorize statements as based on inference or warranted by fact when presented with a distinct choice.

Table 4

Mean Score by Grade for Forced Choice Categorization of Statements as “facts” or “claims”.

<table>
<thead>
<tr>
<th>Grade</th>
<th>n</th>
<th>Mean Fact Score</th>
<th>SD</th>
<th>Mean Claim Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>25</td>
<td>1.76</td>
<td>.43</td>
<td>4.82</td>
<td>1.4</td>
</tr>
<tr>
<td>13</td>
<td>42</td>
<td>1.73</td>
<td>.49</td>
<td>5.12</td>
<td>1.0</td>
</tr>
<tr>
<td>College</td>
<td>25</td>
<td>1.56</td>
<td>.65</td>
<td>4.66</td>
<td>1.0</td>
</tr>
</tbody>
</table>

4.3 Hypothesis 3: Recognition of stance

Hypothesis 3 stated that there would be a developmental progression in students’ ability to recognize the stance or attitude of the author towards the text. To evaluate recognition of authorial attitude or stance, students gave a written response to the following questions:

Question 1: “Why did the author write this article?” and Question 2: “What did the author think about this event?” It was anticipated that the use of the cognitive term term “think”, in the second question, might act as a clue to the student and elicit a
response that referred to the mental state of the author in their answer. I will first report the overall pattern of stance recognition in the two accounts and then the developmental pattern.

A frequency tabulation, as shown in Table 5, compared students' recognition of the attitude of the author in their responses to the two questions. A McNemar test was used to compare the distribution of responses across the two related variables of stance recognition in the Toronto Times and stance recognition in the Montreal Matin. The difference was statistically significant for question 1, \( \chi^2 (1, n=92) = 8.5, p <.01 \). The difference was not significant for question 2.

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Stance Toronto Times</th>
<th>Stance Montreal Matin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stated</td>
<td>Not Stated</td>
</tr>
<tr>
<td></td>
<td>Stated</td>
<td>Not stated</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 2</th>
<th>Stance Toronto Times</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stated</td>
</tr>
<tr>
<td></td>
<td>Stated</td>
</tr>
<tr>
<td></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>
A frequency tabulation by grade and city, presented in Table 6, shows that most Grade 9 students did not mention the attitude of the author in their responses to either article or to either question. Grade 13 students were more likely than Grade 9 students to state the attitude of the author in their responses to the Montreal article; College students were the most likely group to state the attitude of the author. This difference was statistically significant for the first question in the Montreal account, Mantel-Haenzel test for linear association \((1, n=92) = 11.40, p < .01\). A similar pattern by grade occurred in the Toronto article but was not statistically significant. College students were more likely than Grade 9 or Grade 13 students to state the attitude of the author; Grade 9 and Grade 13 students performed about the same.

As shown in Table 6, a different pattern of response was noted between the Toronto and the Montreal accounts when comparing responses to question 1 and 2. As noted, in the Montreal account, a statistically significant increase in the number of subjects who stated the attitude of the author across grades was seen in question 1 with students in Grade 13 and College more likely to state the attitude of the author in their responses. In question 2, for the Montreal account, the linear association was not significant, as students in Grade 9 and 13 performed at about the same level. For the Toronto account, the linear association was significant in question 2, Mantel-Haenzel test for linear association \((1, n=92) = 8.39, p < .01\). However, when frequencies of responses are compared with question 1 (see Table 6) the statistically significant linear progression appears to have occurred because the students in the younger grades were less likely to recognize the stance in question 2, rather than the older students improving in their performance in question 2.
Table 6

Recognition of Attitude of Author by Grade
(shown in percentages of subjects)

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Montreal Matin</th>
<th>Toronto Times</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stated</td>
<td>Did not state</td>
</tr>
<tr>
<td>Grade 9</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Grade 13</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>College</td>
<td>72%</td>
<td>28%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 9</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>Grade 13</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>College</td>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

In summary, a different pattern of response to the two articles was apparent. Students tended not to refer to the attitude of the author in their responses to the Toronto account. For the Montreal account, a developmental pattern was noted with students in higher grades more likely to indicate a recognition of stance of the author in the first question “Why did the author write this article?”.

4.4 Hypothesis 4: Recognition of attitude of the author and the evaluation of evidence

Hypothesis 4 predicted that the students' recognition of authorial attitude would be related to their rejection of “Opinions” as evidence. It was predicted that students who recognized the authorial attitude would rate “Opinions” as unacceptable.
A point biserial correlation was computed to describe the strength of the associations between the variables of stance recognition (dichotomous) and mean evidence ratings in both accounts. Table 7 shows the matrix of correlations. Note that for both accounts recognition of the stance of the author in question number 1, “Why did the author write this article?”, was negatively correlated with the mean evidence ratings, indicating that if students recognized the stance of the author, high inference evidence statements were rated as less acceptable as evidence. Recognition of stance in question 1 for the Montreal was significantly correlated with the Toronto Times mean evidence rating ($r (n=92,1,89) = -.20, p < .01$) and the Montreal Matin mean evidence rating ($r (n=92,1,89) = -.24, p < .01$). Recognition of stance in the Toronto Times account was negatively correlated with the mean evidence ratings but was not statistically significant.

In addition, recognition of the stance of the author in question 1 of the Montreal account was significantly correlated with recognition of the stance of the author in question 1 of the Toronto account. Also, recognition of the stance of the author in question 2 of the Montreal account was significantly correlated with recognition of the stance of the author in question 2 of the Toronto account.

Recognition of the stance of the author in the second question “What did the author think about this event?”, was negatively correlated with the mean evidence ratings in both accounts but was not statistically significant. It seems that if students had referred to the stance of the author in question 1 they did not repeat themselves in question 2, as shown by the lack of correlation between questions 1 and 2 within each article.
Table 7

Intercorrelations Among the Primary Variables of Stance and Mean Evidence Ratings of High Inference Statements

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mean Evidence Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toronto Times High Inference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mean Evidence Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montreal Matin High Inference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Stance Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montreal Matin Question #1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Stance Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montreal Matin Question #2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Stance Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toronto Times Question #1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Stance Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toronto Times Question #2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.**

Mean rating of high inference statements in Toronto Times correlated with mean rating of high inference statements in the Montreal Matin, p < .001

Stance recognition in Toronto Times correlated with stance recognition in Montreal Matin for Question 1 and Question 2, p < .01

Stance recognition in Montreal Matin question 1 negatively correlated with rating of high inference evidence statements in Toronto and Montreal accounts (if recognized stance, high inference statements rated as less acceptable)

* p < .01 **p < .001.
To further evaluate the relationship between students’ recognition of authorial stance and acceptability ratings of “Opinions” a t-test was used to compare the mean acceptability ratings of students who stated the stance of the author and students who did not state the stance of the author in their responses to the first question in both accounts, “Why did the author write this article?”

For the Toronto account, most subjects did not state the stance of the author in their responses (stated n=29, not stated n=63). If the stance was stated by the student, the mean acceptability rating of evidence statements was lower but the relationship between the two variables was not significant. The lack of significance may be due to the relatively small number of students who recognized stance in the Toronto account (n=29).

For the Montreal account, question 1, approximately 50% of subjects stated the author’s stance in their responses (stated n=47, not stated n=45). Recognition of stance of the author in the responses to this question was related to the tendency to rate statements based on inference as unacceptable evidence in both the Montreal account and the Toronto account. The mean rating of “Opinions” for the Montreal account by students who stated the attitude of the author in the Montreal account, question 1, was 2.5 (n=47, SD .97) compared to a mean of 3.0 by students who did not state the attitude of the author (n=45, SD .76), t(90) = 3.7, p <.05. The mean rating of “Opinions” for the Toronto account by students who stated the attitude of the author in the Montreal account, question 1, was 2.9 (n=47, SD .92) compared to a mean of 3.3 by students who did not state the attitude of the author (n=45, SD .82), t(90) = 2.7, p <.05. Note, in Figure 12, that students who stated the stance of the author in the Montreal account, question 1 rated “Opinions” as less acceptable evidence in both accounts.
Figure 12

Mean Acceptability Ratings of "Opinions" by City and by Students' Recognition of the Stance/Attitude of the Author in the Montreal Account, Question 1.
Pearson’s correlation coefficient was calculated to compare the composite score of the mean acceptability ratings of “Opinions” from both the Montreal Matin and Toronto Times with the composite stance score of recognition of stance in questions one and two from both accounts. The composite scores were significantly correlated, \( r (n=92, 3,89) = -.25, p < .01 \), indicating that the mean acceptability ratings of statements in both accounts was lower if the attitude of the author had been stated in the students’ responses. The lower mean indicates that the “Opinions” were less likely to be accepted as evidence when the attitude of the author was recognized by the reader.

4.5 Hypothesis 5: Performance on cognitive term test

Hypothesis 5 predicted that there would be a developmental progression in students’ ability to identify the most appropriate cognitive term to use in completing statements related to the specific historical readings.

A composite score for the 8 questions was calculated for each student and mean scores were compared by grade level. As shown in Table 8, a developmental pattern was observed with students in higher grades showing greater competence on the cognitive term test. This difference was statistically significant \( F(2,82) = 3.8 \ p < .05 \).
Students’ patterns of responses to each word were compared by grade. The pattern of responses for each account and term is presented in Table 9. As shown in Table 9 the variation in competence across the terms is considerable. For example, the term “assertion” appears to be difficult for students at all grade levels. Most students do not choose this term correctly, with only 28-44% of students giving correct responses on the Toronto item. In contrast, the term “implies” is correctly identified by most students at all three grade levels, with 64-80% of students choosing the term correctly for the Toronto item. However, there is little increase in competence across grades, indicating that although significant overall (Table 8) there is little developmental improvement in the correct selection of specific cognitive terms. In summary, Hypothesis 5, predicting that there would be a developmental progression in students’ ability to identify the most appropriate cognitive term, is supported in the overall test score, but
not for specific terms. The only significant linear association for a specific item is noted for the term "inference"; students in higher grades performed significantly better than students in lower grades (Mantel-Haenszel test for linear association (1) = 5.07, \( p < .05 \)).

Table 9

Percentages of students who correctly selected cognitive terms, shown by grade, term and account

<table>
<thead>
<tr>
<th>Grade</th>
<th>Term/Account</th>
<th>9</th>
<th>13</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assertion-Montreal</td>
<td>40%</td>
<td>45%</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Assertion-Toronto</td>
<td>28%</td>
<td>38%</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Implies-Montreal-1</td>
<td>68%</td>
<td>69%</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Implies Montreal-2</td>
<td>52%</td>
<td>58%</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>Implies-Toronto</td>
<td>64%</td>
<td>71%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Infers-Montreal</td>
<td>44%</td>
<td>40%</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>Inference-Toronto</td>
<td>32%</td>
<td>47%</td>
<td>65%</td>
</tr>
<tr>
<td></td>
<td>Infers-Toronto</td>
<td>24%</td>
<td>28%</td>
<td>35%</td>
</tr>
</tbody>
</table>

4.6 Hypothesis 6: Relationship between performance on cognitive terms and acceptability ratings of evidence

Hypothesis 6 predicted that performance on cognitive terms would be related to the acceptability ratings of "Opinions". This hypothesis was supported. A partial correlation coefficient was computed, controlling for grade, to describe the strength of the associations between the variables of the cognitive term score and the
overall mean evidence ratings in both accounts. The cognitive term score was negatively correlated with the mean evidence rating (r = -0.20, p < 0.05). That is, students who scored higher on the cognitive term test rated "Opinions" as less acceptable as evidence.

To further evaluate the association between the understanding of cognitive terms and the mean acceptability rating of "Opinions" a second analysis was performed using a pass/fail criterion on the cognitive term test. This gave a larger number of subjects in each category for analysis and also allowed a comparison of the performance on the mean acceptability judgments obtained by students who passed or failed the cognitive term test.

Subjects were assigned a pass or fail value based on their composite score on the cognitive term test. As this test included eight statements that required students to select an appropriate term; a perfect score would be 8/8. A score of 4 correct answers was taken to represent a passing value and 3 or less as representative of a failing value. A t-test was computed to compare the mean acceptability judgments of "Opinions" dependant upon passing or failing the cognitive term test.

As shown in Table 10, subjects who failed the cognitive term test were more likely to accept the "Opinions" as evidence in both accounts while subjects who scored a passing mark on the cognitive term test rated "Opinions" as less acceptable as evidence. This finding suggests that subjects who choose appropriate cognitive terms to represent assertions or inferences are more discriminating in their evaluation of high inference/low evidence claims. Although a passing score on the cognitive term test correlated with a lower mean acceptability rating for both the Toronto and the Montreal account, the
difference was statistically significant only for the Montreal account, $t(82) = 2.3, p<.05$. This may be due to the fact that students generally rated statements from the Toronto account as more acceptable as evidence.

### Table 10

<table>
<thead>
<tr>
<th>Score</th>
<th>Mean Evidence Rating Toronto Times</th>
<th>Mean Evidence Rating Montreal Matin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail &lt;4 n=35</td>
<td>3.3</td>
<td>2.97</td>
</tr>
<tr>
<td>Pass ≥4 n=50</td>
<td>2.98</td>
<td>2.53</td>
</tr>
</tbody>
</table>

#### 4.7 A Comparison of Toronto Times and Montreal Matin accounts

Students' somewhat different responses to the Toronto and Montreal accounts raised some further questions about the content of the accounts. Although the accounts were designed to be balanced in that they contained an equivalent number of high and low inference statements, a further analysis of the text was performed to determine if the use of linguistic devices to signal the stance or attitudes and beliefs of the author was equivalent in each account. The two accounts were found to be very similar in the number of descriptive adjectives, adverbs and nouns (see Figure 13). However, when the terms were classified, according to Biber’s classification of positive and negative affect terms (Biber and Finegan, 1989), the Montreal article contained
more negative affect terms whereas the Toronto article contained more positive affect terms (see Figure 14). Perhaps this variation in the type of affect terms used in each account is a reflection of the textbook author's bias.
Figure 13

Comparison of Montreal Matin and Toronto Times Articles

<table>
<thead>
<tr>
<th>Montreal Matin</th>
<th>Toronto Times</th>
</tr>
</thead>
<tbody>
<tr>
<td># of words</td>
<td>193</td>
</tr>
<tr>
<td># of lines</td>
<td>19</td>
</tr>
<tr>
<td># of paragraphs</td>
<td>5</td>
</tr>
</tbody>
</table>

**Descriptive Adjectives MM (10)**

- long (last)
- honourable (thing)
- incompetent (minister)
- more (damage)
- shady (deals)
- precious (French-Canadian blood)
- this (country)
- his (policies)
- munitions (contracts)
- English speaking (officers)

**Descriptive Adjectives TT (11)**

- sad (news)
- able (minister)
- competent (minister)
- timeless (energy)
- inspired (leadership)
- noble (sons)
- overseas (service)
- reluctant (industrialists)
- English (war)
- needed (war materials)
- vital (munitions)

**Descriptive Adverbs MM (1)**

- poorly (treated)

**Descriptive Adverbs TT (1)**

- heavily (invest)

**Descriptive Verbs MM (13)**

- thrown
- divided
- torn
- antagonize
- volunteered
- insulted
- treated
- disgraced
- rewarding
- allowed
- sacrifice
- started
- finish

**Descriptive Verbs TT (13)**

- announced
- bending
- recruited
- raised
- entered
- taken
- angered
- volunteer
- willing
- persuaded
- invest
- negotiated
- making
Comparison of Affect Terms Used in the Toronto Times and Montreal Matin Account

Description of Biber's Major Stance Categories

Biber described expressions of the author's own feelings, ie “direct and explicit expression of the author's attitude” and did not investigate secondary expressions of stance” (Biber p. 97), that is, descriptive rather than directly expressive markers of the author's own feeling.
In this comparison of the articles used in my study, I am referring to “secondary expressions of stance”, ie, indirect expressions of author's feelings. There were no direct expressive markers of the author's own feelings.

Montreal Matin Affect Terms (total 14, 4 positive, 10 negative)

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>honourable (thing)</td>
<td>incompetent (minister)</td>
</tr>
<tr>
<td>precious (blood)</td>
<td>shady (deals)</td>
</tr>
<tr>
<td>rewarding</td>
<td>poorly (treated)</td>
</tr>
<tr>
<td>allowed</td>
<td>thrown</td>
</tr>
<tr>
<td></td>
<td>divided</td>
</tr>
<tr>
<td></td>
<td>torn</td>
</tr>
<tr>
<td></td>
<td>antagonize</td>
</tr>
<tr>
<td></td>
<td>insulted</td>
</tr>
<tr>
<td></td>
<td>disgraced</td>
</tr>
<tr>
<td></td>
<td>sacrifice</td>
</tr>
</tbody>
</table>

Toronto Times Affect Terms (total 15, positive 10, negative 5)

<table>
<thead>
<tr>
<th>able (minister)</th>
<th>sad (news)</th>
</tr>
</thead>
<tbody>
<tr>
<td>competent (minister)</td>
<td>tireless (energy)</td>
</tr>
<tr>
<td>noble (sons)</td>
<td>reluctant (industrialists)</td>
</tr>
<tr>
<td>inspired (leadership)</td>
<td></td>
</tr>
<tr>
<td>needed (war materials)</td>
<td></td>
</tr>
<tr>
<td>vital (munitions)</td>
<td></td>
</tr>
<tr>
<td>raised</td>
<td>bending</td>
</tr>
<tr>
<td>willing</td>
<td>angered</td>
</tr>
<tr>
<td>persuaded</td>
<td></td>
</tr>
</tbody>
</table>
4.8 Summary

The statistical analysis of the data showed that students appeared to reason differently in their responses to two opposing accounts of an historical event. Students tended to be more inclined to disregard the potential for bias in the account written from the English Canadian perspective as shown by their acceptability ratings of evidence statements. A comparison of the two accounts showed that the accounts were generally comparable in the number of linguistic devices that signalled the attitude of the author towards the text. Variation in the ability to evaluate the quality of the evidence statements correlated with students’ recognition of the stance or attitude of the author towards the text and their competence with metalinguistic terms. The implications of these findings will be discussed in the next chapter.
CHAPTER V

GENERAL DISCUSSION

5.1 Introduction

In this exploratory study of developmental changes in adolescents' understanding of historical accounts, research on intentional states and communicative intention was linked with issues of textual interpretation. Much of the prior research on children's understanding of history has focused on qualitative methods of analysis such as classroom observations and descriptive information. In the current study, an empirical analysis of developmental changes in historical understanding was conducted using the experimental method and quantitative methods of data analysis. These developmental changes were explored by evaluating associations between students' metalinguistic awareness and their historical understanding. Metalinguistic awareness was measured by students' competence in recognizing and evaluating text based assertions. Historical understanding was assessed by students' competence in the evaluation of evidence and their recognition of authorial intention in historical accounts.

This chapter will summarize the findings of this exploratory research and describe the inter-relationships between the understanding of evidence presented in historical accounts, authorial intention and metalinguistic awareness. These concepts are central to historical understanding and relevant to educational practice in the history curriculum. The results of this study suggest that students who recognize the author "behind" the text are more likely to detect
the rhetorical properties of the text as shown by their ability to discriminate between statements based on opinion and statements warranted by evidence.

The findings of this study will be discussed and related to speech act theory and research on literacy and cognition. In addition, the educational implications of these findings will be discussed in this chapter.

This study is one of the first to approach the domain of historical understanding by considering how speech act theory may be related to the recognition of authorial intention in texts. To clarify the vocabulary used in defining the concepts addressed, a glossary of terms is provided in Appendix C. This research is exploratory and the small but significant findings suggesting a connection between metalinguistic awareness and historical understanding should be considered as tentative. However, some of the relationships may have been attenuated because of low reliability due to the tasks containing only a few items. This study may serve as a prototype for future research using similar methodology. The findings show that a quantitative method of research design and analysis is well suited to evaluate aspects of students' historical understanding. The methodological issues and limitations of the study will be noted and suggestions for future research will be offered.

5.2 Evaluation of Evidence

Hypothesis 1 and 2 stated that students would be able to differentiate between different types of statements presented as evidence. It was predicted that students would rate "Factoids"
(factually based evidence) as more acceptable than “Opinions” (statements premised on opinions). It was hypothesized that there would be a developmental progression in the ability to distinguish between these two types of evidence, with students in higher grades rating high inference statements, “Opinions”, less acceptable as evidence than statements warranted by facts, “Factoids”.

Recall that two scales were used to evaluate readers’ reactions to the statements presented, an opinion scale, completed by experts, and an acceptability scale, completed by students. Statements based on opinion, without reference to supporting facts, received high ratings from experts on the opinion scale. If a statement is noted as being based on opinion, the corresponding acceptability rating should be low, indicating that the reader has recognized the statement as an unwarranted inference. Therefore, statements rated by experts as strongly opinionated (high score) should correspond with a low acceptability ratings (low score). For example, consider the statement, “Hughes antagonized everyone in Quebec who volunteered”. When experts assessed this statement, it rated a high score on the opinion scale, as shown by a mean opinion rating of 4.3 on the 5 point scale. However, most students rated this opinion based statement as acceptable evidence. The mean acceptability rating for this statement by Grade 9 students was 3.7 on the 5 point scale, indicating that they accepted this statement with a surprisingly high level of acceptance. Grade 13 and College students rated the statement lower than the Grade 9 students, with a mean rating of 2.8 for both groups, but still gave the statement a ‘passable’ rating as evidence on the 5 point scale.

The only statement that most older students rated as unacceptable was the following: “The English start wars and want the French finish them.” Experts, or course, rated this statement as a 1 on
the acceptability rating scale and 4.7 on the opinion rating scale. Grade 13 and College students considered this statement as unacceptable, as shown by their respective mean ratings of 2.0 and 1.8. However, the mean rating for this statement from Grade 9 students was 3.04, indicating a surprisingly high level of acceptance for this opinion based statement.

Students clearly demonstrated the ability to differentiate between the different types of evidence statements. Statements that were rated by experts as acceptable evidence ("Factoids") were also rated as more acceptable by students than statements considered by experts as "Opinions" (that is, unacceptable evidence). Students were also able to correctly categorize statements based on warranted evidence as "factual" and opinion based evidence as a "claim" when presented with a forced choice. However, even though students succeeded in distinguishing between good and poor evidence, when confronted with a clear choice, most students rated the majority of the statements presented as reasonably acceptable evidence as shown by mean ratings for most statements of over 2.5 on a 5 point scale of acceptability. Students were clearly reluctant to classify any statement as completely unacceptable.

The source of the account was one variable that influenced the acceptability ratings of statements. The importance of the source of the account on students’ evaluation of high inference statements was an unexpected finding. One account presented an English-Canadian version of the event, the other account presented a French-Canadian version of the event. Although the broader issue of French-English differences is a contemporary Canadian issue, the specific controversial event described in the accounts took place in 1916 and as such, is not a contemporary topic.
For the Montreal account, a statistically significant developmental pattern showed that students in higher grades rated the "Opinions" as less acceptable than the Grade 9 students for the Montreal report. In contrast, for the Toronto report, although the developmental pattern was the same, students did not improve significantly in their willingness to rate "Opinions" as unacceptable evidence. For example, consider the following statement based on the Toronto account: "The prime minister is bending to howls of criticism." This statement was rated by experts as highly opinionated (mean opinion rating 4.3). To successfully appraise this statement, the student needed to recognize the statement as one based on inference rather than on verifiable, factually based warrant. Yet, most students rated this as passable as evidence with mean ratings in all grades over 2.5. Interestingly, Grade 9 and College students performed the same on this task (mean rating 3.0) while the academically streamed Grade 13 students were less willing to accept "Opinions" as evidence (mean rating 2.5). This suggests that the Grade 13, university bound students were more adept and recognizing and evaluating text-based inferences presented as assertions than were the younger Grade 9 students or the older College students.

Even when asked to generate their own examples of evidence presented by the author in each account, students appeared to reason differently about the two accounts. There was minimal association between the types of statements given as evidence for each account. For the Toronto account, most students gave "Factoids", statements warranted by source based evidence, such as: "The army increased to 200,000". For the Montreal account, "Opinions" such as: "Hughes stole from the tax payers to make his friends rich" were more prevalent.

The source of the account also significantly influenced students'
recognition of stance/attitude and beliefs of the author. Possible reasons why the source of the account influenced the evidence acceptability ratings and recognition of stance will be suggested after the discussion of the hypotheses related to stance recognition.

5.3 Recognition of Stance

Hypothesis 3 predicted that there would be a developmental progression in students' recognition of stance, with students in higher grades more likely to refer to the attitude of the author in their responses. It will be recalled from Wineburg's study (1994), that the skilled readers (historians) made inferences by recreating the author of the text, allowing the reader to infer the intention of the author and recognize possible bias toward the material presented. The same pattern was seen in this study. For example, some students referred to the author personally using statements such as "in the eyes of the author", "the author didn't like Hughes" or "the author was offended", this type of statement makes reference to the author's attitude or stance towards the information. Other students tended to give comments that remained textually based, referring to the event or participants in the event, for example "the event was a step in the right direction" or "the French Canadians shouldn't sign up".

The statistical analysis of the data showed a different pattern in students' recognition of the author's attitude for the Toronto and the Montreal accounts. Notice in Figure 15 that students were more likely to refer to the attitude of the author in the Montreal account. As well, students in higher grades were more likely than Grade 9 students to state the attitude of the author in their responses to the Montreal article. The developmental pattern was the same for the Toronto
article, with students in higher grades more likely to state the attitude of the author in their responses. However, the difference across grades was not statistically significant in the Toronto account.

It appears that, although the event described in the accounts was not a contemporary issue, prior belief bias may have influenced some students’ ability to recognize the stance of the author. More students referred to the author’s stance for the Montreal account suggesting that a stance that conflicts with the reader’s preconceived notions may be more salient. Figure 15 summarizes how the source of the account influenced both the tendency to refer to the stance of the author and the acceptability ratings of evidence statements.

Hypothesis 4 predicted a relationship between stance recognition and the ability to discriminate between “Factoids” and “Opinions” presented as evidence. These relationships are summarized in Figure 16. Recognition of stance was negatively correlated with the mean evidence ratings, indicating that when students stated the attitude of the author they rated high inference statements, “Opinions”, as less acceptable evidence. This suggests that students who refer to the mental state of the author are more likely to recognize a biased statement based on inferential claim rather than a factual warrant. This was more pronounced in responses to the Montreal article.
**Figure 15**

**How Source of the Account Influenced Historical Understanding**

<table>
<thead>
<tr>
<th>Toronto Account</th>
<th>Montreal Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in Grade 9, Grade 13 and College accepted high inference statements (&quot;Opinions&quot;) as acceptable evidence for the Toronto account. (evidence acceptability ratings)</td>
<td>Students in higher grades were less accepting of high inference statements (&quot;Opinions&quot;) as acceptable evidence, showing a statistically significant difference in rating of opinion based statements across grades. (evidence acceptability ratings) (F(2,89)=6.05, p&lt;.01 indicated that older students were less accepting of statements with weak evidential warrant in the Montreal account.)</td>
</tr>
</tbody>
</table>

Students gave more low inference statements ("Factoids") as evidence for the Toronto account. | Students gave more high inference statements ("Opinions") as evidence for the Montreal account.

(Cohen’s Kappa .09 shows minimal association between the type of evidence statements that students gave as supportive evidence when comparing the two accounts.)

Students were less likely to recognize the stance of the author in the Toronto account. The developmental pattern showed that older students were more likely to recognize stance but the difference was not statistically significant. | Students were more likely to recognize the stance of the author in the Montreal account than in the Toronto account. The developmental pattern indicated that College students were more likely to recognize stance than younger students. The linear progression showed a statistical significance. Mantel-Haenzel test (1, n=92) = 11.40 p<.01.
Figure 16

How Recognition of Stance and Understanding of Metalinguistic Terms Influenced Evaluation of “Opinions” Presented as Evidence

<table>
<thead>
<tr>
<th>Toronto account</th>
<th>Montreal account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who stated the stance of the author (n=29) rated “Opinions” as less acceptable as evidence than students who did not state the stance (n=63). The difference was not statistically significant.</td>
<td>Students who stated the stance of the author (n=47) rated “Opinions” as less acceptable as evidence than students who did not state stance (n=45). This was statistically significant for both Montreal ratings $t(90) = 3.7, p&lt;.05$ and Toronto ratings $t(90) = 2.9, p&lt;.05$.</td>
</tr>
</tbody>
</table>

Students who passed the Cognitive Term Test rated “Opinions” as less acceptable as evidence than those who failed the Cognitive Term Test. The difference was not statistically significant.

Students who passed the Cognitive Term Test rated “Opinions” as less acceptable as evidence than those who failed the Cognitive Term Test. The difference was statistically significant. $t(82) = 2.3, p < .05$. 
5.4 Cognitive terms

Perhaps the most novel feature of this study was the examination of the possible relationship between understanding of terms signalling the mental state of an author towards the text (terms such as infer or assert) and students’ ability to evaluate evidence statements. Hypothesis 5 and 6 predicted that there would be a developmental progression in the ability to choose the most appropriate cognitive term to denote the attitude of the author towards a statement and that performance would be related to the rating of evidence statements. These hypotheses related to students’ metalinguistic awareness as measured by their performance in selecting appropriate terms to discriminate between an assertion warranted by fact and a claim based on inference in a multiple choice task.

Students generally performed quite poorly in selecting the most appropriate term in the cognitive term task and there was little improvement across grades in the ability to correctly identify most of the terms. For example, most students across grades did not recognize the terms “assertion” and “infers” as the correct choice in the multiple choice task. A statistically significant improvement across grades was noted in the correct choice of the term “inference”. This term was correctly chosen by 65% of College students and only 32% of Grade 9 students.

A developmental pattern was noted in the composite score of the cognitive term test, with improvement shown across grades for the 8 questions (mean scores: Grade 9 3.0; Grade 13 3.9; College 4.4). However, as demonstrated by these scores, most students were not successful in selecting the correct term.

There was some evidence suggesting a relationship between
students' success on the cognitive term task and the rating of "Opinions" as less acceptable evidence. Figure 16 summarizes how passing or failing the cognitive term test was related to the evaluation of evidence in each account. In addition, when the overall mean acceptability rating of "Opinions" for both accounts was calculated, a partial correlation coefficient, controlling for grade, showed a significant negative correlation between acceptability rating and cognitive term score ($r = -.20$, $P<.05$).

This association suggests that competence with metalinguistic concepts expressed by these cognitive terms enables students to evaluate the quality of evidence statements that writers use to justify their claims. This type of evaluation may require the reader to identify the illocutionary force of the statement to determine if the author is making an inference or presenting an assertion. An understanding of these concepts may alert readers to evaluate the text by categorizing statements differently. As a result, readers who recognize a statement as an inference may then question the validity of the author's supporting statements to determine if the justification for the statement is based on speculation or premised on verifiable information. Described in terms of Searle's categories of illocutionary acts, this type of characterization may be thought of as the ability to distinguish between a statement based on verifiable evidence with a true word-to-world direction of fit or based on the author's opinion with a possible word-to-world direction of fit.

Figure 17 depicts how recognition of the authorial intention may be related to the understanding of historical accounts. Authorial reader-directed intention may be signalled to the reader by the illocutionary force of the statements presented. The author reconstructs the event, integrating his/her implicit intention or
attitude with his/her explicit description of the event. This reconstruction is communicated to the audience in either an oral or written form. The author’s attitude is only sometimes explicitly indicated. To understand this text, a listener or reader will integrate the propositional content, that is, the structure of the story with the teller’s purpose, or intention in relating the story. To understand the purpose of the author and to evaluate the justification for the author’s assertions, the reader must recognize the audience directed illocutionary force of the propositional content. This is the ability that I have examined in this study.

In the reading of historical texts as in other domains, recovery of the intended meaning of the author is difficult for students. This is due in part to students’ expectations that texts are documents that present universal truths and as such, are not open to criticism (Latour and Woolgar, 1979; Geisler, 1994; Olson, 1994). In addition, the absence of linguistic cues to signal the author’s involvement with the text render most texts as “faceless” or “authorless”, lacking stance markers about the attitudes or beliefs of the author or clues about how the text is to be taken (Biber & Finegan, 1989, Olson, 1994, Crismore, 1984). When reading accounts of historical events, a critical reader must be aware of the association between the author and the information presented and recognize the need to evaluate the evidence presented in support of the author’s claims.
THE UNDERSTANDING OF AUTHORIAL INTENTION IN HISTORY

Event
(eg. dismissal of Hughes) +
Teller’s Intention
event as perceived/reported, (eg. fair/unfair)

Teller’s Retelling
of the Narrative
How is it told
(eg. tragedy/victory)

Oral Form

Written Form

Audience

Propositional Content
Story Structure

Comprehension

Subtext

Recognition of illocutionary
Force applied to the text
or utterance.

Interpretation
(Conscious Comprehension)

Listener/Reader
Understands the Authorial Intention

Recognition of audience-directed intention and implicit
message or moral/how the author wants the reader/listener to
believe or act.
5.6 Understanding the rhetorical properties of text and historical understanding

The ability to evaluate evidence, that is, the ability to discriminate between statements based on claim or opinion and statements based on verifiable information or warrant, is a central component of historical understanding. It is the reader's recognition of the author's reader-directed intention that allows the reader to evaluate the information presented or be aware of the potential for bias in any reconstruction of a past event. Historians recognize the text as a representation of an author's belief and engage in a simulated dialogue with the author through the text. In this mental dialogue, historians question the author's warrant for the information presented by comparing the author's mental representation with both the historians (reader's) own viewpoint or mental representation and the information presented about the event (state of the world).

The results of the current study may be used to illustrate the cognitive components related to understanding the rhetorical properties of text (see Figure 18). Prior research has demonstrated that experts who understand the rhetorical properties of text tend to engage in a mental dialogue with the author through the text. In the current study, students who recognized the stance of the author seemed more likely to engage in this type of mental dialogue as shown by their lower ratings of the "Opinions" as acceptable evidence. These students appeared to question the author's warrant for the evidence presented and correspondingly, rated the high inference statements as less acceptable (see A).

Similarly, students who were competent with metalinguistic terms were also more likely to rate statements based on claim or inference without supporting information as less acceptable as
evidence (see B). It appeared that students with the ability to understand terms that allow aspects of thought to be brought into consciousness and students who recognized the author behind the text were more able to engage in the mental dialogue required to detect the potential for bias in historical accounts.

In addition, reader predisposition or bias seemed to influence the reader's ability to evaluate claims. If the perspective of the account matched the reader's bias, their recognition of stance and evaluation of evidence was impeded (see C). Perhaps when the view on the page fit the mental representation of the reader, the reader's inferences were more likely to match the author's inferences. This finding is compatible with research on students' interpretations of science reports that indicate students' background beliefs are highly resistant to change (Roth & Anderson, 1988).

Students who recognized the rhetorical properties of text were more likely to detect possible bias as shown by their more critical evaluation of statements presented as evidence in both accounts. However, the relationships between evidence rating and both metalinguistic competence and stance recognition was stronger for the Montreal account. This suggests that the reader's prior beliefs about French-English controversies influenced their evaluation.

In summary, students' reading and interpretation of a text requires an approach to text that includes an awareness of the author behind the words. Awareness of the author facilitates the ability to detect the audience-directed intention and evaluate the evidence presented in support of the claims made by the author in the text.
**Figure 18**
Factors Related to the Understanding of the Rhetorical Properties of Text that Contribute to Historical Understanding in the Reading of Historical Accounts

- **Metalinguistic Knowledge**
  (does the reader have competence with terms that allow aspects of thought to be brought into consciousness?)

- **Ability to Understand the Rhetorical Properties of Text**
  (does the reader engage in a mental dialogue with the author through the text?)

  - Stance neg correlated with evidence rating
  - MM stance $p < .01$  TT stance ns

- **Evaluating Evidence**
  (the ability to discriminate between statements based on claim or opinion and statements based verifiable information or warrant is a central component of historical understanding).

  - "Factoids" more acceptable than "Opinions" $p < .01$
  - TT "Opinions" more acceptable than MM

- **Source of the Account**
  (does the view presented fit the reader's preconceived view, is there a "word" (on the page) to "mind" (of the reader) fit?)

  - TT most students did not state stance $P < .01$
  - MM difference in # of students stating stance ns
5.7 Educational Implications

One important component of academic instruction is to encourage students to investigate different sources of information and to subsequently evaluate the information presented. By encouraging reflective thought about textual reports, teachers are able to challenge students' prevailing notions with countervailing evidence and encourage students to make reasoned judgments about what they read and hear. In the current study, many students did not make reasoned judgments about what they read, as indicated by their failure to successfully rate statements based on vague inferences as unacceptable evidence.

The association found between competence with metacognitive terms and the ability to evaluate evidence statements suggests that the concepts expressed by terms such as “infer”, “assert” and “imply” enable fine distinctions to be made between these different mental attitudes towards a proposition. An inference is a mental step that draws a connection between a proposition and a conclusion. It is often difficult for readers to separate evidence that can be used to make an inference from an inference based on the evidence presented. Literacy involves the recognition of “an inference as an inference, a conclusion as a conclusion” (Olson, 1994, p. 208). Students who know conceptually what an inference is may find it easier to recognize the quality of an inference and to discriminate between warranted inferences based on supporting information and unwarranted inferences based on conjecture or speculation. One implication therefore, is that students need to be able to define and use vocabulary that allows aspects of thought to be brought into consciousness. The use of metacognitive terms in structured classroom discussions may help
students to gain awareness of fine distinctions in mental attitudes that will subsequently help them notice opinions and beliefs presented in text. This may enhance students' ability to differentiate statements that are verifiable representations of what happened from statements that are speculation or opinion based inference about what might have happened.

Secondly, recognition that text is a representation of the author's (or group of authors and editors) beliefs and attitudes about an event helps students to reflect upon the information presented. This enables students to be aware of the possibility of bias in an account. The text becomes one opinion among others. One method of helping students detect the relationship between the author and the text is to make the author more salient (Paxton, in press). In Paxton's study, students who read text written by a "visible author" (one who writes in the first person, revealing personal opinions) engaged in "mental conversations" more often than students who read "anonymous text". However, students are usually confronted with texts that appear to be authorless, containing few clues about the beliefs and attitudes of the author towards the text. In addition, the results of this study indicate that even when evaluating a journalistic report with a defined perspective, students varied widely in their ability to evaluate the evidence presented in support of the author's view.

Educators must help students to develop strategies to recognize both "visible" and "invisible" authors with a goal of evaluating the information presented rather than just memorizing the content of texts. Strategies could be both text-based or reader-based. An example of a text based strategy is encouraging students to look for metacognitive terms used by the author. These terms provide clues about the attitude of the author. Reader based strategies include
developing students' competence with a vocabulary for talking about thinking by encouraging the use of terms such as infer, imply, and assert. Students could practice the appropriate use of these terms to denote the author's attitude towards specific statements in text. Another potentially useful reader-based strategy is to encourage students to rewrite authorless text in the first person as a way of recreating the invisible author (see Paxton, in press) and to subsequently engage in mock dialogues with the author. These strategies may enhance students' understanding of how the historian "interprets" rather than "retells" history when writing historical texts. Olson & Astington (1993) call this learning how to "take" statements as expressions of an author's opinion.

Finally, students must be encouraged to recognize and question their own views and to make connections between their beliefs and the account presented on paper. In the current study, students' preconceived ideas and background information may have accounted for the different patterns of responses in the Montreal and the Toronto account. This raises the crucial issue for educators of how academic instruction is mediated through students' everyday knowledge. Too often in history as in other subjects, formal "school" knowledge is walled off from students' real world experience. By encouraging students to discuss their own perspective and to compare their views with those presented in academic discourse, teachers may help students to recognize how personal perspective influences interpretation of an account.
5.8 Limitations and Delimitations of this Study

The concepts needed for the analysis of how readers interpret historical text have been difficult to define and measure. The vocabulary used to describe these concepts is often confusing and sometimes ambiguous in everyday use. For example, the term inference is sometimes used to refer to a process (of drawing a connection between a proposition and a claim) and sometimes to refer to a product (the claim itself). The term evidence can also be confusing for readers as it is sometimes used to refer to objectively observable conditions and at other times refers to information based on beliefs or premises or texts. If evidence refers to information based on prior beliefs, the reader must determine the validity of the supporting information. Readers often disagree on what information should be considered acceptable as evidence. These definitional issues contributed to the difficulty I had in categorizing evidence into either high inference statements, referred to in this study as “Opinions” or low inference statements, referred to as “Factoids”. In an attempt to avoid ambiguity and subjective rating in categorizing high and low inference statements, I used the opinion rating scale, completed by experts, to provide a more objective classification system. To clarify the vocabulary used in this thesis, a glossary of terms is provided in Appendix C.

A limitation of this study is that there was no way to control for individual motivation/effort invested by the students. Lack of effort in the questionnaire task may have affected the level of complexity of the response. Variation in motivation of the students may have contributed to some students providing less in depth responses that did not reflect their actual level of competence.
A third concern is related to the methodology of using a written questionnaire. Students may not have been equally comfortable or competent in performing a written task. It should be noted however, that all students were considered by the classroom teacher to be functioning at an average or above level of performance in the classroom and all subjects were proficient in English.

A fourth concern is also related to the methodology of using a written questionnaire. A written rather than oral protocol does not allow for additional probing of students to determine if the response offered is the best that the students can generate. Future research could include both written and oral components.

A fifth limitation is that students' evaluation of historical evidence was limited to their responses to opposing newspaper accounts. Historians, in contrast, investigate a wide variety of sources and traces in an attempt to provide a meaningful reconstruction of the past. For the historian, newspaper accounts represent one of many genres that may be considered in forming this reconstruction. However, as educators we must consider how students are confronted with history and how students make meaning of historical accounts. In everyday life, students read newspaper accounts to gain knowledge about current events. In school, texts often present opposing viewpoints about past events, in an editorial style, to encourage critical evaluation of the content of the text by the student. However, little is known about the effectiveness of this technique. The purpose of the current research was to evaluate students' ability to evaluate opposing evidence presented in an editorial style. As shown in the current study, most students did not consider the stance of the author towards the text in their evaluation of the evidence presented by the author.
Finally, speech act theory, while an original approach to understanding the rhetorical properties of text, may be limited in application to written documents rather than oral accounts. In Searle’s description of oral discourse, the illocutionary force signals the author’s stance towards an utterance. In face-to-face conversations, misinterpretation of authorial intention can be clarified by questioning the actual speaker. In reading, the reader must seek text based clues to simulate a mental conversation with the hypothetical author.

5.9 Suggestions for Future Research

The current study evaluated students’ ability to identify the rhetorical properties of a text. Specifically, students’ recognition of authorial intention and their ability to distinguish between different types of statements (persuasive inference vs factual report) was explored. Relationships between patterns of historical understanding and metalinguistic awareness were evaluated. The exploratory nature of this study, both in theoretical framework and in methodology, leads to the following suggestions for further research.

1. Replication of this study using different texts to evaluate how the text influences historical understanding. Does the ability to recognize the audience-directed intention vary with account presented? Does recognition of intention continue to correlate with acceptability ratings of evidence statements?
2. Replication of the cognitive term test, using different texts. This replication is necessary to support the tentative findings noted in the current study between students’ understanding of metacognitive terms related to the author’s attitude towards a proposition and the evaluation of evidence.

3. Replication of this study using the same text with different groups to evaluate how differences in nationality or political background influences the reading of historical accounts and patterns of evaluation of evidence statements. How do responses of a French-Canadian sample of students in Montreal compare with the English-Canadian sample in the current study? How do students outside of Canada respond to these accounts and to accounts relevant to their cultural background? Do students with a more global perspective find it easier to recognize audience-directed intention? Does a complimentary or competing personal stance influence recognition of the author’s stance?

4. Extension of the study to include an oral component in addition to the written component to evaluate differences in complexity between oral and written responses. Speech act theory, as set forth by Searle, refers to oral discourse. Is recognition of authorial intention easier in an oral conversation? Is the student more likely to engage in a conversation and question the author when accounts are presented orally?

5. Extension of the study to include an instructional component with pre and post instruction assessment. Does implementation of the suggested strategies facilitate students’ historical understanding?
5.10 Conclusion

The data generated within this study suggest that the area of historical understanding provides a rich venue for further investigation and is well suited to quantitative methods of evaluation. This findings of this exploratory suggest that students appeared to reason differently in response to the two accounts of the same historical event. These differences in the recognition of authorial intention and historical understanding appear to result from an unmonitored approach to historical texts wherein students do not question the views presented by the author.

Previous research has evaluated how students' background beliefs influence critical evaluation of evidence in opposing accounts (Henle, 1962; Klaczynski & Gordon, 1996). Research on historical understanding has demonstrated that students often fail to detect the stance of the author and the rhetorical properties of text. In the current study I have shown that, in part, these effects are explained by the relationships between students' ability to evaluate the statements made by the author in support of his/her position, students' ability to use cognitive terms that denote the type of statement presented by the author and students' recognition of the author's attitude towards the text.

Students who recognized text as an expression of an author's attitude and belief seemed more likely to engage in the type of mental dialogue required to challenge the author's justification for the beliefs expressed in the account. This allowed some students in this English Canadian sample to reflect less personal bias in their evaluation of evidence statements presented in carefully balanced opposing views. Students' competence with cognitive terms was associated with
recognition of authorial attitude and evaluation of evidence. The understanding of cognitive terms enables aspects of thought to be brought into consciousness; this understanding appears to be an important component in recognizing the rhetorical nature of text.

Knowing the "facts" is often not enough to achieve understanding about past historical events. Individuals are increasingly faced with information that must be critically evaluated rather than merely accepted as the truth based on a surface level of comprehension about the propositional content presented in documents. It is the ability to see relationships after evaluating the evidence from different perspectives that is central to historical understanding. An essential skill is the ability to distinguish between fact and opinion and between evidence based on verifiable information and evidence based on personal values and opinions. The history curriculum provides considerable opportunity to encourage the critical thinking skills needed to respond to our rapidly changing and increasingly complex textual environment.
5.11 Epilogue

Unresolved Experiences

These tug at the mind.
It is an automatic secretary function
of the brain which does this.
These are items the brain recognizes as relevant to goals,
and about which it knows more clarity will be possible.

It holds these messages for us,
and gives us these messages in odd moments.

When these items first came in through the senses
they were “question-producing”
and achieved cortical recognition,
although not necessarily conscious cortical recognition.

This resulted in dissonance,
and the items were put on “hold”.

Author unknown.

Students’ responses to contradictory evidence can be compared to
“unresolved experiences”. Students’ show some dissonance in
evaluating opinion based evidence as acceptable, but if the opinion
matches their prior belief the “questions” (about author intention,
validity) may not be asked and the contradictory evidence is
discounted, “put on hold”.

In contrast, students who recognize the author behind the text are
able to engage in a critical dialogue with the author, deal with the
questions and evaluate evidence with less prejudice. Our goal as
educators is to help students to develop an epistemological approach to
text that recognizes the need for this dialogue.
References


Appendix A

INFORMED CONSENT (High School Students)

I am a graduate student at the Ontario Institute for Studies in Education (OISE) and I am conducting a study that looks at the way high school students understand history. This research is being conducted under the direction of Dr. David Olson at OISE. On the basis of this research we hope to understand more about how history is interpreted by high school students.

Students will be asked to read two passages from a high school history text and then answer questions about each passage. This activity will take place during the school day as a part of a regular history class period. It is expected that this will be an enjoyable activity and is comparable to other school work that is done in history classes.

Participation as a subject is completely voluntary and refusal to consent will not result in any penalty.

All records will be confidential. Students' names will be removed from all of the material and the final results of the study will be recorded on the basis of the entire group rather than on individual performance. The results of this research may be published or reported within educational agencies or scientific groups; individual names will not be associated in any way with the published results.

This study has been officially approved by the Etobicoke Board of Education's Research Advisory Committee and by your daughter/son's history teacher Mr. _____. When the study is completed a report on the findings will be available to interested parents at the board office.

I sincerely appreciate your consideration and ask for your consent to allow your child to participate in this research. If now or later you have any questions about any aspect of this study, please do not hesitate to ask. I can be reached at 847-7099 (home). You may also contact my supervisor, Dr. David Olson at 923-6641, ext. 2572, or the history teacher at Silverthorn, Mr. _____ at _____.

Sincerely,

Diane J. Salter (M.Sc.) (PhD. candidate) Dept. of Cognitive Psychology.
Ontario Institute for Studies in Education, Toronto.

I consent for my child to participate in the research project entitled

"A Developmental Analysis of Adolescents' Understanding of Communicative Intention in Historical Texts". This study is designed to help identify how high school students interpret messages in history texts. I understand that s/he may withdraw from the study at any time. I also understand that while participation in the project may be enjoyable, there are no other benefits, and there are no risks associated with taking part in this research.

(Space for signatures of parents and students on document)
Appendix B

INFORMED CONSENT (College Students)

I am a graduate student at the Ontario Institute for Studies in Education (OISE) and I am conducting a study that looks at the way students understand evidence presented in descriptions of historical events. This research is being conducted under the direction of Dr. David Olson at OISE. On the basis of this research we hope to understand more about how history is interpreted and how students distinguish between evidence based on factual information and evidence based on inference.

Students will be asked to read two passages from a high school history text and then answer questions about each passage. This activity will take place as a part of a regular class period. It is expected that this will be an enjoyable activity and is comparable to other school work that is done in class.

Participation in the assignment is part of the course component to assist the students understanding of how research on critical thinking is conducted. Permission to use student’s completed work as data by participating as a subject is completely voluntary and refusal to consent will not result in any penalty.

All records will be confidential. Students’ names will be removed from all of the material and the final results of the study will be recorded on the basis of the entire group rather than on individual performance. The results of this research may be published or reported within educational agencies or scientific groups; individual names will not be associated in any way with the published results.

This study has been officially approved by the Ontario Institute of Studies in Education Research Advisory Committee, ethical review board and the Etobicoke Board of Education’s Research Advisory Committee. When the study is completed a report on the findings will be available at the Etobicoke Board of Education Office.

I sincerely appreciate your consideration and ask for your participation in this research. If now or later you have any questions about any aspect of this study, please do not hesitate to ask. I can be reached at 844-8211, ext 282. You may also contact my supervisor, Dr. David Olson at 923-6641, ext. 2572.

Sincerely,

Diane J. Salter (M.Sc.) (PhD. candidate) Dept. of Cognitive Psychology.
Ontario Institute for Studies in Education, Toronto.

I consent to participate in the research project entitled
“A Developmental Analysis of Adolescents’ Understanding of Communicative Intention in Historical Texts”. This study is designed to help identify how students interpret messages in history texts. I understand that I may withdraw from the study at any time. I also understand that while participation in the project may be enjoyable, there are no other benefits, and there are no risks associated with taking part in this research.
Participant’s Name __________Participant’s Signature__________Date of Birth:
Appendix C
Glossary of Terms

Assertion A statement that tells the reader or listener how things are. It is generally assumed that assertions are based on truth, and therefore corresponding with a correct word to world direction of fit. However, assertions should be evaluated based on the quality of the supporting information.

Audience Directed Intention refers to the message that the author directs towards the reader. In the proposed model, intention is transmitted by a.) the propositional content, that is, the direct or literal message contained in the words and the structure of the text and b.) the stance of the author towards the text and the reader, the often implicit indicators of what the author wants the reader to know or do.

Authorial Bias refers to the author’s point of view and what the author wants the reader to believe about the event and possibly how the author hopes the reader may behave subsequent to the reading. (stance)

Claims are allegations made by the author. Claims can be explicit or implicit. Claims can be based on inference from or interpretation of source evidence presented in the article or by direct appeal to verifiable evidence presented in the article. Claims are often presented as evidence. High inference claims are interpretive, based loosely if at all on verifiable information presented in the text. Low inference claims appeal to verifiable evidence or warrant.
Evidence is information provided in support of the author’s viewpoint. Evidence can be evaluated based on the nature of the evidence. Evidence may be based on objectively observable conditions or information based on beliefs or premises may be presented as evidence. When evidence refers to information based on beliefs, the reader must determine the validity of supporting information. Claims are often presented as evidence. (see claims for definition of high inference and low inference claims)

Imply  Information presented in a way that will lead the reader to make an inference about what is not known based on the given information.

Inference  May refer to the mental step that draws a connection between a proposition and a conclusion (the process) or to the claim being made (the product). An inference goes beyond the information presented. It is a statement or mental representation about something that is not known.

Illocutionary Force  Searle refers to illocutionary force as the sincerity conditions of speech acts. In writing, the illocutionary force of the message signals the stance of the writer towards the proposition. Recognition of the stance of the attitude should signal to the reader how the text is to be “taken” and what the author wants the reader to think or do after reading the text.
Rhetorical Properties of Text The nature of text as an expression of the author’s point of view about a topic. Rhetorical writing is forceful and persuasive, often appealing to emotional aspects rather than logical argument related to the truth of the point of view.

Stance The author’s attitudes, feelings or judgements towards the propositional content of a message.

Valid An argument is valid if the conclusion presented follows from the reasons or evidence given. A statement can be valid (ie. logical from the evidence given, but not true.)

Warrant Justification for an assertion or a belief.