METADISCOURSE:
WHAT IT IS AND HOW IT IS USED
IN SCHOOL AND NON-SCHOOL SOCIAL SCIENCE TEXTS

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The concept of metadiscourse is defined and four different classifications of metadiscourse types are described. Metadiscourse, the author's discourse about the discourse, is classified into two types, informational and attitudinal. Informational metadiscourse directs readers how to understand the primary message by referring to its content and structure or the author's purposes or goals. Attitudinal metadiscourse directs readers how to understand the author's perspective or stance toward the content or structure of the primary discourse. The types and amounts of each type of metadiscourse, based on an analysis of nine school social science texts and nine nonschool social science texts, is reported. Results of the analysis showed that nontextbooks used more informational metadiscourse than did textbooks, but the differences were not large. However, nontextbooks used almost twice as much attitudinal metadiscourse as did textbooks. Examples of metadiscourse from textbooks and teachers' manuals are then critiqued.

Content area reading has received considerable attention in recent years from reading educators and researchers because of the difficulty many students have in making the shift from reading narratives to expository prose. Reading educators are now offering courses to prospective or practicing teachers on the subject of content area reading in colleges and universities (Estes & Vaughan, 1978; Smith, 1978; Herber, 1978). Researchers have examined content area reading from various perspectives such as comprehension instruction (Durkin, 1978, 1980), studying (Anderson, 1978), background knowledge (Adams & Bruce, 1980), the reader/writer relationship (Tierney & Lazansky, 1980), metacognition (Baker, 1979) and text features (Anderson, Armbuster, & Kantor, 1980; Davison & Kantor, 1980; Armbuster & Anderson, 1981). These researchers have made important discoveries about teacher and classroom variables, learner variables, task and text variables, and how they all interact and affect content area learning from text.

Armbuster and Anderson (1981) have been investigating the aspects of content area textbooks that seem to impede learning and have identified four discourse properties that authors should attend to in order to produce "considerate" texts—texts that readers can comprehend without too much effort. The four discourse properties are (a) structure—the ordering of ideas largely determined by the pattern of organization required by the purpose of the discourse, (b) coherence—how well sentences and ideas are woven together and flow into each other, (c) unity—the internal consistency
of ideas, and the relevancy of everything to the purpose and controlling idea of the discourse, (d) audience appropriateness—meeting the needs of the reader in regard to amount of explanation, detail, vocabulary and syntax, all based on the amount of background knowledge of the reader. These four properties, often found to be lacking in the content area textbooks analyzed by Armbruster and Anderson, are properties of the primary discourse—the propositional content of the content textbooks.

While there is no doubt that the primary discourse is an important aspect of content textbooks for discourse analysts and experimental researchers to study, another level of discourse also warrants close study, the level called metadiscourse. Metadiscourse is, simply, an author's discoursing about the discourse; it is the author's intrusion into the discourse, either explicitly or non-explicitly, to direct the reader rather than inform. Metadiscourse is the directives given to readers so they will understand what is said and meant in the primary discourse and know how to "take" the author. Although metadiscourse has been discussed to some extent by Williams (1981a, 1981b) and by Meyer (1975) under the term signaling and manipulated in a few studies (Meyer, 1975, 1980, 1982, Vande Kopple, 1980), not much is really known about this system of discourse. No one, as far as I can determine, has examined metadiscourse as a system in content textbooks. The passages used by Meyer and Vande Kopple in their studies were adapted from tradebooks or periodicals.

The purposes of this paper are to (a) define metadiscourse, (b) set up a typology for it, (c) describe the types and amounts of each type based on a systematic analysis of nine social science texts (written for students ranging in level from third grade to college undergraduate) and nine social science texts (written by historians, political scientists, anthropologists and other social scientists for intelligent adults, ranging from non-academic periodicals and monographs to academic journals and books), (d) discuss the findings.

The Concept of Metadiscourse

The term metadiscourse is an anthropological term used by Joseph M. Williams of the English/Linguistics department of the University of Chicago. In his recent book, Style: Ten Lessons in Clarity and Grace (1981a), Williams discusses metadiscourse in the Lesson called "The Source of Wordiness." Here in a section he calls "Talking to the Reader: Metadiscourse," he defines it as "... writing that guides the reader [distinguished from], writing that informs the reader about primary topics ... discourse about discourse" (p. 47). He also defines it in the appendix:

Metadiscourse: Writing about writing, whatever does not refer to the subject matter being addressed. This includes all connecting devices such as therefore, however, for example, in the first place; all comments about the author's attitude: I believe, in my opinion, let me also point out; all comments about the writer's confidence in his following assertion: most people believe, it is widely assumed, allegedly; references to the audience: as you can see, you will find that, consider now the problem of ... (p. 212)

Williams also defines and discusses this term in another book on style, Style and Variables in English (1981b), in a chapter called "Literary Style: The Personal Voice," where he points out that metadiscourse is a level of structure important in a description of style.
Every text, regardless of its ideational content is produced by one of the personae in the speech event, the speaker or writer. Sometimes the author speaks in the first person and refers directly to the discourse as he constructs it, sometimes including even the audience as a specifically mentioned you. (p. 195)

Often an author conducts his discourse on two levels. He mentions the content of his primary discourse; but embeds it in metadiscourse, discourse about discourse, words, phrases, clauses or sentences that refer to the act of discoursing rather than to the subject "out there," "to the speech event that the discourse and its reader create." In the following example used by Williams, the words I have underlined are primary discourse while the rest are examples of metadiscourse:

I would now like to turn your attention to the subject of women. I submit to you that this is a difficult question. It is not my intention to dwell upon this subject at too great a length, but it is a question which we all know has vexed the male gender for centuries and centuries. (p. 195)

Of course, this example is extreme. Most authors would not use this much metadiscourse.

The advantages of metadiscourse are that it allows authors to make these kinds of announcements to the readers:

1. Changing the subject (Let us now turn to . . .)
2. Coming to a conclusion (In conclusion . . .)
3. Asserting something with or without certainty (Surely, probably)
4. Pointing out an important idea (It is important to note . . .)
5. Defining a term (By x, I mean . . .)
6. Acknowledging a difficult line of thought (This is a difficult notion . . .)
7. Noting the existence of a reader (You will remember that . . .)
8. Indicating cause or other relationships between ideas such as contrast (thus, but)
9. Continuing the discourse (at least, second)
10. Expressing an attitude toward an event (Interestingly . . .)

Many writers, according to Williams (1982) stay out of their text almost entirely, relying on shorter discourse signals such as therefore, however, possibly, fortunately, rather than the longer types of I believe that, I am arguing that. Metadiscourse is probably used very little in operating instructions, technical manuals, science writing, and laws. It is used more frequently, he thinks, in the humanities, literary criticism, personal narratives, arguments, memoirs, personal letters—any discourse where ideas are filtered through a concern with how the reader will take them. In argumentation, metadiscourse is quite prevalent (e.g., The Federalist Papers, essays by Hamilton, Jay, and Madison supporting the Constitution) as authors refer to the state of the argument, to the reader's understanding of it, or to the author's understanding of his own argument quite frequently.

The problem, as Williams points out, is to recognize when metadiscourse is useful and when it is excessive, mechanical or obtrusive, perhaps burying the primary message. Williams claims if authors prune out clauses and phrases such as The last point I would like to make here is that in regard to, it is important to keep in mind that, in all probability, seem to, then the sentences or paragraphs become more direct. Apparently Williams sees metadiscourse as wordiness, for the most part, something to be pruned out. Composition textbooks and instructors agree with Williams
that metadiscourse is to be avoided. Winkler and McCuen (1981) list the following as one of the eight errors to avoid when composing a thesis: "A thesis should not contain phrases like I think or in my opinion because they weaken the writer's argument" (p. 36).

Meyer (1975) has also defined a concept closely related to or perhaps synonymous with metadiscourse that she calls signaling. She took Halliday's (1968) notion of theme and Grime's (1972) notion of staging in sentences and applied these non-content aspects of text to passages. According to Meyer, signaling is a non-content aspect of prose which gives emphasis to certain aspects of the semantic content or points out aspects of the structure of the content. Signaling does not add new content and relations but simply accents information already contained in the content structure. Signaling in a discourse shows an author's perspective on the content related in the primary discourse.

Speech communication textbooks (e.g., Bradley, 1981) and composition textbooks (e.g., Eastman, 1970) also discuss metadiscourse under the labels of transitions, signals or signposting. Bradley advises speakers to use signposts to guide listeners through the ideas by numbering main points; phrasing main points in parallel form; using single words such as furthermore, finally, or phrases and sentences such as, As a result of this, analysis, or Now that we have seen the causes of this problem, we can next look at the consequences; using rhetorical questions; or internal summaries. Transitions, Bradley notes, unify, emphasize, or give a sense of movement to ideas when the speaker uses a variety rather than thoughtless repetitions that call attention to themselves.

What all these authors seem to say is that when used appropriately, the non-content aspect of text called metadiscourse (or signaling, signposting or transitions) can serve to guide and direct a reader through a text by helping him to understand the text and the author's perspective. But it can also serve to impede understanding if used excessively or inappropriately.

Types of Metadiscourse

This section describes four different classifications of metadiscourse types. Williams' six metadiscourse types are described first, followed by descriptions of Meyer's four types, Williams' newer classification into three types, and finally, my own classification into two types.

Williams' Classifications

Williams (1981a) classifies metadiscourse into three broad common types: hedges and emphatics; sequencers and topicalizers; narrators and attributors. Each of these will be discussed separately.

Hedges. Hedges are those words of caution that authors use to sound a small note of civilized diffidence or to leave room for making exceptions. Hedges show readers the degree of uncertainty an author has about an assertion. Some of the common hedges are possibly, apparently, seemingly, in my opinion at least, sort of, perhaps, may, might, tend, hope.

Emphatics. Emphatics show the reader the degree of certainty the author has about an assertion. The emphatic word or phrase says to the reader, "Believe me." Some of the more common emphatics are: as everyone knows, it is clear that, the fact is, obviously, certainly, of course, indeed, crucial, major, essential, basic.
Sequencers. Sequencers are words that move the reader through a text. They help make a discourse cohesive and help carry readers from one sentence to the next, clarifying the discourse for them. In elaborate introductions where an author specifically lays out the plan of the paper, examples might be phrases such as, In this next section of the chapter, it is my intention to discuss the problem of; The first thing I want to say about this subject is.

Topicalizers. Specific topicalizers focus attention on a particular phrase as the main topic of a sentence, paragraph, or whole section. Such phrases and clauses might commonly be in regard to, where x is concerned, in the matter of, turning now to—all are used to announce that the author is moving on to a new idea. The most common topicalizer is there is/are (e.g., There are three reasons why we should pass the ERA amendment).

Narrators. These are words that tell the reader where the author's ideas or facts or opinions come from. Sometimes when authors try to determine what they really want to say, they offer a narrative of their thinking rather than the results. An author might begin by saying, I was concerned with, so I attempted to, I have concluded, I think. The author here gives the process by which observations or a conclusion were arrived at. The observer is specified and the source of the idea or opinion is given.

Attributors. When the observer is unspecified, attributions of idea/opinion source is slipped into discourse indirectly by stating that something has been observed to exist, is found to exist, is seen, noticed, noted, determined, and so on.

Meyer's Classification

Another classification system is used by Meyer (1975) for signaling. She identifies four major types: (a) the specification of the structure of relations in the content structure, (b) prospectively revealed information abstracted from content occurring later in the text, (c) summary statements, and (d) pointer words. She defines each type and gives examples.

Specification of structure of relations in the content structure. This type includes explicitly stated words such as problem, solution indicating the discourse type and words such as two, one, the other. An example combining the two types might be: Two problems exist. One is the problem of money, and the other is the problem of motivation.

Prospectively revealed information abstracted from the content occurring later in the text. This type uses the same words or paraphrasing to give information toward the beginning of a passage or paragraph that is stated later in the text. It is often seen in titles and introductory sentences of passages and paragraphs. The superordinate information is abstracted out and presented prior to its discussion in detail in the text. Meyer breaks this type into two subtypes. The first is the prior enumeration of topics to be discussed later in the text. An example would be These three types of schools are urban, suburban and rural. A paragraph or more would be devoted to each school type in the text. The second subtype of signaling prematurely states ideas or interrelationships among content that are pointed out later in the text. An example would be These problems must be resolved within the next six months. The text would develop the six months time period later on, perhaps several paragraphs or more away from the prior mention of the time.
Summary statements. This type is similar to the type mentioned above, but the information is not given prematurely. Instead, the same words or paraphrased wording for information already presented and located in the content structure are stated again at the end of a paragraph or a passage. It is often seen in summary statements at the end of a paragraph or passage summarizing the main points made (e.g., in short, a wonderful vacation is available for those with time, money, and the proper equipment).

Pointer words. Pointer words are signaling words that explicitly inform the reader of the author's perspective of a particular idea. An author may use this type when he explicitly states that an idea is important or gives his opinion of an assertion or fact given in the text (e.g., my first important point is that ERA is not a dead issue; unfortunately, not many legislators agree with me).

Williams' New Classifications

More recently, Williams (1982) has reclassified metadiscourse into three general types: (a) advance organizers, (b) connectives, and (c) interpersonal discourse. This classification seems close to Meyer's classification system with the advance organizer type including the preliminary and final statements or summaries mentioned by Meyers, the connective type included in Meyers' first type, specification of structure of relations in the content structure (Meyer would include words labeling the discourse type such as problem/solution, comparison/contrast, etc., not just the connective words such as and/or, but, thus/first that signal the discourse type) and the interpersonal type that Meyer calls pointer words. If metadiscourse is seen as advance organizers and/or summaries, connectives, and interpersonal discourse, then there is a body of research related to these three types. Some studies have looked at the effects of the presence or absence of a beginning summary or outline and Blanton and Smith (1975) have reviewed this research. The related work on advance organizers has been reviewed by Luten, Ames, and Ackerson (1980). (In these areas, the findings have often been contradictory but usually the presence of summaries, outlines, and advance organizers enhances learning.) Work on connectives includes studies by Robertson (1966); Bornuth (1970); Stoo dt (1972); McClure & Steffensen (1980); Crismore (1980). The findings indicate that connectives help readers comprehend more effectively. Little empirical work has been done on interpersonal discourse as a distinct type, but Meyer (1982) includes a few examples in her global signaling research. Sociolinguists, however, have described and discussed interpersonal discourse (Halliday, 1973, 1978; Kress, 1976; Schiffrin, 1980).

Crismore's Classification

For the purposes of this paper I will use a typology of the metadiscourse system based both on Williams' and Meyer's classifications with some modifications. My typology includes two general categories, the informational and attitudinal, with subtypes for each. One of the assumptions of studies of language use and social interaction is that language functions to transmit referential information as well as to create and sustain expressive meanings. I am assuming that not only primary discourse but also metadiscourse is used for both referential and expressive ends. Metadiscourse functions on a referential, informational plane when it serves to direct readers how to understand the primary message by referring to its content and structure, and the author's purposes or goals. The referring
can be on a global or local level. Metadiscourse functions on an
expressive, attitudinal and symbolic plane when it serves to direct readers
how to take the author, that is, how to understand the author's perspective
or stance toward the content or structure of the primary discourse.

Informational metadiscourse. An author can give several types of
information about the primary discourse to readers for better comprehension.
He can explicitly or implicitly signal his goal or goals for the primary
discourse; the topic or subject matter; the topic shifts; his main assertion
about the topic (the thesis or controlling idea); the significance or
rationale; and the sequence, organization, discourse type and development
methods he plans to use. The informative discourse can be in the form of
preliminary or review statements--This is what I am planning to say and/or
do or This is what I said or did--so can be considered as cataphoric
(looking ahead) or anaphoric (looking back) on a global or local, immediate
discourse level. The author can also give information about the relation-
ship of ideas in the primary discourse--the connective signals--on a global
or local level. Because so much recent research has dealt with connectives,
in this paper I will deal with all but the connective subtype. I will use
four subtypes of informative metadiscourse: (a) global goal statements
(both preliminary and review) which I call goals, (b) global preliminary
statements about content and structure, which I call pre-plans, (c) global
review statements about content and structure, which I call post plans,
and (d) local shifts of topic which I call topicalizers. Examples of each
subtype stated explicitly, make the distinctions easier to see. The meta-
discourse is underlined.

Goals:
(a) The purpose of this unit is to enrich the way
readers think about American Indians.
(b) We have in this book attempted to say something
about American politics at the beginning of the
1970's.
(c) Our goal is to understand how the preferences of
citizens are communicated upward to those who make
governmental decisions.

Pre-plans:
(a) This chapter is about Indians.
(b) We can trace the development and change in that
pattern of lifestyle.
(c) Presented first is a description of the background
of the situation.

Post-plans:
(a) We have looked so far in this chapter at the
history of one Indian tribe, the Mohawks.
(b) We have argued earlier that the arrival of the
Europeans began to destroy the Indian's life style.
(c) Remember that farming was the main way of making a
living then.

Topicalizers:
(a) Let us now turn to participation and preference
in relation to Vietnam.
(b) So far as strategic planning was concerned, the
objectives of the north were positive and those
of the confederacy, negative.
(c) Here is an article by a Chicago newspaperman where
he clearly says what he thinks about democracy.

Attitudinal metadiscourse. An author can also explicitly or implicitly
signal his attitude toward the content or structure of the preliminary dis-
course and toward the reader. He can give directives to readers about the
importance or salience of certain points or parts of his primary discourse
from his perspective, about the degree of certainty he has for his assertions
and beliefs, about how he feels about the content of the message, and about
the distance he wishes to put between himself and the reader. The author commentary here is evaluative and expressive rather than referential and informational. I will use four subtypes of attitudinal metadiscourse in this paper: (a) importance of idea, which I call saliency, (b) degree of certainty of assertion, which I call emphatics, (c) degree of uncertainty, which I call hedges, (d) attitude toward a fact or idea, which I call evaluative. Examples, explicitly stated, follow for each subtype:

Saliency:  
(a) Still more important as a call to reform were the speeches of the legislators of Maine.  
(b) Equally important in the process of emancipation was the Act of 1843.  
(c) The last and most crucial component is the economic component, so we shall focus on this.

Emphatics:  
(a) This, of course, is an oversimplification of the slavery problem.  
(b) This is true, even if we assume that the two leaders were equally intelligent.  
(c) In fact, tempers were so on edge that arguments and fights were common.

Hedges:  
(a) Perhaps, worst of all was the corruption in the cities.  
(b) In this case, "employment" probably refers to a person's job.  
(c) It would seem from archeological evidence that they were hunters.

Evalutative:  
(a) Unfortunately, most Americans do not vote as often as they could.  
(b) Luckily, this trench protected them from their enemies.  
(c) I think it is interesting that the villages were spared.

From the examples, it should be clear that metadiscourse can consist of words such as unfortunately or probably, phrases such as let us now turn to or so far as strategic planning was concerned, or clauses such as this chapter is about Indians, remember that farming was the main way of making a living or I think it is interesting that the villages were spared. It should also be clear from the examples that metadiscourse can be stated from different points of view such as (a) first person, I think or We have argued, (b) second person, Remember that or You will read that, or (c) third person, This chapter is about or The purpose of this unit is to. The larger metadiscourse phrases and sentences indicate more explicit author intrusion into the primary discourse while shorter metadiscourse words such as luckily or clearly indicate a more subtle intrusion on the author's part. A text can vary in the amount of metadiscourse, the types (long or short), the 'person' used for the metadiscourse with the focus on the narrator (first person), the reader (second person) or the text (third person). The amount and kind of metadiscourse and person used for it in a text can be viewed as an index of author intrusion, author personality, and the author/reader relationship. The use of metadiscourse is a stylistic variable—some authors use much, some use little. In this paper, because I think it might be useful and interesting, I examine the way social science textbook and non-textbook writers use or don't use metadiscourse, using my four informational subtypes and four attitudinal subtypes.
METADISCOURSE STUDY

Introduction

Social science is a strange subject because it involves so many disciplines. In most social science textbooks the disciplines of history, geography, anthropology, sociology, economics, and political science are represented, disciplines that are quite different. Geography is usually considered a spatial and descriptive science. History, on the other hand, is not a science but part of the humanities, a record of the past, a narrative, and interpretive. Commager (1965) points out that history has two meanings—the past and the memory of the past, and two kinds of historians—the literary historian and the scientific, technical historian. According to Commager, the gap between the literary and the scientific is not stylistic; it is deeper and more fundamental, a difference in the philosophy itself. The literary historian is interested in recreating the past for its own sake, so he is interested in the drama, the spectacle, the pageant, actors and actresses. The scientific historian has more prosaic and realistic purposes. It is reason he wants to excite, not imagination. The past is to be explained, not recreated. The evolutionary process of history and problem solving concern him. Commager notes, however, that:

Let us admit at once that history is neither scientific nor mechanical, that the historian is human, and therefore fallible, and that the ideal history, completely objective and dispassionate, is an illusion. There is bias in the choice of a subject, bias in the selection of material, bias in organization and presentation, and, inevitably bias in interpretation. (p. 53)

and, in addition, states that:

Actually partisanship often adds zest to historical writing; for partisanship is an expression of interest and excitement and passion, and these can stir the reader as judiciousness might not. (p. 55)

The point Commager makes is that history is always, in some ways, biased and that being overt about one's biases helps readers become interested in history.

No doubt the other social science disciplines also have the literary and scientific approaches, too, reflected in the texts written by the authorities in these fields who use their preferred approach. Because this is so, we might expect to find differences in the kinds and amounts of metadiscourse. We might also expect differences because of the individual writing styles of the authors, the background and age of the readers, and the purposes of the texts (e.g., to give new information or to persuade, if the information is known to both author and readers).

In school textbooks, the publisher and author may want to use metadiscourse to help the reader reconstruct the author's writing plan, or serve as advance organizers or reminders, to help him set up expectations, confirm them, and integrate the text. They may decide to use metadiscourse in order to help the reader become an independent reader who can learn from the text because he is an "insider" concerning the topic, thesis, purpose, author stance, significance, organization, sequencing, discourse type and method of development. On the other hand, the publisher and author may decide not to use metadiscourse because of readability formulas and the desire to spend the number of words permitted on the primary discourse, covering as many topics and disciplines as possible. Publishers do need to sell books so do not wish to offend teachers or school officials because
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topics are not covered, readability formulas are not followed, subject matter is not presented "objectively," or teachers are not given an intermediary role. Perhaps they see the teacher's manual and the teacher as the proper dispenser of metadiscourse. In that case, the teachers (if they read the teacher's manual) are the "insiders," not the student reader. Metadiscourse use assumes, of course, that there is a real discourse to discourse about, however—as connected, logical discourse with structure and continuity.

These possibilities raise some interesting questions that I will attempt to answer with this study. (a) Are there differences in the amount and types of metadiscourse used by social science writers in materials used for school and non-school purposes? (b) Are there differences in the amount and types of metadiscourse used in social science textbooks across grade levels? (c) Are there differences among publishers of social science textbooks on the same grade level? (d) Are there differences in the amount and types of metadiscourse used by non-textbook social science writers who write for different audiences?

Description of the Materials and Sample Selection

I have chosen 18 texts for this study, nine social studies textbooks and nine non-textbook texts. All levels of school are represented with the textbooks—early elementary, middle school, junior high, high school and college. Of the nine textbooks, six can be considered typical and three atypical. The six typical ones are published by leading publishers and are widely used. The three atypical textbooks are not published by leading publishers and/or are not widely used.

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The sample of nine textbooks and the units and chapters were chosen to represent a wide range of social science textbooks and materials found in them. I tried to include chapters that focused on geography and spatial relations, history of people, places, and events, anthropology, economics, sociology and political science. Some topics were held constant across some texts such as American Indians, slavery and the Civil War. One publisher was held constant, Harcourt Brace Jovanovich, with textbooks written for elementary, junior high, and high school students in Grades 5, 7-8, and 9-12.

Since complete information about each textbook is given in Appendix A, only the acronyms, grade level, and brief descriptions of the texts will be given here. The typical textbooks consist of [Soc. Stud.] grade 4; [The U.S.] grade 5; [Our World] grade 6; [America] grades 7 & 8; [Rise] grades 9-12; and [Am. History] college undergraduate. The books are typical in that they are "written" by multiple authors or editors with the aid of many educational and social studies specialists, are comprehensive, dealing with many topics in a survey fashion and have the content, structure and style of textbooks used in typical classrooms across the nation.

The three atypical texts were written for special populations. [Chicago], grade 3, was written for the children in a large urban school system (Chicago's) by a single author, a former school principal who was probably not a social science expert. The subject matter would no doubt be familiar and interesting to them. [Indians], grades 7 & 8, was written for junior high students in a laboratory school at the University of Chicago by two history experts, a husband and wife team, one a curriculum specialist in social studies. Both authors had participated in
anthropological field work on Indian life. [As It H.], grades 9-12, was written for students in advanced placement honors programs in high school. The authors made extensive use of original source material in the textbook, commenting on the selections used. Students were expected to read and understand the primary sources mostly on their own.

The nine samples drawn from texts written for a non-student, adult population were also chosen to represent a wide range of social science disciplines, topics, styles, audiences and types of text. Some texts are articles written for widely read periodicals, some are articles written for specialized academic journals, some are chapters or essays from books or monographs written for either a general audience or a specialized audience. Several are written by pulitzer prize winning authors and famous historians while others are written by journalists, anthropologists, political scientists, and professors. Some authors use a literary approach and some a scientific approach. Some topics are more or less constant such as the American character, presidential character and power, democracy, and social equality. There is some overlap with the textbook samples with the urban history article, social equality, and the American character.

The acronyms of the nine texts and brief information about each is given here. More complete information is given in Appendix A. The typical texts written for general audiences of periodicals consist of [Canoe] written by a native Hawaiian anthropologist; [The Ams.] written by an Italian journalist; [Kennedy] written by a prominent American journalist (this article was actually a chapter of a book published by The Atlantic Monthly that later became a bestseller. The typical texts written for specialized audiences of periodicals consist of [T. R., Pres.] written by an historian; [Another L.] written by an historian-professor; and [Urbaniz.] written by two historians, both professors. The typical books for general audiences are [The Defeat] written by a leading historian; and [Uprooted] written by a Pulitzer prize-winning historian. The atypical text [Participation] is a book written for a specialized audience by two social scientists as a research report and sometimes used as a textbook for graduate political science courses.

Method for Text Analysis

The unit of analysis was a whole discourse chunk such as a unit, chapter, or article. Because the length of units or chapters increases through the grades for textbooks and because initial chapters might vary from middle or final chapters, the selection of units or chapters varies in number and location. Each unit, chapter or article was examined and analyzed for instances of the four subtypes of informational metadiscourse (goal plans, pre-plans, post-plans, and topicalizers) and the four subtypes of attitudinal metadiscourse (saliency, emphatics, hedges, and evaluatives). In order to compare textbook instances and non-textbook instances, it was necessary to use a 1,000 word unit as a base since the text units were not the same length. The quantitative data presented in tables will be frequency of metadiscourse instances per 1,000 words. The chunks range in length from 1,000 words in the Chicago text to 12,000 words in the high school and college textbooks and non-textbook samples. All word counts are approximations based on number of words per inch of text. If statistical tests were performed on the quantitative data, such as analysis of variance, transformations would have to be done. Quantitative information is necessary for indicating the existence of and relative emphasis given to
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different metadiscourse types in the samples. Purely quantitative analysis
cannot, however, convey the flavor of the text materials. This can only
be done qualitatively. The eight categories chosen for quantitative
analysis needs qualitative illustration by direct quotation in order to see
presentation style and patterns of use. In order to assess the degree of
author intrusion into the text, the point of view or 'person' used for the
metadiscourse will also be examined and discussed. Examples of these eight
categories and point of view will be found in the sections that follow.

Further examples are given in the Appendix B.

The task of identifying those elements of language used for metadis-
course is not easy. The function of metadiscourse can be viewed as a
metacommunicative function. It is a discourse whose subject (either
explicitly or implicitly) is both codification of the message and the
relationship between the communicators (Schiffrin, 1980). But because of
the wide range of phenomena that can be identified as metadiscourse and
the vagueness of the boundaries between metadiscourse and other functions
of language it is difficult to find a set of empirical linguistic indicators
for metadiscourse. One set of indicators that can be used, however, is
(a) the modals such as may, might; (b) verbs such as those that name acts
of speech or speech events (e.g., say, tell, ask, assert, describe, argue,
explain, discuss, clarify, define); or (c) those that refer to internal
states such as think, realize, know, seems, etc. Another set of indicators
is the (a) disjuncts (sentence adverbials) such as clearly, fortunately,
Ironically, surely, probably, of course, in fact, etc.; or (b) the construc-
tions It is interesting that, It is true that, It is important that, etc.

Other indicators are (a) words such as purpose, aim, chapter, section,
point, now, let, topic, problem, comparison, story, crucial, important,
primary, maybe, perhaps; (b) phrases such as in my opinion, it seems to me;
(c) tense markers—will, have, ed; (d) sentence type such as imperative;
(e) pronouns such as I, we, you, it.

Findings for Informational Metadiscourse Use (Based on Tables 1 and 2)

Goals. As can be seen in Table 1, no goal statements were found in any
of the typical social studies textbooks. Goal statements are usually found
in prefaces or introductions to a book, theme or chapter or else in the
concluding sections of a book, unit, chapter, or section. The typical text-
book did not contain prefaces or sections called "To the Student" with the
exception of [Our World]. The preprose for [Our World] told the student
the topics to be covered but no goals, purposes, or aims. However, two of
the three atypical texts did have goal statements. Several examples from
each include:

[Indians] This is our goal in this book. We want to look
at the prehistory of Indian culture in America
to see the ways in which Indian peoples learned
to exploit the land in which they lived. We want
to look at the course of Indian-white relations in
America to explore what happened when a stone-age
culture faced an acquisitive white culture that
was more highly developed and had more resources
than did Indian culture. We want also to examine
the legacy of this contact which in large part
has led to the problems of Indians today. We
cannot understand the present without the past,
and we cannot understand either unless we try to see more clearly than before. (p. 5)

[As It H.] The authors and publisher are confident that these materials, arranged and presented as they are, will help you to arrive at a clearer understanding and appreciation of our society. (p. xi)

Table 2 shows that in the nontextbook samples, four of the nine used goal statements, which are illustrated in the following examples.

[Urbaniz.] We have attempted to present city "types" and a new periodization which emphasizes the rise of cities to local predominance. (p. 51-52)

[Defeat] They [these essays] seek to explain, or at least to illuminate, the implications of that collapse for our political and constitutional fabric and to interpret its consequences for our moral fabric. (p. 9)

[Uprooted] I hope to seize upon a single strand woven into the fabric of our past, to understand that strand in its numerous ties and linkages with the rest; and perhaps by revealing the nature of this part, to throw light upon the essence of the whole. (p. 3)

[Participation] We have, in this book, attempted to pursue both goals: to say something about the processes of politics in general and something about American politics at the beginning of the 1970's in particular. (p. xix)

Notice that [Indians], [Urbaniz.], [Uprooted], and [Participation] use the first person, thus indicating the presence of real authors with real goals and purposes. [Defeat] uses third person so that the text rather than the author seeks to explain; the text is personified and the distance between author and reader increases. There is a difference in the styles of both [Defeat] and [Uprooted] and the rest in that figurative language is used. Commager, the author of [Defeat] and Hanlon, the author of [Uprooted], use a literary style while the others use a prosaic, plain style. [Uprooted] also makes use of hedges—hope and perhaps. The results of this sample suggest that typical textbook writers do not use goal statements but that atypical textbook and nontextbook writers do often use them and that the typical textbook is bland in comparison to the typical nontextbook.

Pre-plans. A total of 82 plan statements concerning the content or structure were found in the textbook sample, but 58 of the 82 were found in two of the atypical textbooks. The data show no use of pre-plans in the lower grades but an increased use of pre-plans as students get into the middle and junior high and then a decline.

The situation seems to be the reverse for the non-textbooks samples. Although there were a total of 106 instances, 84 of them were found in the one atypical text. This high frequency could be accounted for by the fact that this text is a report of a study of citizen participation. Perhaps research reports make greater use of pre-plans, or perhaps it was just these particular authors' style. Three of the texts had none: [Canoe], [The Ams.], and [Kennedy]. [Canoe] was written by a native Hawaiian, [The Ams.] by an Italian journalist, and [Kennedy] by an American
journalist. Perhaps their culture or professional schooling influenced their decision not to use pre-plans. [Defeat] and [Uprooted], both written by the literary historians, made little use of pre-plans. If we include the typical textbooks that used any and the non-textbook writers who used any (excluding [Participation]), the non-textbook writers show a lower frequency of use than the typical textbook writers. What is interesting is the high frequency for the two atypical textbook writers of [Indians] and [As It H.]. These writers seem intent on letting the student readers "in" on their plans for the text, making the plans explicit. Examples of typical pre-plans follow:

[The U.S.] In this unit you will find out about the struggles the United States faced during the first ninety years of its history. (p. 1)

[Our World] Unit 3—you will read about the countries of northern Europe in this chapter. (p. 183)

[Indians] The first chapter discusses the kinds of ideas people have of other groups of people. (p. 1)

[America] Slavery ended in the border states, and throughout the United States, soon after the war, in an amendment to the Constitution as you will read. (p. 434)

[Rise] To understand the tensions rising among the three sections of the country in this period, it is necessary to review events that had been taking place between the administration of President Monroe and President Polk. (p. 311)

[As It H.] This first unit uses material from the earliest part of the nation's history—the colonial period—to raise questions that are still important today. (p. 2)

[T. R., Pres.] As to the second and most significant fault—Theodore Roosevelt's genuine blood-lust and desire to destroy his adversaries, whether they be rhinoceroses or members of the United States Senate—it is paradoxically so much a part of his virtues, both as a man and a politician, that I will come back to it in more detail later. (p. 4)

[Another L.] There is a rich literature on the American character, and I turn now to its central themes. (p. 43)

[Urbaniz.] After reviewing the model for sixteenth-century urbanization, the chronology of town founding in the New World, and the physical prototype of the colonial city, we will discuss topics such as class structure, economic function, and urban political life. (p. 27)

[Defeat] These are the interlocking themes of this collection of essays: . . . (p. 16)

[Uprooted] I shall touch upon broken homes, interruptions of a familiar life, separation from known surroundings, the becoming a foreigner and ceasing to belong. (p. 4)

[Participation] We consider two general political processes: that by which citizens come to participate in political life and that by which their participation affects the responsiveness of governmental leaders. This involves the explication of some general variables . . . (p. xix)
The style of the typical textbook preplan statements are very different from the style of the atypical and non-textbook preplans. There is a formulaic quality to the typical textbook preplans (e.g., *In this chapter you will see about how X*). The focus is on the reader with the pronoun *read*, *learn*, *find out* you used. The one exception is [Rise]. Here the pre-plan is less obvious and there is more formality and distance than in the other examples from typical textbooks. The writers mean to say, "We plan to review the events between Monroe and Polk so you can better understand the tensions in the three sections in this period." They could also have said "You will review the events."

The atypical writers not only present the topic in the pre-plans (which is all the typical writers do except [Rise], but also indicate the discourse type, the speech act, and plan for the text sequence (e.g., *discusses the kinds of ideas*, presented first is a *description*, divided into eight units, *uses material ... to raise questions*). These writers explicitly tell the readers "This is what I'll talk about and this is what I am going to do and how I'll do it." These are *say* and *do plans*. The same is true for the non-textbook writers (e.g., *I will come back to it in more detail later, I will be exploring shortly, the character, we will provide an overview, we will discuss tools such as, I have tried to historically trace, we consider the general political processes*). The atypical and non-textbook writers do not use *you*, but *I*, *we*, *our* or *this chapter*. The two atypical writers use the third person, *This chapter*, *The book*, *This first unit, presented first is*, while the non-textbook writers all use first person except [Defeat]. The effect of the different choices of person for the preplans is that the author is flattened out in the textbooks—the focus is on the reader in the typical texts, and on the text itself in the atypical texts. The author's presence is strongly felt in the non-textbook preplans. There is more variety of preplans and types of information in both the atypical and non-textbook texts, so they might be more interesting and helpful to read. The use of first person would probably engage the reader in the text more, too.

**Post-plans.** When no instances of preplans were found in texts, no instances of post-plans were found either. Table 1 shows that textbook writers use both pre- and post-plan statements or none. However, post plans are usually used less often than pre-plans. There was no clear trend toward increased use of post-plans in the upper grade texts. The following typical examples illustrate the kinds of post plan statements found in these textbooks:

- **[The U.S.]** In studying how conflicts were resolved, you also have learned about governments: In order to last, a government must protect the interests of most of the people. (p. 175)
- **[Our World]** We have seen that textile mills and iron and steel plants needed Pennine coal. (p. 174)
- **[Indians]** We have already looked at the statistics about Indian life which mark this failure. (p. 60)
- **[America]** We you have read in Chapter 10, Congress found a solution when Henry Clay and other leaders pro- posed the Missouri Compromise of 1820. (p. 434)
As you recall, Mexico ceded to the United States a huge area of land in the Southwest—the Mexican Cession. (p. 315)

Recall James Otis stressed the whiteness of the American population even while attacking slavery in liberty's name. (p. 374)

The examples illustrate that what was true for the pre-plan statements is also true for the post plans: the typical textbook writers use only second person you and use a formulaic approach—As you have read, In studying X, you have learned y, we have seen that X is the case (the use of we here is a 'phony' first person of a rather condescending sort), As you recall. It makes one wonder how readers react to this practice. Readers are always students. They read, remember, recall, study, and learn. Do they ever feel intimidated or threatened at the presuppositions of the writers? 'Gosh, maybe I did read that in Chapter 10, but I sure don't remember it—what's wrong with me?' The atypical examples show a different style. In [Indians], the focus is on the authors and readers: we have already looked at; or on the authors alone: we have mentioned that. Again the post plans like the pre-plans are reminders of what the authors said or talked about and what the authors did. [As It H.] is closer to the typical textbook (e.g., The sources give you some insight; (you) Recall James Otis). The focus is on the reader, but there is not the same degree of burden on the reader, and there is variety of presentation—not the formulaic approach.

Only three of the nine non-textbook samples showed evidence of post plans, indicating that non-textbook authors use pre-plans about three times as often as they do post-plans. If [Participation] is excluded, it appears that textbook writers used more post plans than do the non-textbook writers. The examples that follow show how the typical post-plan statement was written by these non-textbook writers:

[T. R., Pres.] As I have noted earlier, T. R.'s militarism did not loom large during his presidency. (p. 15)

[Urbaniz.] We have suggested that, unwittingly, the late Bourbons were also creating a number of cities that, once they became centers of political discontent, became far more difficult to control. (p. 51)

[Participation] As we pointed out, we have taken a narrower view than some as to what participation is. (p. 22)

The author is again prominent in these post-plans and the author or authors remind the readers of what was said or done. The author has pointed out, noted, suggested, demonstrated or argued. This is a quite different set of verbs than that used by the textbook writers. The focus here is on the author or authors, not the reader.

Topicalizers. While only one non-textbook writer used topicalizers to signal a shift of topic, three textbook writers used them. Here again it seems that although topicalizers are not used much by the typical textbook or non-textbook writers, they are used quite often by some atypical textbook writers. These examples show the way topicalizers were expressed in the samples:

[T. R., Pres.] As for militarism, T. R. was seen much in the company of the New York State Adjutant General the next few days and an Armed Escort of Calvary-men accompanied him wherever he went. (p. 13)
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So far as strategic planning was concerned, the objectives of the Union were positive and those of the Confederacy negative. (p. 375)

There were still other evidences of graft in the federal government. (p. 381)

Let us look at another example of the same kind of problem. (p. 24)

Summary. This study is an attempt to answer four research questions about metadiscourse use in social science materials. Because so few texts were sampled, no firm conclusions can be drawn, but perhaps the findings are suggestive enough about use of informational metadiscourse use to be both interesting and useful.

Question one asked whether there were any differences in the amount and types of metadiscourse used by social science writers in materials used for school and non-school purpose. Tables 1-3 indicate that both sets of materials showed at least some use of all four subtypes.

Typical textbooks did not use goals but two of the three atypical ones did. Four of the non-textbooks used goals but the authors of the research study used more than the other three.

The examples showed that there were qualitative differences in the types of informational metadiscourse used in materials for school and non-school purposes. Typical textbooks used third person formulaic expressions and concentrated on subject matter for pre- and post-plans. Atypical textbooks and non-textbooks used first person or both first and second person, did not use formulaic expressions and concentrated on subject matter and structure or speech events in goals, pre- and post-plans.

The second question asked whether differences existed in the amount and types of metadiscourse use across grade levels. Tables 4 and 5 address this question, suggesting that the early elementary grades 3 and 4 do not use informational metadiscourse at all. The reasons for this are probably readability formula constraints, concern that metadiscourse might obscure the content message, and belief that teachers should do the metadiscoursing. It is not clear why the college textbook did not use informational metadiscourse. Perhaps the text chosen was not representative or perhaps the authors felt college students didn't need it. Textbooks for grades 5 and 6 used pre- and post-plans but no goals or topicalizers. Typical textbooks for grades 7-12 used no goals or topicalizers either, but atypical textbooks used all four types of informational metadiscourse.

Textbooks on third, fourth and college level did not use pre-plans. The greatest use for pre-plans clustered around grades 5-8 with the most use at grades 7-8 for both typical and non-typical textbooks. Typical textbooks and typical non-textbooks used about the same amount of preplans, while the atypical textbooks and non-textbooks used about the same amount--about four times as much as the typical texts.

No textbooks for grades 3, 4, or college used post plans and only three of the nine non-textbook materials used them, with most used by the atypical research study text. Again, of the textbooks that used post-plans, most were for grades 7-8. The typical textbooks used more than the typical non-textbooks--four times as much. The atypical texts of both types used more post-plans than the typical texts, but overall, the percentage was the same for all textbooks and non-textbooks. Typical textbooks used
about the same amount of pre-plans as post-plans, but atypical textbooks used twice as many pre-plans as post-plans. Both typical and atypical non-textbooks used more pre-plans than post-plans.

Topicalizers were used only on the college level with typical textbooks (and then only once) and only on the 7th and 8th grade level for the atypical textbooks, but were used rather frequently in that text. Only

Table 6 answers the question about whether typical vs. nontypical publishers of social science textbooks on the same grade level use informational metadiscourse differently. The data indicates there are large differences for grades 7-12 between typical textbooks published by leading publishers for the general population and atypical textbooks published for a special above-average population by leading publishers or a university press. The atypical textbooks tended to use all four subtypes and to use them extensively while the typical textbooks used only pre- and post-plans. The qualitative data show that there are also differences in style and content between typical and atypical publishers in metadiscourse statements. The typical publishers focus on the reader and topics only in a standardized format. The atypical publishers, however, felt free to focus on the author, focused on structure as well as subject matter, and used more variety in expressing the metadiscourse.

Table 7 shows that Harcourt Brace Jovanovich (HBJ) used some of the four subtypes differently at different grade levels. Although none of the three HBJ textbooks used goals and only one instance of topicalizer was used (in grades 9-12), there were differences in use of pre- and post-plans. More of both kinds, pre- and post-plans were used at grades 7-8 than at grade 5 or grades 9-12. Grades 9-12 had more pre-plans than grade 5, but grade 5 had more post-plans than grades 9-12. Grades 7-8 had more post- than pre-plans also, perhaps indicating that this publisher (and others too?) feel students need reviews more than they need previews of subject matter.

Question four dealt with the issue of whether non-textbook social science writers used different amounts or types of informational metadiscourse depending on whether they were writing for a general audience or a specialized audience. It appears from Table 8 that there are quite large differences in informational metadiscourse use for general and specialized audiences. The texts written for the specialized audience (readers interested in social science or social scientists) contain much more informational metadiscourse of all four types. Very little metadiscourse was used for general audiences. Informational metadiscourse seems characteristic of academic non-textbook writing based on this small sample.

The quantitative and qualitative data from these 18 texts suggest that the answers are yes to the four research questions for these texts and perhaps also for other texts like them as far as informational metadiscourse use is concerned. As pointed out earlier, it is hard to conclude anything from such a small amount of data, but the suggestive results for informational metadiscourse leads to questions about the other major kind of
metadiscourse, attitudinal. Is the situation the same or different? What are the answers to the research questions for attitudinal metadiscourse?

Insert Tables 9 and 10 about here.

Findings for Attitudinal Metadiscourse Based on Tables 9 and 10

The use of attitudinal metadiscourse is quite different from the use of informational metadiscourse. If all four types of informational metadiscourses are collapsed, it appears that over all sample texts, non-textbooks used more informative metadiscourse than textbooks but the differences are not very large. There are larger differences in the use of attitudinal metadiscourse, however. Nontextbooks used attitudinal types about twice as often as did the textbooks.

Salience. None of the textbooks for Grades 3-6 used saliency metadiscourse, the type that explicitly uses words like important or primary to indicate the author feels that an idea or event is salient and important. This finding was surprising. Apparently the authors presented all ideas as equally important to the students or used non-explicit ways of indicating importance. Many more saliency statements were found in the typical textbooks for grades 7-8 than for the atypical 7-8 or for high school or college, a text-specific feature, no doubt. The others used saliency about the same amount. Although three of the non-textbooks did not contain saliency statements, the other six did use it, and used it to a greater degree than did the textbooks, about twice as much. The atypical nontextbook research report authors used it much more than the typical nontextbook authors or the atypical textbook authors. The way saliency statements were typically expressed in textbooks and nontextbooks is seen in these examples:

[America] The most serious problem dividing the North and South was slavery. (p. 433)

[Indians] We can see how important it is to know exactly where all the finds discovered in a site were located by looking at some of the findings from the Schultz excavation. (p. 12)

[Rise] More important, the Free-Soilers won 12 seats in the House of Representatives. (p. 315)

[Am. Hist.] And these advantages became more significant as the conflict continued and the superior economy of the North became geared for war production. (p. 375)

[T. R., Pres.] The most fundamental characteristic of Theodore Roosevelt was his aggression—conquest being, to him, synonymous with growth. (p. 7)

[The Ams.] The Americans' sense of mission and pride, their confidence in their power and invincibility, but above all, their pragmatism, the need to finish the job at all cost, prevented them, until it was too late, from admitting they had made a mistake, and from packing up and leaving Vietnam to its tragic destiny. (p. 36)

[Santo Domingo] Santo Domingo's survival is explained primarily by the rapid accretion of imperial political functions rather than autonomous agricultural or commercial development. (p. 29)

[Defeat] The crucial word for our purposes is "Separate." (p. 23)
As important perhaps was the fact that Wilson had never really broken through the limitations of the traditional reformer. (p. 225)

This distinction is important, especially in an era when so much attention is focused on the political mobilization of citizens in the “support” sense. (p. 2)

Because there are so few examples of saliency for the textbook samples, it is difficult to say anything qualitatively about the differences in use for the two kinds of texts. One difference might be the tendency for the textbooks to use saliency to refer to concrete people or events more than abstract concepts and ideas. In the textbooks we see that Railroads are important, Wounded Knee is important, etc. In the nontextbook examples, giving saliency to concrete nouns wasn’t noted—saliency was given only to abstract nouns. Both textbooks and nontextbooks used saliency to point out the importance of concepts and ideas (e.g., Problems are serious, knowing the exact location of all sites is important, winning 12 seats of Free-Soilers is important, preachings are important, characteristics are fundamental, pragmatism, above all, prevented them, survival is explained primarily, the fact that Wilson had never... is as important). Because the nontextbooks are not survey courses and therefore treat the subject matter in depth, saliency is also communicated to the reader with the number of words devoted to the subject and amount of repetition, as well as explicitly telling readers that something is salient. It seems strange, then, that the textbooks, lacking the depth, detail, and redundancy did not use more saliency to explicitly mark important events and concepts. Another difference is the lack of author presence for the typical textbooks.

Emphatics. This type of attitudinal metadiscourse indicates how certain an author is of the primary message. It is characteristic of persuasive and argumentative writing because the author uses concessives such as True or it is true that X is the case; but Y is; or clearly X is the case; still, Y is. Authors also use emphatics to emphasize that what they are propounding should be believed such as of course, indeed, actually, or in fact.

For the textbooks, Table 9 indicates that about three times as many emphatic statements were used as saliency statements, twice as many as hedge statements and five times as many as evaluative statements. The atypical textbooks for grades 7-8 and 9-12+ used more emphatics than the typical textbooks. In the typical textbooks, most of the emphatics were found in the textbooks for grades 7-8 and college. The highest frequency of emphatic statements was found in the atypical textbook for 9-12+. The textbooks for grades 3, 4, and 6 had no instances of emphatics, and grade 5 had only one instance. The nontextbooks, however, used a great deal more of the emphizers than did the textbooks.

All of the nontextbooks showed a high incidence of emphatic use, more than any other attitudinal metadiscourse. The nontextbooks with the highest frequency use were the atypical Participation and typical The Aims. from Harper’s. The lowest amount of emphatics was found in Canoe from National Geographic which was still higher than the amount found in the atypical textbook with the highest amount. The nontextbook writers apparently feel free to intrude on their primary discourse frequently to comment on the believability and certainty of their statements of fact while the textbook writers do not. The reason may either be that readers of...
nontextbook materials are older and more critical readers, needing to be persuaded by the authors, or the authors want the emphatics to lend a note of informality and personality to the text. The textbook authors, since they are the authorities and young readers are not critical readers who are used to questioning authority figures, may not feel as great a need to use emphatics. Emphatics are used by a writer to persuade readers to "believe me." Textbook writers no doubt do not see themselves as needing to persuade young readers since they are the "truthgivers" for the content area called social science. The examples of representative expressions with emphatics follow:

- [Indians] The students' picture of America's white settlers is obviously wildly inaccurate. (p. 1)
- [America] As you would expect, the new party had almost all its strength in the North. (p. 433)
- [Rise] To be sure, many people in all sections shared common institutions and beliefs. (p. 311)
- [As It H.] In fact, once we have the concept of status in mind, we can see that status exists in most social groups. (p. 6)
- [Am. Hist.] Indeed, Poe's writings influenced European literature far more than did those of any other nineteenth-century American. (p. 319)

What seems characteristic of typical textbook emphatics use is the focus on the student, as usual (e.g., As you would expect, Obviously you cannot); while the atypical use focuses on the authors and readers together or historians in general (e.g., We do know that; In fact, once we have the). It also seems that the typical textbook writers use the emphatics to point out the certainty of what other historians agree on rather than on a particular statement propounded by the author as his own statement of fact (e.g., Indeed, he [Calhoun] insisted; In fact, the Proclamation freed no slaves at all). Such statements are really verifiable statements while the ones expressed by the atypical and college textbook authors are opinions (e.g., The students' picture is; obviously wildly inaccurate; Indeed, Poe's writings influenced European literature).

The nontextbook examples that follow will show several differences in their use of emphatics from the typical textbook use. There is often the use of first person with the emphatic: Yes, Hokule'a was our classroom, change we have witnessed aplenty, to be sure. The use of of course or to be sure is not always sentence initial but often sentence medial or sentence final position (e.g., T. R. realized, of course, that; Europe's fear of the Soviet Union is, of course, paramount). The effect on the reader is different when the emphatic is not sentence initial—the author comes across more softly and civilized, less authoritarian. The use of a concessive emphatic in conjunction with a signal such as but or yet for the pro statement is another characteristic (e.g., It is true that X, but; There is no doubt that X; but). Another characteristic is the use of an emphatic for irony: "Henry Steele Commage, another Pennsylvanian (surely there is no significance in it) . . ." [Another L.] (p. 51) The nontextbook authors appear to use emphatics in a more sophisticated and argumentative fashion:

- [T. R., Pres.] There is no doubt that in youth, and again in old age, he was in love with war; but oddly enough, . . . (p. 12)
And, of course, how precisely we find our way, without the help of sextant, compass, chronometer, or chart. (p. 480)

It is true that Eisenhower recommended a continuation of the CIA operation against Castro; but he . . . (p. 53)

Certainly the immigrants in agriculture did not need to guard their boys and girls against the influence of the street. (p. 256)

Admittedly, most American hopes are more than America or Europe hopes. (p. 34)

Hedges. Hedges are used by both textbook and nontextbook authors about half as much as emasifiers as Tables 9 and 10 show. The same textbooks that lacked emasifiers also lacked hedges with the exception of [Chicago], which had two hedges. Interestingly, [America] had seven emasifiers but no hedges. The other textbooks had considerably fewer hedges than they did emasifiers. [As It H.] used 12 emasifiers but only two hedges and [Rise] used eight emasifiers but only four hedges. Although some nontextbooks used emasifiers and hedges about equally such as [Uprooted], with 24 emasifiers and 27 hedges (this is the only case of more hedges than emasifiers), most of the nontextbooks had far fewer hedges than emasifiers. [Defeat], for example, had 24 emasifiers but only one hedge. In general, the relationship between emasifiers and hedges was the same for both kinds of materials, although nontextbooks used much more of each type.

The following textbook examples illustrate what is characteristic of the use of hedges by the textbook writers. The typical textbook writers often use hedges to refer to what someone else thought about a situation or fact, a second order use of hedging (e.g., They had hoped the free state would let them go peacefully or perhaps meet Confederate demands; or To some it seemed that). Notice the use of third person or indefinite pronoun.

In contrast, the atypical writers do not use others to hedge but do the hedging themselves, a first order hedging (e.g., There might have been fur traders before this, probably they spent another ten thousand, but it does seem clear that). The atypical writers use hedges directly; the typical writers often use them attributively:

[Chicago] There might have been fur traders before this. (p. 128)

[The U.S.] They had hoped the free states would let them go peacefully or perhaps meet Confederate demands. (p. 163)

[Indians] Probably they spent another ten thousand or more years moving slowly from Alaska through North and Central America to the southernmost part of the continent. (p. 69)

[Rise] It seemed likely that the long period of compromise had come to an end. (p. 322)

[Am. Hist.] The abolitionists might have accomplished more reforms in the North if it had not been for the widespread anti-Negro if not proslavery feeling there. (p. 335)

The following examples show what is characteristic of the nontextbook hedges:

[T. R., Pres.] This was perhaps understandable, in view of the fact that a President had just been assassinated, but it is a matter of record that . . . (p. 13)

[Canoe] The canoes probably exerted a "shaping" influence on their makers. (p. 475)
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[The Ams.] Such solutions are the handiest and easiest, and may, of course, be the best, but may, occasionally, be the worst in a different context and time.

(p. 34)

[Urbaniz.] We suggest that, unwittingly, the late Bourbons were also creating a number of cities that, once they became centers of political discontent, became far more difficult to control.

(p. 51)

[Another L.] It seems to me that there lurks in the social literature of the past several decades a suspicion that the United States is presently going through some kind of discontinuous watershed.

(p. 41)

[Defeat] It is probable that President McKinley decided on annexation before he hit on its logic or justification; but . . .

(p. 37)

[Kennedy] It might not have been possible for the Romans to protect an expanding perimeter of power, one thinned by its extension to enclose the known world. But America . . .

(p. 63)

Participation This, of course, is an oversimplification in that all societies will have (and probably need) some mechanisms for popular control.

(p. 296)

Several characteristics distinguish the nontextbook use of hedges. Nontextbooks seem to make more use of modals (may, might) and certain verbs (suggest, appears) and qualifiers (almost, generally). They frequently use the adverbials (possibly, probably) but also use the more formal constructions (it is probable that) at times, whereas the textbooks do not. The author often intrudes as the narrator (It seems to me, We suggest, I think that). Hedges are often used adjacent or close to emphatics with the effect of toning down the emphatics (may, of course); are often used in parentheses (and probably need), resulting in a more informal tone; and are used in conjunction with signals as but for the pro argument (perhaps understandable, but). The nontextbook writers use more hedges perhaps because they keep in mind that history is memory of the past rather than a record of the past and that many historians often disagree about issues such as causes for the Civil War. The textbook writers more often use flat assertions such as this one:

[America] The war [Civil War] was different from earlier wars in its effects on the people.

Evaluative. The last of the attitudinal subtypes is evaluative, the type where authors intrude to comment on the content of the primary discourse propositions with expressions such as fortunately or oddly enough.

Textbooks used evaluative metadiscourse less frequently than any other type of metadiscourse. This was found for both typical textbooks .09 and atypical textbooks .04. The typical textbooks for grades 4-6 used no evaluatives at all while the textbook for grades 9-12 used .30 and the college text used .04. The atypical textbook for grades 3 and 9-12+ used no evaluatives, but the one for grades 7-8 used several, .10. The situation is different for the nontextbooks, however. Overall, the nontextbooks used about five times as many evaluatives, .44, as did the textbooks, .08. Interestingly, the atypical nontextbooks used no evaluatives, while all typical textbooks used them, .52. The evaluative type of metadiscourse was the only type not used in the atypical nontextbook. The frequency of use varied considerably among the typical nontextbooks. The frequency for [T. R., Pres.] was 1.67, while for [Defeat] it was .17. Examples follow demonstrating evaluative use in textbooks and nontextbooks:
The great dividing force was, ironically enough, the principal of state rights. (p. 384)

Unfortunately, most Americans know far too little about the history; or the current problem of Indian Americans to be able to escape from the security of their stereotypes of Indians. (p. 2)

Given these differences, it is not surprising that people in each of the three sections held radically different views about such issues as internal improvement at federal expense, tariffs . . . (p. 311)

--it is paradoxically so much a part of his virtues, both as a man and a politician, that I will come back to it in more detail later. (p. 4)

The problem began, ironically, because of "safety feature"--a mounting frame that has been added for an emergency outboard motor. (p. 485)

Astonishingly, Theodore Sorensen wrote that after the failure of the invasion Kennedy was "grateful that he had learned so many major lessons . . ." (p. 54)

It was not surprising that the boss should see in the stirring of reform interests a threat to his own position. (p. 217)

Paradoxically, because of their coastal location, . . . urban-based Portuguese merchants never enjoyed . . . (p. 43)

It is interesting to note that Turner saw us as having been determined by an environment that . . . (p. 45)

With so few instances of evaluatives used by textbook writers, it is hard to say much about the differences between their use in textbooks and nontextbooks. It is possible to point out that only on the college level does the evaluative ironically appear. Ironically like paradoxically indicates that the author feels a situation or expression is an example of irony or paradox, both complex attitudes or tones. Young students would no doubt find it difficult to understand irony or paradox because of its complexity and the fact that they probably have not been taught about these rhetorical devices. Evaluatives unfortunately and luckily are used in the atypical textbook for grades 7-8. Perhaps these feeling expressions are more simple and easy to understand for young students. The nontextbooks use both simple feelings or attitudes toward the subject matter such as unfortunately, astonishingly, what is striking, it is interesting to note, and it is not surprising as well as the complex attitudes such as paradoxically and ironically. Nontextbooks also use evaluatives such as properly speaking (which means technically) to comment on the prototypical-ness or fuzziness of subject matter category. The main differences between the two kinds of texts seem to be the willingness of the nontextbook writers to make subjective judgments about the primary discourse content and the fact that the evaluatives used indicate both simple and complex attitudes.

Insert Tables 11, 12, and 13 about here.

Tables 9, 10, 11 and 17 indicate that for question one there are indeed differences in the amount and types of attitudinal metadiscourse used by social science writers in materials used for school and nonschool purposes. All four attitudinal types were used more often by the writers for nonschool purposes. It is interesting that the order from most used
to least used was the same for both nontextbook and textbook writers: emphatic -> hedges -> salience -> evaluative. With the exception of four hedges and one emphatic no, attitudinal metadiscourse was used in textbooks for Grades 3-6. The typical nontextbook writers each used emphatics, hedges, and evaluatives, while only some used salience. The atypical nontextbook writers used all types except evaluative. What little attitudinal metadiscourse that was used in textbooks seemed to be used the most in the textbooks for Grades 7-8, the same grade levels that used informational metadiscourse most frequently.

The qualitative data, the examples of attitudinal metadiscourse, also suggest that there are differences in the types of metadiscourse used and the way they are used in textbooks and nontextbooks. Textbooks seem to use attitudinal metadiscourse to refer to concrete people or happenings in the primary discourse while nontextbooks use it to refer to abstract concepts as well as concrete phenomena. Another difference is the tendency of nontextbook writers to intrude into the text with first person for expressing attitudinal metadiscourse while the textbooks prefer more distance and used second or third person. A third difference is the large amount of emphatics and hedges used by nontextbook writers (individually and in pairs) to argue their points. The final difference is that textbook writers use simple evaluatives only (and very few of them) but nontextbook writers use both simple and complex evaluatives.

Tables 12 and 13 answer the question whether differences exist in amount and type of attitudinal metadiscourse use across grade levels. In general, there seems to be a trend toward increased use in textbooks from grades 7-8 to college. Apparently, the older a student gets and the farther along in his schooling, the more exposure attitudinal metadiscourse he receives. The high level of attitudinal metadiscourse found for junior high may be specific to the typical and atypical samples used. More research is needed to determine if this is, in fact, the case. Although there may be other reasons, some reasons for the lack of attitudinal metadiscourse may be readability formula constraints and the belief that social studies materials must be presented objectively and authoritatively since they are "informational" rather than persuasive and interpretative materials. The qualitative data showed that evaluatives are used differently on the college level from other levels.

Insert Tables 14 and 15 about here.

According to the data in Table 14 typical writers for textbooks in Grades 7-8 and 9-12 used more salience metadiscourse than atypical writers. Typical writers for Grades 7-8 used more emphatics but fewer hedges than did the atypical writers; but typical writers for Grades 9-12 used fewer emphatics and more hedges than did atypical writers. The typical textbook writers for Grades 9-12 used more evaluatives than did any other textbooks writers for any grades. Table 15 shows that Harcourt Brace Jovanovich uses metadiscourse differently for each grade level. For Grade 5, only emphatic and two hedges were used; for Grades 7-8, salience was used somewhat, while no hedge or evaluative metadiscourse occurred; for Grades 9-12, all types of attitudinal metadiscourse were used to some extent. The differences are for both types and frequency of use.
The question of whether the type of audience made a difference in the amount and type of attitudinal metadiscourse use in nontextbooks is addressed in Table 16. The data here suggests that audience does make a difference. More attitudinal metadiscourse of each type was used for the specialized audience than for the general audience, but the frequency of use was similar for all except for saliency. The non-textbook materials for specialized audiences contained more than three times as many salience statements as did the materials for the general audience.

Summary. The quantitative data from Tables 9-16 and the qualitative data suggest that as was true for informational metadiscourse, the answers are yes to the four research questions as far as these particular texts are concerned: (a) Are there differences in the amount and types of metadiscourse used by social science writers in materials used for school and non-school purposes? (b) Are there differences in the amount and types of metadiscourse used in social science textbooks across grade levels? (c) Are there differences among publishers of social science textbooks on the same grade level? Or for the same publisher on different grade levels? (d) Are there differences in the amount and types of metadiscourse used by non-textbook social science writers who write for different audiences?

Summary Table 17 shows that nontextbooks used more informational metadiscourse than did the textbooks and also used more attitudinal metadiscourse than did the textbooks. The total metadiscourse used in nontextbooks is about twice as much as that used in textbooks. Typical nontextbooks used more attitudinal metadiscourse than typical textbooks but a little less informational than typical textbooks. The atypical nontextbook used over five times as much metadiscourse as did the typical textbooks. The atypical writers of both types of materials used twice as much metadiscourse as did the typical writers of both school and nonschool materials. Atypical textbook writers used over twice as much metadiscourse as did the typical textbook writers. The atypical nontextbook writers used over four times as much metadiscourse as did the typical nontextbook writers. What seems clear is that in comparison to other kinds of social science writers, typical social science textbook writers did not use much attitudinal metadiscourse and in comparison to atypical textbook writers, they also used much less informational metadiscourse.

Further Observations and Discussion About the Social Science Materials

For the purposes of this study the linguistic indicators of metadiscourse were modals, speech (discourse) event words, sentence adverbials, non-referential "it" constructions. The study was limited to the sentences found in the connected discourse of a text chapter or article and did not include end of the unit/chapter questions/activities or teacher's manuals. Because the focus was on sentences of the discourse, titles, subtitles, boldface type and other textual aids were not counted as metadiscourse.

In this section examples are given of metadiscourse found in textbooks that are found at the end of chapters or in teachers' manuals rather than in the text itself (implicit metadiscourse) as well as examples of metadiscourse
found in the text itself (explicit metadiscourse). Examples from typical textbooks and typical non-textbooks are then critiqued for text characteristics that enhance understanding, and the differences between them are pointed out.

The Textbooks

Evidence that authors and publishers may not realize or think that it is appropriate to incorporate metadiscourse into the primary message itself comes from the atypical text 1, [Chicago], in Chapter One. In this text the post plans which consist of a summary of the basic understandings the students are to have are at the end of the chapter. According to the teacher's manual, which is also used for metadiscourse, students should know these main ideas:

**NOW YOU KNOW (Student Text)**
- Chicago is a busy and beautiful city.
- Chicago is the crossroads of the Midwest.
- Lake Michigan affects Chicago's weather.
- Chicago is changing every day.
- People of Chicago are proud of their city.

**CHAPTER ONE (Teacher's Manual)**

Basic Understandings
1. Lake Michigan and the Chicago River are important to Chicago's business and industry.
2. Lake Michigan helps to moderate the extreme hot and cold temperatures.
3. Chicago is in a state of flux; it is rapidly growing and changing.

4. Chicagoans have an "I Will" spirit that keeps the city alive and going.

**CHAPTER ONE--CHICAGO--A GREAT CITY (Teacher's Manual)**

Chapter Theme: Chicago is a busy midwestern city that is always working, building, and changing. Because of its middle west location, it is the crossroads of the nation.

The metadiscourse for the pre-plans is found in the section called Chapter Theme. This would correspond to a thesis statement as an advance organizer and topicalizer. Notice in the example, however, that there are several themes—that the embeddings make it difficult for the teacher to know just what the main generalization is. The topic seems to be Chicago. And teacher (and students) find out that Chicago is:

- busy
- midwestern
- always working
- always building
- always changing
- the crossroads of the nation

There are a series of concepts—presented in an order. The normal, conventional procedure is for an author to use the thesis (or Chapter Theme) statements as an organizing device for the chapter, presenting the development of each concept in the same order as presented in the statement/s and presenting them in a logical order, from least to most important, etc. What I noticed was that the Basic Understandings for Chapter One in the teacher's manual did not match the Chapter Theme in topic or order of presentation. Lake Michigan and the Chicago River, not Chicago, is the topic in Basic Understanding number 1. Lake Michigan is the topic for number 2 and
Chicagoans for number 4. There seems no direct connection between Lake Michigan and the Chicago River being important to Chicago's business and industry and the Chapter Theme statements. There is no connection between Lake Michigan helping to moderate temperature in Chicago and the Chapter Theme statements either. But Chicago's being in a state of flux is related to the Chapter Theme. Chicagoans' having an "I will spirit" is not related to the Chapter Themes but is related to the textual information in Chapter One. No rationale or explanation of why the Chapter Theme is significant or important to know is given.

The author's (Chapter's) goal plan is given in the section called Suggested Method for Use of Chapter One.

Suggested Method for Use of Chapter One:

This chapter is intended to help pupils understand the importance of Chicago's location. The city's size, weather, geography, and rate of growth are also discussed. The following questions help introduce the chapter.

I noticed here that the purpose is to understand the importance of Chicago's location but this is not clearly reflected in the Chapter Theme statements and is not reflected at all in the Basic Understandings. The Now You Know box for the student is a mismatch of concepts not directly matched in topic or order of presentation of the text or the Chapter Theme, Basic Understanding, or Suggested Method for Use of Chapter One in the teacher's manual. The students and teacher reading the text would find the mismatch in order of presentation of topics and frequent topic shifts of the Now You Know box to be problems. The text subheadings begin with Chicago as the topic, → Midwest → Chicago, → Lake Michigan and rivers → prairie land → Lake Michigan.

The implicit metadiscourse supplied to the students in the form of the Section Heading Question is misleading. The question asks "What makes Chicago a Great City?" The student should expect to find clear reasons given to explain why it is a great city. The first sentence restates the question as a statement. Chicago is a great and wonderful city. This is the thesis statement for this section. But notice the confusion if students tried to find the reasons in the paragraphs that follow, assuming paragraph one is introductory:

Thesis: Chicago is a great and wonderful city.

Paragraph 2 (because) 1. It is the youngest of the world's great cities.
   (because) 3. The many miles of Chicago's lakefront shoreline make Chicago a beautiful place to live.
   (because) 4. It ranks among the most beautiful cities in the world.

Paragraph 3 (because) 1. Chicago is a city of friendly people.
   (because) 2. Visitors notice the friendliness right away.
   (because) 3. They enjoy coming to it on business, to shop, to study, to have fun.
   (because) 4. So much to do and see.
   (because) 5. Chicago is a city of warmth and excitement.

Students might wonder about the connection between Chicago's being great and wonderful and its being the youngest of the world's great cities. What use should they make of this fact or the fact that it is the most American of all American cities or that visitors notice the friendliness and enjoy coming to it in business, to shop, to study and to have fun? Would students wonder whether visitors enjoy coming because of the friendly people or because of the many things to do and see? (Do you suppose third graders might think that social science textbooks should read like a travel brochure--full of marvelous value judgments?)
In contrast to such indirect implicit and misleading discourse, "[Indians] has an abundance of direct and explicit metadiscourse. The following excerpt is the third of the introductory paragraphs for Chapter 11, "The Past of America's Indians": (The sentences have been numbered for easy reference.)

1. In this chapter we explore some of the facts that are known, as well as some of the guesses we must make, about the prehistory of a group of Indian Americans who lived near the Great Lakes. We do this by exploring carefully the findings of excavations of one Indian site, at Green Point on the Tittabawassee River near the present-day city of Saginaw, Michigan. The site is typical of many of the sites that American archaeologists have dug and the methods that we use to explore the findings of the excavation are also typical. However, the results that came from this one excavation are relevant only to the prehistory of one Indian people. We are sacrificing generality to explore in detail the complex history of one particular Indian settlement—but this particularity is what American Indian archeology is all about. We will only understand what really happened in the past of the Indians, how they learned over centuries to live in their environment, by exploring many such individual sites and then placing together the findings. Archeology is like a jigsaw puzzle that must be started from all sides at once; we must solve particular questions and, as we get answers to one set of questions, we must ask how these answers fit with what has been found from excavations of other sites.


Notice that it is the authors who are commenting: "In this chapter we explore some of the facts... as well as guesses..." (p. 7) Students get metadiscourse telling them what the topic is or the "aboutness" for the chapter (the pre-history of a group of Indian Americans who live near the Great Lakes) in the first sentence. Sentence two tells the students explicitly the procedure the authors will use to explore facts and guesses (they will carefully explore the findings of one Indian site). Sentence three gives the "why" (the site is typical and the methods the authors use to explore the findings are typical) for sentence two. Sentence four is a qualification for the previous sentence (the findings are for one particular Indian tribe only). Sentence five explains explicitly what the authors are doing (sacrificing generality to explore in detail that history) and why (particularity is what American Indian archeology is all about). Sentences six and seven continue on with more rationale for particularity. This paragraph has metadiscourse for the what (structure and content), the how, and the why of the primary discourse in Chapter Two.

The authors continue next with a paragraph contrasting the excavations at Green Point with those at an Inca or Aztec temple or a Greek or Egyptian city. They end the paragraph with this statement: "... but by collecting these little things and analyzing them carefully, we will see that a history can be told of a people, even though they themselves left no written record" (p. 8). This sentence ends the four paragraph introduction. The body of the chapter begins with the heading, "Excavations at Green Point," followed by three paragraphs of description. The next heading is, "Analyzing the Findings from the Excavation," which is then broken down further into subsections. Both of the two major divisions of Chapter Two were mentioned in the authors' pre-plan statements and in the exact order they are later developed in the chapter. In addition, the authors give information about the source for the chapter ideas, explicitly telling students they will deal with a particular instance, a case study of one excavation at Green Point, and why it is generalizable. The rationales for text decisions are clearly given. This text has abundant explicit
metadiscourse and it does not seem misleading to students. The atypical textbook writers who are historians writing for students in grades 7 and 8 make use of metadiscourse. The atypical non-historian writer writing for students in grade 3 does not.

The Nontextbooks

It has already been noted that in nontextbooks the author intrudes more overtly with comments, that he has a perspective on his topic and tries to convince readers that his view is a reasonable one. In these materials one finds introductions that are meant to introduce the topic and come to the main point about it, give necessary background information, and insure the reader's easy entry into the text. The body of the discourse develops the thesis and the author frequently intrudes to update the reader about how to process the text or about the author's internal state regarding the discourse. The discourse has a conclusion that restates the thesis, gives the author's conclusions, and wraps up the discourse. The nontextbook material is a speech entity in contrast to the typical textbook material which usually has no continuity to topic or governing thesis, little development of any of the multiple topics, no overt author intrusion, and no conclusion.

[Canoe] illustrates some of these characteristics in the following excerpts:

Luminous spray outlined the double bows of Hokule'a as she raced through the darkness in gale-force winds toward the island of Hawaii. It was a stormy rehearsal at sea--a real test for our Hawaiian crew, and for the sailing canoe itself. In 1976 we plan to take her in the manner of our ancestors on a 6,000-mile round trip to Tahiti . . . . (p. 468)

The voyaging canoe! It lay at the very heart of Polynesian culture. Without it, there would be no Polynesia. As an artist, a sailor, and an amateur anthropologist, I had come to regard it as the finest artifact that the Polynesians had produced.

The canoes probably exerted a "shaping" influence on their makers. When a chief began a voyage of exploration to find new land for his people, he would choose as companions men with powerful muscles, stamina, and ample fat to sustain them in times of hunger, and to insulate them against the energy-sapping and eventually deadly exposure to wind and spray. He would bring women who seemed capable of bearing children of that type.

So when his group landed on an uninhabited island, it would become the ancestor pool for future generations. To me it seems no genetic accident that Polynesians, as a race, are large and powerful people.

Successful Voyage Depends on Research

I felt that if a voyaging canoe were built and sailed today, it would function as a cultural catalyst and inspire the revival of almost-forgotten aspects of Hawaiian life. (p. 475)

The author sets the scene for the reader, stages the main point of the discourse in an evocative fashion that engages the reader. He lets the reader in on his internal processes and states with phrases such as "I had come to regard it as . . . ." To me it seems not . . . . I felt that if . . . . The reader can see the author's thinking processes and feeling states.

Text 17, Uprooted, shows another difference between the textbook and nontextbook materials: the use of rhetorical devices such as parallel structure, prepositional phrases fronted as orientors or staging devices, opposition, and punctuation. All were used to engage, communicate with, and affect the reader.
In pillared halls the laws are made, the briefs are read, the judgments rendered, in proper form, engrossed, signed, sealed. Of the majesty of the law, however, the immigrant has another view. Down by the corner the policeman twirls the symbol of his authority. Within the beat, he is government. But the limits of his power are well recognized. Shyly he averts his eyes as he passes this house or that. He cannot see where cards are dealt, where liquor flows beyond its hours, where ladies peep through curtained windows. With the shopkeeper, on the other hand, he is severe, and the incautious peddler often knows his wrath. Fortunately it is not hard to turn away that wrath; a soft answer and a generous purse deflate his zeal. (p. 204)

The parallel structure is seen in laws are made, briefs are read, judgments are rendered; engrossed, signed, sealed; where cards are dealt, where liquor flows, where ladies peep. Fronting (placing initially, propositional phrases that normally would be at the end of sentences) is seen with the first four sentences: In pillared halls, Of the majesty of the law, Down by the corner. Within the beat. Opposition is used to contrast the immigrant's view of the law, the policeman as symbol of authority but with limits of power, and his contrasting behavior in regard to the citizens and shopkeepers and peddlers. The semicolon in the last sentence serves as a signal that an explanation follows in the second main clause for the first main clause:

It is not hard to turn away that (policeman's) wrath: (how?) a soft answer and a generous purse. The prose style for the nontextbooks is rhetorical and lively in contrast to the straightforward, plain, lifeless style of the textbooks.

A final difference between the typical textbooks and nontextbooks is the way assertions are handled. The nontextbooks qualify assertions and give information about the source directly in the text or as a footnote. Texts. [Kennedy] exemplifies giving credit to a source directly in the text:

Astonishingly, Theodore Sorensen wrote that after the failure of the invasion Kennedy was "grateful that he had learned so many major lessons--resulting in basic changes in personnel, policy and procedures--at so relatively small and temporary a cost." Astonishingly because, from the Sorensen account, Kennedy learned nothing at all from the Bay of Pigs. Kennedy failed, according to Sorensen, because "John Kennedy inherited the plan." But he did not. He inherited a growing invasion force that he let grow at an even faster rate. Sorensen says the matter was out of Kennedy's hands before he was President. "Unlike an inherited policy statement or Executive Order, this inheritance (of a plan) could not be simply disposed of by presidential recision or withdrawal." But presidential directive was the only thing that could stop the plan--or, for that matter launch the invasion. And the very man Kennedy appointed to teach him the lessons of the invasion--General Maxwell Taylor, made head of a special Cuba Study Group--concluded that such cancellation was the proper course. (p. 54)

[Urbaniz.] exemplifies the use of footnoting (i.e., 23, 24, 25) to indicate the source of ideas and assertions:

Over time these influences fused into a generic style, but one scholar has suggested that the architectural styles found in these colonial cities can be studied in a manner similar to the use of strata by archeologists to identify successive waves of new immigrants. The uniqueness and value of both the art and architecture that evolved in the major urban centers of colonial Latin America is a topic still being debated by art historians, but plastic forms were clearly influenced by European models. It is clear that the viceregal capitals and other major cities served as cultural diffusers spreading and imposing styles and fashions that were then accepted in smaller regional centers within the viceregal jurisdiction. There is general agreement that the art and architecture of the Spanish and Portuguese colonies of America were derivative and often pedestrian. However, given the unstable nature of the region's urban development, the investment of limited, often scarce resources in monumental buildings for civic and religious purposes indicates clearly the sense of purpose and mission that characterized the creation of these cities. (p. 34)

Notice the lack of sources for the typical textbook as seen in Text 6.
The war also was different from earlier wars in its effect on the people. Civilians--those who did not serve in the armed forces--took part in the war effort on both sides. Confederate leaders told Southern farmers what crops to plant. Union leaders told factory owners in the North what products to make. The war became an all-out conflict, a total war, in which farms and factories, too, were important weapons. (p. 130)

Here no sources are given, no statements are qualified. The authors or textbook is the authority and the apparent source for all statements.

Conclusion

I have attempted in this paper to set up a useful, although not exhaustive, taxonomy of metadiscourse for Social Science materials in particular and for non-fiction in general. Both informational and attitudinal types of metadiscourse are, I believe, important to the field of reading. They help to create a mental set of anticipation for the reader--the reader anticipates content, goals, text structure and organization, topic shifts, and author perspective on the content, certainty of propositions and the text form. The informational subtypes can be considered structural pegs. Once anticipation has been created, then metadiscourse draws the reader's attention to important points with the saliency subtype of attitudinal metadiscourse. The emphatic and hedge subtypes help readers make judgments about the author's claims, whether they are strong or weak, or valid or not. Metadiscourse not only helps readers with motivation, arousal, entry into the text, attention, and saliency, but also with encoding the primary discourse. Readers need ways to represent and encode, symbolically, the discourse into long-term memory. Metadiscourse can be considered an inputting device or strategy that does this representing and encoding by providing a context in which the primary discourse can be embedded--a context for the text, in other words. The explicit metadiscourse post plans, reminders of old content and discourse structure information (and attitudinal?) form a basis for new information, new structures, and accommodation. Both explicit discourse and metadiscourse can help readers with accommodation through hierarchical relationships between old and new and facilitation for new structures. Of course, neither primary discourse nor metadiscourse can do everything--teachers are also important for guiding students. And, although too much may impede rather than enhance learning from textbooks, metadiscourse is worthy of attention from reading educators, publishers, researchers.

Reading educators and publishers need to be concerned with the higher level rhetorical features such as goals; a point of view unfolded by an author who is visible and who has a personality; a thesis or controlling idea and continuity of topic; reasons and rationale for author beliefs; significance and importance statements for facts and beliefs; previews and reviews; introductions, development, and conclusions; and updating processing information. They need to be concerned about critical reading. What happens to critical reading--learning to evaluate and make judgments about truth conditions--when hedges and emphatics are absent? When bias is not overt (as it is not in textbooks) are young readers being deceived? What happens to critical reading when attitudinal metadiscourse is delayed until adulthood and readers are not encouraged to become active participants in the reading process? Reading educators and publishers need to be concerned not only with the interactive aspects but also the interpersonal aspects of Social Science textbooks and students--the tone, point of view,
distance, and other stylistic aspects of non-fictional discourse. And they need to recognize that social science is subjective and interpretive (some more than others) and that social science authors are subjective and interpretive. Young readers need to see author biases and evaluate them at an early age; textbooks and teachers need to teach them how to do this. Young readers need to learn about the domain of scholarship at an early age—where ideas come from, sources, citations, references, bibliographies; textbooks should model this.

Researchers need to ask about the optimum level of metadiscourse: How much of which type is needed by which students for which tasks under what conditions. They might want to investigate whether metadiscourse makes a textbook more or less interesting to readers and if so, which types; and whether reader judgments about interestingness persist over time. Perhaps the effect of metadiscourse on readers' attitudes toward the social science subject matter or domain should be studied. Metadiscourse offers empirical opportunities for investigating such issues.

In this paper, in addition to trying to define, describe, and classify metadiscourse, I have also made a first attempt at an empirical study of metadiscourse by looking at the frequency of use of each of the eight subtypes that I considered useful. The study was limited by the lack of precision that still exists in the definition of metadiscourse and the fuzziness of the boundaries between the different subtypes. Another problem is that metadiscourse, like primary discourse, can serve several functions simultaneously in a social situation. Because only the domain of social science was examined and because the sample size was small, more empirical work is needed to see if the findings for this study are generalizable. I hope, however, that I have in this exploratory study made some progress toward a theory of metadiscourse and laid some groundwork for future research.
Reference Notes


7. Crismore, A. Student use of selected formal logical connectors across school level and class type. Unpublished paper, Indiana-Purdue University, 1980.


References


### Table 1

Types of Informational Metadiscourse Used in Social Science Textbooks

<table>
<thead>
<tr>
<th>Textbook Type</th>
<th>Grade Level</th>
<th>Total Words</th>
<th>Metadiscourse Types (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Goal  Preplan  Postplan  Topicalizer</td>
</tr>
<tr>
<td>Typical:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text 2: Soc. Stud.</td>
<td>4</td>
<td>3,000</td>
<td>0.00  0.00  0.00  0.00</td>
</tr>
<tr>
<td>Text 3: The U.S.</td>
<td>5</td>
<td>8,000</td>
<td>0.00  0.13  0.50  0.00</td>
</tr>
<tr>
<td>Text 4: Our World</td>
<td>6</td>
<td>14,000</td>
<td>0.00  0.64  0.07  0.00</td>
</tr>
<tr>
<td>Text 6: America</td>
<td>7-8</td>
<td>11,000</td>
<td>0.00  0.55  0.73  0.00</td>
</tr>
<tr>
<td>Text 7: Rise</td>
<td>9-12</td>
<td>23,000</td>
<td>0.00  0.35  0.26  0.04</td>
</tr>
<tr>
<td>Text 9: Am. Hist.</td>
<td>Coll.</td>
<td>23,000</td>
<td>0.00  0.00  0.00  0.04</td>
</tr>
</tbody>
</table>

| Atypical:      |             |             |                                                    |
| Text 1: Chicago | 3           | 10,000      | 0.00  0.00  0.00  0.00  |
| Text 5: Indians | 7-8         | 20,000      | 0.15  1.50  0.60  0.75  |
| Text 8: As It H. | 9-12+      | 17,000      | 0.35  1.65  0.59  0.00  |

\(^a\) approximate
Table 2

Types of Informational Metadiscourse Used in Social Science Nontextbooks

<table>
<thead>
<tr>
<th>Nontextbook Type</th>
<th>Source of Text</th>
<th>Total(^a) Words</th>
<th>Metadiscourse Types (with frequency per 1000 words)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Goal</td>
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<td>Typical:</td>
<td></td>
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<td></td>
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<tr>
<td>Periodicals</td>
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<tr>
<td>Text 10: T. R., Pres.</td>
<td>American Heritage</td>
<td>6,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 11: Canoe</td>
<td>National Geograph.</td>
<td>4,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 12: The Ams.</td>
<td>Harpers'</td>
<td>7,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 13: Another L.</td>
<td>Soundings</td>
<td>5,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 14: Urbaniz.</td>
<td>Journal of Urban History</td>
<td>10,000</td>
<td>.10</td>
</tr>
<tr>
<td>Text 16: Kennedy</td>
<td>Atlantic Monthly</td>
<td>11,000</td>
<td>.00</td>
</tr>
<tr>
<td>Books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text 15: Defeat</td>
<td>The Defeat of America</td>
<td>12,000</td>
<td>.08</td>
</tr>
<tr>
<td>Text 17: Uprooted</td>
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<td>.09</td>
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<tr>
<td>Books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text 18: Particip.</td>
<td>Participation in America</td>
<td>11,000</td>
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\(^a\)approximate
Table 3  
Types of Information Metadiscourse Used  
in School and Nonschool Social Science Texts

<table>
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<th>Metadiscourse Types (with frequency per 1000 words)</th>
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</thead>
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<td>Preplan</td>
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<td>Textbooks</td>
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<td>.64</td>
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<tr>
<td>Nontextbooks</td>
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<td>.10</td>
<td>1.38</td>
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<td>.00</td>
<td>.29</td>
</tr>
<tr>
<td>Typical Nontextbooks</td>
<td>66,000</td>
<td>.05</td>
<td>.33</td>
</tr>
<tr>
<td>Atypical Textbooks</td>
<td>47,000</td>
<td>.12</td>
<td>1.23</td>
</tr>
<tr>
<td>Atypical Nontextbooks</td>
<td>11,000</td>
<td>.45</td>
<td>7.64</td>
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<td>.02</td>
<td>.31</td>
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<td>All Atypical Texts</td>
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<td>2.49</td>
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<td>Typical Textbooks</td>
<td>82,000</td>
<td>.00</td>
<td>.29</td>
</tr>
<tr>
<td>Atypical Textbooks</td>
<td>47,000</td>
<td>.12</td>
<td>1.23</td>
</tr>
<tr>
<td>Typical Nontextbooks</td>
<td>66,000</td>
<td>.05</td>
<td>.33</td>
</tr>
<tr>
<td>Atypical Nontextbooks</td>
<td>11,000</td>
<td>.45</td>
<td>7.64</td>
</tr>
</tbody>
</table>

\(^a\) approximate
Table 4

Types of Informational Metadiscourse Used in Social Science Textbooks Across Five School Levels

<table>
<thead>
<tr>
<th>School Level</th>
<th>Grade Level</th>
<th>Total(^{a}) Words</th>
<th>Metadiscourse Types (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Elementary</td>
<td>3-4</td>
<td>13,000</td>
<td>.00 .00 .00 .00</td>
</tr>
<tr>
<td>Intermediate</td>
<td>5-6</td>
<td>22,000</td>
<td>.00 .45 .23 .00</td>
</tr>
<tr>
<td>Elementary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior High</td>
<td>7-8</td>
<td>33,000</td>
<td>.09 1.09 .61 .45</td>
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<tr>
<td>High School</td>
<td>9-12+</td>
<td>40,000</td>
<td>.20 .90 .40 .03</td>
</tr>
<tr>
<td>College</td>
<td>Undergrad.</td>
<td>23,000</td>
<td>.00 .00 .00 .04</td>
</tr>
</tbody>
</table>

\(^{a}\) approximate
Table 5

Types of Informational Metadiscourse Used in Typical Social Science Textbooks Across Five School Levels

With Frequency per 1000 Words

<table>
<thead>
<tr>
<th>School Levels</th>
<th>Grade Level</th>
<th>Totala Words</th>
<th>Metadiscourse Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Goal</td>
</tr>
<tr>
<td>Early Elementary</td>
<td>4</td>
<td>3,000</td>
<td>0.00</td>
</tr>
<tr>
<td>Intermediate</td>
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<td>0.00</td>
</tr>
<tr>
<td>Elementary</td>
<td>7-8</td>
<td>11,000</td>
<td>0.00</td>
</tr>
<tr>
<td>High School</td>
<td>9-12</td>
<td>23,000</td>
<td>0.00</td>
</tr>
<tr>
<td>College</td>
<td>Undergrad.</td>
<td>23,000</td>
<td>0.00</td>
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</tbody>
</table>

a approximate
Table 6
Types of Informational Metadiscourse Used in Junior High and Senior High Social Science Textbooks

<table>
<thead>
<tr>
<th>Textbook Type</th>
<th>Grade Level</th>
<th>Total Words</th>
<th>Metadiscourse Types (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td>Goal</td>
</tr>
<tr>
<td>Typical</td>
<td>7-8</td>
<td>11,000</td>
<td>.00</td>
</tr>
<tr>
<td>Atypical</td>
<td>7-8</td>
<td>20,000</td>
<td>.15</td>
</tr>
<tr>
<td>Typical</td>
<td>9-12</td>
<td>23,000</td>
<td>.00</td>
</tr>
<tr>
<td>Atypical</td>
<td>9-12+</td>
<td>17,000</td>
<td>.35</td>
</tr>
</tbody>
</table>

a approximate
<table>
<thead>
<tr>
<th>Textbook</th>
<th>Grade Level</th>
<th>Total Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 3: The U.S.</td>
<td>5</td>
<td>8,000</td>
<td>Goal: .00 Preplan: .13 Postplan: .50 Topicalizer: .00</td>
</tr>
<tr>
<td>Text 6: America</td>
<td>7-8</td>
<td>11,000</td>
<td>Goal: .00 Preplan: .55 Postplan: .73 Topicalizer: .00</td>
</tr>
<tr>
<td>Text 7: Rise</td>
<td>9-12</td>
<td>23,000</td>
<td>Goal: .00 Preplan: .35 Postplan: .26 Topicalizer: .04</td>
</tr>
</tbody>
</table>

a approximate
Table 8
Types of Informational Metadiscourse Used in Nontextbooks for General and Specialized Audiences

<table>
<thead>
<tr>
<th>Audience Type</th>
<th>Total&lt;sup&gt;a&lt;/sup&gt; Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General&lt;sup&gt;b&lt;/sup&gt;</td>
<td>45,000</td>
<td>Goal: .04, Preplan: .09, Postplan: .00, Topicalizer: .00</td>
</tr>
<tr>
<td>Specialized&lt;sup&gt;c&lt;/sup&gt;</td>
<td>33,000</td>
<td>Goal: .18, Preplan: 3.09, Postplan: .79, Topicalizer: .09</td>
</tr>
</tbody>
</table>

<sup>a</sup> approximate

<sup>b</sup> Text 11: Canoe
Text 12: The Ams.
Text 15: Defeat
Text 16: Kennedy
Text 17: Uprooted

<sup>c</sup> Text 10: T. R. Pres.
Text 13: Another L.
Text 14: Urbaniz.
Text 18: Particip.
Table 9
Types of Attitudinal Metadiscourse Used in Social Science Textbooks

<table>
<thead>
<tr>
<th>Textbook Type</th>
<th>Grade Level</th>
<th>Totala Words</th>
<th>Metadiscourse Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(with frequency per 1000 words)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Salience</td>
</tr>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text 2: Soc. Stud.</td>
<td>4</td>
<td>3,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 3: The U.S.</td>
<td>5</td>
<td>8,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 4: Our World</td>
<td>6</td>
<td>14,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 6: America</td>
<td>7-8</td>
<td>11,000</td>
<td>.55</td>
</tr>
<tr>
<td>Text 7: Rise</td>
<td>9-12</td>
<td>23,000</td>
<td>.13</td>
</tr>
<tr>
<td>Text 9: Am. Hist.</td>
<td>Coll.</td>
<td>23,000</td>
<td>.13</td>
</tr>
<tr>
<td>Atypical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text 1: Chicago</td>
<td>3</td>
<td>10,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 5: Indians</td>
<td>7-8</td>
<td>20,000</td>
<td>.15</td>
</tr>
<tr>
<td>Text 8: As It H.</td>
<td>9-12+</td>
<td>17,000</td>
<td>.00</td>
</tr>
</tbody>
</table>

a approximate
Table 10
Types of Attitudinal Metadiscourse Used in Social Science Nontextbooks

<table>
<thead>
<tr>
<th>Nontextbook Type</th>
<th>Source of Text</th>
<th>Total(^a) Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Salience</td>
</tr>
<tr>
<td>Typical Periodicals</td>
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<td></td>
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</tr>
<tr>
<td>Text 10: T. R., Pres.</td>
<td>American Heritage</td>
<td>6,000</td>
<td>.33</td>
</tr>
<tr>
<td>Text 11: Canoe</td>
<td>National Geogr.</td>
<td>4,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 12: The Ams.</td>
<td>Harpers'</td>
<td>7,000</td>
<td>.57</td>
</tr>
<tr>
<td>Text 13: Another L.</td>
<td>Soundings</td>
<td>5,000</td>
<td>.00</td>
</tr>
<tr>
<td>Text 14: Urbaniz.</td>
<td>Journal of Urban Hist</td>
<td>10,000</td>
<td>.70</td>
</tr>
<tr>
<td>Text 16: Kennedy</td>
<td>Atlantic Monthly</td>
<td>11,000</td>
<td>.00</td>
</tr>
</tbody>
</table>

| Books                          |                |                   |          |          |       |            |
| Text 15: Defeat               | The Defeat of America | 12,000 | .25   | 2.00  | .01  | .17        |
| Text 17: Uprooted             | Uprooted       | 11,000           | .27   | 2.18  | 2.45 | .73        |
| Typical Total                 |                | 66,000           | .29   | 1.94  | .95  | .52        |

| Atypical Books                |                |                   |          |          |       |            |
| Text 18: Particip.            | Participation in America | 11,000 | .45   | 7.64  | 2.09 | .00        |

\(^a\)approximate
Table 11
Types of Attitudinal Metadiscourse Used in School and Nonschool Social Science Texts

<table>
<thead>
<tr>
<th>Text Type</th>
<th>Total(^{a}) Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>Salience</td>
</tr>
<tr>
<td>Textbooks</td>
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<td>.12</td>
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<tr>
<td>Nontextbooks</td>
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<td>.53</td>
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<tr>
<td>Typical textbooks</td>
<td>82,000</td>
<td>.15</td>
</tr>
<tr>
<td>Typical nontextbooks</td>
<td>66,000</td>
<td>.29</td>
</tr>
<tr>
<td>Atypical textbooks</td>
<td>47,000</td>
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<td>2.00</td>
</tr>
<tr>
<td>All typical texts</td>
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<td>.21</td>
</tr>
<tr>
<td>All atypical texts</td>
<td>58,000</td>
<td>.64</td>
</tr>
<tr>
<td>Typical textbooks</td>
<td>82,000</td>
<td>.15</td>
</tr>
<tr>
<td>Atypical textbooks</td>
<td>47,000</td>
<td>.12</td>
</tr>
<tr>
<td>Typical nontextbooks</td>
<td>66,000</td>
<td>.29</td>
</tr>
<tr>
<td>Atypical nontextbooks</td>
<td>11,000</td>
<td>2.00</td>
</tr>
</tbody>
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\(^{a}\) approximate
Table 12

Types of Attitudinal Metadiscourse Used in Social Science Textbooks Across Five School Levels

<table>
<thead>
<tr>
<th>School Level</th>
<th>Grade Level</th>
<th>Totala Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Elementary</td>
<td>3-4</td>
<td>13,000</td>
<td>Salience 0.00  Emphatic 0.00  Hedge 0.15  Evaluative 0.00</td>
</tr>
<tr>
<td>Intermediate Elementary</td>
<td>5-6</td>
<td>22,000</td>
<td>Salience 0.00  Emphatic 0.05  Hedge 0.00  Evaluative 0.00</td>
</tr>
<tr>
<td>Junior High</td>
<td>7-8</td>
<td>33,000</td>
<td>Salience 0.18  Emphatic 0.55  Hedge 0.24  Evaluative 0.06</td>
</tr>
<tr>
<td>High School</td>
<td>9-12+</td>
<td>40,000</td>
<td>Salience 0.08  Emphatic 0.50  Hedge 0.15  Evaluative 0.18</td>
</tr>
<tr>
<td>College</td>
<td>Undergrad.</td>
<td>23,000</td>
<td>Salience 0.13  Emphatic 0.61  Hedge 0.35  Evaluative 0.04</td>
</tr>
</tbody>
</table>

\(^{a}\)approximate
Table 13
Types of Attitudinal Metadiscourse Used in Typical Social Science Textbooks Across Five School Levels

<table>
<thead>
<tr>
<th>School Level</th>
<th>Grade Level</th>
<th>Totala Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Salience</td>
</tr>
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<td>Early Elementary</td>
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<td>3,000</td>
<td>.00</td>
</tr>
<tr>
<td>Intermediate</td>
<td>5-6</td>
<td>22,000</td>
<td>.00</td>
</tr>
<tr>
<td>Junior High</td>
<td>7-8</td>
<td>11,000</td>
<td>.55</td>
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<tr>
<td>High School</td>
<td>9-12</td>
<td>23,000</td>
<td>.13</td>
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<tr>
<td>College</td>
<td>Undergrad.</td>
<td>23,000</td>
<td>.13</td>
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a approximate
Table 14
Types of Attitudinal Metadiscourse Used in Junior High and Senior High Social Science Textbooks

<table>
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<tr>
<th>Textbook Type</th>
<th>Grade Level</th>
<th>Total Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
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<td>Salience</td>
</tr>
<tr>
<td>Typical</td>
<td>7-8</td>
<td>11,000</td>
<td>.55</td>
</tr>
<tr>
<td>Atypical</td>
<td>7-8</td>
<td>20,000</td>
<td>.15</td>
</tr>
<tr>
<td>Typical</td>
<td>9-12</td>
<td>23,000</td>
<td>.13</td>
</tr>
<tr>
<td>Atypical</td>
<td>9-12+</td>
<td>17,000</td>
<td>.00</td>
</tr>
</tbody>
</table>

aApproximate
<table>
<thead>
<tr>
<th>Textbook</th>
<th>Grade Level</th>
<th>Totala Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 3: The U.S.</td>
<td>5</td>
<td>8,000</td>
<td>Salience</td>
</tr>
<tr>
<td>Text 6: America</td>
<td>7-8</td>
<td>11,000</td>
<td>Emphatic</td>
</tr>
<tr>
<td>Text 7: Rise</td>
<td>9-12</td>
<td>23,000</td>
<td>Hedge</td>
</tr>
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a approximate
Table 16
Types of Attitudinal Metadiscourse Used in Nontextbooks for General and Specialized Audiences

<table>
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<tr>
<th>Audience Type</th>
<th>Total Words</th>
<th>Metadiscourse Type (with frequency per 1000 words)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Salience</td>
</tr>
<tr>
<td>General**</td>
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</tr>
<tr>
<td>Specialized***</td>
<td>33,000</td>
<td>.94</td>
</tr>
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</table>

*approximate

Text 11: Canoe
Text 12: The Ams.
Text 15: Defeat
Text 16: Kennedy
Text 17: Uprooted

Text 13: Another L.
Text 14: Urbaniz.
Text 18: Particip.
### Summary Table 17

**Informational and Attitudinal and Total Metadiscourse**

*Used for all Social Science Texts*

<table>
<thead>
<tr>
<th>Text Type</th>
<th>Total Words</th>
<th>Informational</th>
<th>Attitudinal</th>
<th>Total Metadiscourse</th>
</tr>
</thead>
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<td>.81</td>
<td>1.98</td>
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Appendix A

Textbook and Non-Textbook Information

The nine textbooks and nine non-textbooks are the following:

(Abbreviations are enclosed in brackets.)

Textbooks


[Chicago]
- Chapter 1, *Chicago--A Great City*
- Chapter 2, *People of Chicago*
- Chapter 11, *Early History*
- Chapter 12, *Famous Names and Places*
Total Words: 10,000


[Soc. Stud.]
- Unit 1: Chapter 1 = *Americans Then and Now*
- Chapter 2 = *The World Around Us*
- Chapter 3 = *People Need Each Other*
Total Words: 3,000


[The U.S.]
- Unit 3: Chapter 1 = *Union and Balance*
- Chapter 2 = *Upsetting the Balance*
- Chapter 3 = *The System Breaks Down*
Total Words: 8,000

4. (typical) *Our World* by G. S. Dawson, E. V. Tiegs, & F. Adams, Ginn (Grade 6) and Company, 1979. [Our World]

- Prologue: *The Future is Yours*
- Unit 3: *Nations of Europe Today*
- Chapter 8 = *An Overview of Modern Europe*
- Chapter 9 = *Great Britain: An Island Nation*
- Chapter 10 = *Lands of the Northern Coast*
- Chapter 11 = *The Southern Lands*
Total Words: 14,000

5. (atypical) *Indians in the American System: Past and Present* by Ian Westbury and (Grades 7 & 8) Susan Westbury, The Laboratory School, the University of Chicago, The Graduate School of Education, no date--probably 1974. [Indians]

- Introduction, preface
- Chapter 1 = *How do you see Indians?*
- Chapter 2 = *The Past of America's Indians*
- Chapter 3 = *America's Indians and Their European Conquerors*
- Chapter 4 = *Indian Americans Today*
Total Words: 20,000
   Chapter 16: Two Ways of Life in Growing Conflict
   Chapter 17: The Nation Fights a Terrible War
   Total Words: 11,000

   Unit 5: The Nation Torn Apart 1845-1865
   Chapter 18: A Time of Crisis and Compromise
   Chapter 21: Severe Trials for Democracy
   Total Words: 23,000

   Unit 1: A Land of Opportunity
   Chapter 1: Opportunity in Old England
   Unit 4: Racial Slavery in American Society
   Chapter 13: Slavery and the American Revolution
   Chapter 15: Politics and Race: Slavery and the Outbreak of the Civil War
   Total Words: 17,000

   Chapter 12: Freedom's Ferment
   Chapter 14: The War of the Rebellion
   Total Words: 23,000
   Grand Total of words for textbooks: 129,000

Nontextbooks
    Total Words = 6,000

11. (typical, general audience) A Canoe Helps Hawaii Recapture Her Past by Herb Kane, National Geographic, Vol. 149, No. 4, April 1976, 468-489. [Canoe]
    Total Words = 4,000

    Total Words = 7,000

    Total Words = 5,000
14. (typical, specialized audience) Urbanization in Colonial Latin America
by Susan Socolour and Lyman Johnson, Journal of Urban History, Vol. 8, 
No. 1, November 1981, 27-59. [Urbaniz.]
Total Words = 11,000

15. (typical, general audience) The Defeat of America: Presidential Power 
and the National Character by Henry S. Commager, Simon and Schuster, 
New York, New York, 1974. [The Defeat] Introduction and Chapter 1, 
Myths and Realities in American Foreign Policy.
Total Words = 12,000

16. (typical, general audience) The Kennedy Imprisonment 2. The Prisoner 
of Toughness, on John F. Kennedy's Conception of Power by Garry Wills, 
Total Words = 11,000

17. (typical, general audience) The Uprooted, by Oscar Hanlin, An Atlantic 
Introduction; Chapter 7, Democracy and Power; Chapter 8, Generations.
Total Words = 11,000

18. (atypical, specialized audience) Participation in America: Political 
Democracy and Social Equality by S. Verba and N. Nie, Harper & Row, 
New York, 1972. Preface; Chapter 1, Participation and Democracy; 
Chapter 15, Participation and Policy Preferences; Chapter 19, Participa-
tion and Leader Responsiveness. [Participation]
Total Words: 11,000

Grand Total for non-textbooks: 77,000
Let us dispose, in short order, with Theodore Roosevelt's faults. (p. 4)

And, as I will be exploring shortly, the character of the American people—that amalgam of traits that is believed to distinguish us from other peoples—has remained arguably much the same through all changes. (p. 42)

In this article we will provide a brief overview of the development of the colonial system of cities. (p. 27)

These essays have a common theme. (p. 9)

I have tried historically to trace the impact of separation of the disruption in the lives and work of people who left one world to adjust to a new. (p. 4)

Our main concern is with participation as an instrumental act by which citizens influence the government. (p. 5)

During the years from 1828 to 1832, as you have read, conflicting views on the tariff questions brought the United States uncomfortably close to disunion (page 242). (p. 312)

The sources in this lesson give you some insight into stratification among people in the late medieval England. (p. 15)

Let us remember that a third term was his for the asking in 1908. (p. 15)

We have demonstrated that the problems an observer of the activist population would see differ somewhat from the problems seen by an observer of the entire population. (p. 330)

Before suggesting how they affected his performance as President, I'd like to explain how they originated. (p. 7)

Here is part of a New York Times article on the implications of the modern occupation of Wounded Knee. (p. 4)

To answer this question we have to turn back to a study of the potsherds found at Green Point and other sites in the valley. (p. 19)
Additional Examples of Attitudinal Metadiscourse

Salience

[America] So important were the railroads to the war that whole campaigns were fought to capture and hold key railroad lines and centers. (p. 450)

[Indians] Conditions like this were found on many reservations, but Wounded Knee had an especially important place in the history of white-indian relations. (p. 4)

[Rise] Political behavior is an important and complicated aspect in a democracy. (p. 388)

[Am. Hist.] Still more important as a call to reform were the preachings of the revivalist Charles G. Finney, who was at first a Presbyterian and later a Congregationalist. (p. 323)

[T. R., Pres.] Here I must emphasize that T. R. was not a snob. (p. 9)

[The Ams.] The dream of the future is important. (p. 31)

[Urbaniz.] In conceptualizing the development of any one city or the colonial system of cities, the period when the city reached a position of regional or inter-regional dominance, or "coming of age," is more important than the date of its foundation. (p. 32)

[Defeat] ... but what was important was not the ultimate achievement but the philosophy and the passion that animated the attempt. (p. 32)

[Uprooted] Choice of the strand about which this book was written had particular significance for me. (p. 3)

[Participation] More important, the subset of citizens who participate in politics is by no means a random sample of the citizenry. (p. 267)

Emphatics

[Indians] We do know that men have lived in North America through all of the last 15,000 years and that these men were the ancestors of present day Indian Americans. (p. 2)

[Rise] Indeed, he [Calhoun] insisted, Congress had a duty to protect the rights of slaveowners to their "property," the slaves, in all the territories. (p. 315)

[As it H.] Obviously you cannot, like the professional historian, spend the time to track down and study the multitude of sources from American history that have survived. (p. 5)

[Am. Hist.] No doubt, with some people, a determination to improve human welfare was stimulated by the contrast between what actually was and what apparently might be. (p. 322)

[T. R., Pres.] T. R. realized, of course, that the gap between himself and Joe Murray--the Irish ward-heeler who got him into the New York Assembly--was unbridgeable outside of politics. But in America ... (p. 9)

[Canoe] Yes, Hokule'a was our floating classroom, and we were learning our lesson. (p. 481)
The truth is that Kennedy went ahead with the Cuban action not to complete what he inherited from Eisenhower but to mark his difference from Eisenhower. (p. 54)

Change we have witnessed aplenty, to be sure: the Westward Movement settling half a continent; ... (p. 42)

In truth, the children were more in this world than they the parents. (p. 253)

Europe's fear of the Soviet Union is, of course, paramount. (p. 29)

They probably crossed what is now the Chicago portage between the Des Plaines and the Chicago Rivers. (p. 128)

In studying the events that led to the Civil War, perhaps you have learned this understanding. (p. 176)

We do not know how many Indians there were within the borders of the present United States at the time of the European invasion (the estimates range from one to ten million), but it does seem clear that the northeast part of the United States was once fairly densely populated. (p. 25)

By 1857 the prospect of compromising the struggle between the North and the South seemed remote. (p. 323)

To some it seemed that not only alcoholic beverages but also tobacco, coffee, and unnatural foods hindered the full realization of man's perfectionist possibilities. (p. 328)

They might be traced back to childhood. (p. 7)

It is possible that they will complete construction of a long-distance voyaging canoe in time to sail in company with us on our scheduled return to Hawaii from Tahiti this summer. (p. 482)

It almost always defended with gold and blood what was dearest to Western man: liberty in a just society. (p. 29)

Municipal authorities, because they lacked the power or desire to fundamentally change the colonial socioeconomic system, seemed unable to effectively with these threats. (p. 50)

We appear to be in the midst of an incipient discontinuity in the national political life, also. (p. 43)

Perhaps most remarkable in the social arena was the attitude toward immigration and emigration. (p. 29)

It might be argued now that even if we knew about how our clandestine war against Castro, and admitted that the missiles were placed for deterrence, we could not tolerate their presence so near us. (p. 58)

The last, and perhaps most crucial, component of the participatory input has to do with who is participating. (p. 269)
Evaluatives

[Indians] Luckily, this trench penetrated a low rise directly behind the stockade which turned out to be made by man. (p. 11)

[Rise] Unfortunately, he did almost nothing. (p. 327)

[T. R., Pres.] The way he arrived at this "personal equation" is interesting because he was actually in a weak position at the beginning of his first administration. (p. 13)

[Canoe] Unfortunately, our agent forgot to tell them when to stop plaiting—so now there is an over-supply of soil molting... (p. 482)

[Urbaniz.] What is striking about the role of the cities in the Independence is that the movement begins... (p. 51)
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