Thinking and reading critically

In college and work, much of your critical thinking will focus on written texts (a short story, a journal article, an Internet posting, a site on the Web) or on visual objects (a photograph, a chart, a film). Like all subjects worthy of critical consideration, such works operate on at least three levels: (1) what the creator actually says or shows, (2) what the creator does not say or show but builds into the work (intentionally or not), and (3) what you think. Discovering each level of the work, even if it is visual, involves four main steps: previewing the material, reading actively, summarizing, and forming a critical response.

The idea of reading critically may require you to make some adjustments if readers in your native culture tend to seek understanding or agreement more than engagement from what they read. Readers of English use texts for all kinds of reasons, including pleasure, reinforcement, and information. But they also read skeptically, critically, to see the author’s motives, test their own ideas, and arrive at new knowledge.

1. **Previewing the material**

   When you’re reading a work of literature, such as a short story or a poem, it’s often best just to plunge right in (see p. 77). But for critical reading of other works, it’s worthwhile to form some expectations and even some preliminary questions before you start reading word for word. Your reading will be more informed and fruitful.

   Use the following questions as a previewing guide:

   - **Length:** Is the material brief enough to read in one sitting, or do you need more time? To gauge the length of an online source such as a Web site, study any menus for an indication of the source’s complexity. Then scroll through a couple of pages and follow a couple of links to estimate the overall length.
   - **Facts of publication:** Does the date of publication suggest currency or datedness? Does the publisher or publication specialize in a particular kind of material—scholarly articles, say, or...
The first lesson of economics is scarcity: There is never enough of anything to fully satisfy all those who want it.

The first lesson of politics is to disregard the first lesson of economics. When politicians discover some group that is being vocal about not having as much as they want, the "solution" is to give them more. Where do politicians get this "more"? They rob Peter to pay Paul.

After a while, of course, they discover that politicians have now suddenly discovered that many college students graduate heavily in debt. To politicians it follows, as the night follows the day, that the government should come to their rescue with the taxpayers' money.

(The latest chapter in this long-running saga is that politicians have now suddenly discovered that many college students graduate heavily in debt. To politicians it follows, as the night follows the day, that the government should come to their rescue with the taxpayers' money.)

After this introduction, Sowell discusses several reasons why government student-loan programs should not be expanded: they benefit many who don't need financial help, they make college possible for many who aren't serious about education, and they contribute to rising college tuitions.)

A good way to master the content of a text and see its strengths and weaknesses is to summarize it: distill it to its main points, in your own words. Here is one procedure for summarizing:

• Understand the meaning. Look up words or concepts you don't know so that you understand the author's sentences and how they relate to each other.

• Distill each section. Write a one- or two-sentence summary of each section you identify. Focus on the main point of the section, omitting examples, facts, and other supporting evidence.

• Understand the organization. Work through the text to identify its sections—single paragraphs or groups of paragraphs focused on a single topic, related pages or links in a Web site. To understand how parts of a work relate to each other, try drawing a tree diagram or creating an outline (pp. 53–55). Although both tools work well for straight text, the tree diagram may work better for nonlinear material such as a Web site.

• Summarize. A one- or two-sentence summary of each section you identify. Focus on the main point of the section, omitting examples, facts, and other supporting evidence.

The following sentence summarizes the first four paragraphs of Thomas Sowell's "Student Loans," on the previous page:

The first lesson of economics is scarcity: There is never enough of anything to fully satisfy all those who want it. The first lesson of politics is to disregard the first lesson of economics. When politicians discover some group that is being vocal about not having as much as they want, the "solution" is to give them more. Where do politicians get this "more"? They rob Peter to pay Paul.
are. Answering either question, you would examine the address of the site (in the field at the top of the page), the organization’s name, the paragraph of text, and the design of the page—its use of type, color, and decorative elements.

Interpreting

Identifying the elements of something is of course only the beginning: you also need to interpret the meaning or significance of the elements and of the whole. Interpretation usually requires you to infer the author’s assumptions—that is, opinions or beliefs about what is or what could or should be. (Infer means to draw a conclusion based on evidence.) Assumptions are pervasive: we all adhere to certain values, beliefs, and opinions. But assumptions are not always stated outright. Speakers and writers may judge that their audience... that the audience will disagree. That is why your job as a critical thinker is to interpret what the assumptions are.

To discover assumptions of the Federated Loan Consolidation Corporation (previous page), you would look at the address of the Web site, where .com indicates that the organization is a commercial entity. (See p. [for more on interpreting electronic addresses.) Yet you might also notice that the page does not resemble those of other corporate sites, which typically have flashier designs incorporating more images, color, and boxes, among other elements. Instead, the page’s look is rather plain—the sort of design you might expect from a government site. The prominent Federated in the organization’s name and complements government efforts in the text reinforce the appearance of a government connection. These findings might lead you to infer the following:

The Federated Loan Consolidation Corporation assumes that its readers (potential customers) will be more willing to explore its refinancing options if they believe that it is a reliable organization somehow affiliated with the government.

Synthesizing

If you stopped at analysis and interpretation, critical thinking and reading might leave you with a pile of elements and possible meanings but no vision of the whole. With synthesis you make connections among parts or among wholes. You create a new whole by drawing conclusions about relationships and implications.

The following conclusion draws on elements of the Federated Loan Consolidation Corporation home page and the inference above about the company’s understanding of its readers:

4 • Forming a critical response

Once you’ve grasped the content of what you’re reading—what the author says—then you can turn to understanding what the author does not say outright but suggests or implies or even lets slip. At this stage you are concerned with the purpose or intention of the author and with how he or she carries it out.

Critical thinking and reading consist of four overlapping operations: analyzing, interpreting, synthesizing, and (often) evaluating.

Analyzing

Analysis is the separation of something into its parts or elements, the better to understand it. To see these elements in what you are reading, begin with a question that reflects your purpose in analyzing the text: why you are curious about it or what you’re trying to make out of it. This question will serve as a kind of lens that highlights some features and not others.

For an example, look at the screen shot below, showing the home page of a Web site that offers relief from student-loan debt. Analyzing this page, you might ask what kind of organization the Federated Loan Consolidation Corporation is or what its intentions are. Do not count on this tool for summarizing texts that you may have copied onto your computer. The summaries are rarely accurate, and you will not gain the experience of interacting with the text on your own.
The Federated Loan Consolidation Corporation uses its name, a mention of the government, and a restrained design to appeal to potential customers who may be wary of commercial lending operations.

With synthesis, you create something different from what you started with. To the uncritical reader (perhaps someone burdened with student loans), the home page of the Federated Loan Consolidation Corporation might seem to offer government-backed relief from debt. To you—after analysis, interpretation, and synthesis—the official-looking page is a kind of mask worn by a commercial lender. The difference depends entirely on the critical reading.

Evaluating

Critical reading and writing often end at synthesis: you form and explain your understanding of what the work says and doesn’t say. If you are also expected to evaluate the work, however, you will go further to judge its quality and significance. You may be evaluating a source you’ve discovered in research (see pp. 63–64), or you may be completing an assignment to state and defend a judgment, a statement such as: The author does not summon the evidence to support her case or: On the home page of the Federated Loan Consolidation Corporation, a commercial lender attempts to mislead vulnerable customers by wearing the reassuring costume of government.

Evaluation takes a certain amount of confidence. You may think that you lack the expertise to cast judgment on another’s work, especially if the work is difficult or the author well known. True, the more informed you are, the better a critical reader you are. But conscientious reading and analysis will give you the internal authority to judge a work as it stands and as it seems to you, against your own unique bundle of experiences, observations, and attitudes.

7b. Viewing images critically

Every day we are bombarded with images—pictures on billboards, commercials on television, graphs and charts in newspapers and textbooks, to name just a few examples. Most images slide by without our noticing them, or so we think. But images, sometimes even more than text, can influence us covertly. Their creators have purposes, some worthy, some not, and understanding those purposes requires that we think critically.

The methods of viewing images critically parallel those for reading text critically: preview, analyze, interpret, synthesize, and (often) evaluate. Here we’ll apply these methods to the illustration opposite, an advertisement for *Time* magazine that appeared in the magazine itself.

1. Previewing

Look at the work as a whole to determine its source, its content, and its overall effect.

The *Time* advertisement, like most ads, has two significant sources: the site where the ad appeared and the company promoting its product. In this case, the sources are the same: the magazine is advertising itself.
The ad depicts a boy being scanned by an airport security person. A superimposed *Time* cover and text in the white space link the scene to the magazine. Overall, the ad pinpoints the significant controversy over US national security in the aftermath of the terrorist attacks of September 11, 2001, using this controversy to promote the magazine.

2 • Analyzing

Study the work closely to discover the particular elements, their relative importance, and the effects of color, composition, and similar features.

In the *Time* ad the most prominent element is the photograph: the blond boy, the man, the scanning tool, the “Baggage Claim” sign overhead, the clutter of people and activity in the background. Color, type, and shape form the familiar image of a *Time* cover, centered on the scanner like the bull’s-eye on a target.

Beneath the visual elements, the ad’s text guides readers’ impression of the photograph and *Time* cover. Positioned on a white background, the words attract attention even though they are set in small type. They encourage readers to question what they see and to seek (or continue seeking) answers in *Time* magazine.

3 • Interpreting

Consider what the elements convey about the assumptions and intentions of the work’s creator. *Time* clearly assumes that readers are both emotionally and rationally concerned about national security. On the one hand, the ad appeals to readers’ reason: to their interest in current news and opinion, their grasp of the need for national security, their regard for “common sense” solutions, and for “conversation” as a way to reach solutions. On the other hand, the ad also appeals strongly to emotion. Treating a boy as if he were a security threat is absurd, even humorous. The boy’s innocent, patient, nervous expression arouses sympathy, while the man’s serious attention to his work arouses disdain. The disorderly scene behind the main figures evokes the frustration and anxiety of air travel today. Most subtly, the ad plucks feelings about so-called profiling, or singling out people as suspicious solely because of physical characteristics such as gender or hair and skin color. Many people, reluctantly or not, favor profiling over the waste and inconvenience caused by searching everyone, even small blond-haired boys.

The intentions of the ad are layered: *Time* seems to want to attract readers’ notice and to define itself as cutting edge, with the larger purpose of increasing its sales.
critical writing, too, as you form, test, and support your own views. In argument, the most common type of critical writing, you further seek to open readers’ minds to your opinion, change readers’ own opinions, or move readers to action.

An argument has four main elements: subject, claims, evidence, and assumptions (The last three are adapted from the work of the British philosopher Stephen Toulmin.)

1 • The subject
An argument starts with a subject and often with an opinion about the subject—that is, an idea that makes you want to write about the subject. If you don’t have a subject or you aren’t sure what you think about it, try some of the invention techniques discussed on p. 68.) Your initial opinion should meet several requirements:

- It can be disputed: reasonable people can disagree over it.
- It will be disputed: it is controversial.
- It is narrow enough to research and argue in the space and time available.

On the flip side of these requirements are several kinds of statements or views that will not work as the starting place of argument: indisputable facts, such as the functions of the human liver; personal preferences or beliefs, such as a moral commitment to vegetarianism; and ideas that few would disagree with, such as the virtues of a secure home.

2 • Claims
Claims are statements that require support. In an argument you refine your initial opinion into a central claim and assert it outright as the thesis statement, or main idea: it is what the argument is about. For instance:

The college needs a new chemistry laboratory to replace the existing outdated lab.

Claims are usually statements of opinion, fact, or belief:

- An opinion is a judgment that is based on facts and arguable on the basis of facts, such as the example above about a new chemistry lab.
- A fact is potentially verifiable and thus not arguable—for example, The cost of medical care is rising.
- A belief, while seemingly arguable, is not based on facts and so cannot be contested on the basis of facts—for example, The primary goal of government should be to provide equality of opportunity for all.

Only an opinion is arguable, so only an opinion may serve as the thesis statement of an argument. A claim of fact or belief may serve as a secondary claim supporting the thesis but not as the thesis statement itself.

3 • Evidence
Evidence demonstrates the validity of your claims. The evidence to support the claim above about the need for a new chemistry lab might include the present lab’s age, an inventory of facilities and equipment, and the testimony of chemistry professors.

There are several kinds of evidence:

- Facts, statements whose truth can be verified: Poland is slightly smaller than New Mexico.
- Statistics, facts expressed as numbers: Of those polled, 22 percent prefer a flat tax.
- Examples, specific instances of the point being made: Many groups, such as the elderly and the disabled, would benefit from this policy.
- Expert opinions, the judgments formed by authorities on the basis of their own examination of the facts: Affirmative action is necessary to right past injustices, a point argued by Howard Glickstein, a past director of the US Commission on Civil Rights.
- Appeals to readers’ beliefs or needs, statements that ask readers to accept a claim in part because it states something they already accept as true without evidence: The shabby, antiquated chemistry lab shames the school, making it seem a second-rate institution.

Evidence must be reliable to be convincing. Ask these questions about your evidence:

- Is it accurate—trustworthy, exact, and undistorted?
- Is it relevant—authoritative, pertinent, and current?
- Is it representative—true to its context, neither under- nor over-representing any element of the sample it’s drawn from?
- Is it adequate—plentiful and specific?

4 • Assumptions
An assumption is an opinion, a principle, or a belief that ties evidence to claims: the assumption explains why a particular piece of evidence is relevant to a particular claim. For instance:

Claim: The college needs a new chemistry laboratory.
Evidence (in part): The testimony of chemistry professors.
Assumption: Chemistry professors are the most capable of evaluating the present lab’s quality.
Assumptions are not flaws in arguments but necessities: we all acquire beliefs and opinions that shape our views of the world. Just as interpreting a work's assumptions is a significant part of critical reading and viewing (see pp. 63 and 80), so discovering your own assumptions is a significant part of argumentative critical writing. If your readers do not share your assumptions or perceive that you are not forthright about your biases, they will be less receptive to your argument. (See the following discussion of reasonableness.)

**Deduction**

You use deduction, or deductive reasoning, when you proceed from your generalization that Car X is the most reliable used car to your own specific circumstances (you want to buy a used car) to the conclusion that you should buy a Car X. In deduction your assumption is a generalization, principle, or belief that you think is true. It links the evidence (new information) to the claim (the conclusion you draw). With deduction you apply old information to new.

Say that you want the school administration to postpone new room fees for one dormitory. You can base your argument on a deductive syllogism:

**Premise:** The administration should not raise fees on dorm rooms in poor condition. [A generalization or belief that you assume to be true.]

**Premise:** The rooms in Polk Hall are in poor condition. [New information: a specific case of the first premise.]

**Conclusion:** The administration should not raise fees on the rooms in Polk Hall. [Your claim.]

As long as the premises of a syllogism are true, the conclusion derives logically and certainly from them. Errors in constructing syllogisms lie behind many of the fallacies discussed on pages 83-88.

**2. Rational, emotional, and ethical appeals**

In most arguments you will combine rational appeals to readers' capacities for logical reasoning with emotional appeals to readers' beliefs and feelings. The following example illustrates both: the second sentence makes a rational appeal (to the logic of financial gain), and the third sentence makes an emotional appeal (to the sense of fairness and open-mindedness).

Advertising should show more physically challenged people. The millions of disabled Americans have considerable buying power, yet so far advertisers have made no attempt to tap that power. Further, by keeping the physically challenged out of the mainstream
To deal with opposing views, figure out which ones you can refute (do more research if necessary), and prepare to concede those views you can’t refute. It’s not a mark of weakness or failure to admit that the opposition has a point or two. Indeed, by showing yourself to be honest and fair, you strengthen your ethical appeal and thus your entire argument.

4 • Fallacies

Fallacies—errors in argument—either evade the issue of the argument or treat the argument as if it were much simpler than it is.

Evasions

An effective argument squarely faces the central issue or question it addresses. An ineffective argument may dodge the issue in one of the following ways:

• Begging the question: treating an opinion that is open to question as if it were already proved or disproved.

The college library’s expenses should be reduced by cutting subscriptions to useless periodicals. [Begged questions: Are some of the library’s periodicals useless? Useless to whom?]

• Non sequitur (Latin: “It does not follow”): linking two or more ideas that in fact have no logical connection.

If high school English were easier, fewer students would have trouble with the college English requirement. [Presumably, if high school English were easier, students would have more trouble.]

• Red herring: introducing an irrelevant issue intended to distract readers from the relevant issues.

A campus speech code is essential to protect students, who already have enough problems coping with rising tuition. [Tuition costs and speech codes are different subjects. What protections do students need that a speech code will provide?]

• Appeal to readers’ fear or pity: substituting emotions for reasoning.

She should not have to pay taxes because she is an aged widow with no friends or relatives. [Appeals to people’s pity. Should age and loneliness, rather than income, determine a person’s tax obligation?]

• Bandwagon: inviting readers to accept a claim because everyone else does.

As everyone knows, marijuana use leads to heroin addiction. [What is the evidence?]
Either we permit mandatory drug testing in the workplace or productivity will continue to decline. \[Productivity is not necessarily dependent on drug testing.\]

Organizing an argument

All arguments include the same parts:

• The introduction establishes the significance of the subject and provides background. The introduction generally includes the thesis statement. However, if you think your readers may have difficulty accepting your thesis statement before they see at least some support for it, then it may come later in the paper. (See pp. 75–76 for more on introductions.)

• The body states the claims that support the thesis and, in one or more paragraphs, develops each claim with clearly relevant evidence. See below for more on organizing the body.

• The response to opposing views details those views and either demonstrates your argument’s greater strengths or concedes the opponents’ points. See below for more on organizing this response.

• The conclusion restates the thesis, summarizes the argument, and makes a final appeal to readers. (See pp. 75–76 for more on conclusions.)

The structure of the body and the response to opposing views depend on your subject, purpose, audience, and form of reasoning. Here are several possible arrangements:

The traditional scheme

The problem-solution scheme

Claim 1 and evidence
The problem: claims and evidence
Claim 2 and evidence
Claim X and evidence
Response to opposing views
Response to opposing views

Variations on the traditional scheme

Use a variation if you believe your readers will reject your argument without an early or intermittent response to opposing views.

Response to opposing views
Claim 1 and evidence
Response and opposing views
Claim 2 and evidence
Claim X and evidence
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Either we permit mandatory drug testing in the workplace or productivity will continue to decline. (Productivity is not necessarily dependent on drug testing.)

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Either we permit mandatory drug testing in the workplace or productivity will continue to decline. (Productivity is not necessarily dependent on drug testing.)
The following student essay illustrates the principles discussed in this chapter. As you read the essay, note especially the structure, the relation of claims and supporting evidence, the kinds of appeals the author makes, and the ways he addresses opposing views.

**TV Can Be Good for You**

Television wastes time, pollutes minds, destroys brain cells, and turns some viewers into murderers. Thus runs the prevailing talk about the medium, supported by serious research as well as simple belief. But television has at least one strong virtue, too, which helps to explain its endurance as a cultural force. In an era when people often have little time to speak with one another, television provides replacement voices that ease loneliness, spark healthy laughter, and even educate young children.

Most people who have lived alone understand the curse of silence, when the only sound is the buzz of unhappiness or anxiety inside one’s own head. Although people of all ages who live alone can experience intense loneliness, the elderly are especially vulnerable to solitude. For example, they may suffer increased confusion or depression when left alone for long periods but then rebound when they have steady companionship (Bondy and Skogstad 329–30).

A study of elderly men and women in New Zealand found that television can actually serve as a companion by assuming “the role of social contact with the wider world.” Reducing “feelings of isolation and loneliness because it directs viewers’ attention away from themselves” (Television Programming”). Thus television’s replacement voices can provide comfort because they distract from a focus on being alone.

The absence of real voices can be most damaging when it means a lack of laughter. Here, too, research shows that television can have a positive effect on health. Laughter is one of the most powerful calming forces available to human beings, proven in many studies to reduce heart rate, lower blood pressure, and ease other stress-related ailments (Burroughs, Mahoney, and Lipman 172, Griffiths 18). Television offers plenty of laughter for all kinds of viewers: the recent listings for a single Friday night included more than twenty comedy programs running on the networks and on basic cable between 6 and 9 PM.

A study reported in a health magazine found that laughter inspired by television and video is as healthful as the laughter generated by live comedy. Volunteers laughing at a video comedy routine “showed significant improvements in several immune functions, such as natural killer-cell activity” (Laliberte 78). Further, the effects of the comedy were so profound that “merely anticipating watching a funny video improved mood, depression, and anger as much as two days beforehand” (Laliberte 79). Even for people with plenty of other entertainment options, television’s replacement voices can have healthful effects by causing laughter.

Television also provides information about the world. This service can be helpful to everyone but especially to children, whose natural curiosity can exhaust the knowledge and patience of their parents and caretakers. While the TV may be baby-sitting children, it can also enrich them. For example, educational programs such as those on the Discovery Channel, the Disney Channel, and PBS offer a steady stream of information at various cognitive levels. Even many cartoons, which are generally dismissed as mindless or worse, familiarize children with the material of literature, including strong characters enacting classic narratives.

Two researchers studying children and television found that TV is a source of creative and psychological instruction, inspiring children “to play imaginatively and develop confidence and skills” (Colman and Colman 8). Instead of passively watching, children “interact with the programs and videos” and “sometimes include the fictional characters they’ve met into reality’s play time” (Colman and Colman 8). Thus television’s replacement voices both inform young viewers and encourage exchange.

The value of these replacement voices should not be oversold. For one thing, almost everyone agrees that too much TV does no one any good and may cause much harm. Many studies show that excessive TV watching increases violent behavior, especially in children, and can cause, rather than ease, other antisocial behaviors and depression (Reeves 116, Walsh 34). In addition, human beings require the give and take of actual interaction. Steven Pinker, an expert in children’s language acquisition, warns that children cannot develop lan-
gauge properly by watching television. They need to interact with actual speakers who respond directly to their specific needs (282). Replacement voices are not real voices and in the end can do only limited good.

But even limited good is something, especially for those who are lonely, angry, or neglected. Television is not an entirely positive force, but neither is it an entirely negative one. Its voices stand by to provide company, laughter, and information whenever they're needed.

Works Cited