The Transition to College Writing

SECOND EDITION

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3 Reading

How to Stay on Top of It

Reading involves a fair measure of push and shove. You make your mark on a book and it makes its mark on you. Reading is not simply a matter of hanging back and waiting for a piece, or its author, to tell you what the writing has to say. In fact, one of the difficult things about reading is that the pages before you will begin to speak only when the authors are silent and you begin to speak in their place, sometimes for them, doing their work, continuing their projects, and sometimes for yourself, following your own agenda.

—David Bartholomae and Anthony Petrosky, *Ways of Reading*

Amanda's Question

A couple of years ago, Amanda, a first-year student in my fall term writing class, announced a piece of advice she had picked up from a junior she had met. Amanda said, "She told me the most important thing you need to learn here is what *not* to read!"

I thought about this for a moment and replied, hesitantly, "Well, that's *sort of* true." But Amanda looked more distressed than enlightened. "What's the matter?" I asked.

"She didn't tell me *how* you know what not to read," Amanda replied.

Amanda was in the School of Industrial and Labor Relations, ILR, which students claim means "I Love Reading." Her courses in labor history, economics, human resources, and organizational behavior assigned entire books, articles, and chapters of textbooks each week in preparation

for writing assignments and essay exams. Just getting through all of this reading was difficult. Understanding and remembering what she had read, figuring out what was important and unimportant, seemed impossible. And this challenge is not confined to students in ILR, to English majors, or to this university. Science courses assign dense chapters of textbooks and lab manuals, and freshmen in these courses are also completing distribution requirements in the social sciences and humanities, along with writing courses that often require extensive reading. Performance on examinations, problem sets, labs, research projects, and writing assignments depends heavily on knowledge acquired from texts of many kinds. As a consequence, *effective* reading probably represents the most crucial set of skills you can acquire in college, where reading everything thoroughly from beginning to end might be impossible.

This was what troubled Amanda and the other students in my class. They sensed that there was something wrong with their approaches to the great volume of reading in their courses. They had begun to realize that more advanced students often spent less time on assigned readings with better results on exams and papers. Perhaps these juniors and seniors had figured out "what *not* to read," as Amanda's friend suggested, and were able to focus more on the important material. Given a particular assignment, however, the question is not only *Should I read this?* because if the answer is "yes," then you need to ask yourself these other questions:

- *What* am I reading?
- *Why* am I reading it?
- *How* can I read it most efficiently?
- *How* can I remember what I will need to know about it?

These questions acknowledge that reading is not a single kind of activity. Reading can be done in many different styles, with different approaches and strategies, used for specific purposes and for particular kinds of texts. And when I refer to "texts," I mean written documents of all kinds—not only textbooks but other books, essays, articles, or reports. Whether you are reading for pleasure, for general understanding, to prepare for an exam, to write a paper on the subject, or to find specific information, your manner of reading will be customized with different kinds of attention and different kinds of cognition and memory.

Texts are also structured in ways that facilitate certain kinds of reading. Some are meant to be read from beginning to end; others, including most textbooks, present information schematically, with many potential points of entry and direction. If you fall into the task of reading without pausing to consider *what*, *why*, and *how* you are going to read, you might be wasting almost all the time you spend reading.

Becoming a Predatory Reader

In my writing classes I often call this strategic approach *predatory reading* or *reading from the top of the food chain*. Will you, the reader, consume what you need to get out of the text, or will the text consume you?

A colleague once objected to this language because it sounded too aggressive, even violent. She wanted her students to feel that reading was a peaceful, pleasurable activity that transports us to other times and places, other ways of viewing the world. My colleague was describing a wonderful kind of reading experience that I hope all of you have had and will continue to have: letting yourselves become absorbed in good books, drawn into the lives of characters, the chain of events, or the flow of information in the world the author creates.

But this is only one way of reading—for pleasure—and for reasons I'll explain, you will rarely use it in your academic work. To describe alternatives, I use aggressive terms such as *predatory reading* to counteract the passive approaches you might bring with you to college or fall into after you arrive. In most academic work, you can't afford to become consumed by the great volume of reading you must do. Nor can you afford to let your reasons for reading become secondary to the author's reasons for writing. If you do, you won't stay on top of your work; you will just fall into it and become lost. More specifically, falling into assigned reading in a passive, linear fashion will have several unfortunate results:

- You probably won't finish all of the reading assigned.
- You won't remember most of what you read.
- You will have no coherent record to remind you of what you understood *while* you were reading.
- If writing assignments ask questions about the reading that include arguments, interpretations, or your own questions, you won't have immediate responses.

The alternative is to read (as you should also write) always with some conscious *intention*—a deliberate strategy. Staying on top of your reading requires awareness that texts—written documents—are not just linear streams of words but constructed objects. Like other constructed objects, such as a table or a car engine, they are composed of parts that are assembled in a particular order for particular purposes. Understanding them is in large part a matter of knowing how they are constructed. Once you know that, you will also know how to take them apart, rearrange the pieces in ways that are most useful to you, and pull out the parts you want to consume. Predatory reading simply acknowledges that books are, as people say, "food for thought."

For survival, every entering student must learn these strategies for staying on top of assigned reading, and every scholar has already learned them. After visits to faculty offices, undergraduates sometimes express wonder at the vast amounts of knowledge these scholars have consumed. They have seen walls lined floor to ceiling with shelves of books and periodicals. "I can't believe they've read all those books!" students tell me, and I reply, "Well, you're right not to believe it."

The truth, of course, is more complex than a question of having read or not read something. Having a "mastery" of books and articles does not necessarily mean you have read them from cover to cover. Sometimes it means much more, sometimes much less, and almost always something different. More accurately, mastery of published material means knowing (1) what it is, (2) why it was written, (3) how to find information within it, and (4) how to use the material for your own purposes.

Scholars use some books entirely as references—for looking up specific information when they need it. They selectively read certain portions of books or articles and ignore others. In some cases they have only glanced through a work, looking for the main idea or for specific kinds of information. And they have read some of the books, articles, selected passages, or poems on their shelves many times with intense care, underlining sentences and making extensive notes.

Therefore, when teachers assign readings, they do not expect you to read everything from beginning to end. They assume that you will develop a range of reading strategies, as they have done, and that you will choose the methods most appropriate for particular assignments. To understand the functions of these methods, you should first consider how your mind and memory work.

Reading and Memory

While you are reading something for one of your courses, your first goal is to understand what the writer is saying. Although this immediate goal of "reading comprehension" is a necessary part of learning, understanding what you are reading while you are reading it does not, in itself, constitute learning or *working knowledge* of the material of the sort you can use in the future to pass exams, write papers, or participate in discussions. Your understanding does not become useful unless you can remember the material and the way you made sense of it, including critical responses, questions, or points of confusion you need to clarify later.

Not remembering is actually the norm, and forgetting occurs very rapidly unless you take some active measures to retain information. Psychological studies indicate that after reading or listening, people typically forget more than half of what they learned within one hour. Their memory then continues to deteriorate more gradually to about 30 percent after nine hours and to about 20 percent after a week. And these are proportions of what you once knew. If you are tired or distracted and do not "take in" what you read or hear, your retention will be much lower. Without some strategy for controlling memory, what you remember will also be unpredictable. The 20 percent that you recall after a week might not be the information you most need to remember.

This massive loss of memory is normal because we don't want or need to recall most of what occurs to us for more than a few seconds. Some crucial kinds of learning, such as motor skills, are very tenacious. If you learned to ice skate one winter, you did not forget how to do this over the next summer, and the same kind of memory applies to riding a bicycle, typing, or throwing a ball. In general, however, we register a very small proportion of the sensory information available to us, and we retain most of this registered information only momentarily, just long enough to steer ourselves through immediate experience.

While you are reading, therefore, you will normally recall what you previously read just long enough to maintain a sense of connection with the sentences you are currently reading. This brief storage period is called *short-term memory*. Unless you take deliberate measures to shift important information into *long-term memory* (something like hitting the SAVE button on your computer), the bulk of what you read will

simply evaporate. Even if the material seemed perfectly clear to you at the time, an hour, day, or week later you won't be able to retrieve most of it, and what you do recall has probably meshed with some prior framework or association you brought to the reading. You might remember an example involving cats simply because you love animals or miss your pet at home, not because this example was central to the text. Otherwise you will be left with very general, long-term *impressions* of reading: a vague recollection that the subject was interesting or uninteresting, that you disagreed with the author but not why, or that it made you sleepy.

Continuous streams of information will not end up in long-term memory unless you actively construct a framework for remembering and retrieving what is important—some kind of *mnemonic* or aid to your memory. In other words, you need to break up the stream and repackage it somehow. On average, for example, people can't store memory of more than seven random numbers, which explains the standard length of telephone numbers, why we can remember them, and why most of us can't remember the numbers on our credit cards. But we can recall longer sequences of numbers if we cluster them into logical units or create some other mnemonic. We "package" the long-distance area code separately and attach it to local numbers, or we locate logical sequences, repetitions, multiples, and sound patterns. For example, the number 321-1428 is easier to remember than an unpatterned string like 738-4192 if you register the fact that 321 is an inverted sequence and that *one times four times two equals eight.* What we initially remember, then, is not the whole but the mnemonic: *the framework for remembering.*

This is why you take notes in lectures. You know you won't remember much of this stream of spoken words unless you make a record of what the teacher said. And because you can't record everything, you need to identify important information and write it down in some kind of logical framework that will later remind you of the whole. You will remember the lecture initially by referring to your notes: the mnemonic you constructed for the purpose of remembering. As my classmate in Western Civilization demonstrated, good lecture notes repackage the material more efficiently than the lecture itself by clustering the information into memorable categories, subcategories, and lists. For the purpose of studying or writing a paper on the topic, reading effective notes can be *more* useful and efficient than listening to the entire lecture again,

because these notes have already digested the material in ways you can understand and will therefore reconstitute your own comprehension. For the purpose of taking exams or writing papers, *your* comprehension, not your teacher's, is more essential.

The streams of words you read are equally unmemorable, but students are much less likely to repackage what they read with outlines or notes. The main reason, I suppose, is that a text is objectively *there* when you finish reading it. You can always come back to it, as to a transcript of a lecture, and read it over. But rereading a text is no more efficient than passively listening to a lecture again. You are still left with no record, no mnemonic, to shift your short-term comprehension into lasting memory—into real learning and working knowledge.

Ways of Reading

To accomplish this transfer, for specific purposes, you need a repertoire of reading strategies.

Passive, Linear Reading

You are in a linear mode of reading when you begin with the first word of a text and continue to the last word, letting the linear sequence of words dictate the order in which you encounter information. This way of reading is entirely passive if you don't bring any goals or strategies to the task but simply follow the linear flow of the sentences with your eyes and mind and let the writing just happen.

In this passive mode of reading, what actually happens to you depends on many variables over which you have little control, such as your level of alertness, the qualities of the writing, and your interest in the subject. How much you understand and remember, a week later, will also depend on these variables. If you are tired, if the writing is abstract and tedious, and if the subject doesn't engage your interest, the drone of words might become sedative. You might get to the end of a chapter and have no recollection at all of what you just read. Even if you are alert and interested, your memory of the text a week later might be very sketchy, because passive reading stimulates long-term memory more or less at random, if at all. In this mode, which I call *falling into the text*, readers are vulnerable to the writing and to other factors that surround the act of reading, such as preoccupations, distractions, and patterns of association (or disassociation) with the content.

This is the way you *want* to read a really good novel: simply for pleasure. Just open it to the first page, start reading, and let the flow of language carry you off on a literary journey. If it's a compelling book, you will become absorbed in it, and that's where the pleasure lies. The events and characters might become so real in your imagination that you forget you are reading—forget that they are inventions constructed out of language on the page. The effect is essentially like watching a wonderful movie and forgetting that you are in a theater, watching actors performing a script under direction and on constructed sets, all on film that is projected on a screen.

But this kind of intense absorption, this surrender to the medium, does not necessarily create memory. The most immediately gripping novels, such as thrillers and mysteries, often leave very little lasting recollection beyond a vague memory of fear or suspense. Becoming passively absorbed in a book doesn't leave you in a very good position to take an examination on it a week later or to write a summary or critical review.

This is why passive, linear reading isn't very useful in academic work. Apart from the fact that this manner of reading doesn't reliably engage long-term memory, most of the reading you do in college won't capture and hold your attention like a good novel. If you surrender to it, allow yourself to become absorbed, it may just put you to sleep.

Unfortunately, passive, linear reading is, for most people, the default mode—when they haven't decided to read in a particular way or, aren't even aware that there are options. More than half of the freshmen in my classes initially try to read their textbooks and other assignments in this fashion: starting with the first word of a chapter and continuing to the end, trying to stay alert and receptive, hoping they will remember what they have read. Unless they take steps to deliberately read in a different way, however, they won't remember very much.

Reading with Two Minds

What should you do if the assigned reading *is* a good novel, biography, history, or some other engaging work that you are supposed to read from beginning to end, with interest and pleasure? Some of the analytical reading methods I'll describe in this chapter won't work very well for the kinds of writing in which central themes, conflicts, and meanings develop through continuous stories. When teachers assign this kind of literature, they usually hope you will read it thoroughly

and *appreciate* its narrative qualities. Yet they will also expect you to *remember, describe, analyze,* and *evaluate* these features of the text in class discussions and in writing. If you just let yourself "fall into the text" passively and become absorbed in reading, you probably won't have much to say about it a few days later. You may run into the same problem in courses that include films. You will have to let yourself become absorbed in a film to appreciate its qualities, but recalling that you enjoyed a movie or wept at the end won't give you much to say in an assigned paper or a class discussion. Your teacher will also expect you to understand how the director, scriptwriters, and actors *constructed* that experience.

How can you meet both of these expectations: for *appreciation* and for *critical analysis*? Ideally, you would watch the film or read the text at least twice—once straight through for appreciation and then analytically or critically, while taking notes, to determine how it works and what you want to say about it. And if the assigned readings are short stories, essays, or poems, you should have time to read them more than once, with a different strategy each time. If you are supposed to read a long novel in a short time, however, multiple readings may be impossible.

Critics who review films or live performances, such as plays, have to contend with the same challenge. They need to let the performance affect them as it would other members of the audience. At the same time, they must consider how the film or play produced those effects, because they know they will have to describe and evaluate the production in writing. For this purpose, they have learned to attend performances with two minds, one receptive and the other analytical and critical. And in that second, analytical endeavor, they usually take lots of notes during or immediately after the event because they know they can't trust their memories.

With practice, you can cultivate this two-minded way of reading as well: experiencing the qualities of a novel, for example, while considering *how* the novel produced those effects. However real the characters, settings, and events may seem, remember that the author created those experiences of reading out of words and sentences on the page. Assignments will usually ask you to explain how this literary construction project works. As a college sophomore in a literature course, for example, Louisa Bennion introduced her essay on two stories by James Joyce with her own view of their central features and effects, presented imaginatively as a set of instructions:

> *Start with a character, a very commonplace sort of character, with little to distinguish him but the fact that he is suddenly the subject of a story. Follow him through a series of ordinary, everyday experiences, which may take place in the course of a single evening or may happen over an unspecified amount of time. Make these experiences somehow lead your character into a "sudden intuitive perception of or insight into the reality or essential meaning" of his existence, and you will have created a story about an epiphany. If you are the kind of writer who can do magical and moving things with language, your readers, like that character, will feel that something momentous has occurred, that they too have received some sort of insight or revelation, through the ordinary act of reading a story.*
>
> *This is the kind of story James Joyce has written in "Araby" and "The Dead." (9)*

In preparation for writing this kind of analytical paper, like film critics, you will need to record your reactions and their causes in some detail; otherwise, you won't remember them. Here are some strategies for capturing ideas for writing:

- If you can read the book only once, you should take notes while you read, either on the pages of the book itself or in a separate notebook or electronic document. In the latter case, be sure to record the page numbers or chapters these notes refer to, so you can find the passages easily when you begin to write.
- If you want to avoid disrupting your engagement with the flow of the writing, pause to take notes at intervals, such as the ends of chapters or whenever you take a break from reading. Then you can also quickly skim portions you have read to recall structures, themes, or events.
- Discuss the book with friends or with other students in the class. You probably know from experience that conversations or arguments about a book or a movie stimulate both thought and memory. Discussions lead you to analyze, explain, and perhaps justify your own impressions in ways that help to prepare you for writing.

Highlighting

Those of you who have tried to study textbooks by reading them passively, hoping that you will easily absorb what you need to know, have

probably realized that you need to be *doing something* to make important material soak in. This activity on your part is what distinguishes passive reading from *studying*: *examining* something in the effort to understand it. But when you study a text, what exactly should you be doing?

When they reach the end of a textbook chapter and can't remember what they read at the beginning, students typically resort to highlighting the passages that seem important. This use of transparent markers has largely replaced the older practice of underlining, which has the same function. If you buy used textbooks, you might find that someone has already performed this task, sometimes in two or three colors to distinguish categories or levels of importance. I've seen used textbooks that were almost completely highlighted. Apparently *everything* was important.

As a learning tool, highlighting has some values and limitations that you should consider before you fall into the habit. I'll start with the advantages:

- Because you are doing something with and to the text, highlighting keeps you more alert and allows you to read longer without becoming distracted and fatigued.
- Figuring out what you should highlight helps you to understand what you are reading and to determine whether you understand it. If you don't know what is important enough to highlight, you probably don't yet understand the material or why it was assigned.
- Highlighting creates the beginning of an analytical understanding of texts, of the way they are structured. When pulled out of the text, highlighted passages should resemble an outline or summary of the work.
- Perhaps the main advantage of highlighting is the reduction of study time later on, when you need to read through the material again in preparation for an exam or a writing assignment and find you remember almost nothing. If you have left a textbook chapter unmarked, you will have to spend almost as much time reading it again. If you have effectively marked the most important parts, you can sometimes review only those highlighted portions and reduce your study time by more than half.

For some purposes, however, highlighting itself is a waste of time or an insufficient aid to learning. Here are some of the limitations:

- Highlighting (or underlining) alone simply emphasizes the authority of the text: what its author says, believes, or knows. The practice therefore leads you toward memorization and repetition, not toward interpretation, inquiry, or criticism. As a consequence, highlighting works best as a preparation for "objective" examinations of your knowledge or for writing summaries. It is *not* sufficient preparation for raising questions; participating in discussions; or writing arguments, analyses, and interpretations based on readings.
- While it can lead you toward a systematic understanding of the text, highlighting does not effectively *represent* systematic understanding of the material as a structure of information and ideas, even if you use several colors. Highlighting usually emphasizes a linear series of important points, not the connections among them.
- If you need only to grasp and retain the general idea or a few specifics, highlighting while you read is an inefficient, sometimes pointless activity. There are much better strategies, which I'll describe later.
- Highlighting doesn't create long-term memory. When the practice becomes routine, as a way of marking what you need to study later, it can even reduce your memory.
- While thoughtful, effective highlighting can make studying more efficient, inaccurate highlighting can get you into trouble. If you highlight in a linear fashion while you read, you might not recognize important passages the first time through. If you miss them and study only the highlighted portions later, this practice can actually lower your performance on exams.

The most effective highlighting does not simply flag all of the passages you should read again when exams approach. It should also create a framework for understanding and remembering what you have read. That framework is usually built into the text as a logical structure of ideas and information. Highlighting should help to make that structure visible, and observing the ways in which texts are structured can also help you write more effectively. As a consequence, highlighting works best when paired with a nonlinear reading strategy such as *analytical scanning* (see p. 51).

At every level of organization, from the structure of a paragraph to the design of an entire book, there is usually a *main idea* followed by *supporting points*, often leading to *conclusions*. In a book this structure

consists of several layers. The entire volume has one main idea or topic. Subtopics of this general theme are also the main topics of individual chapters, which are often subdivided into sections, each with its own central theme. A paragraph, the smallest unit of organization, will also have a topic, supporting points, and sometimes a conclusion.

As a rule (though one with many exceptions), *main ideas appear at beginnings, conclusions at ends, and supporting points in between.* Authors usually present the central theme of a book in the introduction—usually toward the beginning—and present their conclusions at the end. The theme of a chapter also tends to appear at the beginning, as does the topic sentence of a paragraph. Textbooks (and sometimes other books and articles) usually provide summaries at the ends of chapters.

If you are aware of this conventional structure, you can locate main points more easily and recognize the supporting points that follow. For this purpose two colors of highlighter are useful—one to mark the main ideas and the other to indicate supporting points within a section. Double and single underlining can serve the same purpose.

For example, consider this passage from Edward O. Wilson's book *The Diversity of Life*:

> *Evolution is blinkered still more by the fact that the frequency of genes and chromosomes can be shifted by pure chance. The process, an alternative to natural selection called genetic drift, occurs most rapidly in very small populations. It proceeds faster when the genes are neutral, having little or no effect on survival and reproduction. Genetic drift is a game of chance. Suppose that a population of organisms contained 50 percent A genes and 50 percent B genes at a particular chromosome site, and that in each generation it reproduced itself by passing on A and B genes at random. Imagine that the population comprises only five individuals and hence 10 genes on the chromosome site. Draw out 10 genes to make the next generation. They can all come from one pair of adults or from as many as five pairs of adults. The new population could end up with exactly 5 A and 5 B genes, duplicating the parental population, but there is a high probability that in such a tiny sample the result instead will be 6 A and 4 B, or 3 A and 7 B, or something else again. Thus in very small populations the percentages of alleles can change significantly in one generation by the workings of chance alone. That in a nutshell is genetic drift, about which mathematicians have published volumes of sophisticated and usually incomprehensible calculations.*

> *But let us go on. Population size is critical in genetic drift. If the population were 500,000 individuals with 500,000 A genes and 500,000 B genes, respectively, the picture would be entirely different. At this large number, and given that even a small percentage of the adults reproduced—say 1 percent reproduced—the sample of genes drawn would remain very close to 50 percent A and 50 percent B in each generation. In such large populations genetic drift is therefore a relatively minor factor in evolution, meaning that it is weak if opposed by natural selection. The stronger the selection, the more quickly the perturbation caused by drift will be corrected. If drift leads to a high percentage of B genes but A genes are superior in nature to B genes, the selection will tend to return the B genes to a lower frequency. (81)*

This is a clear, concise explanation of genetic drift as a factor in evolution, and while you were reading it, you probably felt that you understood what Wilson was saying. But if someone asked you to write a brief explanation of genetic drift two weeks from now, your memory of the passage will have faded considerably. If *The Diversity of Life* were assigned reading in a biology or environmental studies course, your immediate understanding would be of little value unless you take measures to recall this knowledge and study efficiently when you face an exam or writing assignment.

Highlighting can serve this purpose if you imagine what would most efficiently stimulate understanding after short-term memory has faded. If you highlight the main structure of the explanation, this process will also strengthen your immediate understanding and enhance memory when you look at the passage again.

What should you highlight? As in most explanations and arguments, Wilson introduces central topics toward the beginnings of paragraphs, devotes the middle portions to examples, and ends paragraphs with conclusions. Highlighting should underscore this structure, and *highlighted material should read, ideally, as a brief summary of the entire passage.* Here is one way to highlight the structure of Wilson's explanation:

> *Evolution is blinkered still more by the fact that the frequency of genes and chromosomes can be shifted by pure chance. The process,* ***an alternative to natural selection called genetic drift, occurs most rapidly in very small populations.*** *It proceeds* ***faster when the genes are neutral,*** *having little or no effect on survival and reproduction.* ***Genetic drift is a***

game of chance. *Suppose that a population of organisms contained 50 percent A genes and 50 percent B genes at a particular chromosome site, and that in each generation it reproduced itself by passing on A and B genes at random. Imagine that the population comprises only five individuals and hence 10 genes on the chromosome site. Draw out 10 genes to make the next generation. They can all come from one pair of adults or from as many as five pairs of adults. The new population could end up with exactly 5 A and 5 B genes, duplicating the parental population, but there is a high probability that in such a tiny sample the result instead will be 6 A and 4 B, or 3 A and 7 B, or something else again.* ***Thus in very small populations the percentages of alleles can change significantly in one generation by the workings of chance alone.*** *That in a nutshell is genetic drift, about which mathematicians have published volumes of sophisticated and usually incomprehensible calculations.*

But let us go on. ***Population size is critical in genetic drift.*** *If the population were 500,000 individuals with 500,000 A genes and 500,000 B genes, respectively, the picture would be entirely different. At this large number, and given that even a small percentage of the adults reproduced—say 1 percent reproduced—the sample of genes drawn would remain very close to 50 percent A and 50 percent B in each generation.* ***In such large populations genetic drift is therefore a relatively minor factor in evolution, meaning that it is weak if opposed by natural selection.*** *The stronger the selection, the more quickly the perturbation caused by drift will be corrected. If drift leads to a high percentage of B genes but A genes are superior in nature to B genes, the selection will tend to return the B genes to a lower frequency. (81)*

Here I've used bold type to highlight the most central points and underlining to indicate supporting points. A quick glance at the examples between would be sufficient to remind you of the details used to illustrate these central statements.

Note that although you can look for important statements *toward* the beginning and end of paragraphs (or sections, or chapters), those statements are not necessarily the first or last sentences. To highlight effectively, you need to read analytically and locate structural features.

Again, highlighting is most effective as an aid to studying the text later if you need only to understand and remember important information. If you want to avoid reading the text again or if you are supposed to read and respond to it critically, other approaches to reading will be more effective.

Notes, Outlines, and Summaries

Students are often surprised that weeks or months later I can sometimes remember papers they wrote for my class, perhaps more vividly than they can. They say, "You must have a really good memory." But I don't. The reason is that I don't only read their papers; I also write extensive comments both in the margins and at the end. In those comments I try to explain what I got out of the paper and what I thought the writer was trying to do, along with evaluations of the work. *I remember their writing as the object of my own active attention and response.*

You will notice the same kind of enhanced recollection if you discuss a book with a friend shortly after you read it, describe it to someone in a letter, or write an essay about it. These active responses will stimulate lasting memory of the book much more effectively than just reading or highlighting. Much later you will remember what *you* said—the way *you* described the book and what *you* liked or disliked about it—more vividly than the aspects you did not describe. Writing and speaking are in themselves *mnemonics*: They help to create long-term memory.

A sense of urgency, a desire to get the reading done, might convince you that pausing to make notes, construct outlines, or write summaries would be a waste of your time, since the author has already written what you need to know. Why rewrite it or write about it at all? Most textbook chapters are already outlined, in a sense. The material is usually broken down into sections, with headings and subheadings, often with numbered lists of points and boldfaced indications of important terms. Textbooks often include chapter summaries that digest the material for you, along with study questions to help you make sure you understand it.

Until you make this structure meaningful in your own terms, however, it will remain the structure of the text and will represent the author's knowledge, not yours. If you can explain the material to someone else, summarize it in your own words, or outline the structure, the knowledge is yours in two ways:

1. This linguistic processing will engage long-term memory.
2. In a summary or outline you will have a record of your own understanding—something you can read quickly later to refresh your memory.

The framework of a good outline will also stimulate recollection of details, examples, or supporting arguments. Even if you can't recall these specifics without reading the material again, the structure of your outline will allow you to scan the text quickly, filling in the pieces you have forgotten. If it is sufficiently clear, a brief outline or diagram can even *eliminate* the need to read the text again. Without rereading, the following outline would recall the substance of Wilson's explanation of genetic drift in the previous excerpts, including the examples:

Genetic drift
—alt. to nat. selection
—rapid in small pop.
—if not working *against* nat. selection
—"game of chance"
ex: 5 A & 5 B = 6 A & 4 B or 3 A & 7 B
500,000 A & 500,000 B = about 50/50%

Like highlighting, however, an outline reaffirms the structure and substance of the text, not your own position in relation to the text. For this reason, notes, either in the margins or in a separate notebook, are especially important if writing assignments or essay exams ask you to respond to readings. If you make notes while you read, you will have a record of your responses to the text: points of agreement or disagreement, alternative interpretations, correspondence or contrast with other readings, or unanswered questions. These notes on your thoughts about the text will put you in a stronger position to develop arguments, interpretations, or comparisons than you would be if you had only read the work passively without paying attention to the way it struck you.

Hard Reading

These active strategies become essential if assigned readings are for some reason very difficult to understand—extremely abstract and complex, technical, archaic, or poorly written. If you can't immediately grasp what the author is saying, your first tendency may be to give up, perhaps

with the conclusion that you just aren't smart enough to understand. But there are other more likely reasons why academic writing can be difficult to read, and if you need to understand material that doesn't initially make sense, you have to use your own intelligence to *make sense of it* in terms *you* can remember.

When reading textbooks designed for student readers at particular levels, you may have to look up words you don't understand or study a passage before it seems clear to you. But college teachers often assign scholarly books and articles that were written primarily for readers with extensive knowledge and familiarity with the subject. Understanding this material may require complex and unfamiliar ways of thinking, including basic assumptions the authors do not bother to explain. Here, for example, is the sentence with which the French anthropologist Pierre Bourdieu begins the first chapter, called "The Objective Limits of Objectivism," of his book *Outline of a Theory of Practice* (1977), which is sometimes assigned in social science classes:

> *The practical privilege in which all scientific activity arises never more subtly governs that activity (insofar as science presupposes not only an epistemological break but also a social separation) than when, unrecognized as privilege, it leads to an implicit theory of practice which is the corollary of neglect of the social conditions in which science is possible. (1)*

Although this sentence is extremely complex and circular, the main problem is not that it is poorly written (or poorly translated from the original French). Instead, writing primarily for scholars who are familiar with basic issues in social theory and the philosophy of science, Bourdieu begins his book by throwing us into the middle of ongoing discussions about the problem of "objectivity" suggested in the chapter title. For other readers who aren't already familiar with these issues, just reading the sentence passively (or reading it again and again) won't shed much light on its meaning. The sentences that follow aren't much help either. Highlighting or trying to memorize Bourdieu's language will also be pointless if you don't understand what he means.

To grasp this kind of writing, you must build the context, or frame of reference, in which it does make sense to intended readers. Course lectures, discussions, or other readings will usually provide that context. If you were reading Bourdieu for an anthropology or sociology course, for example, you would know that although he refers to "science" in general, he's concerned primarily with social research and with the

social dimensions of all science. From the chapter title and from parts of this sentence, you could figure out that he is addressing the scientific goal of objectivity (perceiving objects of study as they really are), which must result from separation of the observer from the observed. Bourdieu describes this separation as a position of "privilege." For example, the attempt to observe a social group from a privileged position of objectivity will necessarily limit your understanding of what it means to be a member of that group.

If you can build such a frame of reference for understanding the sentence, you can also produce a version that will be easier to remember in the future: *Separation (or "privilege") always governs scientific theory and practice, but it does so especially when scientists fail to recognize this influence.*

Other kinds of assigned reading may be difficult to understand because they *are* badly written. In these cases, too, passive reading, rereading, and highlighting will simply underscore everything that is confusing you. What the author is trying to say, however, is often much simpler than it seems, and you can produce a shorter, clearer version. Your own notes, outlines, and paraphrases can help you escape literature that you hope you never have to read again!

Here is an example of bad writing you would not want to get trapped in: a passage on contractual relations from *The Structure of Social Action* (1949) by the sociologist Talcott Parsons. Try just reading it passively, from beginning to end, and see what happens to you.

> *Spencer's contractual relation is the type case of a social relationship in which only the elements formulated in "utilitarian" theory are involved. Its prototype is the economic exchange relationship where the determinant elements are the demand and supply schedules of the parties concerned. At least implicit in the conception of a system of such relationships is the conception that it is the mutual advantage derived by the parties from the various exchanges which constitutes the principle binding, cohesive force in the system. It is as a direct antithesis to this deeply imbedded conception of a system of "relations of contract" that Durkheim wishes his own "organic solidarity" to be understood.*
>
> *The line which Durkheim's criticism takes is that the Spencerian, or more generally utilitarian, formulation fails to exhaust, even for the case of what are the purely "interested" transactions of the marketplace, the elements which actually are both to be found in the existing system of such transactions, and which, it can be shown, must exist, if the system is to function at all. What is omitted is the fact that these transactions are actually entered into in accordance with a body of binding rules which are not part of the ad hoc agreement of the parties. The elements included in the utilitarian conception are, on the contrary, all taken account of in the terms of the agreement. What may, however, be called the "institution" of contract—the rules regulating relations of contract—has not been agreed to by the parties but exists prior to and independently by any such agreement.*
>
> *The content of the rules is various. (311)*

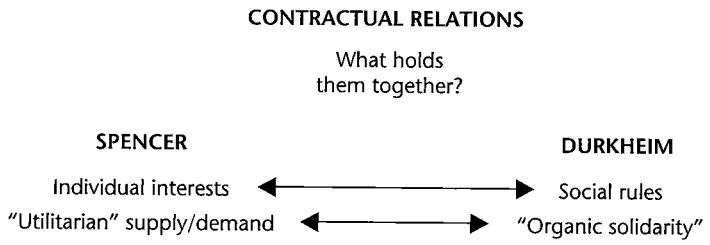
Even the last, and shortest, sentence in the passage—"The content of the rules is various"—can be condensed more effectively to just three words: *The rules vary*. Although Parsons makes everything unnecessarily complicated, he is trying to make a simple yet important distinction between the economic theories of Herbert Spencer and Emile Durkheim. Even this dense, murky version has some obvious structure, and if you examine it analytically, you can see that it consists of a paragraph on the "utilitarian" exchange theory of Spencer and ends with a transition to a following paragraph on the differing views of Durkheim.

Because this is a very abstract explanation of "contractual relations," it might be useful to imagine a more concrete example, such as the sale of a car. The central question is "How do we reach an agreement on the price of this car?" and then "What holds this deal together?" How would Spencer and Durkheim answer these questions?

To construct an understanding I can later remember, I could write a brief summary in my own words:

> *Parsons distinguishes the views of Spencer and Durkheim concerning the bases for "contractual relations": economic transactions and other kinds of agreements. Spencer's "utilitarian" position limits these factors to the individual interests, or "demand and supply schedules," of the parties involved in the agreement. Durkheim argues that all sorts of other "rules," such as laws and customs, govern the terms of contractual relations. Durkheim calls this "organic solidarity."*

If you were about to write a paper or take an essay exam on this material, which would you prefer to have before you—this brief summary paragraph or Parsons's original passage? For a similar purpose, I could create a "mnemonic diagram" of the passage:



Some Other Ways to Read

When using the methods of reading described in previous sections, you will probably need to go through the text at least once, pausing to highlight material, to take notes, or to construct outlines and diagrams. But you can go through a text and get what you need from it in many ways, ways that are more or less linear or much faster or slower, depending on your reasons for reading.

Reference. We think of "reference" books as volumes such as dictionaries or encyclopedias, but almost any book can be used primarily as a reference. When you pull such a book off the shelf, you probably turn straight to the index or table of contents. In a volume on the premodern history of China, for example, you might be interested only in the Shang Dynasty or only on the art or religion of this period. *Every book with an index is potentially an encyclopedia on its own subject.*

Supplementary readings on a course syllabus are often intended for use as references, and you will also use books and articles as references when you write research papers, as we will see in Chapter 8. The list of "Works Cited" in a bibliography does not necessarily mean that the writer has read all of this material from beginning to end.

Selective reading. In some cases only certain portions of a book, or particular articles in a journal, are immediately important. Scholars therefore might have read these sections very closely while ignoring or only glancing at everything else. Scientists and social scientists selectively read many research articles, looking only at the abstract or the introduction, perhaps, to see what the article is about or at the methods, figures, specific results, or conclusions, depending on their interests. We also read selectively while looking through magazines, reading only the first paragraph or the sidebars or just looking at the pictures and captions.

Analytical scanning. You might imagine that analytical scanning is the same as "skimming," but in some respects it is the opposite. Skimming is cruising quickly over the surface to get a general sense for the content. The effect resembles the view you get through the window of an airplane or high-speed train: a stream of blurred, general impressions. Analytical scanning is more like examining a topographical map or aerial photograph of a whole area: studying the structure of the landscape and noting high points or centers of importance. Not bound to any linear path, your vision can move in any direction, focus closely, or widen to encompass the whole.

When scanning a book, you might begin by examining the table of contents to see how the work is organized and, in a very general way, what it contains. Then, to figure out what the author is trying to do—the *purpose* of the book—you might scan the introduction, focusing especially on the beginning and end, where authors are most likely to state their intentions. Then you might skip to the last chapter, where you are likely to find conclusions or summaries of the entire work. With this knowledge of what the author was setting out to do and then claimed to have done, you can turn back to the beginnings of particular chapters to determine how this goal was accomplished. In these chapters, as in the entire volume, you will usually find the most central points at the beginning and end. These methods are especially useful for studying textbook chapters, which are often designed for nonlinear, analytical reading. Clever students have told me that when textbook chapters list study questions at the end, they read these first as indications of what is most important and then look for answers.

> The best way to teach yourself effective scanning is to give yourself far too little time to figure out what a book or chapter says—a time so brief that linear, continuous reading is impossible.
>
> For a ten-page article, for example, give yourself only ten minutes to figure out what the author is saying and to write a one-paragraph summary. For a book, give yourself only thirty minutes to grasp its main ideas and organization and write a one-page summary.

If you become adept at analytical scanning, you can "read" an entire book in twenty or thirty minutes. If you take notes in the process, you will end up with a more useful understanding of its content than you would have if you had spent several hours reading it from cover to cover in a passive, linear fashion.

Close reading. While selective reading and analytical scanning are much faster than reading through a text from beginning to end, word by word, some assignments will require much more time and attention. Extremely difficult texts, extremely important ones, an essay you will discuss in class, or a poem you must interpret in a writing assignment might require several readings and careful analysis.

As a consequence, the length of a reading assignment bears little relation to the time you might spend on it. Although it might be possible to pick up the central themes of an entire book in thirty minutes, you might need to spend one hour reading two pages of an important essay or one short poem. Students often tell me fatalistically that they *have* to spend a certain amount of time reading a certain number of pages, as though this pace were unalterable. From my perspective, this simply means they are stuck in a certain way of reading. In some respects, close reading and analytical scanning are related strategies, not opposites. In both cases you are analyzing the structure of the text, moving back and forth through it, not bound to follow its linear order.

Try using analytical scanning and close reading on the same text. Give yourself only fifteen minutes to scan a whole chapter of one of your textbooks to figure out the overall structure and content. Then spend fifteen minutes closely studying a specific section of less than one page, examining the way this information is presented and outlining or summarizing the content.

Overcoming Resistance to Strategic Reading

You may ask, if the reading strategies I've described are so effective, why do most students still read their textbooks from beginning to end, a highlighter poised over the page, just waiting for the chance to mark something worth remembering?

As I noted previously, a passive, linear approach to reading is the default mode—the easiest way of reading to fall into *without thinking*. And that, of course, is the problem. If you aren't actively thinking about *what* you are reading, *why* you are reading it, and *how* you are reading it, you aren't going to get much lasting value out of the time you spend.

But students cling to reading methods that don't actually work very well in undergraduate studies for other reasons, as well. Students have told me that if they don't read every word in the order in which it appears, they are afraid they will "miss" something. What if something really important lies in one of those parts you skipped over? It seems illogical that you could learn more by reading less or that you could understand something better by spending less time reading it.

The flaw in this reasoning lies in the assumption that you will learn and remember written material simply because your eyes happened to pass over it, following the linear trail of words from beginning to end, or because you covered it with transparent marker. Having read something in this way offers no reliable assurance that you have learned and will remember what you read. In your effort not to miss anything, you might, in the long run, miss almost everything. By the next day you might be left with nothing but a warm sense of virtue for having completed your homework.

You can test the arguments I've made by reading two different chapters of the same textbook in two different ways and then finding out how much you remember later. Scan one chapter analytically, and outline its content in a few minutes, deliberately searching for important points and structural elements. Spend at least twice as much time reading another chapter from beginning to end, trying simply to absorb the material without taking notes.

Wait at least one day and then try to summarize both chapters from memory, each in a paragraph or two, without looking at the chapters or at the notes you kept on the first. Which one do you remember better?

I've also known people who have a kind of aesthetic objection to reading something "out of order" or selectively—an attitude akin to the moral outrage some people feel toward readers who skip to the end of a novel to find out what happens. From this perspective, the linearity

of a book or essay represents its integrity, and reading in a linear fashion demonstrates respect for that integrity. Analytical or selective reading, out of order, therefore violates the integrity of the text, much as dissecting a frog does violence to the living creature.

While analytical reading bears some resemblance to dissection, texts are not like living creatures. You can read them in any order you like, dismantle them, examine their structural elements, take what you want from them in notes, and still be left with an undamaged whole. Then you can return to them, if you like, and read them over in a different way. The same can't be said for highlighting, which really does alter (and even damage) the text. By contrast, the Grand Masters of Strategic Reading would be so skillful and efficient that they could buy all of their textbooks for the term, extract everything they needed from them before the bookstore's full refund deadline expired, and return them unmarked and like new.

GUIDELINES

- Successful students and scholars know that reading is a variety of activities, used for specific purposes. To find the best reading strategy, you should ask yourself *what* you are reading, *why* you are reading it, and *how* you can read it most effectively for that purpose (p. 31).
- For most kinds of academic work, therefore, I encourage you to become "predatory readers": those who choose the best strategy for getting what they need out of a text (pp. 32–33).
- Remember that the goal of most academic reading is to create long-term memory and working knowledge of the material—a goal that passive reading will not fulfill.
- When you begin to read, pause to make sure that the way you are reading corresponds with its functions and your purposes for learning, studying, or writing. The following chart correlates diverse ways of reading with some of their most common functions:

Passive, Linear Reading (p. 36)	For appreciation and general comprehension
Reading with Two Minds (p. 37)	For combining appreciation with critical analysis
Highlighting (p. 39)	For focusing attention, making structural features and important information visible, and facilitating studying in the future
Notes, Outlines, and Summaries (p. 45)	For capturing your own analysis and understanding, including critical perspectives
Hard Reading (p. 46)	For developing your own understanding of writing that doesn't make itself clear to you.
Reference (p. 50)	For locating specific information within texts
Selective Reading (p. 50)	For identifying and grasping the most important texts or portions of them
Analytical Scanning (p. 51)	For understanding the overall structure and purpose of a text quickly, sometimes as a basis for further study
Close Reading (p. 52)	For deep understanding and detailed analysis and criticism

- If you feel that you must read everything from beginning to end, consider your reasons for believing this is necessary. There is no inherent virtue in linear, continuous reading, whereas diversified, strategic reading methods are essential for successful college work.