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Elementary History Education and Children's Perceptions of Time

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THE CARL AND WINIFRED LEE HONORS COLLEGE

CERTIFICATE OF ORAL EXAMINATION

Christine McCreedy, having been admitted to the Carl and Winifred Lee Honors College in Fall 1997 successfully presented the Lee Honors College Thesis on February 5, 2002.

The title of the paper is:

"Elementary history education and children's perceptions of time: Not a line but a landscape"

Dr. Lynn Brice

Dr. Lynn Brice, Department of Teaching, Learning, and Leadership

Dr. Josephine Barry-Davis

Dr. Josephine Barry-Davis, Department of Teaching, Learning, and Leadership

THE LEE HONORS COLLEGE THESIS DECLARATION FORM

OCT 01 2001

Date: 9/26/01

Social Security #: 374-98-5193

Name: Christine M McCreedy

Expected date of thesis completion: January 2002 Expected date of graduation: December 2001

Major(s): Elementary Education

Minor(s): Science/Math English

Title of Honor College thesis: Elementary history education and children's perceptions of time: Not a line but a landscape

Brief description of thesis proposal: Exploring the research on children's understanding of physical time concepts and implications for history education in upper elementary classrooms.

Thesis Committee (one member of your committee may be from off-campus)

Chair: 
(signature required)

Department: Teaching, Learning, and Leadership

Dr. Lynn Brice
(please TYPE full name)

Members:

a. Josephine Barry-Davis

Department: Teaching, learning, and leadership

b. _____

Department: _____

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Stephen Podewell - Form for defense

From: <c7mccree@wmich.edu>
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Date: 2/4/2002 1:00 PM
Subject: Form for defense

Hi Stephen-

This is Chris McCreedy, I finally have finished my paper for graduation, and now I need a defense form so I can go defend what I wrote. It took us forever to get a date set, but it is tomorrow, Feb. 2, 2002. My advisor is Dr. Lynn Brice, of Teaching, learning, and leadership. Second committee member is Dr. Josephine Barry-Davis, also of Teaching, learning, and leadership. I don't remember what other information you need for the form, let me know if I forgot something.

Thanks, Chris McCreedy

feb. 5, 2002

Title:

Elementary history education and children's perceptions of time; Not a line

but a landscape

Elementary history education and children's perceptions of time

By Christine M McCreedy

Honors Thesis

February 5, 2002

RUNNING HEAD: Perceptions of time

Introduction

When I was in upper elementary school, social studies, history in particular, was often nothing more than reading a text to imprint for a short period of time the “facts” of history. I read books through most of the instruction. I read so many wonderful works of historical fiction, the Holocaust and the Civil War being among the most interesting subjects. Through excellent and not-so-good works of historical fiction, I saw history unfolding in the present, not just the past. The characters gave faces, stories, and meaning to the text we used in class. I grew up with a strong fascination with the people and events that had shaped the world I lived in.

What I did not grow up with was a strong sense of chronological time. Dates, centuries, and timelines held little significance to me. I could and sometimes did, commit sets of dates to memory for a test, but they were soon gone. I had no need to relearn them for myself. To this day only a handful of dates remain fixed in my memory. For instance, I know in 1492 Columbus sailed the ocean blue and that the famous ride of Paul Revere occurred on the 18th of April in '75. However other dates float in and out of focus.

Yet I do not have a poor understanding of history and its importance. As I see it, time is not a straight line moving from the distant past to a definite future with events falling one after another in a tidy chronological progression. It is not even, as Mink (1987) suggests, that “time is no longer the river which bears us along but the river in ariel view, upstream and downstream seen in a single survey” (p. 57). In continuing with the model of time as a natural feature, time is instead a landscape with many rivers,

creeks, and lakes that overlap and cross and that in general do not flow in a straight path from the past to the future.

My seven-year-old cousin has been an endless supply of information through our discussions about whatever either is studying at the time. She appreciates my help with math; I appreciate her tolerance while I ask silly questions about history. She explained to me once that history is what happened in the past, but not to any people who are alive today. She can tell me about events and is clear what happened previously versus what she would like to do in the future, and she understands that neither of those times is going on in the present. She expends a lot of energy trying to explain why I am her cousin, though I am actually closer in age to her mother. Actually, she doesn't worry so much about our chronological ages, so much as looking for a way to explain how old I am relative to other people she knows. In a conversation over breakfast, she told me that she and her brother are kids, I am an adult, and her mom is both an adult and a grown-up. She is not sure when I get to be a grown-up as well, perhaps when I finish school and have children, but she is quite clear that there is a difference between an adult and an adult grown-up. Her nine-year-old cousin explains it another way. I am a "college cousin," not quite an aunt, but too old to be a regular cousin. I am fascinated by the different ways they can make sense of time relationships without having to rely on numbers or birth dates.

I have had a sense since I began taking education courses that many things I have seen in classrooms both growing up and in my pre-internships did not ring true with what I felt education could be at its best. There are many areas in social studies that I am still picking my way through, but an offhand comment from my mentor teacher prompted me

to explore the connection between chronology and history. When we were discussing the curriculum for fifth grade social studies she said, “We normally get through about 1870 in American history, if we keep up a good pace.” I was confused by how reaching 1870 could be a goal for a history curriculum. History doesn’t end. Even if we argue the Reconstruction Period ended just before 1870, the effects of the events before that date still influence us today. Also, that is a quite a long period of time to cover in one school year. Assuming a standard history textbook is used, that type of pace can not cover anything in detail. It is like trying to transmit in one year all the raw data that students may need to really delve into what history is at some later date through Cliff Notes.

Elementary textbooks remind me of my notebooks from high school and college history classes. I would place the date and main facts in my notebook and then sit back and listen while the instructor explained why that place, person, or event was relevant. In the best courses I would spend more time listening to the color and texture of history, learning why it is relevant, than I would spend taking notes. Later I could read my outline and remember the debates and questions raised in class. I still did poorly on any test that required me to match dates to events, but I could sequence events and see how events distant in place and time related to each other. I feel I probably took the most important information away with me.

Even with all the faults I found in my own history education, I believe that history instruction is necessary at all age levels. A knowledge of history gives us an understanding of where we came from, both literally in understanding the roads our ancestors traveled and figuratively in understanding the conflicts and decisions that shaped the culture we live in today. Since a knowledge of history is important not just

for curriculum goals, but to our understanding of self and society, history education at the elementary grade level must develop conceptual knowledge of history that is relevant to the students' lives. Time, in some sense of the word, is an essential piece of this knowledge. A wide variety of time concepts, from the basic ideas of past, present, and future to the more complex notions of change and continuity over time, are used to imply order and relation to events in history. Not all concepts of time are necessary or even relevant when young students study history, but the study is necessary.

The purpose of this paper is to identify what types of time references and concepts elementary students encounter in history textbooks and whether those concepts are within children's developmental range based on research. The first section explains Poster's model of types of time, as well as defining chronology and chronological thinking skills. Those definitions are used as background information for examining children's development of concepts of time. These two sections form the framework for the examination of history textbooks. One second grade text and two fifth grade texts will be analyzed for types of time language and implied time concepts based on chronological thinking standards. The findings compare the information from the texts to the research conclusions of children's abilities in understanding various time concepts.

Poster's Model of Types of Time

It is important first to note that "time" is used not just to explain one set of concepts or vocabulary. Rather, the word can be used to describe several types of knowledge that are quite different from one another. Some concepts of time are understood before others, some require guided practice while others are more

observational or even innate, and not all are required in approaching a standard history textbook. Several types of time will be referenced here, including social time, literary time, personal or interior time, physical or clock time, and historical time (Poster, 1973).

Social time is based on the group setting and dynamics, and as such is decided in the now and subject to frequent change (Poster, 1973). For example, a card game enjoyed by the four people playing may run for several hours, yet at the end of the evening all four may wish to continue. On another evening with a slightly different group of people, an hour of card playing may seem to last an inordinate amount of time. “Time flies when you are having fun” sums up the concept of social time quite well.

Literary time refers to manipulation of lengths of time to suit the artist’s purposes (Poster, 1973). Literary time allows the author to stretch one moment in time, such as freefall while skydiving or a first kiss into pages of detailed poetry. Alternately, it can mean many years or centuries may pass between the end of one chapter to the beginning of the next if that time is not relevant to the story being told. Literary time also allows authors to jump from point to point in time without following any chronological order. Stories told in flashbacks or stream of consciousness fashion are not bound by the idea of strict chronology. Rather, the author sequences events as they relate to the story, using words before or later to create an order.

Personal or interior time accounts for the amount of thought expended upon a particular event after the fact (Poster, 1973). An incident lasting fifteen seconds in the physical world may be replayed in a participant’s mind for a much longer period of time. The event may continue to be held in one person’s current interior time long after it has past and been forgotten by others.

Physical or clock time is concerned with such concepts as succession, order, duration, and velocity, as measured by standard units such as days, decades, and centuries (Poster, 1973). A student who is able to know how many years passed between 1500 and 1900, or how many years are in a century, could be considered proficient at measuring and manipulating physical time. Knowledge of chronology is also a part of physical time, particularly succession of units of time. A child could demonstrate this ability to sequence events by making a timeline when given a set of dates. Physical time is sometimes referred to as “real time” because it is strictly measured by factors that are not determined by one person’s perceptions, but rather are agreed upon as common observations by a large number of people.

Historical time, like social time, is highly subject to change based on the present society that is telling history (Poster, 1973). At its most basic, historical time is the pieces of times and places in the past that are referenced when history is told in the present. For example, a group of events taking place in the southern United States in the period of time after the Civil War is known historically as the Reconstruction. The period of time this covers was not measured out before the events, but rather afterwards as history was being told. What events are included in telling about this period has changed over time as societies change and new histories are written. Historical time incorporates both literary time, if told history is viewed as a narrative, and physical time, if events are told in a chronological order, as well some unique characteristics.

Definitions of Chronology and Types of Time Language

“Chronology suggests that things past did occur or exist in a place in time and that these happenings or things can be established ... as part of a time sequence or continuum” (Saxe, 1992, p 189). According to the glossary of one fifth grade textbook, chronology is “the order in which things happen” or “the arrangement of events in time order” (Armento, Nash, Salter, & Wixson, 1991, p590). Webster’s Dictionary gives two similar definitions and also includes a third: “the science that deals with measuring time and dating events” (1974, p 138). According to this last definition, chronology and the ability to work with it are related to physical time concepts, specifically succession and duration. A child’s knowledge of chronology then, might reasonably follow a development of physical time concepts. The authors of the textbook further explain that “timelines show chronology and how one event leads to another” (Armento, Nash, Salter, & Wixson, 1991, p 61). Being able to read and make standard timelines is definitely part of physical time, but both of the glossary entries are closer to historical time concepts. While timelines and the chronology that they may imply are physical time concepts, chronological thinking may be more closely related to historical time.

The National Center for History in the Schools (1994) published their suggestions for curriculum standards for history in grades K-4. While certainly not the only way to chart the effectiveness of history instruction, the standards they suggest are interesting. Specifically, the first standard the authors discuss as important for developing historical thinking is chronological thinking. This standard is broken down into seven separate skills:

- 1.A. Distinguishing between past, present, and future time.

1.B. Identify the temporal structure of a historical narrative or story.

1.C. Establish temporal order in construction their own historical narrative.

1.D. Measure and calculate calendar time.

1.E. Interpret data presented in timelines.

1.F. Create timelines.

1.G. Explain change and continuity over time.

Of these seven skills, three are exclusively physical time concepts; the ability to measure and calculate calendar time, the ability to interpret data presented in timelines, and the ability to create timelines. Distinguishing between past, present and future and explaining change and continuity over time seem more related to historical time concepts.

Time, as textbook authors use the word, is a very abstract set of concepts that is not fully understood by children, or some adults for that matter. A complex understanding of time is difficult for children because time is measured in a variety of ways that vary by culture, perceptions of time are different for individuals, and time is unobservable and untouchable (Patriarca & Alleman, 1987). For example, to accommodate the needs of a technological society, current American culture has measured out history into months, years, and centuries. Far from being self-evident and universal, the Gregorian calendar used today in the U.S., was an alteration of a previous calendar system based on the most scientific observations available in 1582. From a historical perspective this means the dates referenced in U.S. history textbooks from 1492 through 1582 were recorded using a different calendar. Native American understanding of historical time is completely absent from conventional texts. Perceptions of time vary greatly from one person to the next, not only based on the individual perspective, but on

other wider categories of experience such as culture and age. The year 2001 may carry a greater significance throughout his or her life to a person now eleven compared to an eighty-year-old person from the same culture. The significance would vary even more if we try to compare across cultures. As Jahoda suggests, “conceptions of time and history, far from being natural and self-evident, are largely conditioned by the prevailing social and intellectual climate” (cited in Zaccaria, 1978, p 329).

To further complicate the issue, when adults write history textbooks, they use an adult’s vocabulary in regard to time. Each type of time has a set of words that uniquely describe the concepts at work, since “time concepts are bound to the linguistic forms ... for temporal reference” (Downey & Levstik, 1991, p 401). For example, events related through social time may be described as lasting “forever and a day” or passing “in a heartbeat,” but forever and a heartbeat would each mean very different things in a discussion centered in physical time. Physical time is discussed using vocabulary such as hour, day, year, decade, millenium, and each term can be measured against another. To reference a specific point in physical time, dates are used. Historical time may use these same terms as reference, but it is not as dependent on physical dates. Historical time is dependent on what Vukelich and Thornton (1992) labeled textbook time descriptors, such as colonial or revolutionary and era or period. In interpreting events, historians present Colonial and Revolutionary as two separate time periods in U.S. history, even though there is not a physical date when one ended and another began. When history is told, it is necessary to use vocabulary from physical and historical time in connection to each other, such as tying the American colonial period to about 300 years ago. Adults may understand how these concepts are related and be able to manipulate both, but the

concern is how elementary aged students understand all of this. The next section contains summaries of research with children based on three different types of time, literary, physical, and historical, and what is implied for students' development of chronological thinking skills.

Research Findings on Children's Development of Time Conceptions

An elementary aged child does have a sense of time, though it may not make sense to anyone but himself or herself. In order to understand how students may interpret time concepts in elementary history textbooks, it is important to have an idea what knowledge of time students bring with them into the classroom. The various stages of development of time knowledge are appropriate at different points in elementary education.

A solid understanding of physical time as it relates to the study of history would best be illustrated by being able to measure 10 years as a decade or the span between 1500 and 2000 as five hundred years or five centuries. Research concerning elementary aged children's understanding of physical time concepts generally illustrates what they cannot do. Barton and Levstik (1996) found that elementary aged students had difficulty assigning specific dates to pictures from different times in history. Preschoolers begin to make distinctions concerning calendar time, such as knowing that people celebrate birthdays every so often, and also concerning clock time, such as the difference between being on time and being late, though the associated numbers may not be significant (Vukelich & Thornton, 1992). While some children as young as five can arrange dates in order (Barton & Levstik, 1996), it has not often been addressed how this skill and others

based in physical time concepts contribute to the education of future citizens (Engle, 1990). In Vukelich and Thornton's (1992) summary of research, they suggest that students aged 9-11 are working to master the physical and historical time vocabulary used in history textbooks, and still often "lack precision in matching dates with events" (p 23). Students aged 12-14 more consistently match dates with events, as well as beginning to use terms such as decade and century interchangeably with the appropriate number of years (Vukelich & Thornton, 1992). This research places consistent demonstration of physical time concepts in the middle school age range.

While curling up with an elementary history textbook may not be many people's idea of an enjoyable evening, these books are literature and some concepts from literary time are used in the text. Textbook authors may allot the same amount of text space to the decade the 1790s or six years of progressive reform from 1900-1916, as is granted the entire history of Native Americans prior to the arrival of Columbus (Maier, 1991). While children's understanding of literary time in the context of textbooks is not well researched, children's development of chronological thinking, specifically temporal structure and distinction between past, present and future, through story and narrative is more complete. Historical narratives can be powerful tools in engaging students in historical settings (National Standards, 1994; Levstik, 1989). Students are able to experience various chronological concepts as the story unfolds. Narrative can help even early elementary students understand broad concepts of historical time. Children can readily identify the beginning, middle, and end of a picture book. Historical narratives impose an order on events, and though the events themselves are fiction, good historical fiction illustrates what could have happened, and more importantly why it may have

happened (Levstik, 1989). In this way, narratives introduce temporal order, without relying on a list of specific dates. Levstik (1989) suggests that teachers should engage children with historical time concepts through literature to encourage students to think backwards in time with the same enthusiasm they bring to the worlds in their storybooks.

“Chronological thinking is at the heart of historical reasoning. Without a clear sense of historical time... students are bound to see events as one great tangled mess” (National Standards, 1994, p 18). Some recent research on the connection of children’s conceptual development of time and the study of history has focused on what concepts of historical time elementary aged students can work with consistently. Barry-Davis (1999) found in children as young as four years old an intuitive sensitivity to time and space. The children in the study were able to use linguistic labels, such as “really dead” and “dead, dead,” to label people from the past. Vukelich and Thornton (1992) concluded that in the range of 3-5 years, children begin to sequence daily events in their own life, lunch before dinner, dinner before bedtime. Though this is quite distant from being able to understand historical time, the basic concept of sequence is related to the pattern in history of events preceding or following other events. A child who can see patterns and sequences in real events can be guided in refining “their understandings of broad categories into understandings of specific historical eras” (Alleman & Rosaen, 1991, p 124).

In a study by Barton and Levstik (1996), the authors found that elementary students while having difficulty assigning dates to pictures from different times in history, were often able to sequence the pictures chronologically and label them into broad categories of historical time. By third grade, nearly all the students were able to

distinguish five broad historical periods, including “oldest,” “in-between,” and “now.” While these labels may seem more adapted to fairy tales than historical understanding, this is where children begin to sort history into chronological order. At this point in development, children may also begin connecting numbers and dates to past events sporadically, though the connections are often inaccurate (Vukelich & Thornton, 1992).

At the upper elementary ages, about 9-11 years old, Vukelich and Thornton suggest that to “match persons/events with ‘textbook’ time descriptors,” such as revolutionary or the era of the industrial revolution, is a consistently applied skill (1992, p 23). At this age, the oldest, in-between, and now Barton and Levstik found being used by third graders, give way to more specific vocabulary such as before Columbus, the era of the industrial revolution, and the present.

The ability to manipulate and interchange both physical and historical time skills is important to studying history since authors do not stick to one type of time. Nor would a focus on one type of time to the exclusion of others be helpful for a student in the long term. While children may begin to match textbook time descriptors with general dates in upper elementary, the ability to consistently match specific dates to broader time descriptors is not displayed by children until the ages of 12-14 years (Vukelich & Thornton, 1992). Students this age are beginning to match terms such as 17th century with the 1600’s and with the span of 1601-1700.

Saxe (1992) argues that “chronology is a cornerstone of history teaching, and students need to grasp thoroughly the sweep of time in order to sequence events, people, and ideas” (p189). Chronology is certainly important, but as elementary aged students are still developing an understanding of time, the concepts used to explore chronology

have to be age appropriate. Roughly, it appears literary time concepts develop first as evidenced by even young students ability to place events in stories in temporal order. Historical time develops second, such as using textbook time descriptors, and physical time develops third, though much of the process overlaps. At the kindergarten level, students understand concepts such as the distinctions between now and then or yesterday, today, and tomorrow. These distinctions are best illustrated with sequences or patterns common in a student's personal life, such as the sequence of one day or the repetition of events every year. In the early elementary grades, about first through third, children can use broad categories to order events from long, long ago to the present consistently. Tying textbook time descriptors to these terms is possible and using a limited number of dates for reference is at the farthest range of the students' abilities. Students this age will probably not use dates or descriptors spontaneously. At the upper elementary age, about fourth or fifth grade, students can assign descriptors to ballpark dates and times. Children at this age will also begin to link specific dates to events, though not consistently, and guided practice in this area would be helpful. However, tying events to periods or eras is still more important. In this way students continue to use previously developed skills, such as tying textbook descriptors to broad units of time, to assist in developing a new skill, tying specific dates to events.

Methods

Given the research discussed above about children's conceptual development of time, I choose to analyze several elementary history textbooks for references to time relationships in general and for these specific questions. Do elementary history textbooks

use types of time, as illustrated through language, appropriate to the audience? Also, do elementary history textbooks develop chronological thinking skills as outlined in the National Center for History in the Schools publication, such as measuring calendar time and explaining change and continuity over time?

I analyzed several elementary history textbooks specifically for how concepts of time were introduced and discussed. I examined three textbooks:

-Some People I Know. 1991; edited by Armento, Nash, Salter, & Wixom; 2nd grade.

-America Will Be. 1991; edited by Armento, Nash, Salter, & Wixom; 5th grade.

-The American People: A History. 1986; edited by Maier; 5th grade.

I choose these three textbooks because they are all from publishers popular in schools, as well as being easily accessible. I began by reading the editors' introductions and the scope and sequence so I had a general idea what to expect from the text. I then choose one unit from the second grade text and one chapter from the fifth grade texts to examine in depth for presentations of time concepts. I also reviewed additional selections from the texts that specifically related to introducing conceptions of time to children, such as physical time measurements and time related vocabulary.

In the second grade textbook, Some People I Know, I choose the second unit, *Knowing Your Family*, which attempts to relate the lives of children today to the lives of their ancestors. This unit is the only part of the book that discusses the past in much detail. For the fifth grade texts, I choose the chapter covering the period of European exploration in the 1400 and 1500s as a means to compare how each textbook used time concepts. In The American People, the second chapter is called *The New Age of*

Discovery, in *America Will Be*, the comparable chapter is labeled *The Age of Exploration* and it is the fifth chapter. In *The American People* the chapter is 21 pages in length, versus 23 pages in *America Will Be*, and both chapters cover Portuguese, Spanish, French, Dutch, and English travels to North America through the early 1600s.

I read each text selection through several times and looked for references to time of all sorts, including language related to physical, historical, and literary time as defined by Poster. I also read for references to time that were not specific to one type of time, but rather indicative of concepts of time such as explaining change and continuity and establishing temporal order in the narrative.

Analysis of Second Grade Text

In *Some People I Know* the editors of the second grade textbook discuss the importance of linking the past to the present. “Maybe the most important job the teacher of young children has is to develop in the child the concepts of time. Linking the concerns of the past to the concerns of the present prepares students to be active learners of history” (Armento, Nash, Salter, & Wixson, 1991, p T15).

In the second grade text, I choose the unit *Knowing Your Family* to examine. In this unit, five children are presented as case studies using short narratives about their lives today in the United States and the lives of their ancestors through several generations. The children represent different cultural backgrounds and the text places emphasis on their ancestors arrival in this country at different points in history. History is measured through generations of ancestors, mothers, grandmothers, and great-grandmothers.

Key vocabulary words for this second grade unit include ancestors, history, holiday, and tradition, which are used to relate life now to life in the past (Armento, Nash, Salter, & Wixson, 1991). The unit begins with this definition of ancestors: “your ancestors are all the people in your family, starting with your parents, who were born before you” (Armento, Nash, Salter, & Wixson, 1991, p 44). To explain when people’s ancestors arrived in the United States, since that is where all of the children written about live, the authors explain that ancestors may “have just” arrived or arrived here “long, long ago” (p46). Native American ancestors are described as arriving here “long before any of the others” (p 46). Words and phrases such as “just,” “long, long ago,” and “long before” are all vocabulary associated with literary time, which allows an author to differentiate different time periods without relying on physical time concepts, such as dates. These are story-telling words and they build on the concepts of story to imply a temporal structure to historical events.

The second lesson discusses holidays as “a day to celebrate someone or something special” (Armento, Nash, Salter, & Wixson, 1991, p 50). While this definition is not specifically defined as honoring events from the past, the concept is used throughout the unit to compare the lives of the American children to their ancestors’ lives in other countries. One child’s father remembers New Year’s Day celebrations in Cambodia, while the text suggests that teachers discuss the New Year’s holiday in the U.S. (p 50). In another narrative, a child’s family describes celebrating two sets of holidays from Mexican and American cultures (p 60). The girl’s family celebrates the independence days of both countries. The American celebration on July 4th is compared to the Mexican celebration on September 15th and 16th with its own unique customs such

as people performing traditional dances in colorful clothing. These holidays are explained in terms of traditions, defined as “something that is done a certain way for many years” (p 59). The length of time a tradition develops over in terms of physical time is not important here. Rather the idea of a tradition remaining constant over time, such as continuing to celebrate the Mexican independence day, while other factors change, such as a family immigrating from Mexico to the U.S. (p 59). The people might change locations or languages, yet parts of their culture remain constant.

In *Knowing Your Family*, history is defined as “all the things that have happened in the past” (Armento, Nash, Salter, & Wixson, 1991, p 58). One grandfather tells about events that occurred “long ago when he was a boy” (p 58) while a grandmother describes a Navajo tradition that “began long, long ago” (p92). The text puts history in the perspective of past times delineated by generations.

The last unit in Some People I Know features biographies of people whose experiences as children guided their careers as adults. There is one table that presents pictures of inventions by Thomas Edison as he built them, and pictures of the comparable technology today (Armento, Nash, Salter, & Wixson, 1991). This then-and-now comparison presents isolated examples of technology and the text includes specific extension questions such as “How do today’s movie projectors look different?” (p 163). Then and now are literary time terms that place events in different points in history. This is also an example that illustrates change and continuity over time. Movie projectors were invented “then,” but they are still used today for the same purpose. Movie projectors have also changed in design over time; people have made improvements that suited their needs for the technology.

Analysis of the Fifth Grade Texts

In both America Will Be and The American People: A History, the editors place an emphasis on the concepts of time and chronology, both as objectives and as a requirement for reading the text. The editors of America Will Be (1991) contend that by “narrowing the chronological focus, we give students time to take an in-depth, multi-perspective look at the world they live in” (p T9). Which in the case of the fifth grade textbook, means that the authors only cover American history from the arrival of Native Americans on this continent until the Civil War.

One editor of America Will Be suggests that a “part of humanizing history is to show the connection of people in history to people today” (Armento, Nash, Salter, & Wixson, 1991, p T15). To that end, this text includes an additional type of insert, called *Across Time and Space* that ties historical events to current issues (p T15). In two or three sentences these inserts attempt to connect places and events from history to the current world students live in. One example explains that some highways today were built along the same routes people migrated along long before cars were invented, such as the Oregon Trail. This is one way of illustrating change and continuity over time. People still travel the same route generations in the past did, but their mode of transportation has changed from wagons to cars.

In The American People, inserts are used to introduce specific geography and history skills that contribute to the text, including one labeled *The Vocabulary of Time*. This lesson begins with the statement that “understanding time relationships is very important in studying history” (Maier, 1986, p 94). After dismissing phrases such as “in

the past” as too vague in the first paragraph, the text moves on to discuss concepts that “are more precise” (p 94). Several concepts are introduced in this half page, including the length of a decade and a century in years, the distinction between B.C. and A.D. including the Latin translations, and the relationship of centuries and years. All three of these are examples of the use of Poster’s model, specifically physical time, in textbooks. Understanding one century to be equal to one hundred years is simply a measurement of calendar time. The relationship of years and centuries, such as the year 1607 being a part of the 17th century, is an example of the importance of knowing a wide range of physical time vocabulary when reading a history textbook. These skills are presented during the fifth chapter, which covers the establishment of New York and New Jersey as English colonies, though I found all three concepts in use in the second chapter, *The Age of Exploration*.

The American People and America Will Be both use some words and phrases that draw from historical and literary time vocabulary in the comparable chapters on European exploration. Both texts begin the chapter discussing the time being covered as an ‘age’ of discovery and exploration. The American People uses more indefinite time expressions than America Will Be, such as “the great age,” “at that time,” and “in the days before” for example, which are all found on one page of the text (Maier, 1986). America Will Be uses very few time references that are not dates or measurements of physical time (Armento, Nash, Salter, & Wixson, 1991). The text makes reference to “early mapmakers” working in 1490; refers to the English as being “slow” to start exploring; and in one instance uses “first” to differentiate one French voyage from the next. These examples of historical time concepts are partially literary time and physical

time. “At that time” could also be used to tie events together in a story, while “in the days before” implies chronological order, but in context they are definitely historical time concepts. There are representative examples of historical time vocabulary used within the chapter on European exploration in both history textbooks.

The American People includes more literary time terms, story telling words and phrases, to indicate that events occurred in a sequential order. Phrases such as “at first,” “in the meantime,” and “after a while,” appear frequently in the text to move from one event to another (Maier, 1986, pp 23-24). Research suggests that literary time is the first type of time that children understand. Students at this age would most likely be comfortable using these terms to space events in time. This would then be an appropriate way to measure time in textbooks that can also be built upon to help students develop other skills to measure time.

One thing the authors of both text do on occasion, is recognize that the places they are mentioning did not carry the same names now that they did at the time of the past events discussed in the text. For example, The American People includes references to “present-day Peru” and “the present state of Arizona,” and “present-day California” is referenced in America Will Be. While previous examples are based on the types of time discussed in Poster’s model, this is an example of another time concept integral to the study of history. This is an example of phrases and language that support the concept of change and continuity over time discussed earlier as one piece of chronological thinking. Names of places have often changed throughout history as changes in the population’s culture makes old names undesirable land or as land is conquered or lost through war and the victors rename their prize. One way of accounting for these changes would be for

students of history to study maps from each time period and learn the names of each country, territory, or colony as they were labeled during the events being discussed. Unfortunately, that is not practical when studying large spans of time. For instance, countries in Eastern Europe have changed names and borders frequently in the past fifteen years, not to mention the past fifteen centuries. Instead, the concept of change and continuity over time is utilized to simplify discussion of places in history. The names of places in the Americas have been changed since the Europeans' arrival, in some places the names have changed many times. Yet the land itself is still the same. The Rocky Mountains by any other name are still a good deal higher than sea level and snow covered. The land is the continuity that makes references to changing "present-day" places relevant.

Another possibility concerning change and continuity in textbooks is that only one or the other is represented. In relating Martin Frobisher's search for the Northwest Passage, the text of The American People reads "he failed, of course" (Maier, 1986, p38). Frobisher was not the last European to search for such a waterway, though since in this time we know it is not geographically possible, it appears other explorers were not worth mentioning. In this example a sense of continuity is placed on events that were still changing at the time. History textbooks generally present history as a definitive sequence of chronological events, but there is a type of prophecy in these types of references. The author sees beyond the end of the chapter into the future, when of course, the end result of the event is obvious. In the instance of Frobisher, the author writing text in the 20th century knows there is no Northwest Passage because of current technology and knowledge that has provided detailed maps of North America. But all that happened well

after Frobisher's travels. The author brings established knowledge from the present into the narrative that creates a narrator for the text who can see into the future.

Another example from the text of The American People is a question concerning the Papal Line of Demarcation of 1493 and 1494. The question is, "How did Portugal gain control of Brazil?" (Maier, 1986, p 28). According to the text, the correct answer is that the second line of demarcation in 1494 ran through present day South America and the land to the east eventually came under the control of the Portuguese. This is an odd mix of change and continuity. The question does not acknowledge that in 1494 the land in question was not known as Brazil, nor was it known as such until after the Portuguese conquered the area. Also, Portugal's eventual conquest of Brazil did not occur until some time after the course of events covered in this chapter. The question asks the students to make prophecies concerning an event that will not be discussed until later in the textbook. It essentially presents Portugal's conquest of the land as a foregone conclusion. While it is true that in our time the outcome of these events are known conclusively, the establishment of a Portuguese colony named Brazil was not the intent of the Papal Line of Demarcation. In a textbook that appears to follow a strict chronology in most places, this question seems out of order.

Findings

Earlier I posed two research questions. Do elementary history textbooks use types of time, as illustrated through language, appropriate to the audience? Do elementary history textbooks develop chronological thinking skills such as measuring calendar time

and explaining change and continuity over time? The answers appear to be different based on the grade level.

The second grade textbook published by Houghton Mifflin was most age appropriate for the target audience in terms of time concepts. The majority of the text is differentiated in time by literary time concepts, which research suggests is most likely within the range of early elementary students. Calendar time is used only sporadically, usually as a way to mark an annual event. Research referenced above implies that children at the kindergarten level would likely recognize common patterns such as a yearly holiday, and second graders would probably be able to identify a few key dates. The then-and-now example would likely be accessible for students this age in developing a sense of change and continuity over time, particularly if they are isolated examples of comparable items or events. If anything the editors are a bit simple in their explanation of time, particularly given the mature treatment of time found in the fifth grade textbook of the same series.

The two fifth grade textbooks are not likely to be within the developmental range of the students for whom they are intended. While it is not clear how many dates are too many for upper elementary students to encounter in a text, both of these selections are probably past that distinction. Years comprise most of the information used to reference events in time, and the events begin to read like a shopping list. Research suggests that children will probably not be able to consistently tie a large number of dates to specific events until at least middle school, though they could likely associate a smaller number of key dates. Both texts use some literary and historical time concepts, which fifth grade students are likely to comprehend. But the majority of time references are dates,

referenced by other dates. Both texts use implicit time references infrequently. When they occur, the implicit reference is usually related to concepts of change and continuity over time. While research is not clear on when these concepts develop in children, any examples of change and continuity that are well done would probably be beneficial. Unfortunately, these concepts can also confuse the issue at hand, as in examples discussed above from The American People.

Discussion

The findings of this study point towards several considerations for teachers of history, and concern for the ways in which textbooks do and do not support learners' development of chronological thinking. An important finding of this research was the usefulness of Poster's model of types of time. The framework Poster developed proved to be a useful assessment tool for educators to analyze history textbooks. The five types of time defined in his work were helpful in sorting through the varied references to time found in elementary history textbooks. Future research might apply Poster's model to analyze textbooks used in all grade levels to determine if the pattern found in this study holds true. An important finding in this study was the difference in developmental appropriateness of the two grade level texts analyzed in regards to time vocabulary. While the second grade textbook, based on research of children's development of conceptions of time, appeared to be appropriate and consistent, the fifth grade text did not. One can speculate that the scope and sequence of textbooks is weak in terms of identifying and building on developmentally appropriate time conceptions of learners encountering the text. Future research in analyzing elementary history textbooks for the

appropriateness of time concepts presented given the age of the students may prove useful.

Another key finding from this analysis points towards the need for teachers to be aware of the presentation of time concepts in the textbooks they use. While history textbooks are generally chosen by a small group of people to be used in a large number of classrooms, teachers need to be well acquainted with the assigned texts before beginning instruction. Teachers need to critically read history texts for cultural bias and appropriate reading level, and they need to understand what conceptions of time are being presented and implied in the text. Not only are classroom teachers the last adult to filter the content before it reaches students, they are more familiar with the capabilities of their students than any author or researcher, and best able to judge what is appropriate for the students.

Types of time and time language are important components of history textbooks that must be taken into consideration when planning instruction. Children's emerging understanding of time concepts is central to their developing chronological or historical thinking skills. The value of understanding history and the importance of historical thinking skills in that process has been argued in literature cited here and elsewhere. The findings of this study support the argument that historical understanding is a developing skill in elementary aged children and suggest that textbooks may undermine that development when they do not present time concepts and time language in appropriate ways. The differences found in my study between the second and fifth grade textbooks suggest that authors and editors do not give enough consideration to the implicit and explicit time language used in their textbooks.

As a beginning teacher, the knowledge I have gained through the course of this analysis has added to my list of concerns about elementary social studies textbooks. Time and chronology as a part of history textbooks has more importance to studying history than simply a student's boredom when encountering of string of dates and events. Conceptions of time are essential to history education, textbooks do not necessarily take students' understanding of time into consideration, so as a teacher I need to critique and edit materials they enter my classroom. This may mean that I only use pieces of chapters, as they seem relevant and appropriate. Perhaps I use a chapter as a type of outline for the material to be covered and supplement the text with other sources of information that better explain the importance of a date such as the Fourth of July.

As with any research, this study was limited by a number of factors; the number of texts reviewed and the limited range of grade levels represented in the textbook selection. Future research might include a more extensive set of textbooks that includes all grade level textbooks in a publisher's series, as well as examining texts from a range of publishers. Given the opportunity for further study I would like to look at how children do understand the time language discussed in this study. While the research cited above and Poster's model of types of time are certainly connected, further investigation of children's conceptions of the different types of time as found in language would be interesting and add to the research.

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