Many people have contributed to the sixth edition of this book. I would especially like to thank Julia Giannotti and Shani Fisher for their thoughtful suggestions during the development of this edition and Alison Fields for her careful attention to the details of the production process.

I also wish to acknowledge the contributions of the following professors, whose advice has been of great help to me in preparing this or previous editions of the book:

Marcia Anderson, Metropolitan State University (MN)
Robert Arend, San Diego Miramar College (CA)
Judy Bowie, DeVry University (IL)
Joel R. Brouwer, Montcalm Community College (MI)
Susan F. Corl, Louisiana State University, Eunice (LA)
Marilyn Corzine, Southwest Florida College of Business (FL)
Ozzie Dean, DeVry Institute of Technology, West Hills (CA)
Kathleen J. Fitzgerald, Columbia College (MO)
Catherine Gann, Missouri Western State College (MO)
Glennon Graham, Columbia College, Chicago (IL)
Fran Gray, Southwest Florida College of Business (FL)
Gail Herring, McLennan Community College (TX)
Melvin A. Jenkins, Indiana University of Pennsylvania (PA)
Martha Johnson, Texas A&M University (TX)
John Kowalczyk, Ferris State University (MI)
Patsy Krech, The University of Memphis (TN)
Kevin J. Kukla, SUNY Oswego (NY)
Cynthia H. LaBonne, Fairleigh Dickinson University (NJ)
Carol E. Lacey, Metropolitan State University (MN)
Nancy L. LaChance, DeVry Institute of Technology, Phoenix (AZ)
Marcel Lebrun, Plymouth State University (NH)
Joe LeVesque, Northwood University (TX)
Hakim J. Lucas, Medgar Evers College (NY)
Evelyn Martinez, Pima Community College—Desert Vista Campus (AZ)
Louise L. Myers, Naugatuck Valley Community College (CT)
Linda J. Nelson, Davenport University (IN)
Rebecca R. Noel, Plymouth State University (NH)
Sharon Occipinti, Florida Metropolitan University—Tampa (FL)
Mary O’Shaughnessy, DeVry Institute of Technology, Long Beach (CA)
Jim Pollard, Spokane Falls Community College (WA)
Diane Rielly, Naugatuck Valley Community College (CT)
Margie Robertson, Manatee Community College (FL)
Anita Rosenfield, DeVry Institute of Technology, Pomona (CA)
Marni Sanft, Utah Valley State College (UT)
Penny Schempp, Western Iowa Tech Community College (IA)
Matt Schulte, Montgomery College (MD)
Andrew Scoblionko, DeVry Institute of Technology (NJ)
Karen Sookram, Doane College (NE)
Jeffrey D. Swanberg, Rockford Business College (IL)
Eric Sun, Macon State College (GA)
Mary Vacca, Briarcliffe College (NY)
Lynn E. Walker, Katherine Gibbs School, New York City (NY)
Joyce White, Mayville State University (ND)
Sheri L. Yarbrough, Kennedy-King College (IL)
CONTENTS

Acknowledgments iii
To the Instructor xi

1 Strategies for Effective Learning 1
   Planning your days 2
   Dealing with frustration 2
   good thinking! THE STORY OF FRANK AND LILLIAN GILBRETH 3
   good thinking! THE STORY OF ART FRY 4
   Handling unpleasant or complex tasks 5
   Taking charge of your mind 6
   Studying efficiently 8
   Understanding what you read 9
   Keeping a journal 9
   Building good habits 10
   QUIZ 11

2 Fundamentals of Thinking 13
   What is intelligence? 14
   What is thinking? 14
   good thinking! THE STORY OF ALBERT EINSTEIN 15
   Key principles of thinking 17
      Truth is discovered, not created 17
      A statement can’t be both true and false at the same time
      and in the same way 19
   good thinking! THE STORY OF ELIZABETH LOFTUS 21
      All people make mistakes, even experts 22
      Ideas can be examined without being embraced 22
      Feeling is no substitute for thinking 23
   Identifying facts and opinions 24
   Checking facts and testing opinions 27
      Consult everyday experience 28
      Consider the opinion’s likely consequences 29
      Consider the implications 29
      Think of exceptions 30
      Think of counterexamples 30
      Reverse the opinion 31
      Look for relevant research 31
Evaluating evidence

**good thinking!** THE STORY OF FAYE ABDELLAH 35

Dare to change your mind

**A comprehensive thinking strategy** 38

Step 1: Identify facts and opinions 38
Step 2: Check the facts and test the opinion(s) 39
Step 3: Evaluate the evidence 39
Step 4: Make your judgment 39

**QUIZ** 42

3 Persuasive Communication 43

**What is persuasion?** 44
- Opportunities in the classroom 44
- Opportunities in the workplace 45
- Opportunities in the community 45
- Opportunities in relationships 46

**How is persuasion achieved?** 46
- Respect your audience 47
- Understand your audience’s viewpoint(s) 47
- Begin on a point of agreement 47
- Acknowledge unpleasant facts and make appropriate concessions 47

**good thinking!** THE STORY OF DALE CARNEGIE 48

- Apply the Golden Rule 48
- Keep your expectations modest 49

**Strategy for persuasive writing** 49

Step 1: State what you think about the issue and why you think it 50
Step 2: Consider how those who disagree might react to your view 50
Step 3: Arrange your ideas and write a draft of your presentation 51
Step 4: Check your draft for matters of style 52
Step 5: Check your draft for grammar, usage, punctuation, and spelling 52

**good thinking!** THE STORY OF GEORGE ORWELL 53

**Overcoming errors in grammar** 54

- Make your subjects and predicates agree 54
- Choose correct pronoun case 54
- Avoid sentence fragments 55
- Avoid mixed constructions 55
- Make pronoun references clear and accurate 56
- Distinguish adverbs from adjectives 56
- Choose proper comparatives and superlatives 56
<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overcoming errors in usage</td>
</tr>
<tr>
<td>Strategy for persuasive speaking</td>
</tr>
<tr>
<td>Step 4: Create note cards</td>
</tr>
<tr>
<td>Step 5: Rehearse using a tape recorder or a camcorder</td>
</tr>
<tr>
<td>Strategy for group discussion</td>
</tr>
<tr>
<td>QUIZ</td>
</tr>
</tbody>
</table>

### 4 Becoming an Individual

| What is individuality? | 70 |
| Acknowledging influences | 70 |

**good thinking!** THE STORY OF VIKTOR FRANKL 71

**Understanding attitudes** 73

**Four empowering attitudes** 78
- Attitude 1: There’s always room for improvement | 78
- Attitude 2: Criticism, including self-criticism, has value | 79
- Attitude 3: Effort is the key to success | 79
- Attitude 4: Other people are as important as I am | 80

**Recognizing manipulation** 81
- Biased reporting | 81
- Dishonest appeals to emotion | 82
- Stacking the deck | 83
- Suppressing dissent | 84
- Repetition | 84

**Resisting manipulation** 85
- Step 1: Be prepared | 85
- Step 2: Ask questions | 85

**good thinking!** THE STORY OF NELLIE BLY 87
- Step 3: Be imaginative | 88
- Step 4: Check sources | 90

**Habits for individuality** 91
- Be wary of first impressions | 91

**good thinking!** THE STORY OF STEPHANIE KWOLEK 92
- Be honest with yourself | 93
- Fight confusion | 93
- Produce many ideas | 93
- Acknowledge complexity | 95
- Look for connections among subjects | 95
- Consider other viewpoints | 96
- Base your judgments on evidence | 96

**QUIZ** 100
### 5 Evaluating Arguments

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is an argument?</td>
<td>102</td>
</tr>
<tr>
<td>good thinking! THE STORY OF MELVIL DEWEY</td>
<td>103</td>
</tr>
<tr>
<td>Conducting library research</td>
<td>104</td>
</tr>
<tr>
<td>good thinking! THE STORY OF LARRY PAGE AND SERGEY BRIN</td>
<td>106</td>
</tr>
<tr>
<td>Conducting Internet research</td>
<td>106</td>
</tr>
<tr>
<td>Use a search engine</td>
<td>106</td>
</tr>
<tr>
<td>Develop a resource list</td>
<td>107</td>
</tr>
<tr>
<td>Conducting an interview</td>
<td>109</td>
</tr>
<tr>
<td>Avoiding plagiarism</td>
<td>110</td>
</tr>
<tr>
<td>Three steps to avoid plagiarism</td>
<td>111</td>
</tr>
<tr>
<td>How to correctly quote and paraphrase</td>
<td>112</td>
</tr>
<tr>
<td>Revisiting evidence</td>
<td>118</td>
</tr>
<tr>
<td>Anecdotes and cases-in-point</td>
<td>118</td>
</tr>
<tr>
<td>Published reports</td>
<td>118</td>
</tr>
<tr>
<td>Eyewitness testimony</td>
<td>119</td>
</tr>
<tr>
<td>good thinking! THE STORY OF DOROTHEA DIX</td>
<td>119</td>
</tr>
<tr>
<td>Expert testimony</td>
<td>120</td>
</tr>
<tr>
<td>Experiments</td>
<td>120</td>
</tr>
<tr>
<td>Statistical studies</td>
<td>121</td>
</tr>
<tr>
<td>Surveys</td>
<td>121</td>
</tr>
<tr>
<td>Research reviews</td>
<td>121</td>
</tr>
<tr>
<td>Evaluating complex arguments</td>
<td>121</td>
</tr>
<tr>
<td>Step 1: Identify facts and opinions</td>
<td>122</td>
</tr>
<tr>
<td>Step 2: Check the facts and test the opinions</td>
<td>125</td>
</tr>
<tr>
<td>Step 3: Conduct research</td>
<td>125</td>
</tr>
<tr>
<td>Step 4: Evaluate the evidence</td>
<td>126</td>
</tr>
<tr>
<td>Step 5: Make your judgment</td>
<td>127</td>
</tr>
<tr>
<td>A caution about bias</td>
<td>127</td>
</tr>
<tr>
<td>QUIZ</td>
<td>133</td>
</tr>
</tbody>
</table>

### 6 Recognizing Errors in Thinking

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three kinds of errors</td>
<td>136</td>
</tr>
<tr>
<td>Errors of perception</td>
<td>136</td>
</tr>
<tr>
<td>“Mine is better” thinking</td>
<td>136</td>
</tr>
<tr>
<td>Selective perception</td>
<td>137</td>
</tr>
<tr>
<td>Gullibility and skepticism</td>
<td>137</td>
</tr>
<tr>
<td>good thinking! THE STORY OF PAUL VITZ</td>
<td>138</td>
</tr>
<tr>
<td>Preconceptions</td>
<td>139</td>
</tr>
<tr>
<td>Pretending to know</td>
<td>139</td>
</tr>
<tr>
<td>Either/or thinking</td>
<td>140</td>
</tr>
<tr>
<td>Errors of judgment</td>
<td>142</td>
</tr>
<tr>
<td>Double standard</td>
<td>142</td>
</tr>
<tr>
<td>Irrelevant criterion</td>
<td>143</td>
</tr>
</tbody>
</table>
Overgeneralizing or stereotyping 143

**good thinking! THE STORY OF MARTIN SELIGMAN** 144

Hasty conclusion 144
Unwarranted assumption 145
Failure to make a distinction 146
Oversimplification 147

**Errors of reaction** 151
Explaining away 151
Shifting the burden of proof 152
Attacking the person 152
Straw man 153

**Errors can multiply** 157

**QUIZ** 162

7 Applying Your Thinking Skills 165

**Thinking critically about everyday problems** 166
Step 1: Be alert for problems 167
Step 2: Express the problem 167
Step 3: List possible solutions 168
Step 4: Select and refine your best solution 168

**Thinking critically about relationships** 170

**good thinking! THE STORY OF OPRAH WINFREY** 171
Guidelines for successful relationships 172

**Thinking critically about careers** 175
A sensible approach 176

**Thinking critically about ethical judgments** 179
A better basis for judgment 180

**good thinking! THE STORY OF CHIARA LUBICH** 181

Applying the criteria 182
A sample case 182

**Thinking critically about commercials** 185
Bandwagon 185
Glittering generality 186
Empty comparison 186
Meaningless slogan 186
Testimonial 186
Transfer 186
Stacking the deck 187
Misleading statement 187

**Thinking critically about print advertising** 189

**Thinking critically about the Internet** 192
Whose site is this? 192
What function does the site serve? 192
Which statements are fact and which are opinion? 192
Where can statements of fact be confirmed? 193
How widely shared is this opinion? What do authorities on the subject think of it? 193
Is the reasoning behind the opinion logical? 193
Does the evidence support the opinion? 194

Thinking critically about television programming 195
Thinking critically about movies 202
- Characters 203
- Setting 203
- Plot 203
- Theme 203

Thinking critically about music 205
Thinking critically about magazines 207
Thinking critically about newspapers 210

QUIZ 213

Epilogue: Make the end a beginning 215

Works Cited 217

Bibliography 219

Index 223
When first published in 1989, this book was designed to meet a then-unmet need—to provide an introduction to critical thinking for students whose programs of study did not require or allow for a standard, philosophical introduction to critical thinking.

This design permitted greater latitude than would have been possible with a standard text. I was able to omit some topics that would have been expected in a standard text. A notable example is the distinction between inductive and deductive thinking, which many thinkers, including a fair number of logicians, have come to regard as a distinction without a meaningful difference. They believe that the terms inductive argument and deductive argument are essentially artificial and tend to obscure the fact that most arguments include both inductive elements (movements from the particular to the general) and deductive elements (movements from the general to the particular).

The greater latitude also permitted the inclusion of topics that are thought to “belong” to fields other than philosophy or logic. For example, the subject of Chapter Four is individuality and the role that habits and attitudes commonly associated with psychology play in shaping our thinking. I have also been able to address more expansively the various applications of critical thinking (see Chapter Seven).

Over the years, some instructors in standard critical thinking courses have found that this book is more appropriate for their students than one of the many standard critical thinking texts. Where their syllabi have required coverage of a topic not covered here (such as the inductive/deductive distinction), they have provided their students with supplementary material or created Internet research assignments.

The sixth edition continues the same general chapter arrangement of the last edition but includes a number of noteworthy changes:

- A new Chapter One, Strategies for Effective Learning, has expanded resources for student success.
- The section on plagiarism in Chapter Four has been expanded to include exercises that help students develop a practical understanding of the difference between legitimate and illegitimate use of other people’s thoughts and words.
- The Good Thinking profiles have been revised and expanded. Several profiles have been moved to the website; a number of
new profiles have been added to the chapters; and exercises have been added that invite students to apply the lessons of the various profiles to their own lives.

- A number of group activities have been added to give students practice in transferring individual thinking skills to situations in which cooperative effort is necessary to solve problems and make decisions.
- Cartoons have been added to provide humorous reinforcement of important principles and concepts.
- A section on supplemental exercises, arranged by chapter, has been added to the student website: college.hmco.com/pic/ruggiero6e. Encourage your students to visit the website to find additional activities, practice quizzes, a “Guide to Analyzing Issues,” and more!
1  
Strategies for  
Effective Learning

<table>
<thead>
<tr>
<th>IN THIS CHAPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning your days</td>
</tr>
<tr>
<td>Dealing with frustration</td>
</tr>
<tr>
<td>Handling unpleasant or complex tasks</td>
</tr>
<tr>
<td>Taking charge of your mind</td>
</tr>
<tr>
<td>Studying efficiently</td>
</tr>
<tr>
<td>Understanding what you read</td>
</tr>
<tr>
<td>Keeping a journal</td>
</tr>
<tr>
<td>Building good habits</td>
</tr>
</tbody>
</table>
ow much you will benefit from this book, your other textbooks, and your overall educational experience will depend on your ability to learn. You may have heard that this ability can’t be acquired; it is something you either have in your genes or you don’t.

That view is wrong!

While it is true that some people learn more easily than others and seem to have an inborn talent that helps them be successful, there’s another important factor that isn’t found in people’s genes—the strategies or “tricks” that enhance learning. Anyone can master these strategies and make learning easier and more enjoyable. In this chapter you’ll learn a number of simple yet powerful strategies.

**Planning your days**

Think of time as money and you’ll be less likely to squander it.

Each morning (or the night before if you prefer) make a list of things to do and classify them according to importance: (1) tasks that *must* be completed today and (2) tasks to complete if time permits. The few minutes you spend doing this are a wise investment—they will help you keep focused and accomplish more.

As you plan, keep in mind the three axioms of efficiency:

- **ELIMINATE WHAT NEED NOT BE DONE**
- **SIMPLIFY WHAT MUST BE DONE**
- **COMBINE TASKS WHENEVER POSSIBLE**

Refer to your list throughout the day to be sure you are still on track. If, as often happens, events of the day require you to revise your plan, try to maintain your priorities.

**Dealing with frustration**

Grumbling, griping, feeling defeated. These are common responses when things go wrong, and they are unfortunate. A much better response is summed up in the Japanese saying, “Bad news is good news!” Granted, such a response seems odd, if not downright loony. But the thinking behind
it reveals wisdom: The realization that having something go wrong presents an opportunity, even an invitation, to set it right.

The habit of viewing frustration as opportunity has rewarded countless inventors and other creative people. Here are a few of their success stories:

- In 1853 24-year-old Levi Strauss traveled to San Francisco with bolts of heavy cloth from his brother’s dry goods company in
New York. He hoped miners would buy the material to use for their tents. Unfortunately, few miners were interested. But Strauss was not defeated by the experience. He tried to think of a more profitable use for the cloth. Realizing how hard the job of mining was on miners’ clothes, he decided the heavy cloth would make sturdy work pants. Thus was born the famous product named after him—Levi jeans.

- On a hot summer day in 1904 Ole Evinrude and Bessie Cary went on a picnic to an island two and one-half miles from the shore of Lake Michigan. When they finished eating, she said she’d love to have a cold dish of ice cream for dessert. So Ole rowed to the mainland, got the ice cream, rowed back to the island and presented Bessie with . . . a dripping, runny mess. Why Ole didn’t take Bessie with him to get the ice cream is not known. What is known is that his frustration over the experience led him to invent the first commercially successful outboard motor.

- In 1935 Paul Sperry took his cocker spaniel for a walk. The ground was covered with snow and ice, and Sperry had difficulty keeping his footing. But the dog had no such difficulty. Sperry turned
his annoyance into curiosity and examined the pattern on the bottom of the dog’s paws. Later he carved that pattern into a piece of crepe rubber and created the sole of what is today known as the boat shoe, which prevents slipping on wet decks.

• In 1948, after a walk in the woods, Swiss engineer George de Mestral found that cockleburs had stuck to his socks. Surely millions of people have had that same experience and merely cursed their misfortune. But de Mestral wondered what made them stick, so he put them under a microscope and saw hundreds of tiny hooks that grasped anything with loops, such as cloth. Putting that insight to work, de Mestral invented a method of duplicating nature’s hooks and loops. The resulting product is known today as Velcro.

• One night in the 1950s Frank McNamara took some people to dinner and, when it was time to pay, realized he had no money with him. When he returned home, he vowed never to experience such embarrassment again . . . and proceeded to invent the credit card!

Whenever things go wrong for you, and you feel frustration, annoyance, or disappointment, remember these success stories and seize your opportunity.

Handling unpleasant or complex tasks

The key to handling such tasks effectively is to acknowledge their unpleasantness or complexity and face them head on. As a young postal inspector in Philadelphia in the 1940s, Robert Moon anticipated that the increase in mail volume that was certain to follow World War II would slow the process of mail delivery. Instead of saying “Someone will have to deal with this problem sometime, but not me and not now,” he accepted the challenge and devised a way to assign each area of the country a three-digit number. The Postal Service rejected the idea at first but eventually accepted and refined it, adding two additional digits to Moon’s three. In 1963 the Zip Code was introduced. (Incidentally, “Zip” is short for “zoning improvement plan.”)

Like most people, you probably tend to procrastinate in handling unpleasant or complex tasks. Although you have every intention to read that chapter, write that paper, or study for that test somehow you manage to find some excuse for not doing it just yet. Perhaps later today, you tell yourself, or better yet, tomorrow. As a result, the task never gets done in a timely manner. Unfortunately, procrastination is burdensome. It creates the inescapable feeling that important things are being neglected.
And the longer you procrastinate, the more that feeling nags at you. There is a simple solution to this situation. Put unpleasant tasks high on your list of priorities. Whenever possible, tackle them immediately.

If a task is not only unpleasant but also complex, break it into a number of parts, and work on one part at a time. Let’s say the task is to write a term paper and you will have to spend considerable time doing library research, analyzing your findings, and composing your paper. Instead of regarding the assignment as one giant task, think of it as a number of smaller tasks. Then devote time each day to one of those smaller tasks. For example, each time you visit the library for another purpose, consult one information source for your term paper. Later, when you have completed your research, devote a little time each day to the remaining tasks: evaluating your data, making an outline, and writing the paper. Before you know it, the term paper will be finished.

The advantage of this approach is that when due dates arrive and others are moaning, “I don’t think I’ll finish on time. Why, oh why didn’t I start earlier?” you’ll be calm, confident, and self-satisfied.

Taking charge of your mind

Is your mind entirely under your control? Most people would answer yes, but many fail to realize just how often they operate on automatic pilot. Uninvited ideas drift in and out of their consciousness. Memories glitter and draw them back in time. Imagination creates pleasant little daydreams.

If you have experienced such mental meandering, you know how absorbing it can be. Minutes, even hours, seem to evaporate. Be honest—how many times have you sat in a classroom for almost an entire period, only to realize that while your body was present your mind was somewhere else entirely?

The human mind is prone to distraction, and mass culture has made the problem worse by shortening our attention spans. Television camera angles change every few seconds during programs and even more during commercials. This adds up to hundreds of forced attention shifts every hour we watch. Add to those the shifts we create ourselves by clicking the remote, and it’s understandable that many people have trouble concentrating for even a few minutes.

How can you take charge of your mind?

• **Become more aware of your mental activities.** This will help you realize that you’ve lost concentration and enable you to turn your attention back to what you were doing. Will you ever reach a point where you will be able to concentrate automatically, without effort?
No, nobody does. This is because concentrating, like steering a car, involves making constant slight adjustments. The process is necessary whether one has been driving for only a few weeks or for fifty years. Experience does make it easier, however.

- **Listen intently.** Research has repeatedly shown that people retain, on average, less than half of what they hear. That’s not good enough to succeed in college (or, for that matter, in most careers). The main reason for this retention problem is that the mind can process ideas at about 500 words a minute, whereas the average speaking rate is less than 150 words a minute. In other words, in the typical listening situation—such as a classroom lecture—the mind has too little to keep it occupied, so it wanders. The solution is to change your mental state from passive to active, from merely waiting for information to actively processing information. The way to do this is simple—take notes. Don’t try to get every word; you probably can’t write fast enough for that. In some cases, you won’t even be able to get every sentence. Direct your mind to identify the most important words and sentences (another task to keep it occupied) and record just those. In addition to improving your listening, taking notes will also provide you with a valuable tool for exam preparation.

- **Refuse to tolerate confusion.** If you don’t understand something in class, do you raise your hand and ask for clarification? Many students don’t. They would rather remain confused and risk getting a low grade than run the risk of appearing stupid. The risk is much smaller than they imagine. In many cases, it is nonexistent. When one person doesn’t understand something the chances are good that others don’t understand it either. Have you ever approached
fellow students after class and asked them a question, only to re-
realize that they were just as confused as you? It happens all the time.
When one student dares to ask for clarification other students are
likely to be grateful. And the instructor is likely to regard the one
who asks as conscientious. Be that student! Similarly, if you en-
counter a confusing passage while reading a textbook, don’t just
hope that the passing of time will clarify its meaning. Instead,
reread the passage ALOUD, listening to the words. The addition
of sound to sight will often break through the confusion.

* Be alert for insights. Insights are relatively rare and they arrive
unexpectedly. What’s more, they seldom pay us a return visit,
so it’s important to be ready to capture them when they come.
Keep a pencil and paper handy at all times. (If you prefer, carry
a micro-tape recorder or send a text message to yourself on your
cell phone.) Whenever an interesting idea occurs to you—
whether about a course you’re taking, a relationship, or anything
important to you—record it immediately. Don’t be shy about
recording your ideas when you are in a group of people. No one
will think it odd if you say, “Excuse me, I’ve just thought of some-
thing important I don’t want to forget.”

**Studying efficiently**

Would you believe that A and B students often spend less time studying
than C and D students? It’s true. The fact illustrates an important prin-
ciple of learning—the amount of time spent studying is less important
than the *circumstances*.

Here’s how to get the most from your studying:

1. Choose the right **time**. If you are a “morning person” who jumps
out of bed eager to meet the day’s challenges, try to make that
time of day your study time. On the other hand, if you are a “night
owl” arrange your schedule accordingly.

2. Choose a suitable **place**. The best place is the one with the fewest
distractions. You’ll study more efficiently in a quiet corner of the
library than in the campus snack bar. If there’s not too much activity
in and around the parking lot, consider studying in your car.

3. Choose favorable **conditions**. Don’t confuse favorable with enjoy-
able. For example, you may enjoy having the TV blaring or having
your iPod playing, but, for learning, quiet beats noisy every time.
(It should go without saying that even a little alcohol diminishes
the effectiveness of studying.)

You may have to experiment a little to find what works best for you.
But the payoff—faster, more efficient learning—is well worth the effort.
Understanding what you read

Reading is much more than running your eyes across the page and recognizing words. It involves grasping the meaning of what is written and understanding the relationship of each sentence and paragraph to all the others.

To get more from your reading, follow this approach:

1. Take about five minutes and **skim** the chapter or article. Pay particular attention to the first two paragraphs and the last paragraph; also pay attention to the headings.

2. Take another few minutes and **reflect** on what you found by skimming. Ask yourself: Is the author’s main purpose to inform or to persuade the reader? What is the central idea of the piece? (This will usually be stated in the first or second paragraph and echoed in the last one.) What are the secondary ideas? (The headings should suggest them.)

3. Next, **read** the chapter or article. Keep a reasonable pace, neither rushing nor dawdling. Don’t underline or highlight anything yet.

4. Finally, **review** what you have read. At this point, you should be clear about what is important and what is not. Mark the piece accordingly.

This approach will take you no more time than one laborious reading would. It may, in fact, take less. But it will increase your understanding of what you have read. (This approach is not only a good general one—it also has specific application in understanding complex arguments, as Chapter Five explains.)

Keeping a journal

We rather quickly forget most of what we learn. This is especially true of what we learn from lectures and textbooks. Yet there is a way to increase the amount of material we retain—keep a journal of our learning experiences.

A journal doesn’t require a great investment of time, just a little investment at appropriate times. One such time is immediately after each class and each study session. Here’s what to do:

- Buy a middle-sized spiral or bound notebook to serve as your journal for the semester. Keep it with you whenever you attend class or study.
- If possible, when each class ends, instead of rushing out with the other students, stay in your seat for a few minutes, take out your notebook, and write down in a sentence or two the most
important lesson you just learned. In some cases, the lesson will
be something said during the instructor’s lecture—for example,
some clarifying explanation of a passage in the textbook. In other
cases, it may be an insight that occurred to you while partici-
pating in class discussion, or one that another student expressed.
• Similarly, whenever you are approaching the end of a study
session—for example, reading a chapter in the textbook—take
a few minutes out to record in your journal, in your own words,
the points that are too important to forget.
• From time to time, especially (but not only) before exams, read
through your journal and refresh your recollection.

Building good habits

Someone once observed that “approaching life without goals and strate-
gies puts you at the mercy of events much as being in a canoe without
a paddle puts you at the mercy of the current.” This is a valuable in-
sight, but here’s an important footnote: To benefit from a paddle, you’ve
got to put it into the water and pull. To benefit from the strategies for
learning presented in this chapter you’ve got to use them over and over
until they become habitual.

Wise people learn from other people’s experiences as well as from their
own. “Good Thinking!” profiles offer such learning opportunities. Even if the
fields of endeavor differ from yours, you can profit from the way the indi-
viduals approached their challenges. You can learn from the personal quali-
ties that were displayed as every challenge was conquered. This exercise and similar
ones in subsequent chapters and on the website will help you apply the lessons con-
tained in the profiles to your own life. What lessons can you draw from the “Good
Thinking!” profiles of Frank and Lillian Gilbreth and Art Fry presented in this chapter?
Explain how you can use each of those lessons in your career and/or personal life. If
you wish, use a separate sheet of paper.

Note: Another “Good Thinking!” profile and exercise may be found online.
Write your answers to these quiz questions on a separate sheet of paper.

1. Success is not just a matter of having good genes. True or false?

2. State the three axioms of efficiency.

3. Explain the meaning of the Japanese saying, “Bad news is good news.”

4. Why is it a good idea to tackle unpleasant tasks first?

5. Summarize the strategies for taking charge of your mind.

6. List the three ways to get the most out of studying.

7. The most obvious activities in reading are running your eyes across the page and recognizing words. What are the other important elements?

8. What benefit will you derive from keeping a journal?

9. What is the purpose of the “Good Thinking!” profiles?

10. Complete this sentence: “To benefit from the strategies for learning presented in this chapter, you’ve got to . . .”

*Answers to this quiz may be found online.*
This page intentionally left blank
In this chapter:

What is intelligence?

Intelligence is, most importantly, something you do.

What is thinking?

Thinking is a purposeful mental activity. You control it and not vice versa.

Key principles of thinking

These five reliable ideas provide the foundation for thinking.

Identifying facts and opinions

Facts are amply documented ideas. Opinions are open to dispute.

Checking facts and testing opinions

Facts can be misunderstood. Opinions can be mistaken. Both need to be tested.

Evaluating evidence

Evidence is information that supports an opinion but not all evidence is equally reliable.

Dare to change your mind

Changing your mind in response to evidence is a mark of courage and integrity.

A comprehensive thinking strategy

This four-step strategy will make your thinking consistently effective.
What is intelligence?

In a scene from the movie *Forrest Gump*, Forrest was sitting on a bench next to an old man who asked him rudely, “Are you stupid?” Forrest gave the man his most dignified look and responded politely, “Stupid is as stupid does, sir.” This wasn’t just a clever comeback; it was and is a profound truth.

Intelligence isn’t just something *we have*. It is, more importantly, something *we do*.

If this sounds strange to you, it could be because you’ve learned to associate intelligence only with *factual knowledge*. In this association, the human mind is little more than an information warehouse, the size of each person’s warehouse is determined genetically and can’t be expanded, and the most intelligent people are “walking encyclopedias” who can answer all the questions in class or win all the prizes on game shows.

Now there’s nothing wrong with acquiring and storing information. It certainly beats ignorance. But the human mind has another, more exciting function—*using* information to solve problems, resolve issues, and meet everyday challenges in living. From this perspective, the human mind is much more than an information warehouse. It is an idea factory, and the key to its success is a different kind of knowledge, *performance knowledge*.

Factual knowledge is *knowing about*. Performance knowledge is *knowing how*, sometimes referred to as “know-how.” The terms are roughly equivalent, respectively, to “book smart” and “street smart.” Both factual knowledge and performance contribute to intelligence, so it is unfortunate that they are thought to be in opposition to each other. But it is even more unfortunate that performance knowledge has been ignored since it is more active and dynamic. It also plays a greater role in our responses to everyday challenges. In that sense, it is the more practical measure of intelligence.

The main ingredient in performance knowledge is *thinking skill*. And here is the best news of all—whatever your present level of thinking skill, it can be raised. And as you raise it, you become more intelligent!

What is thinking?

Imagine that you are staring into space, picturing yourself heading for the airport. You see yourself ready for a month’s cruise in the Caribbean, your pockets stuffed with cash. Would this mental process be thinking?
Now imagine that you’re discussing politics with friends. “It’s always the same with politicians,” you say. “They’re full of promises until they’re elected. Then they develop chronic amnesia.” Would you be thinking in this case?

Thinking, as we will define it in this book, is a purposeful mental activity. You control it, not vice versa. For the most part, thinking is a conscious activity. Yet the unconscious mind can continue working on a problem after conscious activity stops—for example, while you sleep.

Given this definition, your ruminations about a Caribbean cruise are not thinking but daydreaming; you are merely following the drift of your fantasies. On the other hand, your discussion of politics could constitute thinking, as long as you aren’t just repeating something you’ve said or heard before.

Thinking is sometimes regarded as two harmonious processes. One process is the production of ideas (creative thinking), accomplished by widening your focus and looking at many possibilities. The other process is the...
evaluation of ideas (critical thinking), accomplished by narrowing your focus, sorting out the ideas you’ve generated, and identifying the almost reasonable ones. Both processes can be improved by training and practice.

Our discussion in this chapter and throughout the book will include some approaches for producing ideas, but its main focus will be evaluating ideas—that is, critical thinking. Chances are you received little or no critical thinking instruction in high school. Your teachers were not to blame for this. In many cases they, and their teachers before them, were denied such training, largely because of the theory that thinking can’t be taught or that some subjects teach it automatically. Such erroneous ideas resisted correction for most of the twentieth century.

Thinking can be taught, and not just to “gifted” students but to all students. No course automatically teaches thinking, though any course can teach it when teachers make thinking skills a direct objective and give students regular practice in producing and evaluating ideas.*

Such instruction benefits students in their studies, their careers, community service, and personal relationships. According to psychologist Albert Ellis, “[People] can live the most self-fulfilling, creative, and

---

* In *An Experiment in the Development of Critical Thinking*, Edward Glaser cited more than 340 studies. In subsequent decades hundreds more studies on critical and creative thinking were published. Notable among the researchers on creative thinking are Sidney Parnes, J. P. Guilford, and E. Paul Torrance. More recent researchers on thinking and intelligence include Howard Gardner, Robert Sternberg, and David Perkins.
emotionally satisfying life by intelligently organizing and disciplining [their] thinking.”

Unfortunately, shallow, illogical thinking is common. For example, a drug or alcohol abuser may tell himself, “I’m not addicted—I can quit any time I want.” A painfully thin anorexic may persuade herself that she is grossly overweight. Even highly educated people may reason that they can never contract a sexually transmitted disease if they have sex only with “nice” people. Abusive parents may think that screaming and hitting are appropriate ways of disciplining children.

There are even worse examples of poor thinking. A woman doused her husband with rubbing alcohol and set him on fire because he had been acting crazy and refusing to work. She reasoned that by setting him on fire she’d get him into the hospital for some help. A father kept his 18-year-old daughter chained in the basement because he was afraid she would become a prostitute. An elderly woman robbed a bank, then jumped on her three-wheel bike and pedaled away. (Police caught her a couple of blocks from the scene.)

Thinking errors as extreme as these are easy to recognize. Others are more difficult, especially when they are our own rather than other people’s ideas. And the most difficult to discern are those enshrined in popular culture. It’s easy to assume that other people have examined such ideas and found them worthy, when that may not be the case. For this reason, we should question most vigorously the ideas we are tempted to take for granted—familiar, fashionable ideas.

Key principles of thinking

Thinking is like building a house or a skyscraper—the success of the enterprise depends on the firmness of the foundation. The foundation of thinking, of course, is not concrete and steel but principles—ideas that have survived rigorous testing and proved trustworthy. The following principles of thinking are among the most important:

Truth is discovered, not created

You have probably heard it said that truth is subjective and personal, or that each person creates truth to his or her own specifications. This belief is common today, and it means that believing something is so actually makes it so. In other words, reality is whatever we wish it to be.

This idea directly contradicts the view that has been generally accepted since ancient times—the view that truth is the accurate representation of objective reality. In this view reality is unaffected by our wishes, preferences, and assumptions.

Is the new view that truth is created and subjective more reasonable than the traditional view that truth is objective? Perhaps the best way
to tell is to consider what the new view of truth implies about everyday issues. *If truth is created by each person, then* . . .

. . . Galileo’s assertion that the sun is the center of the solar system, a view that shocked most people of his time, is not true for everyone but just for those who want to believe it.

. . . those who believe that the earth is flat, the Holocaust never happened, and Saddam Hussein was a benevolent leader of his people are correct. And so are those who take opposite views.

. . . when a drunk falls into an empty swimming pool thinking that it is full, water will suddenly appear and save him from a hard landing.

. . . the standard courtroom oath—“I swear to tell the truth, the whole truth, and nothing but the truth”—is outdated. Witnesses should be allowed to testify to their own personal truth and no one’s truth should be considered superior to anyone else’s. Moreover, since defendants’ pleas of not guilty are equal to prosecutors’ claims of guilt, all court cases should be dismissed.

. . . it is a waste of time for archeologists to dig for proof of lost civilizations, for medical researchers to search for the causes and cures of diseases, for historians to pore over dusty manuscripts for clues to the past, and for students to read textbooks like this one. Instead, they should simply decide what they want to believe and—presto!—it will become reality.

. . . all your incorrect answers on past true/false tests should be marked correct and your grade-point average raised accordingly.

As even these few examples make clear, the notion that truth is created by each individual does not hold up under scrutiny. In contrast, everyday experience confirms the principle that truth is discovered.
A statement can’t be both true and false at the same time and in the same way

This principle is known as the principle of contradiction. The following examples demonstrate the validity of this principle:

**Statement:** My roommate borrowed my sweater without permission.  **Comment:** If this statement were both true and false at the same time in the same way, it would mean that you simultaneously gave your permission and didn’t give your permission. That is impossible. You must either have given your approval or not given it. This example confirms the principle of contradiction.

**Statement:** During World War II the Nazis killed millions of Jews in concentration camps.  **Comment:** Either the Nazis did this horrible deed or they didn’t. Since there is no way they did it and didn’t do it, this example also supports the principle of contradiction.

---

Examine each of the following cases in light of what you’ve learned about truth in this section. State your view and explain why you hold it.

Ira is a journalist. Will the belief that he can create his own truth make him more or less likely to value accuracy in his reporting?

---

Bruce is prejudiced toward minorities and women. Which of the following beliefs would be more helpful in overcoming his prejudice: the belief that truth is subjective and created; or the belief that truth is objective and discovered? Explain your reasoning.

---

Most students can use additional motivation to learn. Will the belief that they can create their own truth help or hinder their motivation? Explain.

---

Examine each of the following cases in light of what you’ve learned about truth in this section. State your view and explain why you hold it.

Ira is a journalist. Will the belief that he can create his own truth make him more or less likely to value accuracy in his reporting?

---

Bruce is prejudiced toward minorities and women. Which of the following beliefs would be more helpful in overcoming his prejudice: the belief that truth is subjective and created; or the belief that truth is objective and discovered? Explain your reasoning.

---

Most students can use additional motivation to learn. Will the belief that they can create their own truth help or hinder their motivation? Explain.

---

A statement can’t be both true and false at the same time and in the same way

This principle is known as the principle of contradiction. The following examples demonstrate the validity of this principle:

**Statement:** My roommate borrowed my sweater without permission.  **Comment:** If this statement were both true and false at the same time in the same way, it would mean that you simultaneously gave your permission and didn’t give your permission. That is impossible. You must either have given your approval or not given it. This example confirms the principle of contradiction.

**Statement:** During World War II the Nazis killed millions of Jews in concentration camps.  **Comment:** Either the Nazis did this horrible deed or they didn’t. Since there is no way they did it and didn’t do it, this example also supports the principle of contradiction.
Statement: Capital punishment is a deterrent to crime. Comment: If capital punishment was once a deterrent but no longer is, the statement would be true for one time but not for the other. If capital punishment is a deterrent for some people but not for others (for the reflective, let’s say, but not for the impulsive), the statement would be true in one way but not in the other. Neither situation challenges the principle of contradiction, which stipulates that a statement cannot be both true and false at the same time and in the same way.

Statement: Edgar is richer than Clem. Comment: If Edgar has more money than Clem, but Clem surpasses him in moral character, then the statement would be both true and false but not in the same way. It would be true in one sense and false in another. (To be a contradiction, it would have to say Edgar has more money than Clem and does not have more money than Clem.) Thus, this example also confirms the principle of contradiction.

A note of caution: The principle of contradiction applies whenever opposing statements make exactly opposite assertions—for example, she is versus she isn’t, he did versus he didn’t, they have versus they haven’t. In such cases, it is certain that one statement must be true and the other false. However, when the assertions made are not exactly opposite but merely different, both could be false. For example, if you say “Sally got the highest mark on the exam” and I say “Luke got the highest mark,” it is possible that we are both mistaken. (Bertha or Juwan may have gotten the highest mark.)

exercise 4

Classify each of the following exchanges as (a) an actual contradiction or (b) a near contradiction. Briefly explain each choice.

Mavis: Big time college sports are corrupt.
Cora: You’re absolutely wrong, Mavis.

Karen: There are very few real heroes today.
Hanna: I think there are more today than there have ever been.
The majority of men and women engaged in scholarly research don’t get invited to the talk shows or have stories written about them in popular magazines, even when their work has a significant effect on people’s lives. Psychologist Elizabeth Loftus is an exception. One reason is that her research has challenged some longstanding beliefs about human memory. Another is the relevance of that research to some prominent controversies of the last decade or two.

The traditional view is that memory is like a videotaped record of events etched into the grooves of our minds. According to this theory, a particular record may become hidden, even from ourselves, but it is never lost. Given our desire and, in some cases, the assistance of people experienced in recovering such “data,” we can recover any memory, however traumatic. And what we recover will be accurate to the smallest detail.

A number of researchers have challenged this traditional view of memory, but none as effectively as Loftus. She devised her own research projects and proved that real memories can be altered, and that fictitious memories can be created. In experiments with children and adults she first showed them short films and later discussed their recollections of what they saw. In one experiment, by merely asking “Did you see a bear?” or “Did you see a boat?” she was able to make them remember details that were not present in the film.

In another case, by using the word “smash” instead of “hit” she was able to change people’s estimate of the speed of cars AND to create a memory of broken glass where there had been none.

All people make mistakes, even experts

It’s a shame that there are no official accuracy statistics available for experts in the various fields of knowledge. If there were, you could check the experts’ “batting averages.” You might be shocked to learn just how often experts are wrong. Christopher Cerf and Victor Navasky have written an interesting collection of wrong judgments and predictions made by experts (Cerf). Many are so far off the mark that they are laughable. Here is a brief sampling:

A British scientist in 1895: “Heavier-than-air flying machines are impossible.”

A London professor at the dawn of the railroad, when the top speed was 25 mph: “Rail travel at high speed is not possible because passengers, unable to breathe, would die of asphyxia.”

The commissioner of the U.S. Office of Patents, arguing for the abolition of his office in 1899: “Everything that can be invented has been invented.”

The President of the British Royal Society in 1900: “X-rays are a hoax.”

A banker, in 1903, advising against investing in Ford Motor Co: “The horse is here to stay, but the automobile is only a novelty—a fad.”

A famous movie studio head, commenting on the future of TV: “People will soon get tired of staring at a plywood box every night.”

Variety magazine’s assessment of rock and roll in 1955: “It will be gone by June.”

An editor, in 1957, turning down a book on computers: “[I have it] on the highest authority that data processing is a fad and won’t last out the year.”

This is not to say that the “batting averages” of experts are lower than those of non-experts. As a rule, they are considerably higher. The most sensible approach is therefore not to settle for a single expert’s opinion but to seek a second, and perhaps a third, expert opinion before making up your mind. In addition, since advanced degrees are not awarded with crystal balls, be especially wary when any expert attempts to predict the future.

Ideas can be examined without being embraced

Some people refuse to consider an idea that differs from their own out of loyalty to their convictions. This refusal is especially strong in political and religious matters.

For example, a conservative might refuse to read an article by a liberal and a Christian might refuse to listen to a lecture on Judaism, Buddhism,
or Islam. Such people prevent themselves from deepening their understanding. Also, because knowledge is as essential to thinking as air is to breathing, they stifle their intellectual development and do themselves a disservice.

Whenever you are tempted to deny a fair hearing to unfamiliar or opposing ideas, remind yourself that examining an idea is not the same as embracing it. If, after applying critical thinking, you decide that an idea is unworthy, you will have a substantial basis for rejecting it. Moreover, you will be in a better position to explain its flaws to others.

**Feeling is no substitute for thinking**

Following feelings, impulses, and impressions is fashionable today. Some people go so far as to say that feelings are a better guide than thoughts. This is a comforting idea, but in order to believe it you have to overlook the many times when feelings led you astray.

Consider a time when you were trying to lose weight and your feelings said, “Order the double hot fudge sundae.” Or another time when you felt the urge to tell your instructor or the boss what you really thought of her. Or occasions when you felt the impulse to go to a party instead of studying for a test, charge an expensive item you didn’t need and couldn’t afford, or drive 30 miles an hour over the speed limit to avoid being late. No doubt you can think of many additional examples of feelings that, if followed, would have caused you pain or misfortune.

Louis L’Amour, vagabond and author of dozens of western novels, tells a story from his days as a laborer in an Oregon lumber mill. The story illustrates the danger of relying on feelings, impulses, and impressions:

They put a number of us to digging holes four feet square and down to hardpan for concrete piers to support a building soon to be erected. There were at least a dozen of us on the job and the ground was partly frozen. After we got down a short distance, water had to be bailed out, so progress was slow. There was a husky young German, a couple of years older than I, and we got into a contest to make the work more fun. The average was two and a half holes per day, while several were doing three. The German and I were doing four holes apiece.

Our boss was an easygoing Irishman who saw what was going on and wisely stayed out of it, but the management in its wisdom decided he was not gung-ho enough as a boss and brought in a new man.

Knowing nothing of any of us, he came suddenly into the area and found the German and me leaning on our shovels, having just
finished our second holes for the day, while nobody else had finished one. He promptly fired both of us for loafing along with another chap who had been doing three holes a day. In his first day on the job he had fired his three best men (L’Amour, 105).

The problem with following feelings, urges, and impressions is not that they always lead us astray. (They don’t.) The problem is that they aren’t consistently reliable. Sometimes they advise us well and sometimes they don’t. In L’Amour’s example, the new boss’s mistake was to act on his immediate impression instead of examining it critically.

Rather than mindlessly following your feelings, think about them carefully and decide whether they deserve to be followed.

Identifying facts and opinions

One of the most basic activities in critical thinking is distinguishing facts from opinions. Facts are ideas whose accuracy is clearly and amply documented and affirmed by knowledgeable people. Opinions are ideas that have not yet been sufficiently documented and are therefore still open to dispute.

Despite the clarity and simplicity of these definitions, the task of distinguishing facts from opinions can be difficult. One reason is that not every statement of fact is factual. The most obvious example is a lie—for example, a child saying she didn’t eat the cookies when she did or the perpetrator of a crime swearing he is innocent. In addition to lies, there are honest mistakes. A person might misread a memo and tell a colleague a meeting is scheduled for three o’clock today when it is actually scheduled for tomorrow. Or an art expert might declare a painting to be the work of a master and only later discover it is a brilliant forgery. For years it was considered a fact that the earth is flat. (Believe or not, there is still a Flat Earth Society composed of people who cling to the discredited “fact.”)

Another reason that facts and opinions can be difficult to distinguish is that opinions are often stated as if they were facts. Consider these statements: “The death penalty constitutes cruel and unusual punishment”; “The cause of children committing crimes is irresponsible parenting.” Each statement appears to be factual because of the way it is stated. Yet informed people continue to disagree about each. Therefore each statement is an opinion. (This is not to say that either of these statements is false, only that neither issue has been settled.)

Over time some opinions acquire the status of facts. For example, in the nineteenth century it was standard practice for physicians to handle cadavers in the hospital morgue and then, without washing their hands,
make their rounds and visit patients. When one perceptive physician, Ignaz Semmelweiss, expressed the opinion that this practice might be responsible for spreading infections, he was ridiculed and ostracized. Today his “absurd” opinion is universally recognized as a fact.

The following examples illustrate the challenge of separating facts from opinions.

**Statement:** The 2000 Summer Olympic Games were held in Tokyo. **Comment:** This statement has the form of a fact, yet it is not factual. The 2000 Summer Olympic Games were held in Sydney, Australia.

**Statement:** Camel’s hair brushes are made of Siberian squirrel fur. **Comment:** The statement appears ridiculous, yet it is factual.

**Statement:** Stalin was more brutal than Hitler. **Comment:** This statement is an opinion, but it is so well supported by historical evidence that many would consider it a fact.

**Statement:** Eyewitness testimony is generally unreliable. **Comment:** Anyone unfamiliar with the relevant research would consider this an opinion, and a wrong one at that. Yet it is a fact.

The following simple guidelines will help you decide whether any statement is a fact or an opinion:

1. **If a statement is common knowledge, it is a fact and need not be supported.**
   - **Example:** Both John and Robert Kennedy were assassinated.
   - **Example:** The cost of a college education is significantly higher today than it was twenty years ago.
   - **Comment:** Both statements are common knowledge, so no support is needed.

2. **If a statement is not common knowledge yet has been confirmed to be accurate, it is a fact and need not be supported. However, the source of the confirmation should be cited.**
   - **Example:** The gray reef shark uses unusual body language to signal that it feels threatened.
   - **Comment:** This fact is not well known, at least among laypeople, so the source should be cited. (It is Bill Curtsinger, “Close Encounters with the Gray Reef Shark,” *National Geographic*, January 1995, 45–67.)

3. **If the statement is neither common knowledge nor confirmed to be accurate, it is an opinion and should be supported with evidence—that is, with reliable information.**
Example: More Americans are victimized by chronic laziness than by workaholism.

Comment: Some people will disagree, and others may ask, “Why does the author think this? What reasons does he or she have for holding this view rather than some competing view?” The person making the statement should provide answers to such questions.

4. If it is not clear whether a statement is a fact or an opinion, treat it as an opinion.

Remember another important point about opinion. As used in critical thinking, the term opinion refers only to matters of judgment, not to matters of taste or personal preference. The ancient Romans used to say that there is no way to argue profitably or think critically about matters of taste. Their view is as wise today as it was a couple of millennia ago.

Do you favor a slender figure or a full figure? Do you find long or short hair more appealing? Do you prefer fitted jeans or ones with the crotch down around the knees? Do you regard the Lincoln Town Car as beautiful or ugly? Do you enjoy sitcoms more than soap operas? All of these are matters of personal preference or taste which cannot be supported by facts.

As long as you express matters of taste as matters of taste you need not defend them, even if others find your tastes odd. Thus you should say “I prefer long hair” rather than “Long hair is more attractive than short hair,” “I prefer the look of the Lincoln Town Car” rather than “The Lincoln Town Car is the most stylish car on the road,” and “I enjoy sitcoms more than soap operas” rather than “Sitcoms are superior entertainment.”

exercise 5

On a separate sheet of paper, indicate whether each of the following statements is

- a. clearly a fact.
- b. possibly a fact, but not clear without documentation.
- c. an opinion.
- d. a personal preference expressed as a personal preference.
- e. a personal preference incorrectly expressed as an opinion.

Remember that it is sometimes difficult to separate facts and opinions. There may be room for disagreement over some answers, so be prepared to explain your choices.

1. I find blue-eyed redheads appealing.
2. The Chevrolet Camaro is the most stylish car on the market.
We have already noted one reason for checking the facts about an issue—people sometimes misstate them. But there is another, equally good reason. People sometimes omit important facts. It doesn’t matter whether the misstatement or omission is accidental or on purpose. Either way, if we fail to check, our evaluation may be flawed.

Often you will be able to check the facts of an issue by consulting an appropriate reference book, such as an encyclopedia, an almanac, a newspaper archive, or a dictionary. At other times, you will have to consult the research literature in the field. Chapter Five, “Evaluating Arguments,” includes detailed advice on doing library and Internet research. You may wish to skim those sections now and refer to them whenever you are doing an exercise that calls for research.

---

**exercise 5 (cont.)**

3. All religions share the same fundamental truths.
4. Darwin’s theory of evolution continues to be controversial.
5. Pornography is an insult to women.
6. Black people are the victims of crime more often than white people.
7. Prostitution should be legalized.
8. People who need organ transplants greatly outnumber organ donors.
9. The publicity given to suicides leads to most “copycat” suicide attempts.
10. Comic books are as instructive about life as novels are.
11. Most students who drop out of school lack the intelligence to succeed.
12. Surgical procedures have been performed on fetuses while they were still in the uterus.

---

**exercise 6**

Now take the statements in the previous exercise and do as follows:

- For each that you classified b, state one or more reliable sources that could be cited to support the statement (assuming that the statement is factual).
- For each that you classified as b, possibly a fact, write questions that might be raised about the statement.
- If you classified any statement e, rewrite it as a personal preference rather than as an opinion.
The idea of testing opinions may seem odder than checking facts because it has become fashionable to think of opinions as something sacred and above criticism. Many people reason, “I have a right to my opinion—therefore my opinion must be right.” They would be shocked to learn that for centuries before our time, opinion was not so highly regarded.

Almost 2,000 years ago the Greek philosopher Epictetus wrote: “Here is the beginning of philosophy: a recognition of the conflicts between men, a search for their cause, a condemnation of mere opinion... and the discovery of a standard of judgment.” [Emphasis added.] Nineteenth-century British author Sir Robert Peel termed public opinion “a compound of folly, weakness, prejudice, wrong feeling, right feeling, obstinacy, and newspaper paragraphs.”

American author John Erskine sarcastically termed opinion “that exercise of the human will which helps us to make a decision without information.” American philosopher George Santayana observed that “people are usually more firmly convinced that their opinions are precious than that they are true.” And one humorist suggested that many opinions that are expressed ought to have been sent by slow freight instead.

If you reflect on these skeptical views of opinion, you will appreciate that they underline an important reality—not all opinions are equally sound. Some are wise, others are foolish, and most fall somewhere between the two extremes. Unfortunately, most of us tend to forget this when forming opinions. Armed with little more than a sketchy news report, an assertion by a celebrity, or a fleeting impression, we may form opinions on complex subjects, such as the causes of child abuse, the reason why dinosaurs became extinct, or the health benefits of the latest diet.

Some time ago, a roving reporter took his tape recorder into the street and asked passersby, “How serious is racial tension in New York?” Among those who responded were a porter, two teachers, a truck driver, a film editor, a security guard, and a secretary. Chances are that at least some of these people lacked sufficient knowledge to form an opinion, but that didn’t stop them from expressing one. (Perhaps they never heard the old saying, “It’s better to remain silent and be thought a fool than to express your thoughts and remove all doubt.”)

To be a critical thinker, you will need to develop the habit of testing opinions—your own as well as other people’s—before trusting them. Here are seven effective ways of doing so.

**Consult everyday experience**

Consider your personal experience as well as what you know to be the experience of other people. If the opinion in question challenges that experience, it is almost certainly mistaken, at least in part. For example,
Wayne Dyer, a popular author of self-help books says that guilt is “not a natural behavior” and “useless,” and that it should be “extermi-
nated” (Dyer, 90–91). Yet experience suggests that most people—particularly kind and considerate ones—feel guilt when they offend others. It’s precisely their guilty feelings that motivate them to apologize for their bad behavior and to make amends. Dyer’s idea is, at best, an overstatement.

Consider the opinion’s likely consequences

One way to recognize that an opinion is flawed is if it leads to unintended—and sometimes undesired—consequences. Not long ago zealous advocates of African American studies courses expressed the opinion that only African Americans should be allowed to teach such courses. But then Arthur Schlesinger Jr., a well-known historian, pointed out that such a prohibition would have unintended consequences. He wrote: “The doctrine that only blacks can teach and write black history leads inexorably to the doctrine that blacks can teach and write only black history as well as to inescapable corollaries: Chinese must be restricted to Chinese history, women to women’s history, and so on” (Schlesinger, 105).

Suppose you were evaluating this opinion: “The welfare system that continues to drain our tax dollars should not be gradually phased out but ended immediately.” Among the consequences you would identify would be (1) some able-bodied welfare recipients would seek work and find it; (2) others would be less successful in their search; (3) those who are too old or too ill to work would be left with no source of income; (4) the living conditions for some children on welfare would decline; and (5) private agencies such as the Salvation Army would increase their giving. After examining these consequences, you would no doubt conclude that the opinion, as stated, is unreasonable.

Consider the implications

This approach entails identifying and examining related ideas suggested by the opinion. Let’s say the opinion is, “What people view in movies or on television has no effect on their behavior.” (Media spokespeople often say this in response to complaints that graphic sex and violence have a negative social impact.)

The implications of this conclusion are that viewing films and television programs can not degrade, inspire, or motivate us. If this were really the case, then public service announcements to drive sober and practice safe sex would be pointless and advertisers would be wasting millions of dollars on them.
**Think of exceptions**

This approach is useful when you are evaluating an opinion that expresses a general rule. The more exceptions you can think of, the more suspect the opinion is. Carl Rogers, a famous psychologist, wrote: “One of the basic things which I was a long time in realizing, and which I am still learning, is that when an activity feels as though it is valuable or worth doing, it is worth doing” (Rogers, 22). To test this idea think of activities that someone might feel are worth doing but really aren’t. Here are just a few: shoplifting, lying on a résumé, expressing to an instructor your negative assessment of his teaching ability.

Here is another example of thinking of exceptions. A commonly expressed opinion is, “If you are strongly motivated, you can be anything you want to be.” A notable exception is Michael Jordan’s attempt to be a major league baseball player. He certainly did not lack motivation, and his basketball career proved he was a gifted athlete. Despite these advantages, however, he was unable to succeed in baseball. Jordan’s case raises questions about the soundness of the opinion.

**Think of counterexamples**

Suppose an author is arguing that parents should not give children responsibilities until they are in their teens, and supports her argument with a number of case histories like this one: “I know a person who was given responsibilities such as picking up his clothes and toys at age 3; taking out the garbage at age 6; and raking leaves, washing dishes, and doing laundry at age 10. Today he’s in his mid-thirties and resents having had all those chores.” A counterexample would be the case of someone (perhaps you) who had similar responsibilities in childhood and now regards the experience as valuable. The more counterexamples you identify, the more justified you are in wondering about the reasonableness of the author’s opinion.

Scholars in every field use the technique of finding counterexamples. Some time ago the issue of repressed memory was in the news. People undergoing therapy suddenly recalled horrible incidents of physical or sexual abuse they had supposedly suffered as children. Some therapists said they were suffering from “traumatic amnesia” and that victims of multiple instances of abuse were more likely to suffer from it than were victims of a single instance. This opinion sounded logical. But at least one critical thinker offered some powerful counterexamples—slaves, survivors of concentration camps in World War II, and victims of torture and political persecution. She noted that all these people suffered intense abuse for years yet never for a moment forgot it (Hagen, 39). These counterexamples did not disprove the idea that memories of abuse can be repressed, but they
did suggest the possibility that some claims of repressed memories, though perhaps sincere, are nevertheless false.

*Reverse the opinion*

This test consists of taking the exact opposite of the opinion you are examining and determining if a case can be made for it. Consider the popular opinion that “people must feel good about themselves before they are able to achieve.” The reverse of that idea would be “people must achieve before they can feel good about themselves.” A little investigation will reveal that this is not a new belief but the one that prevailed for hundreds, even thousands, of years before the self-esteem movement became dominant. To decide which of the two opinions is more reasonable, you might consider ordinary achievements in your own life—such as learning how to tie your shoes, whistle, ride a bike, dribble a basketball, drive a car, surf, or use a computer—and then decide whether self-esteem preceded or followed the achievement.

*Look for relevant research*

Every subject from agriculture to zoology has its devoted students, individuals who have spent decades learning everything they can about it and sharing their knowledge with others. These individuals are as near as the library or the Internet. One of the best ways to test any opinion is to see what these knowledgeable people have to say about it. (Chapter Five explains how to conduct research. Feel free to look ahead and read that explanation now.)

---

**exercise 7**

This exercise will give you an opportunity to apply the above techniques. Evaluate these opinions using one or more of the approaches explained above. If you wish, do this work on a separate sheet of paper.

A famous movie actress explained her decision to nurse her child until she was 2 years old: “That’s a particular philosophy I have... allowing her to make her own decisions. I feel she is a better judge than I am.”

[Blank lines for answers]
Evaluating evidence

As we have noted, evidence is reliable information that supports an opinion. The most common kind of evidence, the kind we will discuss here, is reasons. (Other kinds of evidence are discussed in Chapter Five.) A reason is the basis for thinking or doing something and is commonly signaled by the word “because.” A child may say, “I hit Tommy because he made a face at me.” A parent may say, “I sent my child to a private tutor because she was doing poorly in English.” A prospective car buyer may explain, “I am considering a hybrid model because I do a lot of traveling and need an economical vehicle.” In some cases, the word “because”

<table>
<thead>
<tr>
<th>exercise 7 (cont.)</th>
</tr>
</thead>
</table>

No doubt you've seen the bumper sticker that expresses this opinion, “Guns don't kill people; people kill people.”

A New Age author tells his readers: “You are the only thing that is real. Everything else is your imagination.”

State and evaluate an opinion you have heard expressed (or expressed yourself) about a current local, national, or international issue.
is implied rather than stated. For example, Tawana may say, “I will never confide in Maria again. I once shared a secret with her and she blabbed it all over campus.” Or a voter may say, “I certainly will not vote for that candidate for president. I don’t like his mustache.”

A moment’s reflection on these few examples will reveal that some reasons are good and others aren’t. Poor grades in English are a good reason for seeking a tutor, improved gas economy is a good reason for buying a car, and past betrayals are a good reason for not trusting someone. On the other hand, the fact that someone “made a face” is not a good reason for hitting him, and disliking a mustache is not a good reason to reject a candidate. (Incidentally, the mustache example is not as far-fetched as it sounds. Some historians regard it as a factor in Thomas Dewey’s loss of the presidency to Harry Truman in 1948.)

In some cases a reason will be good but not sufficient to support the thought or action. Suppose that an executive position is open in a company and Martha and Bill are in contention for it. One member of the group who will make the decision says, “I am in favor of giving the position to Martha rather than to Bill because our company doesn’t have enough women in upper management.” The reason for promoting Martha—increasing the number of women in upper management—is certainly good. However, it would be sufficient only if Martha’s qualifications were equal or superior to Bill’s.

Here are some additional examples, together with comments to demonstrate how to evaluate reasons:

**Example:** “That exam wasn’t fair because it tested us on material that we were specifically told we weren’t responsible for.”  
**Comment:** The reason, if accurate, is both good and sufficient. Teachers have an obligation to keep their word.

**Example:** “That story about Britney Spears is probably false. After it appeared in a supermarket tabloid, no other newspaper or broadcast agency reported it.”  
**Comment:** The reason for suspecting that the story is false is both good and sufficient. Supermarket tabloids have a reputation for exaggeration and misstatement. It is therefore reasonable to be suspicious about their stories, particularly when other news sources do not confirm them.

**Example:** “Management acted properly in installing surveillance cameras in the employee lounge and restrooms because they have a right to identify troublemakers in the firm.”  
**Comment:** The reason offered—management’s right to identify troublemakers—might justify installing surveillance cameras in work areas, but not in areas in which employees have the right of privacy. So the reason is neither good nor sufficient.
Example: “Taking money from my employer’s petty cash fund isn’t really stealing. My employer pays me less money than the person I replaced. He has also given me more responsibilities. And if I didn’t take that money, I wouldn’t be able to pay my bills.” Comment: The reasons offered would support looking for another job but not stealing from the employer. As used here, the reasons are an attempt to justify behavior that is both unethical and criminal.

It is challenging enough to evaluate reasons when they are stated directly, but the challenge is even greater when they are left unstated. Unfortunately, the latter happens fairly often. The person may regard the opinion or action as self-supporting or may believe there is no need to justify it to other people. In addition, people sometimes hide the real reasons for their behavior, even from themselves. For example, a teenager may persuade himself that he smokes cigarettes because he enjoys doing so when the real reason is fear that his peers will laugh at him if he doesn’t smoke.

exercise 8

In each of the following cases, decide whether the reason offered is both good and sufficient to support the opinion or action.

Your Honor, I believe I was justified in hitting my wife. She kept nagging me about getting a job.

I didn’t sign that petition. The person who asked me to sign refused to support my proposal last year.

I oppose government funding for abortions. It requires taxpayers to finance a procedure that many of them believe is a moral outrage.
Students who are caught cheating should receive a failing grade in the course. Cheating is a serious violation of scholarly integrity.

Women should not take their husbands’ names when they marry. Doing so is a sign of subjugation.

Dare to change your mind

Some people believe that changing one’s mind signals a lack of conviction. This belief allows them to think critically about other people’s ideas but not about their own ideas. To maintain this double standard, they are forced to ignore unpleasant facts, defend unworthy views, and value ego more highly than truth.

“Why am I talking this loud? Because I’m wrong.”

THE STORY OF FAYE ABDELLAH

There are many different reasons for choosing one’s life’s work. Faye Glenn Abdellah’s was the experience of watching helplessly as the dirigible Hindenburg exploded in 1937, killing thirty-six people and severely burning many others. She was 18 at the time, the American-born daughter of an Algerian father and a Scottish mother, and she decided right then to become a nurse. After gaining a nursing certificate, she earned her B.A., M.A., and Ph.D. degrees at Columbia University and began teaching at Yale.

Abdellah’s devotion to improving the field of nursing and the care of patients was so intense that it sometimes got her into trouble. At Yale she argued for better textbooks and, when the Dean refused to follow her suggestion, she organized a textbook-burning event in the Yale courtyard. (As a punishment, she was required to pay for the textbooks out of her rather meager salary.) Years later, she again got into trouble when she informed a nursing home accrediting organization that the conditions in many nursing homes were worse than the conditions for the animals at the San Diego Zoo. (The organization responded by having her escorted from the event.)

In 1949 Abdellah joined the U.S. Public Health Service, which in time became a part of the U.S. Navy. As a senior officer, she received research and consultation assignments in Japan, Australia, China, and Russia, among other countries. In the U.S. in the 1970s, she founded the Office of Long-Term Care, which monitored conditions in the nation’s nursing homes. In time, she became Chief Nurse Officer of the Public Health Service and Deputy Surgeon General of the U.S. under C. Everett Koop. She holds the naval rank of Rear Admiral.

Over her long career, Admiral Abdellah has been a strong advocate for making nursing a science, raising standards in nursing homes, overcoming fetal alcoholism, and putting patients at the center of concern in the medical community. She has authored 150 research articles and several books.

For more about Faye Glenn Abdellah, do a Google search.

It is easy to identify people who harbor this belief. They treat all their opinions as if they were convictions and all their convictions as unquestionable. They are quick to disagree with views that differ from theirs but take offense when anyone disagrees with them. And they refuse to acknowledge the insights of individuals on the other side of an issue.

Let’s be honest. Changing our minds is seldom, if ever, enjoyable. We can’t help being a little embarrassed, even if the change occurs privately rather than publicly. Although we gain more than we lose when we exchange a weak idea for a strong one, we may feel the loss more acutely.
That is understandable because we bond with opinions in much the same way that, as children, we bonded with our favorite blanket and stuffed animal. Familiar opinions provide a sense of security.

Nevertheless, changing our minds in response to evidence does not signal a lack of conviction. On the contrary, it signals courage and integrity. The key to developing this habit is to remember that many of the ideas in our minds aren’t even our own.

All day long we receive ideas from the people around us, as well as from TV, radio, newspapers, magazines, and books. Unless we are very vigilant—and most of us aren’t—false notions can take up residence in our minds. After they have been there for a while, we may be deceived into thinking they resulted from careful thinking on our part.

But what about opinions you are certain are your own? Should you be willing to change those too? Absolutely. The reason is simple: Your opinions and convictions do not own you; you own them. Any time you find an opinion to be lacking in quality, you have a right to discard it. If you think carefully and well many of your opinions will pass the most rigorous examination. When that happens, you can congratulate yourself. But you should be prepared to change your mind whenever new evidence is discovered.

On a separate sheet of paper, state your present opinion on each of the following issues and your reason(s) for that opinion. Next, consider alternative views—perhaps by going to the library, conducting interviews, or researching on the Internet—and keep a record of your sources. Then decide how reasonable your view is. If it is not as reasonable as it could be, revise it.

1. Should athletes be required to meet the same entrance standards as other students?
2. Should the federal government pass laws to prohibit pornography on the Internet?
3. Should schools or companies have policies limiting use of the Internet to school or work related activities?

Let’s see how this process of changing one’s mind works in an actual situation. For many years Jennifer considered astrology a good guide to everyday living. Her reasons were that numerous newspapers, magazines, and television treated it seriously and that many well-known, educated people used it as a guide to their decision making. But then she was involved in a discussion with someone she respected. That person asserted that astrology is not only unscientific but also illogical. Jennifer left that discussion wondering whether her view of astrology was reasonable.
Seeking more evidence, Jennifer visited the library and found a number of books and articles, some supporting astrology and others rejecting it. She also checked the Internet, and interviewed a professor of psychology and a professor of comparative religion. Finally, she consulted the Yellow Pages and called a local astrologer.

After evaluating her reading and discussion, Jennifer changed her initial view. Her revised view and her supporting reasons are as follows:

Many well known, educated people believe in astrology. Even so, I think it’s an ineffective guide to everyday living. One reason is that astrology is based on superstitions of a primitive time. For example, because the planet Mars appears red, it has been associated with blood and aggression. Another reason is that astrology continues to say that planets influence us at the moment of birth even though science has shown beyond question that the moment of conception is a more important time. A third reason is that astrologers offer no answer to this question: If the planets Uranus, Neptune, and Pluto were discovered after 1780, weren’t all horoscopes before that time necessarily wrong?

By having the courage to change her mind when the evidence called for it, Jennifer was able to adopt a more realistic view of astrology.

A comprehensive thinking strategy

This section consolidates the principles and approaches explained in the chapter into a single thinking strategy. The strategy consists of four steps: (1) Identify facts and opinion(s), (2) Check the facts and test the opinion(s), (3) Evaluate the evidence, and (4) Make your judgment.

This strategy will work best if you create and maintain a journal of your thoughts. This will enable you to see what you are thinking. It will also expand your thinking—the act of putting ideas to paper (or computer) tends to produce more and often better ideas. Your journal may be a computer document or an actual notebook. If you choose a notebook, use the left pages for recording observations and the right pages for reflections on those observations. Be sure to leave extra space for reflections so that you can expand them.

**Step 1: Identify facts and opinions**

For each sentence in the paragraph or essay in question, ask these questions: Is what is said here generally understood to be factual? Is it common knowledge or at least easily verifiable? If the answer to both questions is “no,” consider the sentence an opinion.
Step 2: Check the facts and test the opinion(s)
Investigate, as necessary, to determine whether what the person presents as facts are, indeed, facts. Be sure that he or she has not omitted any relevant facts. Then test the opinion(s) using one or more of the approaches discussed earlier in the chapter. They are:

- Consider everyday experience
- Consider the opinion’s likely consequences
- Consider the implications
- Think of exceptions
- Think of counterexamples
- Reverse the opinion
- Look for relevant research

Step 3: Evaluate the evidence
Careful, responsible authors do not merely state their opinions—they also offer evidence in support of their opinions. If the author has offered evidence, evaluate its quality and sufficiency.

Step 4: Make your judgment
Review your findings in Steps 2 and 3 and decide whether you should agree or disagree with the viewpoint in question. Caution: Be sure to make this decision on the basis of your analysis and not on your feelings or preferences. If your decision is to disagree, state the view that you believe is more consistent with the facts. (Remember that the best view may be one that combines insights from both sides of the issue.)

exercise 10

In recent years health experts have become concerned about the increasing numbers of Americans who are significantly overweight or obese. By publicizing their concerns, the experts sparked a national debate about the cause(s) of this phenomenon. The following essay blames the fast-food industry. Read it carefully, and then apply the four-step comprehensive thinking strategy, using a separate sheet of paper.

Shame on Fast-Food Merchants
By Elena Rodriguez

Obesity is no joke. It has been linked to heart conditions, high blood pressure, sleep apnea, diabetes, and respiratory problems. And one in five Americans qualifies as obese—that is, 30 percent heavier than the normal weight for
one's height. The increase in obesity among children over the last decade or so is especially alarming.

Who is to blame for this increase? To some extent, the people themselves for eating fattening foods and not getting enough exercise. In the case of children, parents share some responsibility for allowing kids to snack continuously. But a good share of the blame must go to the fast-food industry, particularly to restaurants such as McDonald’s, Burger King, and Wendy’s.

The fast-food industry rejects that argument, and that comes as no surprise. If the courts were to uphold it, the dollar settlements would be huge (no pun intended). Their position would be believable if they just sat between the golden arches or whatever and waited for people to walk in and place an order. But they don’t do that. They ADVERTISE. Translation: they use all kinds of slogans and gimmicks to entice people in, especially young people.

Think of all the scenes of good times and friendship you have seen in fast-food ads, with trim, athletic people chattering happily or singing jingles and dancing. (Not a bulging size 3X in sight!) Think, too, of the mouth-watering pictures of burgers and fish fillets, steam rising, ketchup oozing, and the accompanying invitation to “supersize” your order. (Never a reference to mega-milligrams of salt, mounds of sugar, or artery-clogging fat!)

When you’ve got all those images firmly in mind, you’ll realize why the fast-food industry bears the main responsibility for the current obesity problem—because their ads deceive the public.

---

**exercise 11**

Not everyone accepts the view that the fast-food industry is to blame for the rise in obesity. For example, the following essay disputes that charge. Read the essay carefully and then apply the four-step comprehensive thinking strategy, using a separate sheet of paper. (Note: If you strongly agreed with the first essay, you will probably be tempted to reject this essay automatically. Resist that temptation and give it a fair hearing. If the author presents good reasons for changing your mind, dare to do so.)

**McD’s Fault? Give Me a Break**

*By Shandon Jackson*

Time was when people were held accountable for their behavior. Now no one is. Rude, obnoxious people blame their parents for their offenses. Semiliterate ignoramuses blame their teachers. Incompetent workers blame their employers.
People who destroy their lungs by smoking blame cigarette manufacturers. Given this “blame someone else” mentality, it was predictable that sooner or later overweight people would blame fast-food vendors.

The lawsuits that have been filed against fast-food restaurants are pure frivolity, totally without merit. Anyone with a smidgeon of common sense knows that fast-food is fattening and lacking in nutritional value. Restaurants shouldn’t have to post signs announcing the fact, any more than stove manufacturers should have to warn buyers that hot surfaces burn.

Do fast-food advertisements make our mouths water? Of course. Ads for diamonds and Porsche convertibles tempt us, too, but so what? Sales pitches are meant to sell us things we may not need or may not be good for us, and they do so by exaggerating.

The Romans invented a wonderful rule to cover such cases. It’s called caveat emptor, “let the buyer beware.” That’s a polite way of saying, “If someone snookered you, take a good look in the mirror, say ‘shame on you’ to the person who looks back, and then get on with your life.” That’s still good advice.

If we don’t put a stop to frivolous lawsuits, before long short people will be suing their parents for depriving them of “tall genes,” chocoholics will be suing Hershey for causing their skin to break out, couch potatoes will be suing sofa manufacturers for enlarging their butts, and defeated politicians will be suing the voters for frustrating their ambitions. Enough is enough.

exercise 11 (cont.)

What lessons can you draw from the “Good Thinking!” profiles of Albert Einstein, Elizabeth Loftus, and Faye Abdellah presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.

Note: Another “Good Thinking!” profile and exercise may be found online.
Write your answers to these quiz questions on a separate sheet of paper.

1. This book focuses on evaluating ideas and also includes some approaches for producing them. True or false?

2. Define the term intelligence.

3. Why is critical thinking an important skill to develop?

4. Explain the error in this statement: “I create my own truth. What I believe to be true is true for me.”

5. State the principle of contradiction. Then explain how this principle aids us in critical thinking.

6. Respond to this statement: “I have a right to my opinion, so you have no business challenging it.”

7. Is it useful to argue about matters of taste? Explain.

8. Changing one’s mind signals a lack of conviction. True or false? Explain your answer.

9. A reason is the basis for thinking or doing something and is commonly signaled by the word “because.” True or false?

10. State and briefly explain the four steps of the comprehensive thinking strategy presented in this chapter.

*Answers to this quiz may be found online.*
IN THIS CHAPTER

What is persuasion?

Persuasion is the art of getting people to give a fair hearing to ideas that differ from their own.

How is persuasion achieved?

Persuasion is achieved by discussing issues honestly and fairly. This section shows how.

Strategy for persuasive writing

This five-step strategy will help you write more persuasively.

Overcoming errors in grammar

Learn to recognize and avoid these common grammatical errors.

Overcoming errors in usage

Learn to recognize and avoid these common errors in usage.

Strategy for persuasive speaking

This five-step strategy will help you speak more persuasively.

Strategy for group discussion

This strategy will help you contribute more effectively to group discussion.
In Chapter Two you learned to become a better thinker. Now learn how to express your thoughts more confidently and effectively. The two activities—producing insights and communicating them to others—are essential to academic, business, and personal success. There are four broad kinds of communication: description, narration (telling a story), exposition (reporting facts), and persuasion. This chapter will focus on persuasion.

What is persuasion?

Many people define persuasion as convincing others. Let’s examine that view. Have you ever had someone say, in the middle of a disagreement with you, “You’re so right. I see the issue clearly now. I don’t know how I could have reached such a silly conclusion. Thanks for helping me see my error.” You probably haven’t. People don’t abandon their beliefs that easily. That’s why it’s a mistake to think of persuasion as convincing other people that your view is right and theirs is wrong.

Here’s a more realistic definition: Persuasion is the art of getting people to give a fair hearing to ideas that differ from their own.

Opportunities to be persuasive arise every day in the classroom, in the workplace, in the community, and in relationships with other people.

Opportunities in the classroom

Some students consider examinations the educational equivalent of a medical checkup in which instructors examine the contents of each student’s mind and make a diagnosis: “Your geography ‘count’ is excellent” or “You are seriously deficient in sociology.”

But examinations can be considered opportunities for persuasion. From this perspective, your role is active rather than passive. You have the power to shape the conclusions your instructors reach about you. In this sense, you are the teacher and they are the learners. This is especially true of essay examinations, which require more than merely circling the right answer.

Suppose you encountered the following question on a history exam: Identify three factors that played a role in the outbreak of the Civil War. Which, in your judgment, is the most significant? This is an opportunity to persuade your instructor.
that you understand the significant factors about the Civil War and that you have formed a reasonable opinion about them.

Class discussions provide additional opportunities to be persuasive. Let’s say your sociology class is discussing the possible relationship between divorce and juvenile delinquency. The discussion will focus not only on what the textbook author says but also on what you and the other students think about what the author says. Your chance to speak represents an opportunity to persuade your classmates and instructor that your view has merit.

**Opportunities in the workplace**

The opportunity to be persuasive in the workplace begins when you compose your résumé and continues during the job interview. The question in every interviewer’s mind is “Why should I hire this person?” Your challenge is to persuade the interviewer that you are the right person for the job.

Once you are on the job, opportunities to be persuasive can occur daily, or in some cases, hourly. At this very moment, these events are happening:

- A car salesperson is finalizing a deal with a customer.
- A stockbroker is explaining to a client why a change in investment strategy is advisable.
- A customer service representative is citing reasons why an irate customer should continue doing business with the company despite an unpleasant experience.
- A telemarketer is on the phone urging someone to switch long-distance providers.
- An inventor is trying to sell her latest invention.
- A corporate official is telling stockholders why the annual report is more encouraging than it appears.
- A junior executive is presenting her idea for a new product line to her superiors.
- A supervisor is appealing to his staff for more cooperation and teamwork in the office.
- The owner of a small business is attempting to secure a business loan.
- And thousands of people are sitting face to face with their bosses and explaining why they deserve a promotion or a pay raise.

**Opportunities in the community**

Opportunities to persuade others also occur in your neighborhood, town, or city in roles such as Little League coach, den mother, hospital volunteer, “Big Brother” or “Big Sister,” or member of a service
organization or church council. In any of these roles you are bound to encounter disagreement. Even issues of seemingly slight significance can stir passions and generate spirited debate. Should Little Leaguers buy T-shirts with logos or complete uniforms? Would Saturday afternoon or Sunday morning be the best time for a sale?

Community, in the larger sense, goes beyond neighborhood and municipality. As a citizen of a state, a nation, and the world, you probably have views on the social, economic, and political issues of the day, and every day brings opportunities to express your views to other people.

**Opportunities in relationships**

Relationships with family, friends, and coworkers offer numerous opportunities for persuasion. For example, a close friend may be considering dropping out of school after receiving a disappointing grade, or a business associate may be angry with you for a perceived offense. Perhaps someone in your family is in the habit of drinking and driving. A young child may be inconsiderate of his friends and playmates.

exercise 13

Describe three recent opportunities you have had to be persuasive. Comment on whether you were successful in getting a fair hearing for your ideas and, if so, why.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

**How is persuasion achieved?**

Persuasion tries to get people to consider a viewpoint that they have not previously considered or that they have examined and rejected. The presentation has to be forceful enough to demonstrate the viewpoint’s merits, but not so forceful as to give offense. The solution to this dilemma is to be so honest and fair-minded that the audience is open to receive your message. Faking these qualities is not good enough—you must demonstrate that you possess them. Here is how to do so.
Respect your audience
People never respond favorably to those who disrespect them. One important way of showing respect is to give others the benefit of the doubt. Unless you have clear evidence to the contrary, assume that people who disagree with you are as honest and well-intentioned as you are.

Understand your audience’s viewpoint(s)
It is not enough to be clear about your position on an issue. You must also understand the view(s) of the people you want to persuade. If you are trying to persuade one individual, you can simply ask. In the case of the friend who wants to quit school because she received a disappointing grade, ask: *Is the course required or elective? Is this the first bad grade you’ve received in the course? Was it an exam grade or a project grade? Did you talk to your instructor about the possibility of re-taking the exam or redoing the project? Have you explored other alternatives to quitting school, such as getting a tutor for the course?*

Your friend’s answers would reveal not only the facts of the situation but her reasoning about them, and put you in a better position to persuade her not to act rashly.

When your audience is a group of people, as is often the case in classroom discussions, understanding their viewpoints is more challenging. You may not be able to question them directly. In such cases, identify the various views that have been publicly expressed and, equally important, *the reasons offered* in support of those views.

Begin on a point of agreement
Beginning your presentation on a point of agreement establishes an atmosphere of mutual respect and puts your audience at ease. In such an atmosphere, they will be more inclined to give your viewpoint a fair hearing. In contrast, beginning on a point of disagreement can make your audience defensive and reluctant to consider your ideas.

Acknowledge unpleasant facts and make appropriate concessions
Your first inclination may be to fill your presentation with facts that support your view and to omit facts that challenge it. Similarly, you may be inclined to portray the opposing view as totally without merit. The first inclination is intellectually dishonest; the second is foolish. Giving in to either is likely to make your presentation less effective. Whenever you try to persuade others, be sure to acknowledge *all* the facts and insights from the various viewpoints, and do so graciously and generously.
THE STORY OF DALE CARNEGIE

Dale Carnegie became one of the best-selling authors of all time, but he didn’t start out with that goal in mind. When he graduated from college, he went to New York City in the hope of becoming an actor. To support himself, he began teaching a communications course for adults.

Carnegie quickly determined that his students’ greatest needs were in “the ability to express ideas, to assume leadership, and to arouse enthusiasm among people.” To help his students develop these abilities, he studied the lives of successful people, identified the principles and strategies they followed, and used their stories as teaching materials.

Over the years, Carnegie expanded and refined these teaching materials. Eventually he assembled them into a book, which he titled How to Win Friends and Influence People. An instant success, it has sold tens of millions of copies in thirty-eight languages.

The principles of positive relationships and successful living that Carnegie taught are surprising in their simplicity. Here is a small sampling in his own words:

Don’t criticize, condemn or complain.
Become genuinely interested in other people.
Make the other person feel important—and do it sincerely.
If you are wrong, admit it quickly and emphatically.
Try honestly to see things from the other person’s point of view.
Let the other person save face.


Apply the Golden Rule

This ancient rule, “Do unto others as you would have them do unto you,” can be applied to persuasion in the following five ways:

1. If you expect your views to be given a fair hearing, give others’ views a fair hearing.
2. If you expect others to provide evidence for their views, provide evidence for yours.
3. If you dislike being forced to agree, don’t force others.
4. If you resent others misrepresenting your ideas, don’t misrepresent theirs.
5. If you expect civility, practice civility.
Keep your expectations modest
If you expect others to change their minds immediately on reading or hearing your ideas, you are bound to be disappointed. It takes time for people to change their minds, so expect days, weeks, or even months to pass before your attempts at persuasion bear fruit. Learn to settle for presenting your ideas as well as you can and hope that they will spur the other person to further reflection on the issue.

exercise 14
Describe a situation in which a speaker’s or writer’s honesty and fair-mindedness helped to persuade you or someone you know. Explain how the person demonstrated those qualities.

exercise 15
Describe a situation in which one or more of the qualities of persuasion mentioned above were lacking. Explain what happened as a result.

Strategy for persuasive writing
So far we have defined persuasion and identified the factors that make communication persuasive. Let’s now consider a complete strategy for composing a persuasive presentation. This section will focus on persuasive writing. (Persuasive speaking will be covered in a subsequent section.)

The five-step strategy that follows is to be used after you have finished thinking critically about the issue. When you have identified the
facts and opinions, checked the facts and tested the opinions, evaluated
the reasons, and taken a position on the issue you will be ready for the
first step in writing.

Step 1: State what you think about the issue
and why you think it

What you think about the issue will be the main idea of your paper;
why you think it will be the supporting material. Amateur writers sometimes
consider it a waste of time to write these ideas out. “I know what
I think and why I think it,” they ask, “so why bother stating it?” The
answer is that our thoughts are often less clear and precise and our
reasons less substantial than we imagine them to be. Writing them down
brings our thoughts into focus and gives us a chance to refine them, if
necessary. It also provides a visual reminder of our purpose in writing
and keeps our attention on what we are writing.

Use this format for your statement: “I think ______ because
______.” The following examples illustrate this format. (The views
expressed in these examples may or may not be reasonable and the
reasons may or may not be valid and sufficient.)

I think the penalties for “white collar” crime should be stiffened
because such crime does more harm to more people than “street crime”
and because individuals with wealth and status should be treated no dif-
f erently than ordinary people.

I think an international effort is needed to protect the world’s rain-
forests because many nations lack the power to resist logging conglom-
erates and because the depletion of the rainforests threatens to have
worldwide climatic effects.

In some cases, of course, there may be only a single reason; in others,
many reasons. Be sure to express all important reasons in your statement.

Step 2: Consider how those who disagree might react
to your view

Don’t assume your view is so insightful that all reactions to your view
will be positive. Those who disagree are sure to raise some objections. To
identify your readers’ objections, put yourself in their place and ask how
they would react to your main idea and to each of your reasons. Write
out each objection and decide whether it has merit. If it doesn’t, explain
why. If it does, revise your view to eliminate the objection. (If your analy-
sis of the issue was done carefully, such revisions will usually be minor.)

In performing this step, keep in mind that if your response to a chal-
lenge is inadequate, it may prompt another objection, as the following
example illustrates. Some years ago the U.S. Justice Department filed
an antitrust action against Microsoft. The charge was that by bundling its Internet Explorer with Windows 98, Microsoft had gained an unfair advantage over its competitors. To prevent Microsoft from having a monopoly and to protect the public interest, the government demanded that Microsoft either remove Internet Explorer from Windows 98 or add its competitor Netscape Communications’ browser.

Microsoft Chairman Bill Gates reportedly responded that the government’s demand was like “requiring Coca-Cola to include three cans of Pepsi in every six-pack.” That response seemed adequate. But then the government’s chief antitrust agent, Joel Klein, turned the analogy back on Gates. He said that the government’s demand was like asking Coca-Cola to relinquish a little space on the grocery shelves so that Pepsi, too, could be sold there.

**Step 3: Arrange your ideas and write a draft of your presentation**

The simplest arrangement for writing a persuasive presentation is as follows:

- Begin with a non-controversial statement, such as an objective summary of the issue, a brief description of a specific situation or case that illustrates the issue, or a statement of undisputed, relevant facts.
- Clearly state your main idea—your view of the issue—in a sentence or two. If you were careful and thorough in applying critical thinking to the issue, this step will not be difficult. (You may, however, want to experiment with different statements of your view to be sure you are expressing it accurately.)
- Present, in turn, each of your reasons for thinking as you do. Complete one reason before moving on to the next one and put your best reason last because that is the place of greatest emphasis. Don’t assume that others will consider your reasons good reasons—provide supporting evidence such as research results, statistics, and expert testimony. Because this step is the one with the greatest potential to persuade your reader, you should give it the most attention and assign it the most space in your paper.
- Conclude your paper. The most obvious technique for concluding is to restate your idea. That technique is effective if your paper is long and/or complex enough that the readers may have forgotten your main idea. In a short paper, however, restatement may be insulting to your readers. Other, equally effective techniques of concluding include using a relevant quotation or presenting a brief anecdote. These techniques reinforce your main idea without restating it.
Follow the arrangement described above and prepare a rough draft. Do this at a single sitting without worrying about matters of style, grammar, spelling, or punctuation. Generally, your paragraphs should be a modified version of the arrangement shown here, with the introduction and the main idea statement in one paragraph and each of the reasons and the conclusion in a separate paragraph.

**Step 4: Check your draft for matters of style**

Read your draft critically to see where your writing style can be improved. If you read aloud rather than silently, you will be able to identify flaws you might otherwise miss.

If any of your sentences are vague or confusing, revise them to be simple and direct. If any of your sentences are too wordy, rephrase them. For example, change “in the area of “ to “in,” “in connection with” to “about,” “judging on the basis of” to “judging by,” “there are many cases in which” to “often,” and “made inquiry regarding” to “inquired.”

If your sentences are almost equal in length, create some variety. For example, combine several short sentences into a longer one. Let’s say you wrote: “I entered the discussion sure of my view. Then I listened to the other students’ ideas. As a result, my view changed.” You could consider this revision: “Although I entered the discussion sure of my view, when I listened to the other students’ ideas, my view changed.”

Another way to create variety is to change the order of phrases and clauses, being careful not to create an awkward word pattern. For example, instead of writing “I did well in the course even though I lacked the background for it,” you could write, “Even though I lacked the background for the course, I did well in it.”

**Step 5: Check your draft for grammar, usage, punctuation, and spelling**

Some computer programs check for spelling and grammar errors, but even the best ones will miss some errors, especially the use of an incorrect sound-alike word—for example, using principle in place of principal or preserve instead of persevere. Use your spellchecking program but do your own proofreading as well. The two sections that follow will explain the most common errors in grammar and usage and how to detect and correct them.

Before we turn to that topic, however, let’s address a rather obvious question: What connection do errors in grammar, usage, punctuation, and spelling have with the subject of persuasion or the larger subject of critical
George Orwell was the pen name of the English author Eric Blair. Born in Burma (now known as Myanmar), he went to college in England, then returned to Burma and worked as a police officer. Later he fought in the Spanish Civil War.

Orwell, one of finest prose writers of the twentieth century, is best known for his novels *Animal Farm* and *Nineteen Eighty-Four*. In “Politics and the English Language,” his most famous essay, he showed how bloated, lifeless expression numbs the mind and leaves us vulnerable to manipulation. He also offered these timeless rules for avoiding such language:

*Never use a metaphor, simile, or other figure of speech which you are used to seeing in print.*

*Never use a long word where a short word will do.*

*If it is possible to cut a word out, always cut it out.*

*Never use the passive where you can use the active.*

*Never use a foreign phrase, a scientific word or a jargon word if you can think of an everyday English equivalent.*

*Break any of these rules sooner than say anything outright barbarous.*

For more information on George Orwell, see www.k-1.com/Orwell/index.cgi/about/biography.html.

**good thinking!**

thinking? Your immediate answer may be that such errors have no connection at all; in other words, they are merely annoyances and distractions that readers (or listeners) will overlook when they become engrossed in your ideas. This is incorrect.

Persuasion, as we have defined it, is the art of getting people to give a fair hearing to ideas that differ from their own. The challenge of persuading others lies in the fact that they seldom want to give such a hearing to opposing ideas. In fact, their first impulse may be to find an excuse for dismissing such ideas. Errors in grammar, usage, and punctuation and spelling provide that excuse. They *invite* your reader to think, “If this person is careless about the relatively simple matter of writing and spelling correctly then his/her ideas are not likely to have much value.” Is that assessment fair or logical? No. But it is a huge obstacle to persuasion. Overcoming that obstacle is an important step in writing and speaking persuasively.


Overcoming errors in grammar

Because of space limitations, this section and the section on errors in usage will cover only the most common errors. For further assistance in these matters, as well as punctuation and spelling, consult an English handbook. No doubt a number are available in your campus library, at a used book store, or online.

Make your subjects and predicates agree

The subject of a sentence is what you are speaking about; the verb is the main part of the “predicate”—that is, what you are saying about the subject. A singular subject requires a singular verb form; a plural subject requires a plural verb form. Here are some examples of this rule:

Correct: Regular exercise maintains muscle tone. (The subject and verb form are both singular. Don’t be fooled by the “s” in maintains. The letter “s” forms the plural of nouns but not of verbs.)

Correct: Regular exercise, she told her students, maintains muscle tone. (The subject of this sentence is exercise. Don’t be fooled by the words that separate it from the verb.)

Correct: All people are expected to attend the meeting. (All is plural; that is, more than one. Are is the plural form of the verb.)

Correct: Each of the people who attend is expected to report on his or her project. (Each, not people, is the subject and it is singular. Is is the appropriate singular form of the verb.)

Some plural nouns are mistakenly thought to be singular, notably data, criteria, and phenomena. (Their singular forms are, respectively, datum, criterion, and phenomenon.) Thus it would be correct to say “the criterion is” and “the criteria are.”

Other nouns, such as audience and committee, are collective. They can be considered singular (each member individually) or plural (the group as a whole). Also, some nouns have a plural form (end in “s”) but are considered singular. They include athletics, mathematics, economics, physics, measles, and statistics.

Choose correct pronoun case

Pronouns are used in place of nouns. For example, instead of saying “Tom gave Mary Tom’s assurance that Tom would visit Mary over the summer,” you would say “Tom gave Mary his assurance that he would visit her over the summer.” (The italicized words are pronouns.) The most common errors in pronoun case involve misusing I and me, he and him, she and her, or we and us. I, he, she, and we are used as subjects of sentences or as complements after a form of the verb to be (for
example, am, is, are, was, were, will be). Me, him, her, and us are used as direct or indirect objects, or as the objects of prepositions. Here are some examples:

   Error: Paul suggested that him and me join the Marines.
   Correction: Paul suggested that he and I join the Marines. (The words in question serve as the subject of the verb join.)
   Error: They saved a seat for my friend and I.
   Correction: They saved a seat for my friend and me. (The word is serving as one of the objects of the preposition for. Therefore the objective form me is required.)

Avoid sentence fragments
A sentence fragment is a group of words punctuated as if it were a sentence but incapable of standing alone as a sentence. Here are some examples of fragments, together with suggestions for correcting the mistake. The fragment in each case is italicized.

   Fragment: I love winter. Although I hate driving on slippery roads.
   Correction: I love winter, although I hate driving on slippery roads.
   Fragment: Sandy has to take her car to the garage tomorrow. To get the front end aligned.
   Correction: Sandy has to take her car to the garage tomorrow to get the front end aligned.

Note: A fragment in response to a question is considered acceptable.

Acceptable Fragment: Will I accept her apology if she offers one? Of course.

Avoid mixed constructions
A mixed construction consists of starting a sentence with one construction and then shifting to another.

   Mixed Construction: Because of his recent surgery is the reason he couldn’t complete his physical education requirements.
   Correction: Because of his recent surgery, he couldn’t complete his physical education requirements.
   Mixed Construction: By doing it this way is the fastest way to achieve our goal.
   Correction: Doing it this way is the fastest way to achieve our goal. OR By doing it this way, we can achieve our goal most quickly.
Make pronoun reference clear and accurate

If pronouns are not used carefully, the reader will be left wondering about the author’s meaning. For example, in the sentence “When Agnes shouted at Betty, she began crying,” we have no way of knowing which woman the pronoun she is referring to. Similarly, in the sentence “In my college they don’t allow smoking in the lobbies of classroom buildings,” the pronoun they has no reference. (It could refer to the city fire department, the college administration, or perhaps some other group.)

The problem of accuracy arises in sentences such as “Everyone on the team did their best.” Everyone is singular and their plural. This error can be corrected in either of two ways: by changing everyone to all team members, or by changing their to his or her. (If the team were composed only of women, of course, you would change their to her.)

Distinguish adverbs from adjectives

The key to distinguishing between adverbs and adjectives is to understand the function of each. Adverbs modify verbs, adjectives, and other adverbs and usually answer where, when, how, or to what extent. Adverbs often (but not always) end in –ly. Adjectives modify nouns and pronouns—that is, they provide descriptive detail about people, places, or things.

Examples of Adverbs: He ate hastily. (Hastily modifies the verb ate.) She plays the trombone really well. (The adverb well modifies the verb play and the adverb really modifies well.) Note that it would be incorrect to say “She plays good” because good is an adjective and therefore can’t modify a verb. Saying “She plays real good” would be the same error times two.

Examples of Adjectives: The tall brunette girl by the door is in my literature class. All the italicized words are adjectives. The first two modify the noun girl; the second modifies the noun class. Note that literature may also be used as a noun.

Choose proper comparatives and superlatives

Adjectives and adverbs are often used in comparisons between two people or things, or among many of them. For example, if John is six feet tall and Gerald is six feet, two inches tall we would say Gerald is taller than John. And if we include Francis, who is six feet, ten inches, in the comparison, we would say Francis is the tallest of the three. This progression—tall, taller, tallest—is said to be regular because the only thing that changes is the word ending. Many adjectives have this progression. For example, dark, darker, darkest; swift, swifter, swiftest; healthy, healthier, healthiest; few, fewer, fewest. Adjectives that change internally are said to be irregular: many, more, most; little, less, least; bad, worse, worst.

The progression is similar with adverbs. Regular adverbs simply add more or most: sorrowfully, more sorrowfully, most sorrowfully; quickly,
more quickly, most quickly; carefully, more carefully, most carefully. Irregular adverbs change internally: well, better, best; badly, worse, worst. Whenever you are in doubt about the progression of an adjective or an adverb, consult a good dictionary.

Overcoming errors in usage

The following pairs of words are among the most frequently misused. As you read them, note which ones you are unfamiliar with. Re-read those several times until you are sure you understand them.

**Amount, number.** Use the word *amount* when referring to things not usually considered as individual units. Use the word *number* when referring to persons, places, or things usually considered as individual units. Thus, you would speak of an *amount* of sand, an *amount* of rain, but a *number* of people, a *number* of cars.

The same rule applies using the words *less* and *fewer* and the words *much* and *many*. *Less* refers to a smaller amount (less sand or rain); *fewer* refers to a smaller number (fewer people or cars). *Much* refers to a larger amount (much sand or rain); *many* refers to a larger number (many people or cars).

**Between, among.** Use *between* when two persons, places, or things are involved. Use *among* when more than two are involved. Thus you would speak of an *agreement* between Bill and Mary, or one *among* Bill, Mary, and Sally.

**Can, may.** *Can* means able to do something, as in “He *can* run a four-minute mile.” *May* means having permission, as in “*May* I leave class early today?”

**Conscience, conscious.** *Conscience* is a noun meaning “inner moral guide, sense of right and wrong in ethical matters.” *Conscious* is an adjective meaning “mentally awake, aware.”

**Could have, could of.** *Could have* is standard English. *Could’ve* is an acceptable contraction commonly used in speaking but not in writing. *Could of* is never correct. This same rule applies to *would have* and *should have.*

**Each other, one another.** *Each other* is used in references to two people; *one another*, in references to more than two people. Thus, it would correct to say “John and Agnes respect *each other*” and “The members of the chess club enjoyed competing with *one another*.”

**Lay, lie.** These words are both verbs. *Lay* means “to place or put,” and its progression is *lay* (present tense), *laid* (past tense), *have or had laid* (perfect tense). *Lie* means “to rest or recline,” and its progression is *lie* (present tense), *lay* (past tense), *have or had lain* (perfect tense). The confusion between them is explained by the fact that the present tense
of *lay* and the past tense of *lie* are identical. It is correct to say “I now *lay* [place] the book on the table,” “I *laid* it there yesterday,” and “I *have laid* it in the same place every day this week.” It is also correct to say “I *lie* down now,” “I *lay* down yesterday,” “I *have lain* down for a nap every day after lunch for years.” However, to say “He *laid* down for a nap” is to use the wrong verb.

**Principal, principle.** When used as a noun, *principal* means “the person in charge of a school.” When used as an adjective, it means “main or primary,” as in “The *principal* reason for attending college is the pursuit of knowledge.” *Principle* is always a noun and means “rule,” as in “I am learning the *principles* of economics.”

**Provided, providing.** One meaning of *provided* is “cared for,” as in “My parents *provided* well for our family.” Another meaning is “with the provision that,” as in “I’ll go *provided* that Mary does.” *Providing* means “furnishing,” as in “Sam is responsible for *providing* refreshments.” *Providing* is never an acceptable substitute for *provided.*

**Reason is that, reason is because.** The accepted expression is *reason is that.* The other expression is redundant because the word *reason* and the word *because* have the same meaning. Thus, you should say “The *reason* I volunteered is *that* it was my turn.”

**Set, sit.** This pair of verbs is similar to *lay, lie* (see above). *Set* means “to place or put” and its principal parts are the same in every tense: “I *set* the fork down now,” “I *set* it down yesterday,” “I *have set* it down this way for years.” *Sit* means “to rest or recline,” and its principal parts are *sit, sat, sat:* “I *sit* in this chair,” “I *sat* here yesterday,” “I *have sat* here every evening since I bought the chair.” To say someone “*set down*” in a chair is incorrect.

**Through, threw.** *Through* means “between” or “in one side and out the other.” *Threw* is the past tense of the verb *throw,* as in “She *threw* the ball to her teammate.”

**Use, usage.** *Use* may be either a verb or a noun. As a verb it rhymes with *news* and means “to employ or put into service.” As a noun it rhymes with *noose* and means the “employment or application of something,” such as a tool or a math formula. *Usage* is a very specialized noun and its most common use concerns language, as in “Modern English *usage* frowns on the use of slang in formal writing.” The word *usage* is not an acceptable substitute for *use*—thus it is a mistake to say, “John’s *usage* of his celebrity to gain favors is offensive.”

**Who, whom.** *Who* and *whom* are pronouns referring to people. When the word will be the subject of a verb, choose *who.* Otherwise, choose *whom.* It would be correct to say, “The man *who* runs the restaurant is
sitting in the next booth” because *who* is the subject of *runs* (*man* is the subject of *is sitting*). It would also be correct to say, “The man *whom* I introduced Sally to last night just came in the door” because the verbs *introduced* and *came in* already have subjects. If you were in doubt about whether to use *who* or *whom*, you could say instead, “The man that I introduced Sally to . . . .” As this example implies, the word *that* is an acceptable substitute for *whom*. However, the word *which* should never be used to apply to a person.

---

**Strategic for persuasive speaking**

In several ways, persuasion is more difficult in spoken than in written communication. Printed words can be studied again and again; spoken words, once uttered, are gone. Also, speaking is usually less formal and precise and therefore more easily misunderstood. Moreover, in spoken presentations the audience sees, as well as hears, the speaker and is therefore more easily distracted.

A speech has the same basic structure as a composition and, in most cases, is organized on paper before being delivered. For this reason, the first three steps in the strategy for persuasive speaking are the same as those for persuasive writing. They are: (1) State what you think about the issue and why you think it; (2) Consider how those who disagree might react to your view; and (3) Arrange your ideas and write a draft of your presentation. (See the earlier section for details.) The remaining steps for persuasive speaking are:

**Step 4: Create note cards**

Why speak from note cards rather than from a completely prepared speech? Because it is almost impossible for an inexperienced speaker to *read* a presentation without seeming lifeless and mechanical. If you
don’t have the text of the speech in front of you, you can’t succumb to
the temptation of reading it.

In creating your note cards, use key words rather than sentences so that
you won’t be tempted to read. Write large and limit the number of points
per card so that you can move from point to point without lowering your
head and squinting. (If you will be using visual aids, such as overhead
slides or PowerPoint, be sure to add appropriate cues in your notes.)

**Step 5: Rehearse using a tape recorder or a camcorder**

Deliver your speech into a tape recorder—or, even better, into a digi-
tal camcorder that can be attached to your computer—and then play
it back, evaluating and taking notes. Repeat this as many times as nec-
essary to achieve the following objectives:

*Avoiding distracting verbal mannerisms.* Such mannerisms in-
clude punctuating every sentence or two with meaningless ex-
pressions (e.g., *uh, like, and you know*) and raising or lowering
your voice in the same way at the end of every sentence.

*Avoiding distracting physical mannerisms.* Such mannerisms in-
clude looking at the ceiling or at your notes instead of at your
audience, shifting from foot to foot, or using the same gesture
over and over. (To evaluate physical mannerisms, of course, you
will need to *watch* your presentation rather than just listen to it.)

*Finishing each sentence before starting the next.* It is bad
enough to hear one speaker interrupt another, but it is even more
frustrating to hear a speaker interrupt himself or herself. This hap-
pens much more frequently than you might imagine. Fear is a
common cause; eager to finish, the speaker tries to say several
things at once. The solution is to discipline yourself to give each
sentence the attention it deserves.

*Speaking loud enough to be heard and separating your words.*
The most meaningful material becomes meaningless if the speaker
cannot be heard or if he or she runs words together in a way that
makes people in the audience turn to one another and ask what was
said.

*Maintaining a moderate pace.* Pace is the speed at which you
speak. Most people have a tendency to speak fast when they be-
come nervous, so you may have to speak at a pace that seems too
slow in order to have it be just right. By practicing, you will be
able to develop a sense of what is appropriate

*Achieving vocal variety.* What bores an audience most? Same-
ness, which suggests lifelessness. This effect occurs when the
speaker’s volume, pitch, pace, and inflection never change. To
achieve variety, make your voice rise and fall in volume and pitch and deliver key lines a little more deliberately, lingering over the most important words. Where appropriate, pause for dramatic effect and give your audience a chance to process what you have said. These techniques are never artificial when they match the real emotion you feel for your topic.

When you make your actual presentation, stand up straight and maintain eye contact with your audience rather than fixing your gaze at the ceiling, floor, or back wall. (Yes, they can tell the difference.) Don’t stare at any one person, of course; look from person to person. And above all, forget about yourself and focus on your message.

**Strategy for group discussion**

Some people view discussion as competition, with one winner and many losers. As a result, they approach it combatively. They interrupt, shout, and browbeat others into submission. Others view discussion as serial monologue, with every person taking a turn at speaking but no one listening to anyone else. Neither perspective enhances discussion.

At its best, group discussion is an opportunity to share, test ideas, and generate insight. But this opportunity is possible only in a context of cooperation. In this context, participants approach discussion eager to listen as well as to speak, and they are prepared to explore all views vigorously yet fairly without anger or resentment. Persuasion becomes possible precisely because everyone is as open to being persuaded as to persuade others.

The following guidelines will help you become a valued participant in discussion:

**Prepare in advance.** If the discussion is scheduled in advance, spend some time planning for it. Study the lesson or meeting agenda, considering each point to be discussed. When a problem or an issue is involved, apply your thinking skills to it and be prepared to share your thoughts with others.

**Anticipate disputes.** When people of different backgrounds and perspectives address issues, disputes often arise. These can be beneficial to the group, as long as they are approached constructively. The key is to detach your ego from your ideas. Be energetic in presenting your views but not arrogant. Expect others to disagree with you and criticize your views. Refuse to take such criticism personally.

---

* The section “Strategy for Group Discussion” is reprinted with the permission of the copyright holder, MindPower, Inc.
Leave private agendas outside. From time to time you may find yourself working in a group with someone you don’t care for. You may have had trouble with the person in a past meeting or your personalities may just clash. Dislike for the person may tempt you to be disagreeable and even sarcastic. Such reactions hinder the group’s efforts and make meetings unpleasant for everyone. You have an obligation to the group to give your best, so refuse to let your feelings toward anyone influence your behavior or your response to his or her ideas.

Cooperate with the leader. Keep in mind that the group leader has special obligations such as maintaining order, keeping discussion positive, and ensuring that all members are heard from and all perspectives considered. When the leader attempts to meet those obligations, be understanding and cooperative.

Listen to others. It is impossible to respond meaningfully to what others say in a discussion unless you first understand what they say, and the only way to understand is to listen attentively. To that end, whenever another group member has the floor, look at that person and be attentive, whether you agree or disagree. Don’t permit yourself to be distracted by other people or your own thoughts. And avoid doing anything that causes others to be inattentive.

Understand before judging. If you are uncertain whether you understand a particular view, ask the person who expressed it. For example, say, “Ann, I’m not sure I heard you correctly. Are you saying that . . . ?” Then listen carefully to her answer. Base your evaluation on what she said rather than on careless assumptions about what she meant.

Be balanced. Many of the views expressed in discussion are of mixed quality. That is, they are partly valid and partly invalid, somewhat wise and somewhat foolish. Thus, the most reasonable response will often be to agree in part rather than to agree completely or disagree completely. To be sure your evaluation is fair, take special care to find the flaws in views you agree with and the merits of views you disagree with.

Be courteous. When views clash and discussions grow heated, it’s easy to forget the rules of civility. Whenever that happens, bad feelings usually follow and group accomplishments are threatened. To avoid such outcomes, make it your habit to give no offense to others and to be slow to take offense yourself.

Monitor your contributions. Be aware of how often you contribute to the discussion. If you tend to speak a lot, make an effort to limit your contributions to matters you regard as important. On the other hand, if you seldom say anything, start contributing more often. (If others express your ideas before you get a chance to, you can always express
agreement and explain your reasons.) Also monitor the kinds of contributions that you make to discussions. Ideally, you will propose ideas of your own and offer constructive criticism of other people’s ideas. If all your contributions are criticisms you will be a hindrance rather than a help to the group.

**Be alert for insights.** When knowledgeable people exchange ideas, they often stimulate one another’s thinking and produce new insights. Unfortunately, insights are often so mixed in with ordinary ideas that they go unnoticed. You will be better able to find them if you actively look for them in all contributions, other people’s as well as your own.

---

**exercise 17**

The fact that many elementary and secondary school students have learning deficiencies has prompted a search for remedies. Some people believe the problem lies with poor teaching and propose that elementary and secondary schoolteachers’ salaries be based on their students’ performance on standardized tests. Other people strongly object to this proposal and reject the idea it is based on. The following essays take opposing views on the issue. Read each essay carefully. Then apply to each the four-step comprehensive thinking strategy you learned in Chapter Two. Use a separate sheet of paper for this exercise.

**If the Student Hasn’t Learned, the Teacher Hasn’t Taught**

*By Greta Von Hoffman*

Compared to their counterparts in other countries, U.S. students are mediocre academically. That’s not pleasant to acknowledge, but it’s been documented in international competitions for years.

To cite but one example, thirty-four nations participated in the 1999 Trends in International Math and Science Study (TIMSS) competition. U.S. students scored nineteenth in math, behind Singapore, Korea, Japan, Canada, and even behind Slovenia, Bulgaria, and Latvia. And they did only slightly better in science, scoring eighteenth.

The problem is not confined to math and science. The deficiencies of U.S. students in geography and English—their native language!—are legendary. What could cause such embarrassing deficiencies? Not a lack of funding—the U.S. invests more money per pupil than almost any other nation. Not a lack of technology—there are more computers in U.S. schools than in any other schools in the world, with the possible exception of Japan. Surely not a national genetic deficiency.
What, then? To say it bluntly, half-hearted or downright incompetent teaching. The old saying, “If the student hasn’t learned, the teacher hasn’t taught,” isn’t just a clever slogan—it’s a profound truth.

Many teachers are more concerned with collecting a paycheck than in expanding students’ knowledge. Others are “hanging in” until they are eligible for retirement. Unfortunately for their students, their retirement is still ten or more years away. A considerable number of teachers have had more education courses than content courses. What good is it to know how to teach math or history or biology if you have only a nodding acquaintance with the subject of math or history or biology? It’s like having a non-athlete coach a sport or someone who can’t drive a car teach driver education. Watch out world.

To reform a system with such fundamental problems will not be easy. No single solution can possibly do it. That said, one small but important step would be to base teacher’s pay on their performance. Teachers whose students perform exceptionally well should receive a generous pay increase. Those whose students perform poorly should receive nothing except a warning—”Produce better results or look for another job.” And then—this is most important—the schools should make good on the warning.

Such a regime will encourage the good teachers, weed out the poor ones, send a message to colleges of education to prepare their students better, and invite talented people to enter the field. As I said, this isn’t the entire solution, but it would be a wonderful first step.

Let’s Not Scapegoat Teachers

By Pyadhammo Bikkhu

Given this country’s resources, our education system should be the finest in the world. And our students’ performance should be unquestionably superior to other industrialized nations. The fact that the system is badly flawed and our students are, to put it mildly, less than superior is a scandal of major proportions. No reasonable person would deny this fact.

The blame for this situation is usually placed on teachers and the standard solution is to hit them in the pocketbook as a punishment. Chief among the ideas proposed is to pay teachers according to the results they achieve—that is, the grades their students receive on national or international tests of competency.

At first thought, this all sounds very reasonable. However, it is not reasonable at all but the shabbiest kind of scapegoating. Moreover, it would be counterproductive. To begin with, students’ academic deficiencies are not clearly the fault of teachers. Other candidates for blame include the school
administrators, media, parents, and students themselves. Let’s look at each of these groups.

Administrators have more control over what is taught and the way it is taught than most people realize. They usually have a major say in curriculum development, classroom schedules, textbook selection, and grading. Teachers are often required to spend valuable time on self-esteem, values clarification, sex education, environmentalism, and other politically correct topics, and this sharply diminishes the time they have to spend on academic subjects. Also, administrators often create a lot of bureaucratic busy work that further erodes instructional time. And, as if that weren’t enough, when teachers attempt to maintain control of their classrooms, they get little or no support from principals and superintendents.

The media deserve a large share of the blame for student deficiencies because they have created a mass culture in which feeling good ranks above obtaining knowledge and learning self-discipline. The media also ridicule virtually every value conscientious teachers and parents try to instill in students. Not every parent is conscientious, of course, and those that aren’t tend to approve and even model the harmful attitudes that block students from learning.

Finally, and every bit as important, there are the students themselves. The most admirable parents, enlightened school administrators, and dedicated teachers cannot make students learn if the students choose not to do so. And many students make that choice.

In light of these considerations, the idea of punishing teachers by taking away their salary raises is grossly unfair. Teachers’ pay is already the lowest among the professions, as little as $29,000 to start in some states. That’s after four years of hard work and $75,000 or so of education loans to be repaid. To expect teachers to work for such wages and have their salary advancement tied to factors over which they have no control is absurd.

For all these reasons, the idea of paying teachers according to students’ performance should be tossed in the wastebasket where it belongs.

In the previous exercise you analyzed two essays that addressed the question of whether elementary and secondary schoolteachers’ salaries should be based on students’ academic performance. Now select the essay you decided was most reasonable and evaluate it for
exercise 18 (cont.)

persuasiveness, using as your guideline the strategy for persuasive writing presented in this chapter. If you see any room for improvement in persuasiveness, explain below what changes you would make.

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

exercise 19

Describe a situation in which you attempted to be persuasive, for example, a situation at work or in college. Revisit that situation, apply the guidelines for persuasion, and explain how you would approach the situation if it were occurring now. (Feel free to substitute a present situation for a past one if you wish.)

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

exercise 20

Contemporary feminism is divided into two broad and conflicting viewpoints, which Christina Hoff Sommers terms “gender” feminism and “equity” feminism. Some feminists consider these terms inaccurate; nevertheless, the terms have become representative of the ongoing debate and are therefore useful search terms. Feminists generally included in the “gender” camp include Gloria Steinem, Andrea Dworkin, Catherine MacKinnon, and Patricia Ireland. “Equity” feminists include Christina Hoff Sommers, Tammy Bruce, Wendy McElroy,
exercise 20 (cont.)

and Camille Paglia. Investigate the differences between the two groups. Then decide which side you are more inclined to agree with and, on a separate sheet of paper, write a persuasive composition presenting your view. Be sure to list the sources you consulted. (Note: If you are unsure how to proceed in your investigation, see Chapter Four for help.)

exercise 21

In light of what you learned in this chapter about persuasion, what would you say is your greatest difficulty in persuading others? Think of one or more occasions in which you experienced this difficulty. Then meet with a group of two or three classmates and discuss your individual difficulties and the ways in which this chapter will help to overcome them. During this meeting make a special effort to apply the strategy for group discussion.

exercise 22

What lessons can you draw from the “Good Thinking!” profiles of Dale Carnegie and George Orwell presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.
Write your answers on a separate sheet of paper.

1. Define persuasion as the chapter defines it.

2. Name four places where you can find opportunities to be persuasive.

3. The strategies of persuasion guarantee that you will be successful. True or false? Explain.

4. If persuasion occurs at all, it occurs immediately after you present your ideas. True or false? Explain.

5. Why is it important to eliminate errors in grammar and usage from your persuasive writing and speaking?

6. The challenge of persuading others is greater in spoken communication than in written communication. True or false? Explain.

7. People who are quiet by nature should be content to let others talk during group discussions. True or false?

8. In grammar the term *mixed construction* means mixing foreign phrases with English. True or false?

9. In what ways is persuasive speaking more difficult than persuasive writing?

10. List the five steps for persuasive writing.

   *Answers to this quiz may be found online.*
## IN THIS CHAPTER

<table>
<thead>
<tr>
<th>Section</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is individuality?</td>
<td>Individuality is the quality or qualities that set one person apart from others.</td>
</tr>
<tr>
<td>Acknowledging influences</td>
<td>The first step in becoming an individual is to admit that other people have shaped you.</td>
</tr>
<tr>
<td>Understanding attitudes</td>
<td>Attitudes are beliefs that are expressed indirectly, for example through tone of voice, mannerisms, or actions.</td>
</tr>
<tr>
<td>Four empowering attitudes</td>
<td>These attitudes will help you become a critical thinker and make you more successful in all your endeavors.</td>
</tr>
<tr>
<td>Recognizing manipulation</td>
<td>Common devices of manipulation include biased reporting, dishonest appeals to emotion, stacking the deck, suppressing dissent, and repetition.</td>
</tr>
<tr>
<td>Resisting manipulation</td>
<td>This four-step approach will help you resist being manipulated by others.</td>
</tr>
<tr>
<td>Habits for individuality</td>
<td>These habits provide you with an additional way to become more of an individual.</td>
</tr>
</tbody>
</table>
The first step in becoming an individual is to admit that other people have shaped you. There’s no shame in this—it is an unavoidable consequence of living in society. When we were children, we learned by imitating other people. This happened first with our parents and relatives and later with our teachers and peers. The way we think and speak and act, even today, naturally reflects those childhood lessons. And though our imitation is less conscious and obvious in adulthood, it is no less real.

Another powerful influence is the popular culture disseminated by the communications and entertainment media, notably television. During
What is individuality?

**THE STORY OF VIKTOR FRANKL**

Viktor Frankl (1905–1997), a renowned Viennese psychiatrist, was influenced by two older Viennese psychiatrists, Sigmund Freud and Alfred Adler. Freud believed the sex drive is the strongest psychological drive in human beings; Adler believed it is the drive for power.

But Frankl eventually formed a different view—that the strongest drive in human beings is the drive to find meaning in life. His evidence came not only from the psychiatrist’s couch but also from his experiences as an inmate in Nazi concentration camps where his wife, father, mother, and brother perished.

The experience of camp life included near-starvation, lack of warm clothing, disease, hard labor, and unspeakable brutality. In such conditions, Frankl found, the sex drive and the drive for power were quickly suppressed. But the drive to find meaning in the suffering, a reason for living, remained strong.

Amid the horrors of the camps, many inmates put aside selfishness and displayed compassion and kindness toward their fellow inmates. Some even forgave their captors.

Frankl survived the camps, largely because of his determination to tell the stories of decency and nobility he witnessed and to teach others the lessons he learned about finding meaning in one’s life, regardless of one’s circumstances.

The best known of Viktor Frankl’s books, *Man’s Search for Meaning*, presents these stories and lessons. To date more than nine million copies are in print in numerous languages.

For more information on Viktor Frankl, see Viktor Frankl, *Man’s Search for Meaning*, 3d ed. (New York: Simon & Schuster, 1984), or do a Google search for “Viktor Frankl.”

In our formative years, most of us saw thousands of hours of television. Small children have difficulty distinguishing between commercials and program content, so we no doubt gave the claims of used car salespeople the same trust we gave the weather reports. In time we learned that not all the people who appear on the screen are equally believable. Yet by then most of us had become accustomed to relaxing our minds while watching TV, so we remained—and remain—vulnerable to the influences of the people who control what we watch.

Over the years those influential people have numbered in the thousands. They include the screenwriters who created TV dramas and comedies, the actors who brought the scripts to life, the newscasters
who reported the news, and the pundits and commentators who told us what it meant. Those people may have intended to do nothing more than entertain or inform us. But, whatever their intentions, they were also planting ideas and shaping our thinking and behavior in subtle but significant ways.

Suppose that you open today’s newspaper and the headlines say that a well-known person led a protest march, a politician resigned in disgrace, and a snowstorm blanketed the Midwest.

You may take it for granted that those stories represent the most important events that occurred in the past twenty-four hours. But stop and think about that. The editors who selected those stories have their own ideas of what is newsworthy, and their ideas may be debatable.

For example, many editors follow the principle, “If it bleeds, it leads,” which may not be the most responsible principle to follow. Consider, as well, that in choosing their stories, editors also chose to ignore many other stories. Did you read about the historic conference in Washington, D.C., featuring a Catholic priest, a Protestant minister, a Black Muslim, a Hindu, a rabbi, and a Buddhist talking about their common spiritual and social values? (This event took place in November 2000.) Chances are you didn’t hear about it because most editors around the country decided it wasn’t newsworthy.

The same pattern exists in book and magazine publishing. Authors are free to take any view they want about any subject. But what editors select for publication is what they think the public should know or what will sell.

Given all these influences, it is almost certain that many of the ideas, attitudes, and values you consider your own actually came from other people. “Wait a minute,” you may be saying, “How could I ever mistake other people’s ideas for my own?” The following sequence of events illustrates how this happens.

You’re watching your favorite TV series and one of the characters expresses an offhand opinion about a controversial issue, but you don’t pay much attention because you have little interest in the issue and you are busy concentrating on the story line. A few days later, you are listening to a radio talk show while doing some chores and you hear someone express the same opinion. It sounds familiar to you, but you are too involved in what you are doing to think further about it.

The following week you’re sitting with a couple of friends and the discussion turns to the very same issue. Your friends disagree about it
and then ask you where you stand. Not wanting to admit that you haven’t really thought much about it, you say the first thing that comes to mind—the opinion you heard others express.

Once you express the opinion, of course, you stop thinking of it as an opinion—it becomes your opinion, the right opinion. And the more often you express it, the more convinced you will be of its soundness, and the more passionate you will be in defending it. All this for an idea you never examined critically but merely heard others say!

Acknowledging that you have been—and continue to be—influenced by other people will motivate you to be more critical of your own ideas and more willing to reject them when they prove unworthy. It will also help you to appreciate the wisdom in C. M. Ward’s observation: “There are times when the greatest change needed is a change of my viewpoint.”

exercise 23

On a separate sheet of paper make a list of the people who have most influenced you and the specific effects their influence has had (example: “my mother’s warnings made me suspicious of strangers”). Aim to identify some less obvious influences, including some that you have never recognized before (example: your imitation of the dress and manner of a celebrity).

Understanding attitudes

Attitudes are beliefs that are expressed indirectly. We are seldom as aware of our attitudes as we are of our other beliefs. Some people’s tone of voice, mannerisms, or actions reveal that they believe they are more important than other people. They may never say to anyone, “I am more important than you,” and perhaps they don’t even think those words to themselves, but their attitude is expressed in the way they treat other people. For example, they may demand kindness, sensitivity, and loyalty from others but never reciprocate; they may break dates or change plans whenever they wish but resent their friends doing so; or they may expect apologies but never offer them.

Our attitudes are strongly influenced by our culture—that is, by the moral code, religious beliefs, political perspective, and social customs we were introduced to at home and in our community. There is nothing mystical about this influence. It can be explained by the fact that cultures differ in the behaviors they approve and disapprove and in the strength of their convictions about those behaviors.
It is well known that students in many Asian countries have a more respectful attitude toward parents and teachers than American students typically have. Some observers believe this attitude is responsible for the unusually high level of academic achievement among Asian students. Similarly, the Old Order Amish have a stricter moral and social code than most other Americans and, perhaps not coincidentally, a much lower incidence of crime.

Over the last half-century, a new kind of culture—*popular culture*—has emerged in a number of western countries, particularly in the United States. The entertainment and communications media disseminate this popular culture, and its values are very different from those of traditional culture. The result has been a “culture war” that popular culture seems to be winning.

Consider, for example, the changes in the public’s attitude toward sex and violence in media. Traditionally, most people strongly opposed the use of vulgar language and graphic depictions of sex and violence. Audiences were offended when “damn” was used in *Gone with the Wind*. Navels had to be covered in shows such as *I Dream of Jeannie*. Depictions of two people in bed, even a married couple, were outlawed for decades.

Then filmmakers and television writers began to push limits by breaking one taboo after another. As such material became more common and familiar, the public’s attitude changed. Today many people not only tolerate but expect—in some cases *crave*—a steady diet of the scandalous and the sensational. And not just from dramatic shows but also from the news! This change is but one indication of popular culture’s powerful influence on our attitudes.

Evaluating your attitudes is an important step in becoming a critical thinker. Before you can decide whether your attitudes are responsible and beneficial you must identify them. And doing so can be difficult if you are not aware that you have them. The following exercises are designed to help you identify your attitudes about some matters important in college, at work, and in personal relationships.

---

**exercise 24**

**PART I**

Record your first thought about each of the following subjects in the space provided. Respond directly and honestly. *Don’t screen out any ideas or change them to fit what you think others might want you to say.* If you turn in these exercises, be sure to save them when your instructor returns them to you.
exercise 24 (cont.)

Keeping promises


Being on time


Manners


Personal appearance


Success in life


Parents, teachers, employers


Free speech


PART II
Now evaluate what you recorded in Part I. In each case decide whether your reaction is positive, constructive, and beneficial. If it is not, explain what reaction would be better. Write your evaluation next to each entry.

exercise 24 (cont.)

Discipline

Apologizing

Excellence

exercise 25

Have you ever made, or heard others make, any of the following statements? If so, describe the occasion. Then identify the attitude each statement suggests.

“This course doesn’t matter because it’s not required for my major.”

“This instructor is assigning too much work.”
exercise 25 (cont.)

“It’s only fair for the instructor to put something on the test if she said we were responsible for knowing it.”

“If the class gets too tough I’ll drop it.”

“The reason I’m doing poorly is that the teacher doesn’t like me.”

“Students who take part in class discussions are just trying to impress the teacher.”

exercise 26

Describe your reactions to the following situations—that is, what you would typically think, say, and do. Then identify the attitude that prompts that response.

You express a point of view in a conversation and a friend disagrees with you.

You're in a large class and the teacher calls on you.

You're doing a homework assignment and are unsure how to proceed.
Four empowering attitudes

We have discussed what attitudes are and how they are acquired, as well as how you can identify and evaluate your own attitudes. Now let’s consider some specific attitudes that can help you become a critical thinker and make you more successful in your studies, your career, and your personal life.

**Attitude 1: There’s always room for improvement**

For centuries most people believed that human beings are imperfect creatures and no matter how far they advance toward perfection, there will always be room for improvement. This belief was the foundation of the concept of self-improvement. But, over the last few decades, something strange happened. Self-improvement books and tapes began to focus less on improving and more on approving. Self-acceptance became the dominant theme. Some authors even advised us to chant “I’m wonderful just as I am,” “I’m perfect,” even “I’m divine.” They told us if we acknowledged our imperfections or faults, we’d suffer a fatal loss of self-esteem.

These authors overlooked a crucial fact of life—people never strive to obtain what they believe they already have. Only a foolish person would waste time fixing what isn’t broken.

If you believe you are already filled with knowledge, understanding, and wisdom, you probably aren’t enthusiastic about your studies. Similarly, if you believe you have no personal faults—rudeness, selfishness, or meanness, for example—you probably spend little time wondering whether you have acted inappropriately. Instead, you assume that if
other people take offense at something you say or do in school, at work, or in your personal life, there must be something wrong with them.

The moment you admit to yourself that you haven’t accomplished all you have the potential to accomplish, and that you aren’t all you could be as a person, you’ll become more open to improvement.

**Attitude 2: Criticism, including self-criticism, has value**

The same influential people who claim that we are already wonderful also advise us to reject criticism from other people and even from ourselves. Many of us follow this advice and assume that anyone who criticizes us is disrespecting (in popular parlance, “dissing”) us. We expect total acceptance from other people; that is, unqualified agreement with what we say, and praise for what we do. And if we don’t get it, we are offended.

Such an attitude is unrealistic. Think of any learning situation you have been in—learning how to ride a bike, drive a car, play a team sport, write an essay, or perform a new procedure at work. In all of these cases, you probably had a parent, teacher, coach, or mentor saying, “No, that’s not the way,” and offering suggestions for doing it right. (Even if you learned by yourself, you told yourself something similar.)

If you rejected the criticism, you probably had difficulty learning. In fact, you may not have learned at all. Athletic coaches describe people in the latter category as “uncoachable” and often drop them from the team, even if they have significant athletic potential. On the other hand, if you put aside ego, accepted the criticism, and followed the advice, you probably learned faster and better.

Do some people criticize too much or do so in an inappropriate way? Yes they do, and the best way to deal with this is to accept only the valid part of the criticism and ignore the rest. Can self-criticism be carried too far, to the point that paralyzes effort? Yes again, but this consequence can be easily avoided. Just keep your self-criticism focused on the positive goal of doing better next time.

**Attitude 3: Effort is the key to success**

Many people have the attitude that success is solely dependent on talent. For example, when others get better grades in college, they think, “I wish I were that smart.” When they see accomplished athletes perform, they say, “It must be nice to have such natural ability.” When they read of people who have been successful in business, the professions, or the arts, they say, “I wish I had their gifts.”

That attitude is mistaken. Talent is a factor in performance but it is not the only factor. Two others are desire and effort. Moreover, these two are more important because you can control them. People with only
modest talent who really want to learn something and are willing to work hard often surpass more talented people who lack their desire and initiative. And with achieving a hard-earned goal comes the exciting realization that their talent was greater than they imagined.

According to Thomas Edison, one of the greatest inventors of all time, “Genius is 1 percent inspiration and 99 percent perspiration.” Making this your attitude will bring out the best that is in you and, in the process, produce the healthiest kind of self-esteem—earned self-esteem.

**Attitude 4: Other people are as important as I am**

Modern culture has conditioned us to be more concerned with rights than with responsibilities. Given this emphasis, it is understandable that many people who believe they should be treated well feel no obligation to treat others similarly.

In sharp contrast to this self-serving attitude is the attitude embodied in the traditional view of the “gentleman,” as expressed in the following quotations from *A Gentleman’s Code According to Confucius, Mencius, and Others*.

A gentleman daily examines his personal conduct on three points: In carrying out the duties entrusted to him by others, has he failed in conscientiousness? In dealing with his friends, has he failed in sincerity and faithfulness? In all his dealings, has he failed to pass on whatever he has learned which may assist others?—Confucius

A true gentleman helps others to realize what is good in them; he does not help others to discover their weaknesses and failings.—Confucius

A gentleman sets strict standards for himself, but makes allowances for others.—Confucius

A gentleman tries to banish from his bearing all traces of violence and arrogance, to remove from his actions all insincerity, to purge from his speech all vulgarity and impropriety.—Confucius

A gentleman is one who thinks more of other people’s feelings than his own rights; and more of other people’s rights than his own feelings.—Matthew Henry Buckham

One of the marks of a gentleman is his refusal to make an issue out of every difference of opinion.—Arnold H. Glasgow

This is the final test of a gentleman; his respect for those who can be of no possible service to him.—William Lyon Phelps

... It is almost a definition of a gentleman to say he is one who never inflicts pain.—John Henry, Cardinal Newman
All these quotations embody the attitude that other people are as important as we are and therefore deserving of the same level of respect we wish for ourselves. Far from being a mark of weakness, this attitude will gain you respect and admiration.

**Recognizing manipulation**

Manipulation is a form of influencing. What distinguishes it from other forms is that it uses *dishonest* means. Among the most common of those means are biased reporting, dishonest appeals to emotion, stacking the deck, suppressing dissent, and repetition. Let’s look at each in turn.

**Biased reporting**

A number of books have been written on the subject of biased reporting, including *Bias* and *Arrogance* by Bernard Goldberg and William McGowan’s *Coloring the News*. But the book that provides the most useful insights is Bob Kohn’s *Journalistic Fraud*. Kohn focuses his analysis on a single newspaper, the *New York Times*, because it has long been regarded as the “journal of record” and because it is the single most influential news source in the western world. In this country alone, more than 650 other newspapers subscribe to the *Times*’s news service, and many broadcast news organizations lean heavily on its news reports.

As Kohn notes, codes of journalistic ethics used to require that opinion be confined to the editorial page. A 1923 code stated: “News reports should be free from opinion or bias of any kind.” A journalism textbook written the same year taught that “a news article should tell what happened in the simplest, briefest, most attractive and accurate manner possible; it should draw no conclusions, make no gratuitous accusations, indulge in no speculation, give no opinions.” For years, the *New York Times* endorsed that standard, promising to “give the news impartially, without fear or favor, regardless of party, sect or interests involved.”

According to Kohn, the *Times*, and many other news agencies, no longer follow that standard. As a result, much of today’s news unfairly favors the particular news agency’s or individual reporter’s point of view. Such bias can take a variety of forms, notably the following:

**Biased headline.** Let’s say the Senate votes 93 to 7 in favor of a health care bill. A fair headline would be “Senate Passes Health Care Bill.” A reporter or editor who disapproved of the vote might substitute this biased headline: “Opinion Divided on Health Care Bill.”

**Biased “lead.”** The term *lead* refers to the opening sentence or sentences of a news story. A fair lead simply states who did what, as well as when and where the event occurred. An unfair lead injects opinion
in an attempt to influence the reader’s reaction to the news. For example, if a government commission issued a proposal and the reporter didn’t like it, he or she might begin, “In a move sure to create controversy. . . .” The bias in this case is that instead of reporting, these words predict a future event which may or may not occur.

**Biased reporting of polls.** Fair reporting is evenhanded in presenting the results of polls. In contrast, biased news reporting is inconsistent. If the news agency agrees with the results, it puts the story on the front page. If it disagrees, it buries the story or, in extreme cases, omits it altogether. In some instances, a news organization will itself commission a poll or study and, when the results are disappointing, decline to publish it.

**Biased handling of quotations.** Readers have a right to expect that the quotations used in news stories will fairly depict the range of viewpoints on the subject. Unbiased reporters strive to meet that standard. However, biased reporters try to advance their own personal opinions. One way is to include numerous strong quotations on their side of the issue and only one or two, preferably weak, quotations on the other side.

A more blatant approach is to include no opposing quotations at all and thus create the impression that no responsible person would take the opposing side of the issue. The most dishonest approach is to twist a quotation so that it seems to say something very different. For example, if the quotation were “I initially had some reservations about the program, but after examining it closely I believe it is excellent,” a dishonest reporter might merely say that the person expressed “some reservations” about the program.

Even journalists who sincerely desire to report objectively are sometimes tricked into using biased material. As former activist Tammy Bruce explains in her book *The New Thought Police*, reporters get much of the information they use in their news accounts from “the press releases sent to them by publicists, activists, and politicians.” According to Bruce, such people don’t even call the propaganda they write “press releases” any more. They call them “news releases” to make them sound like objective information.

Keep in mind that biased reporting is not limited to one political, religious, or philosophical perspective. It is no less manipulative if done by people on your side of the issue than if done by people on the other side.

**Dishonest appeals to emotion**

We react to language not only with our intellects but also with our emotions. Some words evoke emotion more than others. For example, we react more emotionally to “home” and “family” than to “state” or
“government”; to “values” and “beliefs” more than to “concepts” or “ideas”; to “freedom” and “liberty” more than to “constitutional guarantees.”

Emotional language has great value—it has the power to elevate our vision, reinforce important principles, and inspire responsible action. Virtually all of the great writers and speakers in history have used emotional language for such purposes, and we are fortunate for that. Without such language, communication would be mechanical, lifeless, dull, and ineffective.

Unfortunately, emotional language can also be used to manipulate us. Devious people would prefer to have others accept what they say uncritically and to act in conformity with their wishes. They choose language to elicit positive emotional responses to ideas and people they support and negative emotional responses to those they oppose. Such attempts at deception can be found in every area of life, but they are especially prominent in politics. Former White House advisor Dick Morris says that today’s political speeches are like collections of “greatest hits”—the speakers do studies to find out what they public wants to hear and then say it.

It is not always easy to tell when an appeal to emotion is dishonest. However, you can be reasonably sure that it is dishonest when writers or speakers routinely use highly favorable terms to describe their side of the issue and highly unfavorable ones for the opposing side. Dishonest speakers will call people who agree with their position “moderate,” “centrist,” “progressive,” or “pragmatic” and call people who disagree “radical,” “extremist,” “divisive,” or “partisan.” Deceptive writers will excuse serious mistakes by leaders they approve of while condemning minor mistakes in others. They will ascribe high intelligence and noble motives to those who agree with them and low intelligence and devious motives to those who disagree.

Stacking the deck

The term stacking the deck derives from card games in which the dealer arranges the cards to cheat one or more of the players. This form of manipulation often occurs on TV talk shows about controversial issues.

A typical format features a host and two guests with different views of an issue. Fairness demands that the host remain neutral and give each guest an equal opportunity to present his or her case. Sometimes, however, the host will become a participant in the discussion, thus creating a two-against-one situation. Even more unfair is the practice of choosing guests of unequal stature and ability—in other words, inviting a well-known, highly accomplished person to represent the favored
view and a relative unknown to represent the unfavored view. If, by chance, the relative unknown seems to be getting the better of the discussion, the host will give him or her less time to speak.

**Suppressing dissent**

For all its deviousness, stacking the deck at least acknowledges that there is an opposing view. Suppressing dissent, on the other hand, creates the impression that *there is no opposing view*. A good illustration of the effectiveness of this technique is a personal experience Tammy Bruce describes in *The New Thought Police*.

Bruce is a gay feminist who was once the President of the Los Angeles chapter of the National Organization for Women (NOW). In her ten years as an activist, she had no difficulty getting her essays published in the *Los Angeles Times*. Whatever she submitted was always accepted.

Then Bruce became disturbed at what she perceived to be the unfair treatment of Dr. Laura Schlessinger by other gay activists. She composed a short commentary expressing that view. The *Times* held it for three weeks and when she called to ask what was happening, she found an editor had decided not to publish it, essentially because it was on the “wrong” side of the issue. Next, Bruce submitted the commentary to the *New York Times*, where she got an enthusiastic reception. However, they edited it in such a way that it was against Dr. Schlessinger rather than for her. She refused to accept the changes, so the commentary was never published.

The newspapers’ refusal to publish Bruce’s commentary as she wrote it amounted to a suppression of dissent. As a result, readers of those newspapers were led to believe, erroneously, that no one in the gay community supported Dr. Schlessinger.

**Repetition**

One of the simplest and most effective techniques of manipulation is simple repetition. The more familiar an idea is, the more people tend to believe it. Realizing this, spinmeisters and hucksters repeat their lies and distortions over and over to trick us into accepting them. Of course, honest people also repeat what they believe to be true. In either case, we have to decide whether what is repeated is true.

For example, during the election campaign of 2004, Senator John Kerry’s opponents kept repeating, “It’s impossible to tell where he stands because he takes *both* sides of every issue.” And after Saddam Hussein was deposed, President Bush’s opponents repeated, “Bush lied about weapons of mass destruction.” In both cases, the people who made these statements were trying to persuade others. The public had to decide whether the statements represented honest persuasion or manipulation.
Given the number of individuals and groups eager to manipulate you and the many means at their disposal, it is important to have an active strategy for resisting their efforts. The following strategies are especially helpful:

**Step 1: Be prepared**
Manipulation does the greatest harm when you are unaware it is occurring. Therefore, the surest way to avoid its influence is to expect to encounter it whenever you read a book, magazine, or newspaper, whenever you see a movie or TV show, and whenever you listen to the radio, visit the Internet, or engage in a discussion. This doesn’t mean you need to be suspicious of everyone, just be aware that misinformation and lies can be spread in much the same way that computer viruses are spread—by honest people who have themselves been fooled.

Being prepared means remaining alert for signs of manipulation. For example, when you read or watch the news look for biased reporting. When you watch a talk show (or even a drama or sitcom) look for dishonest appeals to emotion, stacking the deck, and repetition. Suppression of dissent is hardest to detect. Instead of looking for what is present, you must look for what is absent—that is, what has been purposely omitted. Keep in mind that there are two (or more) sides to every controversy. Whenever you are presented with only one side, you may reasonably conclude that the other has been suppressed.

**Step 2: Ask questions**
We all start out life with abundant curiosity. Because everything is new to us, we are filled with wonder and constantly asking questions, especially “What is that?” “Why is it that way?” and “What does it mean?” Unfortunately, our parents and teachers get tired of answering, so we stop asking and our curiosity eventually shrivels.

Happily, curiosity can be reactivated. Begin by forcing yourself to ask probing questions about what you see and hear. Do so with everyday matters as well as with controversial situations. In time, wondering will
become a habit. Here are some sample situations and kinds of questions you might ask:

**SITUATION**
You are sitting with some friends in the campus cafeteria. One of your friends is expressing dissatisfaction. She says: “I’m disappointed with the instructors at this college—they seem content to offer uninteresting courses. For example, they stand at the lectern and lecture all period without enthusiasm for their material. On the rare occasions when they open discussion to the class, they call on the same few students. The rest of us have to sit squirming, waiting for the boring ordeal to be over.”

**QUESTION**
As she is speaking, ask yourself these questions: How likely is it that your friend knows all or most of the instructors at this university? How likely is it that all or most of the instructors teach strictly by lecture and without enthusiasm? Why are the same few students always called on (assuming this claim is accurate)? Do these students raise their hands and show an interest in the questions? Do other students, including your friend, ever volunteer a comment or question? Are all but a few students at this college really so bored, or is your friend projecting her reaction on them? Is it possible that the students who squirm have overly negative attitudes? Is it the instructor’s responsibility to make a class interesting? Do the students bear any responsibility?

**SITUATION**
While driving through a rather rundown neighborhood, you pass a house with a sign advertising psychic services. It reads: “Madam X. Palm readings, Tarot cards, Your future foretold!”

**QUESTION**
As you drive by, ask yourself: What could a psychic accomplish if she used her powers to better herself? Wouldn’t she be able to make a fortune at the racetrack or in the stock market or the lottery and afford to live in the most exclusive section of town? So why isn’t she living in a better section of town? Could it be that she has too much integrity to use her powers for her own advantage? Might she instead be a charlatan?

**SITUATION**
While reading the newspaper, you notice this advertisement: “Good news! Due to the unprecedented success of our giant end-of-year furniture sale, we have extended it for ten days.”

**QUESTION**
You pause in your reading and ask yourself: How would the store have looked after a successful sale? Would the stock be noticeably depleted?
Would the store be empty of furniture? If they did sell most of the furniture, why do they need to extend the sale? And where are they getting the furniture for the extended period? Was the sale, instead, such a flop that they were left with a store full of merchandise and they have to extend the sale to get rid of it? If so, why didn’t the furniture sell? Were the prices too high? Is the quality too low? How do competitors’ prices compare?

SITUATION
You are reading a magazine article about the violence that sometimes occurs at heavy metal rock concerts. The author says that it’s unfair to blame the violence on the musicians or the music, and then asserts that human beings are naturally violent.

QUESTION
You ask yourself: What other kinds of musical events might be compared with heavy metal rock concerts? Square dances, polka or bluegrass festivals, or operatic performances? Have I ever seen a newspaper headline such as “Riot Mars Pavarotti Performance” or “Rowdy Polka Contestants Attack Bystanders”? If violence is due to human nature, then shouldn’t it be found in all societies and all groups within a society? How common are incidents of group violence in Europe, Asia, or Africa? For that matter, how common is violence among Amish groups in the United States?

exercise 28
On a separate sheet of paper, identify a recent situation involving something you saw, heard, or read that you might have probed more deeply. Ask appropriate questions about the situation in the manner shown above.

Note: The next exercise will build on this one.

Step 3: Be imaginative
Two ways to be imaginative were illustrated in Step 2. One was creating a mental picture of how the store would look after a successful sale. The other was producing relevant examples—the examples of the race-track, stock market, and lottery in one situation, and musical events, newspaper headlines, and comparisons with Europe, Asia, and the Amish in the other situation.

Another way to be imaginative is to create realistic scenarios. Suppose the issue in question is whether or not television has had a
THE STORY OF NELLIE BLY

Her real name was Elizabeth Cochrane and she was born in 1867 in Pennsylvania. When she was 6 years old her father died and her mother had to raise Elizabeth and her fourteen brothers and sisters by herself. At 16 Elizabeth moved to Pittsburgh to find work. One day in 1885 she read a newspaper article advancing the traditional argument that “a woman’s place is in the home.” She wrote a response which so impressed the editor that he hired her. She then took the name Nellie Bly and began her remarkable career.

Nellie had an active, inquiring mind that served her well in her specialty, investigative reporting. She wrote articles on marriage and divorce, and helped to initiate important legal reforms. She traveled in Mexico and wrote about exposing the political corruption and widespread poverty. She had herself committed to a New York asylum for ten days so that she could expose the terrible conditions and the inhumane treatment of the inmates. Later she traveled around the world hoping to set a new speed record. (She succeeded.)

Nellie left journalism to marry an industrialist. When he died ten years later, she took over control of his company and won praise for her enlightened treatment of her employees. At a time when workers typically labored long hours in unhealthy sweatshops for low pay, she provided her workers with health care, libraries, and gymnasiums.

Eventually, Nellie returned to reporting. While she was on holiday in Europe, the First World War broke out, and she immediately volunteered to be a war correspondent for the New York Journal. She became the first female correspondent to cover a war from the front lines. After the war, Nellie returned home and wrote a newspaper column until her death of pneumonia in 1922.

For more information on Nellie Bly, see www.library.csi.cuny.edu/dept/history/lavender/386/nellie.html.

harmful effect on communication in families. Here are three realistic scenarios you might imagine:

1. It’s dinner time and the family is gathered at the dining room table. The television set is positioned so that everyone can see. All eyes are glued to the set. The only sounds that can be heard, other than those coming from the TV, are the occasional comments: “Pass the potatoes,” “Is there any more meat in the kitchen?” At one point someone says, “Guess what happened to me today?” And everyone else says in unison, “Sshhhh.”
2. It’s dinner time and the family is gathered in the living room, each behind a TV tray. No one looks at or speaks to the others.

3. Dinner is over, the dirty plates are in the dishwasher, and each member of the family has headed to a different corner of the house and his or her own TV set.

These scenarios would suggest questions and insights about the effect of television on communication in families.

A fourth way to be imaginative is to construct a new viewpoint. This approach works well in situations in which you are being pressured to adopt one of two positions on an issue, neither of which is completely satisfactory. For example, let’s look at the issue of whether the Ten Commandments should be displayed in public school classrooms.

*The “Pro” viewpoint:* The Ten Commandments SHOULD be displayed because they are honored in two of the world’s great religions, Judaism and Christianity; they express the religious and moral sentiments of the vast majority of Americans; and they provide an ethical dimension that many think has been sadly lacking in recent decades.

*The “Con” viewpoint:* The Ten Commandments SHOULD NOT be displayed because they are not honored by people of other faiths and those of no faith; their presence in the classroom would give favored status to Judaism and Christianity, status the Constitution forbids; and the ethical dimension the Commandments provide is necessarily a form of religious doctrine.

By being imaginative, you could construct a view that may be more reasonable than either the “pro” or the “con” view.

*The Ten Commandments SHOULD be displayed, along with any similar codes from other religious or philosophical traditions, including agnostic or atheistic, because knowledge of the principles that have guided human conduct in various times and places is as valuable as knowledge of diverse cultures and customs and because the display of many codes would favor none.*

**exercise 29**

Apply your imagination to the situation you identified in the previous exercise, using one of the techniques discussed in Step 3. In other words, create a mental picture, produce relevant examples, create a realistic scenario, or construct a new viewpoint.
Step 4: Check sources

Did you hear about the high school student from India who proved Albert Einstein wrong and is being considered for a Nobel prize in physics? Have you read about the recently discovered 1895 eighth-grade examination proving that students back then were far superior academically to today’s students? Both these stories, and many others that may be waiting right now in your e-mail box, are false rumors or hoaxes. They often come to you from people you know, sometimes from individuals who are usually alert but from time to time fail to check before passing a story on.

Whenever you encounter an interesting story or a startling claim, try to determine where it came from. If you encounter it in your reading, look for source citations such as footnotes or endnotes. In magazines and newspapers the sources are often mentioned in the article itself. Be wary when no sources are mentioned or they are identified only as “knowledgeable people” or “individuals who prefer to remain anonymous.”

If people you know tell you the story or make the claim, ask where they encountered it. If they read it somewhere, ask where; if they heard it from someone, ask whom. Don’t be surprised if they can’t say—they may have assumed it was true and never checked it.

If the source is provided, check it. If no source is given, check with an appropriate source. For example, check a health claim with a medical organization and a story about pending federal legislation with your congressional representative’s office. The following websites are especially helpful for checking rumors and hoaxes:

Hoaxbusters: http://hoaxbusters.ciac.org
Truth or Fiction: www.truthorfiction.com/
Habits for individuality

At the beginning of this chapter, we noted that we are not born with individuality but, instead, with the potential to develop it. We then discussed a number of ways for you to develop that potential—by acknowledging how other people influence you, by adopting positive and constructive attitudes, and by recognizing and resisting manipulation.

This section explains an additional way to develop your individuality—by cultivating the habits associated with critical thinking, the most important of which are these:

**Be wary of first impressions**

A taxicab driver who prided himself on his ability to spot (and avoid) suspicious people related this experience. While passing a posh hotel, he noticed someone waving for his attention. The man was dressed in a suit, an expensive-looking topcoat, and a fedora, and he carried a leather briefcase. The driver’s impression couldn’t have been more positive, so he stopped and picked him up. A few minutes later, the man opened his briefcase, took out a pistol, and said, “Give me all your money.”

Not all first impressions are mistaken, but many are. The person who seems self-absorbed and rude may turn out to be exactly the opposite when you get to know her. The person you take an instant dislike to may, in time, become your best friend. On the other hand, the one you reactive most positively to at first may eventually disappoint you. Sadly, many “love at first sight” relationships have ended in divorce court.
good thinking!

THE STORY OF STEPHANIE KWOLEK

Many a police officer’s and soldier’s life has been spared because of a bullet-stopping Kevlar vest. Kevlar has also proved useful for bridge cables, auto brakes, boats, parachutes, truck and bicycle tires, skis, gloves, and spacecraft—in all, about 200 specific applications. The credit for this remarkable material goes to a woman who took a job as a chemist in DuPont’s research laboratory in order to earn money for medical school—Stephanie L. Kwolek.

Kwolek’s interest in science was nurtured by her father, who encouraged her to explore the wooded areas near Pennsylvania home. In growing up, she had many other interests, notably fashion design and teaching math to neighborhood children. When she finished college with a chemistry degree she joined DuPont and began working in the Pioneering Research Library, attempting to find “new ways of making polymers.” The result was “hundreds of thousands of polymers that could not be made by the old methods,” including Orlon and Lycra.

One particular project involving “high-performance fibers” was offered to a number of researchers, but they all declined. Kwolek, however, accepted and began a variety of experiments. In each case, she sent the resulting material to the laboratory for testing. One material produced such amazing results that she sent it back to the lab several times to be sure they were not in error. That product was Kevlar.

Stephanie Kwolek never did make it to medical school, but the patent Stephanie Kwolek received for Kevlar, as well as those for sixteen other inventions, won her entry into the National Inventors Hall of Fame in 1995. Some time later, an interviewer asked Kwolek to explain what qualities made her so successful. She cited her love of chemistry and her dogged refusal to give up when faced with a challenge.

For more on Stephanie Kwolek, see http://web.mit.edu/invent/www/ima/kwolek_intro.html.

The problem does not lie in forming first impressions. (We couldn’t avoid doing so even if we wanted to.) It is, instead, in trusting them so much that you close your mind to later perceptions. This habit increases your vulnerability to manipulation and the pressure to conform.

The solution to this problem is to give as much consideration to subsequent impressions and to be willing to change your mind when experience warrants your doing so.
Be honest with yourself

One of the most memorable lines in philosophy is the directive “Know thyself.” The key to following this wise advice is to be completely honest with yourself. This is not as easy as it sounds. It means facing a number of unpleasant truths, notably the following:

- Much that we blame on others is really our own fault.
- When we deny our mistakes, we compound them.
- Others can usually see our faults better than we can.
- Most of us tend to be too concerned about our rights and not concerned enough about our responsibilities.
- Much that we think we know, we really only guess or assume.

The first step in self-improvement is admitting the need for it.

Fight confusion

Like everyone else, critical thinkers are sometimes confused. What sets critical thinkers apart is that they respond actively to confusion. For example, if the meaning of a sentence escapes them, instead of just accepting confusion, they consider a number of possible meanings and then choose the most likely one. And if a question arises and they don’t know the answer, they look in a reference book or check with an authority to find it.

How might you apply this approach? Suppose you are somewhat puzzled by this proverb: “The girl who can’t dance says the band can’t play.” You might wonder if the reference here is just to dancing or to other situations as well. Just how broad is its meaning? Then you would consider how the proverb might apply to other situations, such as a small boy having trouble catching a ball and blaming the thrower or a student having trouble with a course and blaming the teacher. Finally, you would conclude that the proverb refers to any situation in which people tend to blame others for their own shortcomings.

Produce many ideas

Many people are idea-poor. When confronted by a challenge, they embrace the first response that pops into their minds, often one that they have seen in print or heard on television. With that approach, the odds of their producing insightful ideas are slender.

Consider this example. When the price of a postage stamp was increased by three cents, people needed to combine older stamps with three-cent stamps for the correct postage. The lines at post offices in some areas were unusually long, and the demand for three-cent stamps quickly exceeded the supply. One reason was that some people bought many more stamps than they needed. For example, people who needed
ten three-cent stamps bought fifty or 100. (Perhaps they believed the stamps would increase in value.)

It got even sillier. One man entering a post office saw the sign “Sorry, we’re temporarily out of three-cent stamps.” He grumbled in displeasure and said as he walked away, “I’ve driven to four post offices and they’re all out of stamps. Now I’ve got to try a fifth.” Apparently he never considered other options. He could have walked up to the window, bought some four-cent stamps—plenty were available—and mailed his letters.

To avoid such embarrassing mistakes, produce lots of ideas before embracing any specific one. Extend your effort to identify possibilities. A helpful technique is springboarding. Here’s how it works: Think of an idea and write it down. Don’t worry about writing complete sentences; a word or short phrase will do. Resist the urge to dwell on details. Use one idea to propel you to others. To keep the process going, end each item in your list with the word and.

Let’s say that the subject you are addressing is students’ attitudes in class. Your list of ideas might be as shown in the box on this page. The cue questions are in boldface.

What Attitudes?
disinterest in class and hostility to the teacher and . . .

Are There More?
disapproval of students who speak and uncooperativeness in class discussion and disrespect for other students and . . .

How Are Attitudes Revealed?
smirking and whispering while others are talking and arriving late for class and making rude remarks and doing unrelated things like cleaning nails and . . .

Why Do Students Do These Things?
to maintain a “tough” image and to hide fear of failing and to make teachers uncomfortable and . . .

What Are Some Favorable Attitudes?
cooperativeness and willingness to listen to others’ viewpoints and patience when the discussion gets complex and . . .

How Are These Attitudes Revealed?
looking at the person speaking and waiting for her to finish before you speak and refraining from side discussions and emphasizing the positive and . . .

This list could be continued. You could think about how some students develop positive attitudes and others develop negative ones. Or you might explore how teachers can effectively deal with students who have negative attitudes.
Keep a pen and paper or a micro-tape recorder handy to record ideas as they come to you. Send yourself a text message on your cell phone. Chances are you’ll be rewarded with many more ideas.

**Acknowledge complexity**

In controversial issues the truth is often complex. Unfortunately, those are the very issues in which we are tempted to oversimplify. For example, when the issue of the integrity of politicians arises, we may immediately think “They’re all crooks and hypocrites.” Actually, this thought is inaccurate and irresponsible. Some politicians may be dishonest and hypocritical but many, arguably most, aren’t. Moreover, the challenge of balancing the needs of different constituencies may create the appearance of dishonesty where it does not exist. Fairness demands that each politician be judged individually and on the basis of careful analysis, not preconceived notions.

Before you judge any issue, consider whether it may be more complex than it appears. And if it is, make your judgment reflect that complexity.

**Look for connections among subjects**

Over the centuries, educators found it convenient to divide human knowledge into various subject areas and to assign each to a separate academic department. There are English departments, history departments, chemistry departments, and so on. An unfortunate and unintended consequence of such division is the tendency to consider each subject area as totally unrelated to other subject areas.
In reality, the principles, concepts, and strategies learned in one subject often apply to other subjects as well. Moreover, most serious problems touch many subject areas. AIDS, for example, creates not only medical challenges but psychological, legal, and moral challenges as well. The more open you are to the relationships that exist among subjects, the more you will be rewarded with new insights.

Consider other viewpoints
To many people, intellectual independence means ignoring other people’s views. This perspective hinders learning. Life is too short for learning solely through your limited experiences. By adding other people’s ideas and experiences to your own, you will be able to broaden and deepen your knowledge, and do so more quickly than you would otherwise. In the process you will often gain valuable insights.

Could openness to other people’s viewpoints cause you to lose your intellectual independence? Yes, but only if you accept their views uncritically. As long as you test their ideas before accepting them, you will have nothing to fear.

The contribution of psychologist Carol Tavris to our understanding of anger provides a good example of openness to all views PLUS critical thinking. She began her work by considering the widespread belief that expressing anger openly makes us feel less angry. But she didn’t stop there. She also considered dissenting views and thought critically about all her findings. Ultimately, she decided that expressing our anger tends to reinforce and even intensify it. Tavris presented this view in her insightful book, *Anger: The Misunderstood Emotion*.

Base your judgments on evidence
What made Carol Tavris’s book on anger so valuable was not that her judgment was original but the impressive amount of persuasive evidence—based on scientific research—that supported it. That is not surprising—the real measure of any viewpoint is how well it fits reality and that is determined by the amount and the quality of the evidence.

Unfortunately, many people ignore the need for evidence. They typically form judgments first and seek support for them later. The support they end up with is often nothing more than wishful thinking or foolish excuses. For example, some people say, “I smoke because science hasn’t conclusively proved that it is harmful,” “I don’t use sunscreen because I’m not susceptible to skin cancer,” or “I don’t wear seatbelts because I don’t want to be trapped in case I get in an
accident.” All three statements conveniently ignore the considerable evidence supporting the opposite view.

We humans are a proud species. Once we form a judgment, even a careless one, we are reluctant to change it because doing so means admitting a mistake. The best way to prevent pride from blocking insight is to keep your judgment tentative until you have examined the evidence.

exercise 32

Using the approaches you learned in this and previous chapters, evaluate each of the following passages. In the space provided state and briefly support your conclusion.

“I’m fascinated with the future because the future is where we’re going to spend the rest of our lives.”

________________________________________________________
________________________________________________________

A television commercial for a used car sales agency says, “We’ll cosign your loan even if you’ve had a bankruptcy. That’s because we take the trouble to handpick and inspect these cars before you even see them . . . . We guarantee financing because we only sell quality cars.”

________________________________________________________
________________________________________________________
________________________________________________________

A guest on a self-help radio program says, “In my counseling practice, I advise my clients to replace all their negative thoughts with positive ones. In other words, if they think ‘I’m impatient,’ they should say, ‘No, I’m patient.’ ‘I’m clumsy’ becomes ‘I’m graceful,’ and ‘I’m a poor athlete’ becomes ‘I’m an excellent athlete.’ I tell them that whatever they believe themselves to be, they will be.”

________________________________________________________
________________________________________________________
________________________________________________________
When Budweiser Dry beer was introduced, a series of television commercials appeared with the tag line “Why ask why? Try Bud Dry.” The structure of the ad was to raise a few questions, such as “The Mona Lisa has no eyebrows. Why?” and “Chickens have no lips. Why?” and then to recite the slogan, “Why ask why? Try Bud Dry.” Was this advertisement manipulative? If so, in what way? What harmful effect, if any, might it have had?

**exercise 33**

On a separate sheet of paper express a tentative opinion about each of the following issues. Then ask pertinent questions about what you have written, apply the techniques of imagination, and check the sources of your information. If your information is inadequate, do further research on the Internet or in the library. Finally, revise your view, as necessary, to make it reasonable.

- Can animals think?
- Should gambling be legalized?
- Should teachers be allowed to spank elementary school children who misbehave in school?
- Do smokers tend to discount the evidence that smoking can kill them?
- Should the government assume control of the Internet, deciding who can have access and under what conditions?
- Is it wrong to criticize another person’s view of a controversial issue?
- Is it acceptable to subject animals to painful experiments in order to find cures for diseases?
- Is it possible for atheists to be as moral as religious believers?
### exercise 35

What lessons can you draw from the “Good Thinking!” profiles of Viktor Frankl, Nellie Bly, and Stephanie Kwolek presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.

### exercise 36

In light of what you learned in this chapter, what do you believe is the greatest obstacle to individuality facing young people today? Meet with a group of two or three classmates and discuss your individual answers to this question and the reasoning that underlies those answers. During this meeting make a special effort to apply the strategy for group discussion.
1. What is the first step in becoming an individual as explained in this chapter?

2. Most of us were, and still are, vulnerable to the influences of other people. True or false? Explain your answer.

3. What is an “attitude”?

4. The chapter uses the term “culture war.” Define that term and identify the parties to the conflict.

5. State the four “empowering attitudes” discussed in the chapter.

6. How does manipulation differ from other influences?

7. Name two forms of manipulation and explain why we should resist them.

8. Identify the steps in the strategy suggested for resisting manipulation.

9. List three habits for individuality and explain why each is important.

Answers to this quiz may be found online.
## IN THIS CHAPTER

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is an argument?</strong></td>
<td>An argument is the presentation of a point of view in the hope of persuading others.</td>
</tr>
<tr>
<td><strong>Conducting library research</strong></td>
<td>These tips will help you find information in the library.</td>
</tr>
<tr>
<td><strong>Conducting Internet research</strong></td>
<td>These tips will help you find information on the Internet.</td>
</tr>
<tr>
<td><strong>Conducting an interview</strong></td>
<td>These tips will help you acquire information in meetings with knowledgeable people.</td>
</tr>
<tr>
<td><strong>Avoiding plagiarism</strong></td>
<td>Plagiarism is passing off other people’s ideas or words as one’s own. It both steals and deceives.</td>
</tr>
<tr>
<td><strong>Revisiting evidence</strong></td>
<td>This expanded discussion of evidence will help you ask the right questions when you analyze arguments.</td>
</tr>
<tr>
<td><strong>Evaluating complex arguments</strong></td>
<td>This section reveals how conducting research fits into the thinking strategy discussed in Chapter Two.</td>
</tr>
<tr>
<td><strong>A caution about bias</strong></td>
<td>In evaluating an argument, the greatest obstacle to critical thinking is your own bias.</td>
</tr>
</tbody>
</table>
What is an argument?

The word argument is sometimes used in the sense of “quarrel”—that is, a dispute characterized by angry exchanges. We will use the term differently, to mean the statement of a point of view and the evidence that supports it in a way intended to be persuasive to other people. Candidates for political office argue when they present their positions on issues. Lawyers argue when they try cases in court. Scholars in various academic fields argue when they offer new theories or interpretations. Students argue when they take a position on an issue in class discussion or answer an essay question that calls for judgment.

An argument expresses a “line of reasoning,” which may be thought of as a kind of equation, such as $a + b = c$. In a verbal argument, $a$ and $b$ would be statements (called premises) that are presented as true; $c$ would be the conclusion that is represented as following logically from those statements. If the statements presented as true are indeed true, and the conclusion follows logically from them, then the argument is sound. If one or more of the statements (premises) are false, the argument is not sound, even though the conclusion may follow logically from those statements. An example using mathematical calculations will make these distinctions clearer:

**Example:** Statement **A:** Our business took in $10,000 in receipts last week. **Statement B:** Our business also had $8,000 in payroll and expenses. **Conclusion C:** Therefore, our net profit for the week was $2,000.

**Comment:** If the figures of $10,000 and $8,000 are correct, the profit is in fact $2,000. But suppose that one of the figures is inaccurate, for instance, that the receipts were only $9,500. In that case, the conclusion is mistaken, even though the calculation made with the stated figures is correct.

Arguments can vary in length from a single sentence to a brief essay or even to a 100,000-word book. The simplest kinds of arguments consist of stating what we think and why we think it. More complex arguments contain a network of assertions or claims, together with supporting data. Chapter Two discussed simple arguments; this chapter will focus on complex arguments.

Logic offers numerous rules for deciding whether an argument is sound. Those rules are beyond the scope of this book. We will continue to focus on the most fundamental test—whether the argument can be demonstrated to be more...
reasonable than competing arguments. And we will continue to use the comprehensive thinking strategy presented in Chapter Two. However, in this chapter that strategy is modified to reflect the special challenge presented by complex arguments. This modification will enable you to become as proficient in analyzing those arguments as you have become in analyzing simple ones. Here is a comparison of the earlier strategy and the new one:

**ORIGINAL STRATEGY (CHAPTER TWO)**

Step 1: Identify facts and opinions
Step 2: Check the facts and test the opinions
Step 3: Evaluate the evidence
Step 4: Make your judgment

**REVISED STRATEGY**

Step 1: Identify facts and opinions
Step 2: Check the facts and test the opinions
Step 3: Conduct research
Step 4: Evaluate the evidence
Step 5: Make your judgment

We will return to the revised strategy later in the chapter, after discussing library and Internet research and expanding our treatment of evidence. Let’s begin with research.

**Conducting library research**

Research is merely a matter of finding information, and all that is necessary to do that, in any given situation, is to identify relevant sources of information and then consult them. Following are the most basic

“We have lots of information technology. We just don’t have any information.”

Imagine how difficult it would be to use a library if there were no system for shelving the books. If you wanted a particular book, you’d have no idea how to find it. It might be on the top shelf of aisle one, the bottom shelf of aisle forty, or anywhere in between. The larger the library, the more difficult it would be to use. A large university library would be virtually impossible to use.

The situation was never that bad, but up until 1876 the system in use was inflexible and cumbersome. Each book had a designated place on the library shelves. A book on astronomy might be between a book on woodworking and another on medieval architecture. Then Melvil Dewey, a student assistant in the Amherst College library, had the creative idea that brought him fame and the appreciation of library users everywhere.

Dewey’s creative idea was to invent a new shelving system, which came to be known as the Dewey Decimal System. When he left Amherst, he installed the system in Columbia University and then in the New York State Public Library.

The Dewey Decimal System has ten main divisions: 000 is Computers, Information, and General Reference; 100, Philosophy and Psychology; 200, Religion; 300, Social Sciences; 400, Language; 500, Science; 600, Technology; 700, Arts and Recreation; 800, Literature; 900, History and Geography. Each division has a series of subdivisions. Dewey’s system makes it possible to manage—and to use—any library more flexibly and efficiently. Today it is used in more than 135 countries and has been translated into more than thirty languages. It is also proving useful in classifying Internet resources.

Dewey’s devotion to improving things also led to other achievements. He is credited with establishing the first library school, reforming library standards, and (with others) founding the American Library Association. In addition, he was a pioneer in creating job opportunities for women.

For more information on Melvil Dewey, see www.oclc.org/dewey/resources/biography/.
therefore a good starting point for research. Each article is written by a person or persons with specific knowledge of that subject.

**For statistical data and miscellaneous facts: an almanac.** The best known almanacs include *The World Almanac* and *Information Please Almanac.*

**For newspaper reports: The New York Times Index.** This index is the standard newspaper index for the United States. It covers all stories that appeared in that newspaper from 1851 to the present.

**For general magazines and journals: Reader’s Guide to Periodical Literature.** The Reader’s Guide is an index of articles published in popular magazines.

**For specialized periodicals: an appropriate index.** Specialized indexes provide information on articles in scholarly journals comparable to the information Reader’s Guide provides about popular articles.

**For government publications: a state or federal monthly catalog.** State and federal governments publish more documents than any other publishing source.

**For abstracts of scholarly works: an appropriate data base or abstract service.** These sources offer summaries of scholarly articles in various fields.

**For library holdings: your library’s computer catalog.** This source is your key to the books, tapes, monographs, and other materials available in your library. If you are looking for a specific title that is not available in your library, your librarian will usually be able to obtain it from another library. You can also visit your college’s official website.

---

**exercise 37**

To use many of the information sources listed above you’ll need to ask your campus librarian. Carry out that direction for each of the sources and record your librarian’s response.

---

---
THE STORY OF LARRY PAGE AND SERGEY BRIN

This story could well be titled, “From Research Project to Empire.” It began when two young graduate students met at Stanford University. Larry Page, the son of a computer science professor, and Sergey Brin, the Russian-born son of a mathematics professor, didn’t much care for each other at first. Eventually, they collaborated on a research paper with the daunting title, “The Anatomy of a Large-Scale Hypertextual Web-Search Engine.” That effort led them to found one of the most successful companies in recent history, known around the world by the odd-sounding name “Google.” (The term is a modification of “googol,” a math term meaning one followed by 100 zeroes.)

When Google was founded in 1998, there were a number of competing “search engines” in use, but, as Brin points out, they did not focus exclusively on information searching or the order in which the results were presented. Page and Brin gave special attention to these concerns; they also “developed a system that determines the best and most useful websites.” In doing so, they faced a number of challenges, notably how to ensure that the search results were relevant to the search term and objective—presenting a full range of viewpoints on an issue.

Their cash investment in the fledging company matched their time investment. As Page recalls, “We had to use all of our credit cards and our friends’ credit cards and our parents’ credit cards.” But Google has been well worth the effort. It is the number one search engine in the world, with an estimated 65 million daily users.

Brin sums up the company philosophy as follows: “Google is all about getting the right information to people quickly, easily, cheaply—and for free. We serve the world—all countries, at least 100 different languages. It’s a powerful service that most people probably couldn’t have dreamed of twenty years ago. It’s available to the rich, the poor, street children in Cambodia, stock traders on Wall Street—basically everybody.”

For more information on Larry Page and Sergey Brin, see www.kottke.org/plus/misc/google-playboy.html or do a Google search on each individual’s name.

Conducting Internet research

The Internet is a major research venue, largely because it can be accessed without leaving home. Many traditional library resources are also available online. Following are two tips for efficient Internet research:

Use a search engine

The name “search engine” conjures up the image of a large machine, but a more appropriate image might be that of a person who assists you in finding information. A search engine is really a “research assistant.” (We’ll call this assistant “it” because it is genderless.) You tell it your thoughts
by writing in a blank box, hit “search,” and it searches the World Wide Web of information for you and, in the blink of an eye, provides a list of locations where you can find what you are looking for.

This assistant can do everything... except read your mind. It will look for exactly what you tell it, nothing more or less. Therefore you must choose your terms with care and revise them if you don’t get the information you want.

There are many search engines and even metasearch engines, which search other search engines. For a clear and thorough explanation of the difference and some helpful suggestions, visit this University of California at Berkeley website: www.lib.berkeley.edu/TeachingLib/Guides/Internet/SearchEngines.html.

The site recommends Google, Yahoo!, and Ask.com. Make one of these your personal assistant and you will ensure that your Internet searches are quick and effective.

**Develop a resource list**

The first dozen or so times you do Internet research, you will probably have to go to your favorite search engine, type in the subject, and sample the results before you find helpful sites. In time, this approach will produce a resource list for specific subjects. Following is a brief list of helpful websites to get you started:

Go to the text website for more website resources.

**For reference materials**, including dictionaries, encyclopedias, and more:
www.bartleby.com/reference
www.infoplease.com

**For news**:
www.foxnews.com
www.ap.org
www.cnn.com

**For informed opinion**:
www.liberalreview.com
www.townhall.com (Click on “columnists” and then on any of the featured columns or on any person’s name.)
www.jewishworldreview.com (Click on any of the names in the Insight column toward the bottom of the home page.)
www.prospect.org
www.frontpagemag.com
www.blueagle.com (This site lists 700 columnists, many cartoonists, and links to political websites.)
For quotations:
www.toinspire.com

For legal information:
www.legalengine.com
www.law.com
www.nolo.com

For health and medicine:
www.nih.gov
www.medlineplus.gov

For checking the quality/credibility of a website: One problem in doing research on the Internet is that, unlike newspapers, magazines, and books, it is not subject to editorial scrutiny. Anyone can publish anything, and there is a greater risk of receiving erroneous information. To minimize that risk, consult http://www.wordtrack.com.au/web/internet/evaluating.html, which provides a number of evaluation tools; also, Janet E. Alexander and Marsha Ann Tate’s Web Wisdom: How to Evaluate and Create Information Quality on the Web (Mahwah, NJ: Lawrence Erlbaum Associates), 1999.

A helpful tip: Some Internet searches will take you to sites that seem objective but really serve to sell you products and services. Such sites end in “.com,” which stands for “commercial.” (Note: The ending “.com” does not necessarily signify a lack of objectivity.) You can eliminate commercial websites from your Google searches by adding at the end of your search term the minus sign followed (without a space) by “.com.” For example, if your search term were “vitamin therapy” you would type “vitamin therapy-.com” without using the quotation marks.

exercise 38
Visit the Internet Public Library (IPL) at www.ipl.org/ and examine the resources available there. Compare this information with the list of online resources mentioned by your librarian in Exercise 37. Report the results of your investigation in the space provided below.

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________
Conducting an interview

Your research needn’t be limited to the library and the Internet. A number of instructors at your college may have expertise on your topic. If you decide to interview one or more of them, call to make an appointment and state what you want to interview them about and how long you will need. Here are some tips for conducting the interview.

exercise 39

This exercise is designed to help you become familiar with search engines. Go to Google (www.google.com) and click, in turn, on each of the blue words on the home page. As you read each of the pages that appear, click on key words to learn more about Google’s offerings. List below the features you find most useful.


exercise 40

Go to the Google home page again. In the search box, type the words free online encyclopedia and then click the search button. Then click on each of the first ten search results (more, if you wish) and decide which ones you find most helpful. Repeat this procedure with the phrases free online almanac and government publications. Record your decisions below and add the websites to your personal resource list.


Conducting an interview

Your research needn’t be limited to the library and the Internet. A number of instructors at your college may have expertise on your topic. If you decide to interview one or more of them, call to make an appointment and state what you want to interview them about and how long you will need. Here are some tips for conducting the interview.
1. Arrive on time and don’t overstay your welcome.
2. Ask for permission to tape the interview so the instructor will not have to wait while you take notes.
3. Avoid asking questions calling for a “yes” or “no” answer. Instead, ask “What do you think about . . . ?” and “What is the basis for your thinking . . . ?”
4. Pay attention to the instructor’s answers and ask follow-up questions where appropriate.

On the rare occasions when you can’t find appropriate people with expertise at your college, use your ingenuity. For a medical issue, call the state public health department or the county medical association. The telephone directory will list the numbers of these agencies. Ask to be referred to an expert in your area.

**Avoiding plagiarism***

Once ideas are put into words and published, they become “intellectual property,” and the author has the same rights over them as he or she has over a material possession such as a house or a car. The only real difference is that intellectual property is purchased with mental effort rather than money. Anyone who has ever wracked his or her brain trying to solve a problem or trying to put an idea into clear and meaningful words can appreciate how difficult mental effort can be.

Plagiarism is passing off other people’s ideas or words as one’s own. It is doubly offensive in that it both steals and deceives. In the academic world, plagiarism is considered an ethical violation and is punished by a failing grade for a paper or a course, or even by dismissal from the institution. Outside the academy, it is a crime that can be prosecuted if the person to whom the material belongs wishes to bring charges. In the eyes of the law, stealing ideas and/or the words used to express them is as criminal as stealing the computer on which they were recorded.

Some cases of plagiarism are attributable to intentional dishonesty, others to carelessness. But many, perhaps most, are due to misunderstanding. The instructions “Base your paper on research rather than on your own unfounded opinions” and “Don’t present other people’s ideas as your own” seem contradictory and may confuse students, especially if no clarification is offered. Fortunately, there is a way to honor both instructions and, in the process, to avoid plagiarism.

---

* This section is used with permission. Copyright © 2002, 2007 by MindPower, Inc.
Three steps to avoid plagiarism

Step 1. When you are researching a topic, keep your sources’ ideas separate from your own. Begin by keeping a record of each source of information you consult. For an Internet source, record the website address, the author and title of the item, and the date you visited the site. For a book, record the author, title, place of publication, publisher, and date of publication. For a magazine or journal article, record the author, title, the name of the publication, and its date of issue. For a TV or radio broadcast, record the program title, station, and date of transmission.

Step 2. As you consult each source, note the ideas you want to refer to in your writing. If the author’s words are unusually clear and concise, copy them exactly and put quotation marks around them. Otherwise, paraphrase—that is, restate the author’s ideas in your words. In written material, write down the number(s) of the page(s) on which the author’s passage appears.

If the author’s idea triggers a response in your mind—such as a question, a connection between this idea and something else you’ve read, or an experience of your own that supports or challenges what the author says—write it down and put brackets (not parentheses) around it so that you will be able to identify it as your own when you review your notes. Here is a sample research record illustrating these two steps:

Adler, Mortimer J. The Great Ideas: A Lexicon of Western Thought (New York: Macmillan Publishing Co., 1992) Says that throughout the ages, from ancient Greece, philosophers have argued about whether various ideas are true. Says it’s remarkable that most renowned thinkers have agreed about what truth is—“a correspondence between thought and reality.” 867 Also says that Freud saw this as the scientific view of truth. Quotes Freud: “This correspondence with the real external world we call truth. It is the aim of scientific work, even when the practical value of that work does not interest us.” 869 [I say true statements fit the facts; false statements do not.]

Whenever you look back on this record, even a year from now, you will be able to tell at a glance which ideas and words are the author’s and which are yours. The first three sentences are, with the exception of the directly quoted part, paraphrases of the author’s ideas. The fourth is a direct quotation. The final sentence, in brackets, is your own idea.

Step 3. When you compose your paper, work borrowed ideas and words into your writing by judicious use of quoting and paraphrasing. In addition, give credit to the various authors. Your goal here is to eliminate all doubt about which ideas and words belong to whom. In formal...
presentations, this crediting is done in footnotes; in informal ones, it is done simply by mentioning the author’s name.

Here is an example of how source material can be worked into a composition. The first paragraph contains the quoted and paraphrased material from Mortimer Adler. (You would insert a footnote or endnote number at the end of that paragraph and the note would provide the necessary citation.) The second paragraph adds *your own original commentary* on the Adler material.

Mortimer J. Adler explains that throughout the ages, from the time of the ancient Greeks, philosophers have argued about whether various ideas are true. But to Adler the remarkable thing is that, even as they argued, most renowned thinkers have agreed about what truth is. They saw it as “a correspondence between thought and reality.” Adler points out that Sigmund Freud believed this was also the scientific view of truth. He quotes Freud as follows: “This correspondence with the real external world we call truth. It is the aim of scientific work, even when the practical value of that work does not interest us.”

This correspondence view of truth is consistent with the common sense rule that a statement is true if it fits the facts and false if it does not. For example, the statement “the twin towers of New York’s World Trade Center were destroyed on September 11, 2002” is false because they were destroyed the previous year. I may sincerely believe that it is true, but my believing in no way affects the truth of the matter. In much the same way, if an innocent man is convicted of a crime, neither the court’s decision nor the world’s acceptance of it will make him any less innocent. We may be free to think what we wish, but our thinking can’t change reality.

**How to correctly quote and paraphrase**

Three problems commonly arise in quoting and paraphrasing. Here is an explanation of each, together with a practical way to solve it:

**Problem 1: Deciding whether to quote or paraphrase.** The general rule is to quote only when a statement is so well and concisely expressed that a paraphrase would add unnecessary length and/or lose the force of the original. Such instances are rare. Most passages can be stated as well—some can actually be improved—by being paraphrased.

**Statements that should be quoted rather than paraphrased:**

No act of kindness, no matter how small, is ever wasted. —*Aesop*

What we think, we become. —*Buddha*
It is impossible for a man to learn what he thinks he already knows.
—Epictetus

Statements that should be paraphrased, with suggested paraphrasing:
As a man thinketh in his heart, so is he. —Proverbs 23-7
(Paraphrase: As the Book of Proverbs reminds us, we are what we think.)

He does not believe who does not live according to his belief. —Thomas Fuller
(Paraphrase: Thomas Fuller thought that to be genuine, belief must be practiced.)

Note that the source of the material is stated in the paraphrase, so that appropriate credit is given for the idea.

Problem 2: Converting the author’s words to your words. Constructing a paraphrase is mentally taxing because it involves thinking of alternative ways to express ideas. It is tempting to say, “The way the author said is it is the only way,” and to settle for a quotation. But if you do that you’ll find your paper covered in quotation marks. Not wanting to appear so obviously imitative, you may decide to leave the quotation marks off. Don’t! You will be committing plagiarism!

To solve this problem put forth a little effort and invest a little imagination and find alternative ways to express an idea. Here is an example of an effective paraphrase of a passage from Shelby Steele’s book, *White Guilt*. (For the purpose of this exercise, five passages that appear on different pages are joined together, with ellipses between them.)

**Original Passage**
... This new black consciousness [of the 1960s] led blacks into a great mistake: to talk ourselves out of the individual freedom we had just won for no purpose whatsoever except to trigger white obligation . . . . The goal of the civil rights movement had escalated from a simple demand for equal rights to a demand for the redistribution of responsibility for black advancement from black to

**Paraphrase**
Shelby Steele contends that blacks in America have allowed whites to overcome their guilt for the evils of slavery and discrimination by treating blacks as victims and taking over all responsibility for black people’s advancement. This he regards as a serious error because “no group in human history has been lifted into excellence or competitiveness by another group.”

---

Copyright © Houghton Mifflin Company. All rights reserved.
white America, from the ‘victims’ to the ‘guilty.’ This marked a profound—and I believe tragic—turning point in the long struggle of black Americans for a better life. . . . Black militancy, then, was not inevitable in the late sixties. It came into existence solely to exploit white guilt as a pressure on white America to take more responsibility for black advancement . . . . Thus, since the sixties, black leaders have made one overriding argument: that blacks cannot achieve equality without white America taking primary responsibility for it. Black militancy became, in fact, a militant belief in white power and a correspondingly militant denial of black power . . . . But this sad symbiosis overlooks an important feature of human nature: human beings, individually or collectively, cannot transform themselves without taking full responsibility for doing so. This is a law of nature. Once full responsibility is accepted, others can assist as long as it is understood that they cannot be responsible. But no group in human history has been lifted into excellence or competitiveness by another group. —Shelby Steele, *White Guilt: How Blacks and Whites Together Destroyed the Promise of the Civil Rights Era* (New York: HarperCollins, 2006), 45, 58, 59, 60, 62.

**Note:** (1) The *first four words* make clear that the author is paraphrasing Steele. (2) Some *individual* key words that appear in the original, such as advancement and responsibility, also appear in the paraphrase. Such repetition is often unavoidable and does not constitute plagiarism. (3) The only *group of words* that is repeated appears in quotation marks. To omit the quotation marks would have constituted plagiarism. (4) Although the paraphrase embraces the entire idea expressed in the original, it is more compressed. This is a typical feature of paraphrasing.
**Problem 3:** Constructing ideas of your own to blend with paraphrased and quoted material. If the subject is unfamiliar or complex, you may wonder what you can possibly add to what the authors you consulted have said. Using the Shelby Steele passage as an example, here are some ways you might solve this problem. After your paraphrase of his ideas, elaborate on Steele’s views by mentioning some of the evidence he offers in the book to support them. Offer the views of other authors who share Steele’s perspective and the evidence they use to support their views. Discuss the views of authors who disagree with Steele on this issue and the evidence they use to support their views. Make sure you exercise the same care in paraphrasing, quoting, and citing your sources. Present your evaluation of the issue, explaining which author(s) you agree with and which you disagree with, in each case presenting your reasons for thinking as you do.

Your evaluation makes the composition or research paper uniquely your own. It represents your thinking and your expression. The more carefully you approach it—explaining thoroughly, providing evidence, anticipating and answering objections—the better its quality will be.

---

**exercise 41**

On a separate sheet of paper, write an effective paraphrase of each of the following passages, using direct quotation only when the author’s phrasing is unusually clear and concise. Then compare your paraphrase with that of a classmate. If you detect any suggestion of plagiarism in either paraphrase, work together to revise it. Be prepared to explain your evaluation in class.

**PASSAGE 1**

In the first part of this [the twentieth] century, we adopted the principle of mass-producing low-quality education to create a low-skilled work force for mass-production industry. Building on this principle, our education and business systems became very tightly linked, evolving into a single system that brilliantly capitalized on our advantages and enabled us to create the most powerful economy and the largest middle class the world had ever seen. The education system, modeled on industrial organization, was crafted to supply the work force that the industrial economy needed. America’s systems of school organization and industrial organization were beautifully matched, each highly dependent on the other for its success, each the envy of the world.
But most of the competitive advantages enjoyed at the beginning of the century had faded away by midcentury, and advances in technology during and after the war slowly altered the structure of the domestic and world economy in ways that turned these principles of American business and school organization into liabilities rather than assets.

...Our country is locked in a time warp, wedded to a worldview and to strategies long since outmoded by events... Though the top executives of our best firms are among the most ardent advocates of school reform, the vast majority of American employers do not want more than eighth-grade-level skills in the people that they hire for their front-line work force. — Ray Marshall and Marc Tucker, *Thinking for a Living: Education and the Wealth of Nations* (New York: Basic Books, 1992), xvi–xviii.

PASSAGE 2

...Any attempt to restore a man’s inner strength in the [World War II Nazi concentration] camp had first to succeed in showing him some future goal. Nietzsche’s words, ‘He who has a *why* to live for can bear with almost any *how*,’ could be the guiding motto for all psychotherapeutic and psychohygienic efforts regarding prisoners. Whenever there was an opportunity for it, one had to give them a *why*—an *aim*—for their lives, in order to strengthen them to bear the terrible *how* of their existence. Woe to him who saw no more sense in his life, no aim, no purpose, and therefore no point in carrying on. He was soon lost. The typical reply with which such a man rejected all encouraging arguments was, ‘I have nothing to expect from life any more.’ What sort of answer can one give to that?

What was really needed was a fundamental change in our attitude toward life. We had to learn ourselves and, furthermore, we had to teach the despairing men, that it did not really matter what we expected from life, but rather what life expected from us. We needed to stop asking about the meaning of life, and instead to think of ourselves as those who were being questioned by life—daily and hourly. Our answer must consist, not in talk and meditation, but in right action and in right conduct. Life ultimately means taking the responsibility to find the right answer to its problems and to fulfill the tasks which it constantly sets for each individual. — Viktor E. Frankl, *Man’s Search for Meaning*, 3rd. ed. (New York: Simon & Schuster, 1984), 84–6.

PASSAGE 3

[Note: In this book, the author argues that the contemporary diversity movement, which divides rather than unites people, is out of touch with Dr. Martin Luther King, Jr.’s vision of Americans united by values and principles despite
injustice and discrimination. When he uses the italicized form *diversity*, he is referring to that movement.]

*Diversity* is big. It’s everywhere. Schoolchildren are taught to celebrate it; high courts weigh and scrutinize it; corporate personnel offices assiduously seek it out; unions that once feared it now robustly champion it; artists offer searching introspections of diversity in their own lives; museums exhibit it; restaurants serve it; churches worship it; and tourists vacation in it... Is *diversity* better suited to the pursuit of good character? Not if good character means putting aside stereotypes and treating individuals as individuals. Does *diversity* assist in the pragmatist’s project of promoting many different kinds of excellence? Is seems more closely associated with lower admissions standards, grade inflation, undemanding undergraduate majors, and a falling off in what we expect high schools to teach college-bound students. Does *diversity* play its part in passing on a valuable legacy to a new generation? Only if one considers the perpetuation of racialist categories a legacy worth having. Does *diversity* help the young on their way to making the world anew? Is seems rather to insist that the future will be patterned on the divisions of the past—or on new divisions adopted in reaction to the old. — Peter Wood, *Diversity: The Invention of a Concept* (San Francisco: Encounter Books, 2003), 16, 136–7.

---

**exercise 41 (cont.)**

Meet with a group of two or three classmates and discuss whether each of the following passages would be better quoted or paraphrased. Where disagreements arise, have the person who argues for paraphrasing construct a paraphrase for the group’s consideration. During this meeting make a special effort to apply the strategy for group discussion you learned in Chapter Three.

Science without religion is lame, religion without science is blind. —*Albert Einstein*

Opportunity is missed by most because it is dressed in overalls and looks like work. —*Thomas Edison*

Nobody can make you feel inferior without your permission. —*Eleanor Roosevelt*

A conclusion is the place where you got tired of thinking. —*Steven Wright*

No man is free who is not master of himself. —*Epictetus*

The deepest human defeat suffered by human beings is constituted by the difference between what one was capable of becoming and what one has in fact become. —*Ashley Montagu*
Revisiting evidence

Chapter Two defined evidence as reliable information offered in support of an opinion. In that chapter, we noted that there are various kinds of evidence, but we focused on just one—the reasons people offer for thinking and acting as they do. The term reasons can also be used in a broader, more general way to cover all forms of evidence. There is nothing wrong in using the term that way. However, you will find it helpful to become familiar with the more specific terms, as well. Doing so will enable you to ask pertinent questions whenever you analyze arguments. Following are eight other kinds of evidence, together with the appropriate questions to ask about each.

Anecdotes and cases-in-point

These include brief examples as well as illustrations and more extended narratives of people’s experiences and observations. They are often vivid and dramatic and therefore can be very persuasive. Suppose someone says, “Telephone solicitors can be very rude,” and proceeds to describe a recent experience she had with a caller. The example “backs up” her assertion. Of course, if the claim were more sweeping, such as “Most telephone solicitors are rude,” more than a single example would be needed. The person making the claim would be challenged to show that the rudeness she encountered was typical of telephone solicitors.

To test anecdotes and cases-in-point, ask: Is the author’s presentation of the anecdote or case faithful to the facts? If so, are the experiences described typical or untypical? How plausible are they? How might I verify them?

(Note: A more formal approach to the analysis of specific cases-in-point that is employed in a variety of academic fields is known as “case study method.” For an excellent introduction to the case study method, see Susan K. Soy, “The Case Study as a Research Method” at http://www.gslis.utexas.edu/~ssoy/usesusers/l391d1b.htm (accessed 8/9/07). Another useful site is http://www.managementhelp.org/evaluatn/casestdy.htm (accessed 8/9/07). For the application of case study method to a specific academic field, do a Google search using the name of the academic field plus “case study method.” For example, use the search term “business case study method.”)

Published reports

Published reports are found in newspapers, broadcasts, books, and magazines and on the Internet. This kind of evidence is very common but not always reliable. There are some careless and dishonorable reporters who allow their biases to influence their reporting. And even conscientious reporters can make mistakes. The chance for error is especially
great when the information is acquired in haste or from second- or third-hand accounts. Never assume that a report is accurate just because it appears in print or is broadcast.

To test a published report, ask: What information sources, if any, are cited in the report? If sources are cited, they can often be checked quite easily, especially if they have a website. (A trip to Google will reveal that.) Remember, though, that verifying the source does not establish the source’s accuracy.

**Eyewitness testimony**

Eyewitness testimony is a report of what someone observed firsthand. Such testimony is popularly regarded as highly reliable. After all, there is something very persuasive about a seemingly honest person who says, “I saw it happen,” and goes on to provide the details of who, how, and where. However, research has shown that eyewitness testimony is sometimes false. Perception can be blinded by preconceived notions and the memory of an earlier event can be corrupted by subsequent events.

To test eyewitness testimony, ask: Does the person have anything to gain by misrepresenting the facts? Were the conditions favorable to observation—for example, did the event occur in the daytime or at night, in good weather or bad (snow, rain, or fog)? Did the event occur slowly or quickly? Was it expected or unexpected? Was the person in a state of mind conducive to accurate observation? Sober or drunk? Tired or well rested? Calm or emotional (for example, fearful)? Could the person’s memory have been confused by something that occurred after the event but before the testimony was given?

**Expert testimony**

This kind of testimony has the advantage of being informed by extensive knowledge of the subject and understanding of what is typical in most cases. Such testimony is therefore highly reliable. However, experts often disagree in their assessments. Even when they agree they can be mistaken, so this generally reliable testimony cannot be taken at face value.

To test expert testimony, ask: Does the person have specific expertise in the subject in question? (It is not uncommon these days for experts to offer opinions far outside their areas of expertise.) Does the expert’s view represent the majority or minority view among experts in the field? In other words, do other experts agree with the person in question?

**Experiments**

One kind of experiment is the kind performed under controlled circumstances, such as in a laboratory. Another kind is the field experiment, in which observation is conducted in natural surroundings. For example,
THE STORY OF DOROTHEA DIX

Many famous people identified their goals early in life—in some cases, before puberty. However, Dorothea Dix did not find hers until she was 39 years old. The occasion was a visit to a women’s detention center in Massachusetts, where she had volunteered to give a Sunday school lesson. There she found individuals suffering from retardation and mental illness housed with criminals and living in unimaginable deprivation and filth. When she questioned the conditions, she was told that the mentally ill neither required nor deserved better treatment. At that time (1841), this was the prevailing view.

Dorothea was unprepared for this experience. She had, to be sure, experienced hardship herself. Having grown up in a household with an ill mother and an abusive father, she had spent most of her own childhood caring for her younger brothers. At age 15 she had taken on the responsibility of running a school for young girls. Later she was a tutor and a writer of children’s books, but at age 34 she contracted tuberculosis and spent most of the next five years recuperating.

Then came her visit to the prison, which so outraged her that she made the reform of prisons and poorhouses her life’s cause. She visited other facilities around the state of Massachusetts, took copious notes, and presented her findings to the legislature, where she eventually won support for the cause. Not satisfied with that success, she ignored her own continuing poor health and extended her crusade to every state east of the Mississippi and the U.S. Congress. Then she visited thirteen European countries and fought for similar reforms.

Dix’s dedication to the cause of the mentally ill and other social outcasts led to the founding of many mental hospitals, schools for the mentally disabled and the blind, and nursing programs. She has been called “the most effective advocate of humanitarian reform in American mental institutions during the nineteenth century.” Yet she remained humble about her achievements, refusing to put her name on her publications and shunning the spotlight. Dorothea Dix died in 1887 in one of the hospitals she helped to found.

For more information about Dorothea Dix, do a Google search.

one might observe a group of children at play, participants at a political convention, or Amish farmers raising a barn. For the results of the observation to be reliable, the observer must not have influenced the behavior of the group. Also, the period of observation must have been of reasonable duration.
To test a laboratory experiment, ask: *Have the findings of the experiment been confirmed by other, independent researchers?* To test a field experiment, ask: *Did the presence of the investigator influence the outcome?*

**Statistical studies**
Statistics usually refers to quantitative information obtained about every individual in a group or category. Examples of statistics are the percentage of deaths caused by drunken driving, the comparative college admissions scores of various racial and ethnic groups, and the voting records of members of Congress. If the statistical sources are reputable, the statistics will generally be trustworthy. But it is prudent to check that they are quoted accurately.

To test statistical evidence, ask: *Is the source of the data reliable? How long ago were the statistics compiled? Have conditions changed since then?*

**Surveys**
This type of information is a subdivision of statistics. However, it is obtained in a special way—by a sampling of the group. The sample may be random or systematic (for example, every fiftieth name in the phone book). It may also be done in person, by telephone, or by mail. A sample can be reliable even though a very small number of individuals were contacted, but only if certain conditions were met. All members of the group must have had an equal chance of being contacted. Also, the questions must have been clear, unambiguous, and unbiased. Keep in mind that the way survey questions are phrased can influence the responses.

To test a survey, ask: *Was the sample representative of the larger group? Were the questions clear and objective? Did enough people respond for the survey results to be trusted?*

**Research reviews**
Research reviews examine the general body of research information on a topic. It is not uncommon for such a review to cover dozens, even hundreds, of independent research studies. A research review is a highly reliable form of evidence if it covers all significant research studies and is free of bias.

To test a research review, ask: *Were any important studies omitted?*

**Evaluating complex arguments**
We began this chapter by noting that, when evaluating complex arguments, we need to modify the comprehensive thinking strategy presented in Chapter Two. The new strategy has five steps: (1) Identify facts and
opinions, (2) Check the facts and test the opinions, (3) Conduct research, (4) Evaluate the evidence, and (5) Make your judgment. Now that we have completed our discussion of evidence and the techniques of research, we will examine each of these steps, expanding on what was noted in Chapter Two and demonstrating how the new step fits in the overall strategy.

**Step 1: Identify facts and opinions**

Before separating facts and opinions in any argument, you should first have an accurate understanding of the argument. This is easy to achieve with a short essay, a letter to a newspaper editor, or a brief opinion column. But it is more difficult with longer, more complex works such as feature articles, book chapters, and entire books. The following approach will help ensure that your understanding is accurate:

**Skim for the central opinion.** Before reading a longer article or book, skim it, looking for the central opinion—that is, the view of the issue the author wishes his or her audience to accept. The central opinion is usually stated in or immediately after the introduction and is reinforced in the conclusion. (Note: Introductions and conclusions vary in length. In a full-length article, each may occupy two or more paragraphs; in a book, each may be assigned its own chapter.)

**Read the article or book carefully.** With the author’s central opinion clearly in mind, read the article or book carefully. Take note of the evidence (factual information) offered in support of the central opinion—for example, anecdotes, published reports, expert testimony, experiments, statistical studies, or surveys. Also note important secondary opinions, such as the main opinions of the subsections of an article or the chapters of a book, as well as the evidence offered for them. Remember that any statement that is open to dispute should be considered an opinion, even if the author presents it as factual.

Knowing the basic relationships between the parts of an argument can help you identify opinions and supporting evidence more effectively.

**“And” relationships** signal that what follows adds to what preceded. For example, they may signal that more evidence is being offered to support an assertion. Words used for “and” relationships include also, first (second, and so on), in addition, next, further, and, moreover, finally, lastly, besides, and another.

**“But” relationships** signal that what follows contrasts with what preceded. What follows is usually an exception or qualification. Words used to signal “but” relationships include however, nevertheless, yet, or, but, on the other hand, and in contrast.

**“Therefore” relationships** signal that a conclusion follows from the preceding evidence. Words used to signal “therefore” relationships include so, consequently, accordingly, thus, therefore, and it follows that.
Some high school English teachers discourage students from using *and* or *but* to begin a sentence. But that prohibition is unreasonable. Even a quick scanning of enduring works of literature reveals that writers have long used these words to begin sentences. You should therefore feel free to do so in your writing.

One common pattern in argumentative writing is the “and/therefore” pattern. For example, a member of Congress may argue:

The economy is in a recession. . . . And history has demonstrated that a decrease in personal income tax is an economic stimulant. . . . Therefore, the President’s proposal to cut taxes deserves the support of both political parties.

Another common pattern is the “but, therefore” pattern. For example, a professor may argue:

All students benefit from attending class regularly. . . . But many students lack the self-discipline to attend class regularly on their own. . . . Therefore, this college should adopt a compulsory attendance policy.

Longer articles and books typically include more elaborate patterns, such as _____, and _____, and _____, but _____, and _____, therefore _____. (The material represented by each line may comprise a sentence, a paragraph, or a chapter.)

**Summarize.** When you have finished reading the article or book and identifying the evidence offered in support of the main opinion, write a summary. An effective summary (1) is written, as much as possible, in your own words; (2) records only the major parts of the argument—that is, the main and secondary opinions and a brief notation of the evidence offered in support of them; and (3) accurately reflects what the author has said. If the author emphasizes or qualifies a point, make your summary reflect that fact. If you wish to add your own comments, put them in brackets. Then, when you look back at your summary, you can easily distinguish your ideas from the author’s.

**exercise 43**

**Apply the procedure in Step 1 to the following argument. (Note that specific directions are given after the article.)**

**A Day’s Pay for a Day’s Work**

Every year during football or basketball season, some college in the country makes headlines when one of its athletes is suspended for violating his amateur status by receiving money. Self-righteous windbags around the country then rant on about the importance of protecting college athletics from professionalism and ensuring that athletes place education before sports. Not only...
is that view hypocritical, it's also absurd. The best thing that could happen to college athletics would be for the myth of amateurism to be exposed and the NCAA to abandon its regulation prohibiting pay for play.

To begin with, college athletes have only one reason for going to college—to get a chance to play professional sports. They couldn't care less about an education. Many of them can't read and write, so the courses they take are just warmed-over junior high school subjects. The idea that their education is going to better their position in life is a cruel deception on them. Few others besides athletes are foolish enough to buy such a notion.

Some people argue that if college athletes were paid for playing sports, they would be corrupted. Surely it wouldn't be any less corrupting than the present situation, in which they receive money under the table and in the process violate ethics and the law. And it would spare universities that are supposed to represent society's highest values the embarrassment and shame that accompany unfavorable newspaper headlines.

The only sensible course of action for the NCAA, and for that matter the Olympic Committee, to take is to discard the phony distinction between amateur and professional. Let colleges run their athletic programs as money-making ventures (as many of them now do, dishonestly). Allow them to recruit the best players they can without having to enroll them in academic programs. And permit the players to earn salaries and work full time at their sports. The players will be happier, the teams will perform better, and everyone's consciences will be a lot clearer.

State the controlling idea of the article.

Identify relationships among the ideas (“and . . .,” “but . . .,” and so on).

Summarize the article in several sentences.
Step 2: Check the facts and test the opinions

This step is to be performed on your summary rather than on the entire article or book. Begin by checking the major statements of fact to verify that they are factual. For example, check to be sure descriptions of published reports, expert testimony, experiments, and statistical studies are accurate. This can often be done by consulting a few basic reference resources—an encyclopedia, an almanac, a newspaper archive, and/or a magazine index.

Next, test the author’s main and secondary opinions, using one or more of the following approaches, each of which was explained in Chapter Two.

- Consult everyday experience.
- Consider the opinion’s likely consequences.
- Consider the implications.
- Think of exceptions.
- Think of counterexamples.
- Reverse the opinion.
- Look for relevant research.

As we saw in Chapter Two, these approaches for checking facts and testing opinions are often sufficient to demonstrate the strengths and weaknesses of a brief, simple argument. However, more complex arguments usually require additional research. The next step in our strategy addresses that challenge.

Step 3: Conduct research

The main purpose of research is to identify opinions and interpretations of facts that differ from the ones in the argument you are analyzing. Such opinions and interpretations may not have made their way into the reference books yet. If you tend to agree with the argument, of course, you may be tempted to ignore competing views. To give in to this temptation is to think uncritically and deny yourself valuable insights.

Consider this example: You are examining the argument that slavery was invented by European explorers as a means of dominating Africans and Native Americans. The author supports this claim with hundreds of documented cases. You are so impressed with the case he makes that you are tempted to accept it uncritically. But you resist this temptation and look for challenges to the author’s view.

As a result of your search, you find that a number of sources (for example, Thomas Sowell’s Race and Culture) claim slavery is thousands of years old, has been practiced on every continent, and is still practiced in the African nations of Ghana, Sudan, and Mauritania. Moreover, these sources maintain that Western culture led the way in abolishing slavery. Whichever view of the issue you ultimately embrace, you will have benefited by refusing to accept the first argument you encountered.
You will already have consulted the basic resources listed in the sections of this chapter on conducting library and Internet research—that is, an encyclopedia, an almanac, a newspaper archive, and/or a general magazine index. Now consult the other sources—indexes to specialized periodicals, catalogs of government publications, databases, abstract services, and your library’s computer catalog. Also search the Internet and/or the resources on your personal list. After identifying articles, books, and tapes that challenge the argument you are analyzing, obtain and examine them.

**Step 4: Evaluate the evidence**

At this point, you will have accumulated a sizeable amount of material and may need to sort out the points of agreement and disagreement. The best way to do so is to make a spreadsheet. Identify the authorities across the top of the page. Then list the various aspects of the issue down the left side of the page. Suppose you’re investigating the issue “Should boxing be outlawed?” and you’ve consulted three individuals in addition to the author of the original argument. Here is how your spreadsheet might look.

<table>
<thead>
<tr>
<th>Aspects of the Issue</th>
<th>Medical Doctor</th>
<th>Former Boxer</th>
<th>Sports Writer</th>
<th>Original Argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is boxing a sport?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the intention in boxing to injure the opponent?</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is boxing dangerous?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Can the risk of injury be overcome by training?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Can the risk of injury be overcome by protective gear?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Would outlawing boxing deny minorities a way out of poverty?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Note that on the boxing spreadsheet you can tell where the disagreements lie simply by looking next to each aspect of the issue. There is no disagreement on the danger of boxing, some disagreement on the aspect of intentional harm, and considerable disagreement on the other four aspects.

You may be wondering, “Why spend time breaking the issue into its various aspects when I will eventually have to form an overall view? Why not deal with the entire issue immediately?” The answer is that in a complex issue, there can be many insights, and they are seldom all
found on one side. Even a person who is mistaken about the main aspects of the issue may be right about several lesser aspects. In cases where no single argument is completely sound, you will have to construct a better argument than any of the ones you have seen. In order to do this, you will have to be in command of all aspects.

After completing your spreadsheet, address the various aspects, one at a time. Review the evidence offered by each of the people you consulted for his or her opinion. (In most cases, the evidence will differ from person to person, both in quantity and quality.) Review, too, the evidence you accumulated in your own research. In light of all that evidence, decide whether the most reasonable answer to each aspect is yes, no, or partly yes and partly no.

**Step 5: Make your judgment**

Having assessed the various aspects of the issue, you will be ready to combine those assessments into a judgment of the overall issue. Here, for example, is a judgment you might make on the boxing issue. (Other judgments, of course, are possible.)

Boxing is not properly classified as a sport because the contestants intend to injure each other. Thus, boxing is more dangerous than sport, in which injuries occur accidentally or because rules are broken. It’s true that training and protective gear can reduce the threat to fighters but not eliminate it. For these reasons, I believe boxing should be outlawed. I admit that such action would deny members of minority groups one way of rising above poverty, but better ways can and should be created.

The advantage of using the five steps to reach a judgment is that they enable you to present and defend your position more effectively. You will be able to support each component part of your judgment with evidence and explain why your reasoning is more reasonable than the reasoning advanced by others.

**A caution about bias**

When you evaluate an argument, the greatest obstacle to critical thinking is not the complexity of the issue or the variety of viewpoints to be considered. It is, instead, your own biases. Here is a fairly typical example of how bias can stifle critical thinking.

Let’s say you just read an article pointing out the deficiencies of homeschooling. Most parents who homeschool, the author says, are not trained teachers, and some have not even graduated from college. In addition, the author points out that even if the parent is a certified teacher, he or she is not likely to be skilled in art, music, and foreign languages, and will
be unable to provide lab experience at home. Finally, the author argues that children who are homeschooled are deprived of opportunities for socializing with peers. Thus, in his view, they are woefully unprepared to relate to people of other religions and cultures.

Now suppose that you know little about homeschooling other than what you just read. Suppose, too, that you have graduated from public school, believe your experience there was positive, and therefore support traditional classroom education. Given these facts, your bias would be almost imperceptible—nothing more, really, than a slight leaning. Not enough to put you on alert, yet enough to cause you to accept the author’s assessment at face value and not bother to investigate the opposing viewpoint.

If even a slight, subtle bias can keep you from thinking critically, it is not hard to imagine what a more substantial bias will do.

Incidentally, in the homeschooling issue (as in all controversial issues), there is another side to be considered. Creative homeschoolers have discovered ways to overcome or compensate for the lack of laboratories and other limitations. Homeschooled students often score as well as, and in some cases better than, public and private school graduates, and are as respectful of other people as are traditional graduates.

No one has yet formulated an anti-bias serum, so inoculation is not a choice. The best you can do is to recognize bias when it arises and develop ways of resisting it. Following are the most common types of bias and suggestions for dealing with them:

**Bias toward what confirms your personal view.** We all tend to be protective of our opinions. This is true whether we reason them out or borrow them from others. Whenever we encounter information that confirms one of our opinions, our automatic reaction is to accept it. Similarly, we tend to reject information that challenges our opinion. *Suggestion: Keep in mind that we all make mistakes from time to time. The sooner we find out we’ve made one, the better off we are. And the best way to find a mistake early is to be open to ideas that challenge our own.*

**Bias toward familiar ideas.** Suppose you walked into a cafeteria and had the choice of sitting with people you know or with strangers. Which would you choose? No doubt you would choose people you know because you’d feel more relaxed and comfortable with them. It’s the same way with ideas. All of us tend to be more accepting of ideas we’ve heard before than we are of new ideas. *Suggestion: Remember that familiarity has little significance—the order in which we hear ideas and the frequency of our hearing them are matters of chance. The fact that we’ve heard something repeated a dozen times*
doesn’t mean it is any more reliable than something we are hearing for the first time.

**Bias toward your likes and against your dislikes.** We all have our personal preferences. There’s nothing wrong with that. The problem arises only when we let them interfere with our judgment. If someone shares your taste in television programming, you may see her as a person of great wisdom and taste. In contrast, anyone who speaks critically of your favorite programming may seem lacking in intelligence and perhaps intentionally offensive. **Suggestion:** Carry your preferences lightly. Remember that they may reflect the influence of peers or popular culture more than they reflect your individuality.

---

**exercise 44**

Many campuses have adopted speech codes to ensure an atmosphere of respect and civility. However, these codes have given rise to controversy. Some see them as helpful and even necessary. Others regard them as an exercise in foolishness or, worse, a violation of their constitutional rights. Analyze this issue using the five-step approach detailed in this chapter and present your findings on a separate sheet of paper. Following are two opposing viewpoints on this issue to get you started:

**Campus Speech Codes Are Reasonable**

*By Priscilla Prentice*

A generation ago, rage was an uncommon word. Today it is not only common—it comes in a number of varieties. We have road rage, in which drivers become furious at fellow motorists for real or imagined violations of the rules of the road. We have air rage, in which passengers on airplanes take out their frustrations on other passengers or flight attendants and have to be restrained. And we have sports-event rage, characterized by fans leaping onto the playing field and pummeling someone, usually a player or official or, in the case of little league competitions, the coach who didn’t give little Johnny or Sally sufficient playing time.

We also have campus rage, which may be defined as the practice of intimidating and harassing students or faculty one doesn’t like. Typically, the victim of this kind of rage is a member of a minority group—for example, homosexuals, African Americans, Latinos, or Muslims. Campus rage tends to be expressed in epithets and insults rather than in physical assaults, so the wounds it causes are invisible. But they are no less real or less lasting for that fact.

Campus speech codes are a sensitive and sensible response to campus rage. They make understandable to everyone at what point commentary on an idea or
issue ends and attacks on individuals begin, marking the latter as impermissible. When such codes are well written, they also inform everyone exactly what the penalties will be for violations. The only people who should be against campus speech codes are irresponsible individuals who don’t care about other people’s feelings. I mean people who have something to fear from them—the kind of people who scrawl hate messages on buildings; use ugly, demeaning terms to describe other human beings; and spread stereotypes and vicious rumors.

To be fair, some honest people are against speech codes. But their arguments are flawed. The most significant of those arguments is that campus speech codes violate the right to free speech. There is an element of truth—albeit a small one—in that argument. Any regulation, rule, or law sets a limit on behavior. For example, a traffic light makes us stop when we want to continue going forward. The designation “one-way street” restricts our freedom to go the other way. Airport security requirements require us to submit to questions we would rather not answer and searches we would rather not submit to. But responsible people don’t object to these restrictions because they understand that the restrictions serve a purpose that is higher and more important than any individual’s convenience.

Campus speech codes should be viewed in the same light. They do limit our right to free speech in a minor way. Yet they do so in order to honor another, equally important right: the potential victim’s right to the pursuit of happiness. The idea behind campus speech codes is simply this—just as no one is allowed to assault others physically, no one should be permitted to assault others verbally. Nothing could be more reasonable than that.

Campus Speech Codes Are Intolerable

By Zachariah Brescia

Campus speech codes come wrapped in idealistic language. They supposedly aim to create an environment where fairness reigns, no one’s feelings are ever hurt, and everyone feels comfortable. What could possibly be wrong with that? Plenty.

To begin with, campus speech codes are not about fairness at all but privilege. And they are not about soothing feelings but suppressing ideas that don’t pass the test of Political Correctness. Anyone who takes the unpopular side of an issue is shouted down or assigned an ugly label. Those who speak against affirmative action are branded racists. Those who oppose gay marriage are called homophobes. Those who speak out against abortion are branded “anti-choice.” (So much for being concerned about people’s feelings.)

On most campuses, it is permissible to say “all men are rapists,” “George W. Bush is a war criminal,” and “the United States deserved what happened on
September 11, 2001,” but not to challenge those ideas. Similarly, denouncing religion is acceptable, whereas praising or—GASP!—professing a religious belief is considered an outrage.

The punishment doesn’t end with name calling and denunciation either. The Politically Correct crowd have also borrowed a tactic from their ideological mentors, the communists. The tactic is called “re-education,” but its real meaning is brainwashing. For example, on many campuses people who challenge the liberal dogma of Diversity are required to undergo “diversity training,” which consists of sitting silently and being “persuaded” of one’s error.

An even more creative trick is to establish “free speech zones” on campus—that is, special places where people can go whenever they want and say whatever they want. At first thought, this sounds perfectly reasonable. Only when you ponder the idea for a while and ask pertinent questions do you realize what’s happening. Question: Where will these “free speech zones” be? In front of the administration building? At the fountain in the center of campus? Behind the sewage treatment plant? Question: Will the number and size of these zones ever change? For example, if the people who use the zones vigorously question Politically Correct ideas, will the zones get fewer and fewer and smaller and smaller?

Questions such as these expose the nature of the game being played. Speech code advocates are pretending to give something to the campus community (free speech zones) when they are really taking something away (free speech). Listen carefully and you’ll be able to hear the Founding Fathers turning over in their graves. (Incidentally, “Founding Fathers” is politically incorrect because it omits mothers.) When those wise men wrote the U.S. Constitution they were espousing the free expression of ideas, even ones that some people find offensive. They believed that the way to conquer bad ideas is not by suppression but by countering them with good ideas. If they were with us today, they would condemn campus speech codes. And so should we.

**Note:** For another issue-analysis exercise like this one, visit the website.
A Disservice to Everyone

By Bruce Malone

Talk-show TV often displays a mindlessness that’s as amazing as it is appalling. One show, for example, featured teenagers who had decided to drop out of high school. The program began with the teens presenting their reasons for quitting, then proceeded to have their parents, a guest expert, and the host try to persuade them to stay in school. Finally, the teens were given a chance to answer the arguments of their elders.

If the show’s host and producers thought they were helping solve the problem of high school dropouts, they were mistaken. Appearing on television is an honor few people receive, even if they have made significant contributions to society. Yet those teens received just that honor for threatening to drop out of school. Their foolishness was dignified and they were made to feel like celebrities. Worse, by being allowed to have the last word on the issue, they were given an advantage over the adults.

The chances that those teens changed their minds after the program are slim to none. They very likely had the show videotaped and ran the tape over and over, showing their friends how they held their own in the debate. They may even fantasize that a career in television awaits them. It’s not hard to imagine them becoming the heroes of the neighborhood.

Such programs make the jobs of parents and teachers more difficult. Popular culture has already convinced many young people that they know more than their elders, that their opinions have special value, and that learning is a waste of time. Television shows that reinforce such nonsense are surely not a public service. If anything, they are a public disservice.

Note: For another issue-analysis exercise like this one, visit the website.

exercise 46

What lessons can you draw from the “Good Thinking!” profiles of Melvil Dewey, Larry Page and Sergey Brin, and Dorothea Dix presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.
Write your answers on a separate sheet of paper.

1. Would it be accurate to define an argument as a dispute characterized by angry exchanges? Explain.

2. What is the most important resource available in any library?

3. What contribution did Melvil Dewey make to critical thinking?

4. A search engine is a large machine librarians use to find books that have been improperly shelved. True or false? Explain.

5. Questions calling for a simple yes or no answer are most effective in an interview. True or false? Explain.

6. List the three steps you can take to avoid plagiarism.

7. List three kinds of evidence and the questions appropriate for testing each.

8. Where is the central opinion in an article usually found?

9. Explain how “and” relationships, “but” relationships, and “therefore” relationships differ.

10. List the five steps in the approach for evaluating complex issues.

11. When you evaluate an argument, the greatest obstacle to critical thinking is the complexity of the issue. True or false? Explain.

*Answers to this quiz may be found online.*
This page intentionally left blank
Recognizing Errors in Thinking

### IN THIS CHAPTER

<table>
<thead>
<tr>
<th>Three kinds of errors</th>
<th>Be alert for errors of perception, judgment, and reaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errors of perception</td>
<td>Errors often begin in faulty ways of seeing the world—“mine is better” thinking, selective perception, gullibility and skepticism, preconception, pretending to know, and either/or thinking.</td>
</tr>
<tr>
<td>Errors of judgment</td>
<td>Double standard, irrelevant criterion, overgeneralizing or stereotyping, hasty conclusion, unwarranted assumption, failure to make a distinction, and oversimplification are the main kinds of judgment errors.</td>
</tr>
<tr>
<td>Errors of reaction</td>
<td>When we explain away ideas, shift the burden of proof, attack the person, or set up a “straw man,” we risk fooling ourselves.</td>
</tr>
<tr>
<td>Errors can multiply</td>
<td>Any error in thinking invites additional errors.</td>
</tr>
</tbody>
</table>
Three kinds of errors

Most often people seek in life occasions for persisting in their opinions rather than for educating themselves. Each of us looks for justification in the event. The rest, which runs counter to that opinion, is overlooked. . . . It seems as if the mind enjoys nothing more than sinking deeper into error.
—ANDRÉ GIDE

Perhaps Gide overstated the problem in suggesting that we enjoy error. But he was wise in noting our difficulty in dealing with issues objectively and logically. To overcome that difficulty, we need to understand the kinds of errors that can entrap us and the steps we can take to avoid them.

Three broad types of errors are common: errors of perception, errors of judgment, and errors of reaction.

Errors of perception

Errors of perception are not blunders made while examining issues. They are faulty ways of seeing reality, preventing us from being open-minded even before we begin to apply our critical thinking. The following are especially serious:

“My is better” thinking

As small children we may have said, “My mommy is prettier than any other mommy” or “My daddy is bigger and stronger.” Perhaps we had similar thoughts about our houses, toys, and finger paintings.

Now that we’ve gotten older, we probably don’t express “mine is better” thinking. Yet we may still indulge in it. Such thinking often occurs in matters that are important to us, such as our race, religion, ethnic group, social class, political party, or philosophy of life.

This habit is not always obvious. In fact, “mine is better” thinking can be very subtle. We may be very uninterested in a person until we find out she is Irish, like us. Suddenly we feel a sense of kinship. We may think a person is rather dense until he says something that matches our view. Then we decide he’s really quite bright after all.
“Mine is better” thinking is natural and often harmless. Even so, this kind of thinking creates distance between people through a win–lose mentality, which can easily create an obstacle to learning from others. To prevent this from happening, remember that opening your mind to ideas from other people can broaden your perspective and lead to fresh insights. Give every idea a fair hearing—even an idea that challenges your own.

**Selective perception**

In one sense, we see selectively most of the time. Let’s say you and two friends, a horticulture major and an art major, walk through a shopping mall. You want to buy a pair of shoes; the others are just taking a break from studying. The same reality exists for each of you: stores, potted plants, people passing by. Still, each of you focuses on different things. While you are looking for shoe stores, one friend notices plants. The other studies faces for interesting features.

Later, one of you says, “Hey, did you see the big new store in the mall?” The others say no. Though the store was before all of your eyes, two of you screened it out.

That kind of selective perception is often harmless. Another kind of selective perception takes place when we focus on things that support our current ideas and reject anything that challenges them. Suppose someone thinks that a particular ethnic group is stupid, violent, cheap, or lazy. Then “stupid” behaviors will capture that person’s attention. And if his bias is strong enough, he will completely miss intelligent behaviors from members of that group. He’ll see only evidence that supports his prejudice.

You can break the habit of selective perception by looking and listening for details you haven’t seen before. Also press yourself to balance your perception. If you find yourself focusing on negative details, look for positive ones, and vice versa.

**Gullibility and skepticism**

Philosopher Alfred Korzybski observed, “there are two ways to slide easily through life: to believe everything or to doubt everything—both ways save us from thinking.” To believe everything we are told is to be gullible. To doubt everything is to be skeptical.

An alternative to gullibility and skepticism is questioning. This means greeting all ideas with curiosity and wonder, judging none of them in advance, and being equally prepared to find wisdom, foolishness, or some combination of the two.
THE STORY OF PAUL VITZ

Paul C. Vitz is a professor of psychology and the author of many articles and several books, including *Faith of the Fatherless: The Psychology of Atheism*. The story behind this book illustrates how a simple question can lead to new insights.

For much of his life, Vitz had been an atheist, but at age 38 he embraced religion and became interested in the historic tension between psychology and religion. He learned that “even in intellectual and academic circles, atheism did not become respectable until about 1870 . . . and it continued to be restricted to small numbers of intellectuals into the twentieth century.” From his training as a psychologist he also knew that “many atheists are famous for arguing that [religious] believers suffer from illusions, from unconscious and infantile needs, and from other psychological deficits.” Freud, for example, argued that belief in God is nothing more than a projection of the believer’s desire for security.

As he reflected on these facts, he began to wonder whether this “projection theory” might apply to atheists as well as to believers, or perhaps even apply better to atheists than to believers. Eager to find out, he decided to study the lives of famous atheists and famous religious believers and see if any interesting patterns emerged. The atheists he chose included Freud, Nietzsche, Hume, and Sartre; the theists included Pascal, Berkeley, de Tocqueville, Kierkegaard, and Buber.

This study revealed that every famous atheist had a weak, dead, or abusive father, and almost every theist had a positive relationship with his father. After analyzing the data, Vitz concluded that the projection theory of religious belief is not only unscientific but also a form of the error in thinking known as *ad hominem*—in other words, it focuses on the believer personally rather than on the evidence for and/or against religious belief.

Vitz writes as follows: “Since both believers and nonbelievers in God have psychological reasons for their positions, one important conclusion is that in any debate as to the truth of the existence of God, psychology should be irrelevant. A genuine search for evidence supporting, or opposing, the existence of God should be based on the evidence and arguments found in philosophy, theology, science, history, and other relevant disciplines. It should also include an understanding of religious experience.”

Paul Vitz’s research could pave the way for a more scholarly approach to the study of religion.

For more information on Paul Vitz, see Paul Vitz, *Faith of the Fatherless: The Psychology of Atheism* (Dallas, TX: Spence Publishing Co., 1999).
Preconceptions

A preconception about the majority or the minority. Preconception tends to follow our affections. If we feel more comfortable with the majority on our side, we may take for granted that the majority view is correct. If we identify with the underdog and love the challenge of confronting superior numbers, we may make the same assumption about the minority view.

Each of these choices can occur with little or no awareness that we are making up our minds in advance. And in each case we put feelings of comfort and personal preference above the evidence. Critical thinking means deciding issues on their merits rather than on the number or the celebrity status of the people on the opposing sides.

A preconceived view of change. According to an old joke, conservatives have never met a new idea they liked, and liberals have never met a new idea they didn’t like. Each observation contains an element of truth.

Some people find even small changes, like returning home from school and finding the furniture rearranged, very upsetting. Major changes, like moving across the country, can be even more disturbing.

New ideas can have a similar effect on such people. Old beliefs provide a sense of comfort and security. When those beliefs are challenged, people may feel that reality has been pulled out from under them. That’s probably why ancient rulers killed the bearers of bad news. It’s also one reason why persuading others can be difficult.

Unfavorable preconceptions about change may be older and more common than favorable ones. Yet the latter seem to be increasing today, perhaps because technology is advancing so rapidly. Some people think that old ideas, old beliefs, and old values are of little use today. For them, new is always better.

Neither perspective is consistent with critical thinking. Some new ideas are clearly better than the old ones they replace. Progress has in fact occurred in every area of life, including science, technology, education, and government. Yet this reality has another, less beneficial side. New ideas can contain serious flaws that go unnoticed at first. Time and experience can prove that the supposed great leap forward was actually several steps backward.

To avoid preconceptions about change, know your own mental habits. Also resist the temptation to accept first impressions.

Pretending to know

Some people believe that confessing ignorance makes them look ineffective, so they pretend to know things. After a while, pretending
becomes a habit that hinders critical thinking. Suppose someone says on several occasions, “I’ve read quite a few books on psychology.” Also suppose the truth is different and he’s never read a book on the subject. The idea will become so familiar that he might take it for the truth. What’s more, he’ll begin to confuse his guesses about psychology with real knowledge. Practice staying aware of your statements and remaining alert for pretense. Whenever you find it, acknowledge the truth and resolve not to lie to yourself or others again.

Either/or thinking

This error of perception means taking only extreme positions on an issue when other positions are possible. For example, one person thinks that accepting evolution means rejecting the idea of creation. Another person thinks that being Republican means taking a conservative stance on every issue.

Yet it’s possible to believe in evolution and creation. You could believe that God created the universe and planned for it to evolve over millions of years. (You could also be a Republican without always taking a conservative stand.)

Either/or thinking hampers critical thinking. This error prompts us to take extreme, unreasonable views. To avoid either/or thinking, look for times when there seem to be only two possible views. Ask yourself, “Are these the only possibilities? Could another view be more reasonable—perhaps one that includes elements of both?”

An example is the debate over crime prevention. Some elected officials argue for banning assault weapons and registering handguns. The National Rifle Association argues for getting criminals off the street. You might ask, “Why not take both actions and add others, such as building more prisons, as well?”

exercise 47

Consider each of the following situations, being alert for errors of perception. Such errors are often implied rather than stated directly, so you are likely to find hints rather than clear-cut evidence of error. Using a separate sheet of paper, identify whatever hints you find and explain why you believe they point to an error of perception.

A.

In April of 2007, NFL quarterback Michael Vick pleaded guilty to charges related to his involvement in an illegal dog fighting operation. He also
admitted he personally helped kill a number of dogs after they lost their fights. When Vick was first charged, Marvin and Oscar were discussing the news reports. Marvin took the position that if Vick was guilty of the charges, he should receive the maximum penalty provided by law. Oscar questioned the news reports, arguing that star athletes—especially black star athletes—are often falsely accused.

B.
In a classroom discussion on the subject of terrorism, Ethel claimed that moderate Muslims around the world are not speaking out forcefully enough against Muslim terrorists. “I know that if acts of terrorism were committed by Jews or Christians, the Jewish and Christian communities around the world would loudly denounce their actions,” she said. “The fact that Muslims remain silent is a scandal.”

C.
Claude believes that efforts to improve the health care system in the U. S. are completely misguided. He supports this belief with statistics showing the serious problems in the health care systems in Canada, England, France, Sweden, and Cuba.

exercise 47 (cont.)

Consider each of the six errors of perception. Think of a time when you've committed each one and describe the situation. Explain how you reacted and what events followed. Then decide how you might have avoided each error and how the consequences might have been different.

“Mine is better” thinking

Selective perception
Errors of judgment

Errors of judgment occur in the process of sorting out and assessing evidence. They prevent us from reaching the most reasonable conclusion. The following errors of judgment are among the most common:

**Double standard**

This error consists of using one standard of judgment for our ideas and an entirely different, more demanding standard for ideas that conflict with ours.

People who employ a double standard ignore inconsistencies, contradictions, and outrageous overstatements in arguments they agree with. Yet they nitpick their opponents’ arguments. They even use different vocabularies. Allies are described as “imaginative,” “forceful,” and “brutally honest.” Opponents with the same qualities are labeled “utopian,” “belligerent,” or “mean-spirited.”
Critical thinking demands a single standard of judgment for both those who agree and those who disagree with us.

**Irrelevant criterion**

This error consists of criticizing an idea because it fails to do what it wasn’t intended to do. Say that a chief executive proposes a new reward program for employees’ cost-saving ideas in his company. Supervisors argue against the program because it doesn’t increase the percentage of women and minorities in the company. In this case, the supervisors are invoking an irrelevant criterion.

The point is not that fairness to women and minorities is unimportant. Rather, fairness is a different issue and should not be made the measure of the reward program.

You can avoid the mistake of using irrelevant criteria. When you evaluate an idea, set aside all separate issues and agendas, no matter how important they are or how committed you feel about them.

**Overgeneralizing or stereotyping**

Generalizations are judgments about a class of people or things. Political pollsters are generalizing when they say, “Most voters don’t care much about either presidential candidate.” Though such a statement covers tens of millions of people, it’s a fair one if based on a representative sample of those people.

Generalizations don’t have to be based on a scientific sampling in order to be fair. They need only be based on a reasonable number of contacts with a reasonable number of people in the group. For example, your instructor might say, “My present students are more willing to participate in class than my students were last year.” Or you could say, “The people in my neighborhood are friendly.”

Overgeneralizations are unfair generalizations. They exceed what’s appropriate to conclude from our experiences. Suppose a professor teaches only advanced French literature and sees only a small, unique group of students. If she says something about “the students at this college” based solely on her experience, she is thinking uncritically. Or consider a first semester student who has contact with only five instructors. This person would be overgeneralizing if he judged “the faculty at this school.”

Stereotypes are overgeneralizations that harden into convictions shared by many people. There are stereotypes of people: fundamentalists, politicians, feminists, psychiatrists, rock musicians. And there are stereotypes of places and things: New York City and San Francisco, marriage and farming.

Overgeneralizations and stereotypes hinder critical thinking by blinding us to important differences among individual people, places, and things.
Hasty conclusion

Hasty conclusions are those drawn without enough evidence. Consider this case: A student often leaves the door to his room open and many people have access to the room. One day he discovers an expensive pen is missing from his desk. He concludes that his roommate took it. This
is a hasty conclusion. It’s possible that his roommate stole the pen. It’s also possible that someone else stole it. Or perhaps he lost or misplaced the pen.

In many cases, two or more conclusions are possible. Critical thinking means having a good reason for choosing one over the others. If no such reason exists, suspend judgment and seek more evidence.

**Unwarranted assumption**

Assumptions are ideas we take for granted. They differ from conclusions in an important way: Assumptions are *implied* rather than expressed. In many cases we make them unconsciously. Consider this exchange:

*Sally:* You say that discrimination against women is a thing of the past. That’s just not true.

*Ralph:* It certainly is true. I read it in a magazine.

Ralph may not be aware of it, but he is assuming that whatever appears in a magazine is necessarily true. This assumption takes too much for granted, so it is unwarranted.

There’s nothing necessarily wrong with assumptions. Making them allows us to conduct our daily activities efficiently. When you got up this morning, you assumed there would be enough hot water to take a shower. If you drove to school, you probably assumed that your car would start and your instructors would hold classes. Unless there was a good reason not to make these assumptions—for example, if you knew your water heater was broken—they would be valid.

The assumptions that hinder critical thinking are unwarranted assumptions. They prevent us from asking useful questions and exploring possibilities. For example, if a student assumes that it is the teacher’s job to make class interesting, she is unlikely to ask herself, “What responsibility do my fellow students and I have to make class interesting?” Here are some common unwarranted assumptions:

<table>
<thead>
<tr>
<th>Unwarranted Assumption</th>
<th>Why Unwarranted</th>
</tr>
</thead>
<tbody>
<tr>
<td>People’s senses are always trustworthy.</td>
<td>Senses are imperfect and can mislead us.</td>
</tr>
<tr>
<td>Having reasons proves that one has reasoned carefully.</td>
<td>Some reasons are not thought out at all but simply borrowed from others.</td>
</tr>
<tr>
<td>Conviction constitutes proof.</td>
<td>It is possible to be passionately committed to a mistaken idea.</td>
</tr>
<tr>
<td>Familiar ideas are more valid than unfamiliar ideas.</td>
<td>If we hear a false statement often enough, it becomes familiar and we naturally regard it as true.</td>
</tr>
</tbody>
</table>
Because assumptions are unstated and often unconscious, they are difficult to detect. When you look for assumptions in your own thinking and writing, go beyond what you consciously thought or wrote. Ask yourself, “What am I not expressing but merely taking for granted?”

**Failure to make a distinction**

Distinctions are subtle differences among things. Care in making distinctions can help you overcome confusion and deal with complex issues effectively. Following are some important distinctions to recognize:

<table>
<thead>
<tr>
<th>Unwarranted Assumption</th>
<th>Why Unwarranted</th>
</tr>
</thead>
<tbody>
<tr>
<td>If one event occurs soon after another, it must have been caused by the other.</td>
<td>Sometimes the closeness in time is merely coincidental.</td>
</tr>
<tr>
<td>The way things are is the way they are supposed to be.</td>
<td>Because we humans are an imperfect species, what we invent or establish is almost always open to improvement.</td>
</tr>
<tr>
<td>Whatever hasn’t been done is impossible to do.</td>
<td>According to Edward Karsner and James Newman, “the first steam vessel to cross the Atlantic carried, as part of its cargo, a book which ‘proved’ that it was impossible for a steam vessel to cross anything, much less the Atlantic” (Larrabee, 91). The author of that book obviously assumed that what hadn’t yet been done couldn’t be done.</td>
</tr>
<tr>
<td>If an idea is in one’s mind, it must have originated there.</td>
<td>All day long, every day of our lives, we read and hear other people’s ideas. Those we hear only once may be quickly forgotten, but those we hear many times are reinforced, especially when we repeat them in our own words. In time we may mistakenly regard them as uniquely ours.</td>
</tr>
<tr>
<td>Widely accepted ideas must be true.</td>
<td>Nations and cultures can be as easily mistaken as individuals. History is filled with examples, such as the popular notion that high self-esteem is correlated with success and low self-esteem with failure. Harold Stevenson and James Stigler tested this idea in a study of elementary students from Japan, Taiwan, China, and the United States. All the Asian students outperformed the Americans academically yet scored lower in self-esteem (Stevenson). Moreover, in 1990 a group of scholars, many of them favorably disposed to the self-esteem theory, reviewed the research on self-esteem and found, in the words of sociologist Neil Smelser, “the associations between self-esteem and its expected consequences are mixed, insignificant, or absent” (Kohn, 274).</td>
</tr>
</tbody>
</table>
Oversimplification

There’s nothing wrong with simplifying. In elementary school especially, teachers simplify their subjects. Professionals such as engineers and chemists simplify to communicate with people untrained in their fields.

Oversimplification differs from simplification. Oversimplification omits essential information or ignores complexity. Consider this idea: “High school teachers have it made. They’re through at three o’clock every day and work only nine months of the year.” Though there is some truth to this statement, it’s inaccurate. Teachers often prepare four or five classes a day, grade homework, keep records, chaperone activities, and advise organizations. These activities often occur outside the normal eight-hour day. In addition, teachers are often required to take summer courses.

Oversimplification distorts reality and confuses discussion.

<table>
<thead>
<tr>
<th>The Distinction</th>
<th>Why Necessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>The distinction between the person and the idea</td>
<td>Critical thinkers judge an idea on its own merits—not on the celebrity status or expertise of the person expressing it. Though experts usually have more informed views than novices, experts can be wrong and novices can have genuine insights.</td>
</tr>
<tr>
<td>The distinction between assertion and evidence</td>
<td>Some people pile assertion upon assertion without evidence. If these people are articulate, the casual thinker may be persuaded. Critical thinkers judge ideas on how well supported—and supportable—they are. This is more important than how well the idea is expressed.</td>
</tr>
<tr>
<td>The distinction between familiarity and validity</td>
<td>We’re naturally attracted to the familiar. It’s easy to believe that reasoning is valid merely because we’ve heard it many times. Critical thinkers, however, are not swayed by familiarity.</td>
</tr>
<tr>
<td>The distinction between categorizing the person and evaluating the argument</td>
<td>Uncritical thinkers tend to think that once they have determined a person’s philosophical, political, or religious perspective, they need not consider the merits of the person’s argument. Such thinkers are fond of saying “I’ve got her pegged—she’s a liberal” (or “a Democrat” or “a Republican”) and then closing their minds to the person’s ideas. Critical thinkers know that an argument deserves to be considered on its merits, regardless of who advances it.</td>
</tr>
<tr>
<td>The distinction between often and always, seldom and never.</td>
<td>Uncritical thinkers tend to ignore this distinction. They might say something “always” occurs when the evidence supports only “often,” or they might say it “never” occurs when the evidence supports only “seldom.” Critical thinkers are careful to make the distinction.</td>
</tr>
</tbody>
</table>
Consider each of the seven errors of judgment. Think of a time when you’ve committed each one and describe the situation. Explain how you reacted and what events followed. Then decide how you might have avoided each error and how the consequences might have been different.

Double standard

Irrelevant criterion

Overgeneralizing or stereotyping

Hasty conclusion

Unwarranted assumption

Failure to make a distinction
Read each of the following passages carefully, looking for errors of judgment. Remember that such errors are sometimes implied rather than stated directly. When you find an error, explain it in the space provided.

A. 

*Sue:* My English instructor makes us rewrite any composition that contains more than three errors in grammar or usage. And she’s always demanding that we do better in our writing. I think she dislikes us.

*Ellen:* I know what you mean. The professors at this college seem to think it’s Harvard.

B. 

*Morris:* Did you notice all the people using food stamps in the grocery store this morning?

*Olaf:* Yeah. It seems everybody has them these days. It’s the fashionable thing to plead poverty.

*Morris:* That one woman was dressed well, too. I’ll bet her lazy husband was waiting for her outside in a big fancy car.

*Olaf:* It makes me sick, people like that leeching on society. Darwin had the right idea: survival of the fittest. If people can’t survive on their own, let them suffer.
C. Times change, and values in one age are different from values in another. Parents fail to realize this. That’s why they keep harping about avoiding alcohol and drugs and postponing sexual involvement. They think that what was right for them is right for us.

D. Boris: Can you believe the price of textbooks? The average amount I spent for a book this semester was $80, and a good half of my books are paperbacks.
   Elaine: Everybody’s complaining about it. When the cost of books keeps going up and up, there’s only one explanation: The authors and publishers are getting greedy.
   Boris: Yeah, and you know one of my instructors has the nerve to make us buy a book he wrote. And get this: He teaches Ethics!
   Elaine: Wow.

E. Zeb: Did you read the latest about Senator Fosdick? The candidate running against him claimed he knowingly received illegal campaign contributions.
   Clarissa: How ironic. Senator Fosdick has been talking about campaign reform for years. Now it turns out he’s as big a crook as the rest of them. What a hypocrite.

F. Cynthia: A study has shown that as the speed limit has been raised, there’s been an increase in traffic fatalities.
   Mark: Speed limits don’t cause traffic fatalities. Careless drivers do.
Errors of reaction

Errors of reaction occur when we express a viewpoint and someone reacts negatively. They are defensive reactions that preserve our self-image and provide an excuse to maintain our view. The following errors of reaction are the most common.

Explaining away

Ron has been a marijuana smoker for several years. He maintains that marijuana is harmless. Last night he and a group of friends were talking, and one of them mentioned...
that his health instructor had distributed an article from the *Journal of the American Medical Association.*

That article reported the results of a clinical study of marijuana use. It concluded that “contrary to what is frequently reported, we have found the effect of marijuana to be not merely that of a mild intoxicant which causes a slight exaggeration of usual adolescent behavior, but a specific and separate clinical syndrome.” The main effects the study noted were “disturbed awareness of the self, apathy, confusion and poor reality testing.”

Ron’s reply was heated. “Those articles are written by a bunch of guys who never smoked a joint. They’re guessing, fantasizing, or worse, making up scare stories for parents to feed their kiddies. I’ve smoked pot for years, and I can tell you it’s had no effect on me.”

Ron found the prospect of being wrong about marijuana and the possibility of injuring himself too unpleasant to consider. This is understandable. Still, critical thinking would suggest that he at least read the article and examine the evidence. Instead, he resorted to a tactic long used in uncritical thinking: explain it away.

When people explain away challenges to their ideas, they don’t change reality. They just postpone dealing with it. The longer they postpone, the more painful the experience. If you wish to avoid such results, face unpleasant ideas directly and honestly.

**Shifting the burden of proof**

Accepting the burden of proof means supporting our assertions. The more the assertions challenge accepted wisdom, the greater the burden. What’s more, this burden falls on the person who makes the assertion. Here’s how this concept applies in an actual case. Two students are discussing greatness in boxing:

*Zeke:* Mike Tyson was the greatest heavyweight boxer of all time.
*Brad:* Wait a minute. There have been a lot of great heavyweights over the years. I doubt Tyson was better than all of them.

*Zeke:* I stand by my position. Prove me wrong if you can.

There would be nothing wrong with Zeke’s asking Brad why he doubts Tyson’s greatness. But when Zeke says “Prove me wrong,” he’s shifting the burden of proof. Since Zeke made the original statement, he should be prepared to defend it.

When you make an assertion, you might be called on to defend it. And if you find that you can’t defend the assertion, avoid shifting your burden of proof. Instead, withdraw the assertion.

**Attacking the person**

In uncritical thinking there’s a common way of reacting to challenges: attack the challenger. Here’s a common scenario.
Melissa argues that it makes no sense for students to vote while they’re away at college. The process of obtaining an absentee ballot is time consuming, she says. And with so many people voting, a student’s vote isn’t that important.

Agnes challenges Melissa’s view. “I voted by absentee ballot last year,” she says, “and the process was simple.” Agnes adds that some elections are close enough to be decided by a few thousand votes. What’s more, hundreds of thousands of college students are eligible to vote.

Now Melissa is embarrassed. The weakness of her view has been exposed in front of other students. She launches an attack on Agnes. “You have no business lecturing me about right and wrong. Just last week you cut Friday’s classes so you could go home early, and then you lied to your instructors about being sick. Stop being a hypocrite, Agnes.”

Even if this attack on Agnes is true, it has nothing to do with the issue of college students voting. It’s merely a way for Melissa to save face.

How would Melissa respond if she practiced critical thinking? She would focus on Agnes’s idea rather than on Agnes as a person. And since the idea seems reasonable, Melissa would probe it further before dismissing it. She could say, “Perhaps I’m mistaken. What steps are needed to vote by absentee ballot?” Then if Agnes’s answer showed that the process was simple, Melissa could respond, “I guess you’re right.”

By acting this way, Melissa would not lose face. In fact, the other students might be impressed at her flexibility and willingness to admit a mistake.

**Straw man**

This error involves make-believe. Specifically, the error means pretending others have made statements that they didn’t make, and then denouncing them for making the statements.

Imagine this situation: Someone has proposed that your school’s attendance policy be revised to permit unlimited absences from class without penalty. You argue against the proposal, claiming that students who attend class sporadically slow the pace of learning for others and degrade the quality of class discussion.

Then someone responds to your argument as follows: “I take exception to your view. You say that adults should be treated as children, that students must leave their constitutional rights at the college gate, and that individuals whose work obligations sometimes force them to miss class are inferior creatures deserving of punishment.”

Those stirring words, which bear no relation to reality, constitute the error of straw man. They attribute to you something you did not say. To avoid the error of straw man, listen to or read others’ arguments carefully. Focus your criticism on what was actually said or clearly implied.
In all these errors of reaction, ego gets in the way of critical thinking. It’s in your long-term interest to acknowledge error and learn from it. Doing so promotes knowledge and wisdom.

**exercise 51**
Consider each of the following situations, being alert for errors of reaction. Such errors are often implied rather than stated directly, so you are likely to find hints rather than clear-cut evidence of error. Using a separate sheet of paper, identify whatever hints you find and explain why you believe they point to an error of reaction.

A. A woman named Elvira Arellano was deported to Mexico, leaving her young son behind. Unlike her, he is a citizen because he was born in the U.S. In discussing this case, Rowena stated her belief that the law should be changed so that only individuals born to parents who are legally in the U.S. should receive automatic citizenship. Raoul responded, “You are saying that Elvira’s son and thousands of others like him are lacking in dignity and unworthy of basic human rights. That is a shameful view to hold.”

B. One of the many proposals for tax reform is the “flat tax,” which would do away with many of the present categories of deduction and tax everyone’s income at the same rate—for example, 10 percent. Thus, someone who earned $25,000 a year would pay $2,500 in taxes, and someone who paid $250,000 would pay $25,000. In a campaign debate one candidate for the U.S. Senate endorsed the flat tax, and his opponent immediately accused him of being an elitist who was more concerned with the interests of the wealthy than the interests of common working people.

C. In a classroom discussion about the situation in the Mideast, Bertrand made the following statement: “Recent history has proven that the U.S. is too quick to reject diplomacy and wage war. The world would be safer and more peaceful today if our leaders had resisted the urge to attack Iraq and, instead, had sat down with Saddam and with the leaders of Iran and Syria and given trust and reason a chance. I challenge those who disagree with me to disprove the wisdom of this approach to international relations.”

**exercise 52**
Consider each of the four errors of reaction. Think of a time when you committed each and describe the situation. Explain how you reacted and what consequences followed. Then decide how you might have avoided each error and how the consequences might have been
Different. (If you can’t think of an error of your own, identify one you encountered through reading or observation.)

**Explaining away**


**Shifting the burden of proof**


**Attacking the person**


**Straw man**


---

**Exercise 52 (cont.)**

Many logicians use the traditional term “logical fallacies” to refer to the errors in thinking discussed in this chapter. In some cases, they also use different terms for the specific errors discussed here. Because others may use those terms in discussing issues with you, it is helpful to be familiar with them. Do a Google search using the search term “logical fallacies” and visit at least five websites, taking note of the terms and descriptions of specific fallacies. Then compare those terms and descriptions with the ones used in this chapter, noting similarities and differences. Finally, meet with a group of two or three classmates, compare your findings, and prepare a group report to the class.
Reflect on the following observation, then record your thoughts in the space provided.

OBSERVATION

Psychologist Abraham Maslow explained the hierarchy of human needs by using the figure of a pyramid (see illustration). The lower needs, he believed, must be met before the higher needs are pursued. At the bottom of his pyramid are physiological needs (food, clothing, shelter). Then comes the need for belongingness and love. Above that comes self-esteem, then aesthetic and intellectual needs. At the top, representing the highest need, is self-actualization.

Austrian psychiatrist Viktor Frankl challenged this order. He argued that self-transcendence—forgetting about self and seeking challenging tasks to add meaning to one's existence—is the highest human need. He also believed that self-actualization cannot be pursued but comes only by achieving self-transcendence. Several decades have passed since these two views were first presented, and in the United States Maslow's has been more influential.

REFLECTION

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Copyright © Houghton Mifflin Company. All rights reserved.
Errors can multiply

Errors would be costly enough if they occurred singly and separately. Yet in many cases one error invites another and that leads to several more. It’s natural for us to want knowledge and wisdom. (Have you ever met anyone who wanted to be ignorant and foolish?) And it’s easy to go from wanting it to pretending we have it and then to seeing the world in a way that reinforces our pretense.

Such a chain of perception errors paves the way for errors of judgment. For example, it can lead to assuming too much, ignoring important distinctions, and jumping to conclusions that flatter our viewpoint. And once we embrace errors of judgment, express them to others, and hear them criticized, we may be tempted to commit errors of reaction to save face.

Remembering the ways in which errors tend to multiply can keep you motivated to think critically.

---

**exercise 55**

Should “illegal aliens” be accorded the same rights as U.S. citizens? The debate over this issue has become intense since the “9/11” attack on the World Trade Center. Analyze this issue using the five-step approach detailed in Chapter Five. Following are two opposing viewpoints on this issue to get you started.

**Laws Are Meant to Be Observed**

*By Kareem Ali*

An alien in a country is a person who lives there but whose home is in another country. An illegal alien is one who entered the country where he is living without having gone through the established legal process for doing so. Substituting the term *undocumented worker* is an exercise in linguistic sleight-of-hand, the equivalent of calling a shoplifter “a non-paying customer.” To paraphrase Shakespeare, you can call a rose by another name but it remains a rose.

*Illegal* is not a pretty word, but it accurately defines a situation in which a law is broken. Entering a country without fulfilling the requirements set by that country is as illegal as taking an item from a store without paying for it.

The law makes provision for people to come to this country and become citizens or, if they wish, simply to work or study for a time and then to return home. The process is orderly and fair. Of course, time and paperwork are involved but that is unavoidable. It is certainly not an excuse for people to flout the law.

The number of illegal aliens in the United States is estimated at between eight and thirteen million individuals. To be sure, most simply wish to pursue a better...
A movement has arisen in this country to ignore or even approve illegal immigration. Supporters of that movement believe that people here illegally should be granted the same rights as those who honored the immigration laws and even the rights of citizenship, including voting rights. Some even would approve in-state tuition preferences. This would mean that an illegal immigrant in California would pay significantly less to attend college there than a U.S.-born citizen of Nevada or Oregon!

Despite their good intentions, people who approve illegal immigration are undermining our legal system, supporting the individuals engaged in smuggling in immigrants (many of whom are also drug smugglers), creating a burden on the American taxpayer, and threatening homeland security. Their efforts should be strongly opposed.

Send Me Your Poor

By Maria Maloney

To begin with, the term illegal alien is abhorrent. Illegal suggests that the person’s existence is somehow suspect. And calling human beings “aliens” puts them in the same category as imaginary beings from another planet. That’s offensive!

Let’s be clear about this. This issue concerns flesh and blood people like you and me who have fled poverty or oppression in search of a better life. True, they didn’t fill out all the forms required by the immigration bureaucracy and get the required visa, but that’s not reason enough to imprison or deport them.

The vast majority of undocumented individuals in the United States are hardworking people. Not only are they willing to perform menial work that others won’t do—many companies are eager to employ them. And here’s another dirty secret: some of the politicians who shout the loudest about securing our borders conveniently ignore the immigration status of the nannies, maids, and gardeners they hire.

Debate about undocumented individuals often focuses on whether they are entitled to the rights enjoyed by U.S. citizens. Some writers have argued for denying them driver’s licenses, voting rights, access to healthcare facilities, and education. That position is exclusionary, vindictive, and inhumane.

What makes a country great is not the size of its military arsenal, the extent of its natural resources, or the monetary wealth of its citizens. No, what makes a country great is the depth of its compassion towards the poor and needy. If America wishes to merit the title “great,” it must accept all who reside within its borders regardless of how they happen to have arrived.
All Americans would do well to remember the words inscribed on our Statue of Liberty: “Give me your tired, your poor,/ Your huddled masses yearning to breathe free,/ The wretched refuse of your teeming shore./ Send these, the homeless, tempest-tossed to me,/ I lift my lamp beside the golden door!”

Analyze ONE of the following arguments using the five-step approach detailed in Chapter Five. In conducting your research, be especially careful to look for any errors in thinking and examine viewpoints that differ from the one presented.

DISPLAY THE TEN COMMANDMENTS

Let me make it clear at the outset that I am not insensitive to the feelings of religious minorities. My great-grandparents came to this country from Ireland as young children in the 1890s. They attended public schools in New York City. Their teachers often read from the King James (Protestant) Bible and even led the children in the recitation of the Protestant version of the Lord’s Prayer. If Catholics (like my grandparents) or Jews objected, they were told to “get used to it.” That wasn’t acceptable then and it’s not now.

Nevertheless, I am in favor of posting the Ten Commandments in every public school classroom in this country. Is this a contradiction? Not at all, because I favor posting other religious/moral codes alongside the Ten Commandments. Does that mean the Muslim, Buddhist, Hindu, and Native American equivalents of the Ten Commandments? Absolutely. The codes of atheistic or agnostic groups, such as Secular Humanists, too? Of course.

If this approach were taken, no students or parents would have reason to be offended. No one’s beliefs would be excluded. No one would be given prominence. Some would argue that having no religious or moral codes on the wall is better than having many of them there. I say that the very purpose of the school is to lead students out of ignorance and into knowledge. Banishing all codes dignifies ignorance.

Religion has been among the most powerful forces in human history. So have moral codes. Putting reminders of both in prominent places in institutions of learning may not be a panacea. But if students happen to look at them, they might notice how similar most of them are. A few students might even get around to thinking about the connection between morality, law, and a safe society. I can think of worse things.

THE HIGH COST OF POLICING THE WORLD

No sensible person would deny that the U.S.-led attack on Iraq has benefited the people of that country. Saddam and his brutal followers were a cancer that
needed to be excised. Unfortunately, the success of that operation is likely to em-
bolden the militaristic-minded to see it as the model for dealing with problems in
other countries, in other words, for the United States to become the police force of
the world. Here are four good reasons for such thinking to be rejected.

First, for the United States to take on the role of the world’s police force would
divert attention from domestic problems. These include needed improvements in
public education, poverty, and joblessness in the inner city; homelessness and
substance abuse; the destruction of the environment; and the limitations of pres-
ent health insurance coverage.

Second, the use of U.S. troops in foreign policing operations would put them in
harm’s way. The nature of such operations puts restrictions on a soldier’s ability to
defend himself or herself. Whereas in military actions they can attack the enemy,
in police actions they can only react, and even then may use only minimal force.
Moreover, if members of the armed services are suitable in the role of police offi-
cers (a debatable matter), the place to use them is not in foreign lands but in the
United States for the protection of our northern and southern borders.

Third, for the United States to police the world would place an immense finan-
cial burden on taxpayers. It is expensive enough to deploy troops in a single for-
eign campaign. The cost of doing so in many places at the same time would be
prohibitive.

Fourth, if the United States assumed the role of police force to the world, the
world’s reaction would be to hate us even more than at present. The only thing
worse than a meddler in other’s affairs is an armed meddler. And that is just what
we would be.

HOW THE MEDIA DISTORT REALITY

TV and movie apologists are forever telling us that we have no business criticiz-
ing them because they are only holding a mirror up to reality. Many people buy
that explanation, but they shouldn’t.

It would be more accurate to say the media hold a magnifying glass to carefully
selected realities—namely, the most outrageous and sensational events of the day,
such as the tragic deaths of John F. Kennedy Jr. and Princess Diana, or the trials of
celebrities such as O. J. Simpson, Kobe Bryant, and Michael Jackson.

Consider how this happens. The first platoon of media people report the latest
sensational story as it unfolds, squeezing each new development for all the airtime
or newsprint it will yield. Meanwhile, agents and attorneys are negotiating the sale
of movie and TV rights to the story. The sleazier the story, the greater the payoff.
After the movie is produced, every situation comedy, detective show, and western
drama builds an episode around the successful theme.

In this way a single despicable, disgusting act—real or imagined—can gener-
ate months of sensational media fare.
exercise 56 (cont.)

In short, the media exploit our social problems for ratings, feed us a steady diet of debasing material, celebrate irresponsible behavior, and then have the audacity to blame parents and teachers for the social problems that result.

exercise 57

What lessons can you draw from the “Good Thinking!” profiles of Paul Vitz and Martin Seligman presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Write your answers on a separate sheet of paper.

1. Explain each of the following terms and describe how errors in the category affect the thinking process:
   - Errors of perception
   - Errors of judgment
   - Errors of reaction

2. Define each of the following errors, and explain when it occurs in the thought process:
   - Double standard
   - Shifting the burden of proof
   - Unwarranted assumption
   - “Mine is better” thinking
   - Gullibility and skepticism
   - Irrelevant criterion
   - Pretending to know
   - Attacking the person
   - Oversimplification
   - Preconception for or against change
   - Straw man
   - Explaining away
   - Selective perception
Hasty conclusion

Overgeneralizing or stereotyping

Failure to make a distinction

Preconception

Either/or thinking

*Answers to this quiz may be found online.*
This page intentionally left blank
# Applying Your Thinking Skills

## IN THIS CHAPTER

<table>
<thead>
<tr>
<th>Thinking critically about</th>
<th>Solve unsatisfactory situations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>... everyday problems</td>
<td>Improve your relationships.</td>
</tr>
<tr>
<td>... relationships</td>
<td>Make sensible career decisions.</td>
</tr>
<tr>
<td>... careers</td>
<td>Master the use of ethical criteria.</td>
</tr>
<tr>
<td>... ethical judgments</td>
<td>Evaluate the impact of TV commercials.</td>
</tr>
<tr>
<td>... commercials</td>
<td>Assess the quality and honesty of ads.</td>
</tr>
<tr>
<td>... print advertising</td>
<td>Ask probing questions while online.</td>
</tr>
<tr>
<td>... the Internet</td>
<td>Determine the effects of TV on people.</td>
</tr>
<tr>
<td>... TV programming</td>
<td>Examine characters, plot, setting, and theme.</td>
</tr>
<tr>
<td>... movies</td>
<td>Decide if popular music is antisocial.</td>
</tr>
<tr>
<td>... music</td>
<td>Decide whether the sensational is glorified.</td>
</tr>
<tr>
<td>... magazines</td>
<td>Evaluate the views in editorials and letters.</td>
</tr>
<tr>
<td>... newspapers</td>
<td></td>
</tr>
</tbody>
</table>
Thinking critically about everyday problems

The scene is a Nazi concentration camp during World War II. A young boy is directed to the left, the death line. He follows the other prisoners into the special barracks that will house them until execution. There is only one door and that is guarded by armed soldiers. How can he possibly escape certain death?

Looking around the barracks, he spots a pail of water and a brush. He gets them, falls to his knees, and begins scrubbing the floor, slowly backing closer to the door. Then, still scrubbing, he backs his way out the door and down the steps.

At the bottom the boy stands and slowly walks away, pail in hand. Once across the yard, he mingles with a group of other prisoners. Though the guards have seen his every move, rather than question him they assume he was assigned to scrub the barracks.

This true story is recounted by the man it happened to, Samuel Pisar, in his book Of Blood and Hope. It illustrates the problem-solving process used every day in a variety of situations. Of course, most situations are less dramatic and urgent than this one. And most offer more time to find a solution.

Problem solving has a different objective than the thinking applications that have occupied our attention in previous chapters. The aim in problem solving is not to find the most reasonable viewpoint on a disputed issue but instead to find the most effective solution to an unsatisfactory situation.

For example, when Arthur Scott’s company received a shipment of paper that was too heavy and wrinkled to be used for its bathroom tissue, his solution was to invent the paper towel. Similarly, when Dr. Henry Heimlich realized that the standard emergency response to choking was ineffective, he devised the now-famous “Heimlich maneuver.” And when Sky Dalton experienced difficulty configuring his computer for Internet use, he invented EarthLink. (In the first section of this book, “Strategies for Effective Learning,” we noted several other examples of solutions to problems.)

Following is an approach that will help you become a more effective problem solver:
Step 1: Be alert for problems

You’ve probably heard the old saying, “If it isn’t broken, don’t fix it.” That’s good advice. And the corollary is equally important—if it is broken, do fix it, and do so as soon as possible. Many people prefer to ignore problems, hoping that they will go away. But neglected problems seldom go away. In fact, they often get bigger and bigger, until they reach the crisis stage and are more difficult and costly to solve.

The most reliable signal of a problem is a feeling of frustration, annoyance, or disappointment. Whenever you have such a feeling—or hear someone else complain of having one—scribble a brief note for later reference. A few key words should be enough to help you recall the problem later. For example, if you keep having difficulty finding a parking place on campus, you might write “parking:... argh!” If you serve on a committee with a pushy person, just write “dealing with Laura.”

Once you resolve to be alert for problems, you will be surprised at how many you find. They are all around you, waiting to be recognized... and solved. There are problems with products, procedures, processes, and relationships. Some problems are personal, while others are societal, affecting not just one or a few people but entire communities and nations.

Step 2: Express the problem

“A problem well stated,” observed Henry Hazlitt, “is half solved.” He realized that each expression of a problem creates its own path toward solution. No two paths are exactly alike.

The societal problem of drunken driving, for example, might be expressed in any of the following ways:

- How can we most effectively punish drunken drivers?
- How can we educate people about the effects of drunken driving?
- How can we persuade people to take the car keys away from friends who have had too much to drink?
- How can we demonstrate that alcohol seriously affects drivers’ reflexes?
- How can we modify cars so a drunken person can’t operate them?

Notice that question 1 leads to ideas for punishment; question 2, to educational ideas; questions 3 and 4, to explanations or persuasive strategies; question 5, to modifications in cars rather than drivers. Which is the best expression? We can’t say until after we have produced many ideas for each expression and evaluated all the ideas. This much, however, is clear—the question that focuses on punishment is not likely to produce ideas for education or for modifying cars. To omit any of these questions is to cheat yourself of possible solutions.
**Step 3: List possible solutions**

After asking many “how can” questions, brainstorm each question and think of as many possible answers as you can. This will produce a generous supply of possible solutions. Why is it important to produce many possible solutions? Because the first ones that come to mind are usually the most familiar and common ones, the ones that have been tried and found to be unsatisfactory. To be an effective problem solver, you must get beyond these. Here are five proven ways of doing so:

1. After listing the common, familiar solutions, list as many new and different possibilities as you can, ones you’ve never heard before.
2. Read your list of solutions aloud and think of as many additional associations as you can.
3. Examine the problem again and ask what it reminds you of. Where appropriate, also ask what it looks, sounds, or functions like. These questions will often produce analogies that stimulate idea production.
4. Consider combining two or more possible solutions in an unusual way.
5. Try to visualize what the situation would be like if the problem were overcome and study that image for clues to the solution.

While you are taking these steps, resist the temptation to analyze each idea as it comes to you. Doing so interrupts the flow of ideas and may result in your rejecting a creative idea simply because it is unfamiliar. Postpone all evaluation until you have completed your list of possible solutions. Remember that the more ideas you produce, the better your chance of producing a really good one.

**Step 4: Select and refine your best solution**

When you have extended your effort and identified many possible solutions, review your list and choose the two or three solutions that seem most promising. For each of those solutions, answer the following questions:

- When, where, and by whom would it be carried out?
- How would it be accomplished, step by step?
- How would it be financed?
- What additional people, materials, and equipment, if any, would be required?
- What changes would this solution necessitate?
- What objections might be raised about this solution? Consider legal, moral, safety, and financial objections, as well as those concerning ease of implementation.
The answers to these questions will help you decide which of the two or three promising solutions is most effective and practical. Then refine that solution to overcome any reasonable objections to it.

**exercise 58**

List all the situations, processes, procedures, and implementations that have caused you annoyance, aggravation, or frustration recently. Add to this list the complaints your have heard others make about such things.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

**exercise 59**

Select one of the items you listed in the previous exercise and apply the problem-solving approach explained in this section. Record all your thoughts. (If the space provided is insufficient, continue your work on a separate sheet of paper.)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

**exercise 60**

Two main causes of divorce are carelessness in selecting a marriage partner and ignorance of the demands of marriage and parenthood. In many cases, the home, the school, and the church are not meeting the challenge of preparing young people for marriage. Treat this situation as a problem and solve it on a separate sheet of paper, using the problem-solving approach explained in this section. Use a separate sheet of paper for this exercise.
Thinking critically about relationships

A relationship is a significant association between or among people. Relationships differ in intensity. You may visit your bank, grocery store, and post office at least once a week, yet your relationship with the people who work there is probably casual, at best. On the other hand, your relationships with old friends and former classmates are no doubt much deeper, even though you may see them only once or twice a year. Generally speaking, the most significant relationships are teaching/learning, business, family, and personal relationships. (The personal category includes both friendships and romantic/ marital relationships.)

In recent years, much has been written about “dysfunctional” relationships. Dysfunctional is a fancy word for “troubled.” The number of troubled relationships seems to be increasing, and if that is the case, a likely reason is that self-help books, articles, and tapes have emphasized putting self above others. They urge us to “look out for number one,” to be assertive about our rights, and to resist being taken advantage of by others.

Such advice contains an element of truth. It is possible to be so concerned about other people that we do ourselves a disservice. Some individuals give up their own hopes and dreams in order to please a selfish, overly demanding parent. Others allow themselves to be taken advantage of by their children or shamelessly overworked, underpaid, and even harassed by their employers. In such cases, the advice to stand up for oneself is good advice. But that advice is definitely not appropriate for people who
Sages have always taught that hardship and suffering need not conquer us but can, instead, inspire us to achieve. There is no better example of that wisdom than the life of Oprah Winfrey. Born out of wedlock and molested as a child by a cousin, an uncle, and a friend of her family, by age 13 she became so rebellious that she was sent to a detention home. However, no beds were available, and Winfrey went to live with her father, whom she recalls as “not accept[ing] anything less than what he thought was my best.” His strict discipline succeeded in bringing out her exceptional talent.

Since she got her first broadcasting job at age 17, Winfrey’s life has been a series of achievements. In 1984 she began hosting “AM Chicago”; in 1985 the show was renamed “The Oprah Winfrey Show”; and by 1986 it was the number one syndicated talk show in America. Since then the show has remained at the top of the TV ratings. She has won Oscar and Golden Globe nominations for her acting role in *The Color Purple*, and critical acclaim for her role in *Native Son*. She became the first woman to own and produce her own talk-show. She founded a successful magazine and book club. *Time* magazine named her one of the most influential people of the twentieth century.

Oprah Winfrey’s contributions to society have gone far beyond having a television show. She has been active in the movement to keep children safe from predators and has given millions of dollars to education and leadership programs in this country and around the world.

Winfrey credits her success to education and to being honest with herself. Although she is “the first African-American woman to become a billionaire,” and remains one of the wealthiest women in the world, her life and work are not about making money. She says that “money has never been the focus. . . . I would do this job, and take on a second job to make ends meet if nobody paid me. Just for the opportunity to do it.” Her real mission in life is to help people change their lives for the better. And her central message is, “It doesn’t matter who you are, where you come from. The ability to triumph begins with you. Always.”

For more about Oprah Winfrey, see www.achievement.org/autodoc/page/win0bio-1.
Responsibility is an important ingredient in relationships. For example, teachers are responsible for making lessons clear and challenging, offering constructive criticism, and testing and grading fairly. Students, in turn, are responsible for completing assignments on time, paying attention in class, and accepting criticism graciously and thoughtfully. Similarly, friends and family members have the mutual responsibility of giving support, encouragement, and loyalty, as well as consolation in times of sorrow.

**Guidelines for successful relationships**

Good relationships are not the result of chance or fortune—they are created and maintained by observing some basic guidelines. In Chapter Three you encountered the most general and basic of these guidelines, the Golden Rule: “Do unto others as you would have them do unto you.” Following are more specific guidelines that flow from this rule:

1. **Acknowledge other people.** Many people are so absorbed in their thoughts that they ignore others. When you pass someone on campus that you recognize from one of your classes, make eye contact, smile, and where appropriate, offer a greeting. Do the same for the mail carrier, the waiter or waitress in a restaurant, and others with whom you have some transaction. As Frederick W. Faber wisely observed, “Many a friendship, long, loyal, and self-sacrificing, rested at first on no thicker a foundation than a kind word.”

2. **Be generous with compliments, stingy with criticism and/or advice.** People like receiving compliments and are generally grateful to receive them, provided they are sincere. Similarly, most people resent unsolicited advice. Never give unsolicited advice. Even when advice is asked for, try to determine whether the person really wants it. If the person seems to want approval that you cannot, in honesty, give, say this: “I sense that you’d like me to say __________. But I really don’t think that is the best response. I’ll be glad to explain why if you’d like.”

3. **Keep your moods to yourself.** No one likes to be in the company of people who are forever moaning or complaining. Make a special effort to be positive and upbeat in your remarks.

4. **Expect more of yourself and less of others.** The more you expect of others, the more you will be tempted to criticize them for their shortcomings. By setting higher expectations for yourself than for others, you will be more inclined to focus on improving yourself. This habit will help you to grow and develop as a person and make
you more pleasant to be around. Moreover, your good example to others will be more persuasive than any lecture could be.

5. Make allowance for differences of opinion. Whenever you discuss controversial matters—for example, social, religious, or political issues—try to present your views clearly, not to change people’s minds. If you aim for the latter, you will usually be disappointed.

6. Be sensitive to others’ feelings. This rule can be difficult to observe because rudeness has become fashionable. We see it in homes and schools, in offices and grocery stores, on the telephone and in Internet chat rooms, at airports and on the highways. Crude and disrespectful language and behavior are also modeled in modern entertainment, including rap music, TV situation comedies, and “reality” programming. Resist these negative influences and avoid words and gestures that insult, ridicule, or humiliate others, even jokingly. (The targets of such humor may join in the laughter yet still, at a deeper level, be offended.)

7. Balance talking with listening. There is no shortage of excellent talkers, but excellent listeners are rare, and therefore greatly appreciated. You’ll also learn a great deal more by listening than by talking.

8. Think before speaking. Blurt out whatever happens to pop into your mind is a sure way to cause problems in your relationships. In contrast, pausing to ask yourself, “What effect will saying this have? Should I say it at all, and if so, how should I phrase it?” is a sure way to avoid problems.

9. Purge negative emotions. Negative emotions have a way of becoming visible to other people and disrupting relationships. If they remain hidden, they can be unhealthy for you. Whenever negative emotions arise, talk yourself out of them. This will be difficult to do when they represent a response to a real offense or provocation. But even in that case, make the effort.

10. Refrain from gossiping. Talking about others behind their backs is a sign of disrespect for them and could easily damage a relationship. Keep in mind, too, that whoever is willing to gossip to you about someone else is just as likely to talk to someone else about you! André Maurois writes of a woman with a perfect approach to such situations. He explained that “whenever one of her intimates is attacked in her presence, [she] merely states: ‘She is my friend,’ and refuses to say more.”

11. Apologize when you are wrong. Few expressions have the healing power of “I’m sorry.” These words have been known to eradicate generations of animosity and resentment and restore relationships that were thought to be irreparable. Unfortunately, the longer you
wait to say these words, the harder it is to say them. Develop the habit of saying them as soon as you realize you were wrong. And if you feel you were only partly wrong, apologize for that part.

12. **Forgive when you are wronged.** Forgiving others can be even more difficult than apologizing, particularly if the other person has not apologized for having wronged you. But without forgiveness, resentments remain, prevent relationships from healing, and harm you. A character in Mitch Albom’s novel *The Five People You Meet in Heaven* explains why: “Holding anger is a poison. It eats you from inside. We think that hating is a weapon that attacks the person who harmed us. But hatred is a curved blade. And the harm we do, we do to ourselves” (Albom, 141).

13. **Be a peacemaker.** When people you know and care about are having difficulties in their relationships, and one or both discuss the problem with you, it is often difficult to know what to say. The wrong words may worsen the situation and even cause one or both people to resent you. If you can’t say something that will promote understanding and healing, say only “I care about both of you and I hope you find a way to restore your relationship.”

14. **Meet your responsibilities to others.** In all your relationships, be aware of your obligations to the other people and do your best to meet those obligations.

15. **Look for opportunities to be kind.** To be worthy of the greatest respect from those around you, follow Charles Kingsley’s advice and live each day in such a way that when you close your eyes at night you can honestly say, “I have made one human being at least a little wiser, a little happier or a little better this day.”

**exercise 62**

Review the fifteen guidelines for successful relationships and list the ones which you are in the habit of observing and the ones on which you still need to work.
Thinking critically about careers

The choice of a career is one of the most important decisions you will ever make. The reason is fairly obvious. If you are like most people, you will work eight hours a day, five days a week, forty-eight weeks a year, for forty or more years. That adds up to almost 77,000 hours of your life. A wise career choice will ensure that most of those hours will be satisfying and fulfilling. A foolish choice could mean self-inflicted misery.

Given this reality, it is astounding how many people put little more thought into choosing a career than they would into choosing a video game, a CD, or a DVD. Some decide on the tasks or level of remuneration they imagine to be associated with various careers: “Lawyers deal with interesting cases and make lots of money, so I guess I’ll be a lawyer.” Others choose on the basis of some personal preference: “I love animals, so I’ll be a veterinarian,” or “I like to help people, so I’ll be a social worker,” or “I love food, so I’ll be a chef.”

These approaches to choosing a career are unrealistic for several reasons:

• The tasks or level of remuneration associated with a career may not be as you imagine.

exercise 63

Consider your most significant teaching/learning or business (that is, employer/employee) relationships and decide which one is least successful. Describe what is wrong with that relationship and explain which of the guidelines for successful relationships can help to improve it. (Note: In some situations, several rules will apply.)
• Merely loving something about a field may not qualify you for candidacy in a program of studies. You may also need to demonstrate, through academic achievement or in some other way, that you have certain aptitudes or skills.
• The occupation may involve more or different tasks than you are aware of. And some of them you may find boring or unfulfilling.
• The job market in the field may be poor. Thus, after devoting many years to formal education and incurring tens of thousands of dollars in expense, you may not be able to find employment in the field.

The practice of law is seldom as glamorous as courtroom dramas make it seem. Many lawyers spend little, if any, time in the courtroom; their jobs consist mostly of working with legal documents such as contracts. And even courtroom lawyers spend more time poring over law books than questioning witnesses or delivering dramatic summations to juries. In addition, the preparation to be a lawyer is long and demanding—four years of college, followed by the rigors of law school. Numerous careers associated with law, such as police officer, court reporter, and paralegal, require considerably less preparation. One could also be a journalist specializing in legal matters.

Not everyone who loves animals can meet the science requirements for veterinary medicine. Even those who can meet them may have difficulty gaining acceptance to a veterinary science program because relatively few colleges offer that specialty. Yet there are many other careers that people who love animals might consider—for example, animal trainer, animal breeder, or veterinary technician.

Similarly, someone who likes to help people has many more career choices than social worker, including nurse, guidance counselor, and occupational therapist. And someone who loves food should not limit his or her focus to the career of chef but also consider other food-related careers, such as nutritionist or restaurant manager, or a position in the sales or marketing division of a food company.

A sensible approach
The most sensible approach to choosing a career is to assess your interests, identify some broad career areas that seem suited to your aptitudes and skills, and then investigate those areas and decide which you should consider.

The best starting point for your investigation into career possibilities is your campus career center. Peter Vogt of MonsterTRAK.com, the college division of the career website Monster.com, offers seven reasons for be-
coming acquainted with your campus career center (www.quintcareers.com/campus_career_centers.html).

1. “It’s staffed by professionals who are specifically trained to assist college students with career-related concerns.
2. Its staff members work closely with the employers who will someday hire you.
3. It’s the best place on campus to help you figure out what you want to do with your life and how.
4. It’s loaded with career-related resources, whether in print or on the computer.
5. The more “known” you are to the career services staff, the better the chance a staffer will refer you to an employer looking to fill a specific position.
6. It’s a good place to meet other students who share your worries.
7. You’re [already] paying for it!”

A number of Internet websites are also available to assist you in your investigation into career possibilities. The standard career reference is the Occupational Outlook Handbook published by the U.S. Department of Labor, Bureau of Labor Statistics. The Internet address is www.bls.gov/oco/home.htm.

Another helpful resource is the Minnesota Careers website at www.iseek.org/mncareers/. The interest-assessment test offered there will reveal which one (or combination) of the following descriptions fits you best: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional. A list of occupations for each description is also provided. For each occupation, there is information about the kind of work you would do, the educational background required, the salary range, and the job outlook.

To find other, related websites, go to Google and use the search term “personal interest assessment.”

exercise 64

Visit your campus Career Center and ask for an explanation of the various services provided there. Then in the space below record what you learned and the name of the person you spoke to.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
exercise 65
Visit the U.S. Department of Labor website and examine the *Occupational Outlook Handbook*. Begin by checking the “search tips” in the middle of the home page. Then examine the various features and record your findings in the space provided.

exercise 66
Visit the Minnesota Careers website, take the interest-assessment test, and read the information about the occupations associated with your descriptive term. Record your findings in the space provided.

exercise 67
Visit the Career and College Planning Web Resources list at http://www.khake.com/page51.html, scan the links, and click on those that might be useful to you. List below the ones that you decide are most useful.
Thinking critically about ethical judgments

Ethical judgments, also known as moral judgments, are the decisions people make about the rightness or wrongness of human behavior. Over the last century, considerable disagreement has arisen about the basis of such judgments. Some say the basis is each person’s feelings—if someone feels a certain action is morally acceptable, then it is acceptable, at least for that person. In theory, this view sounds reasonable. But would it prove to be so when applied to actual events?

In the late 1930s and early 1940s, on the orders of their leader Adolph Hitler, the Nazis killed nine million people. Most of the victims were Jews, gypsies, and physically or mentally compromised individuals, all of whom the Nazis classified as “life unworthy of life.” The Nazis felt these killings were morally acceptable.

Before 1964 many U.S. restaurant owners had a policy of serving only white people. The same was true of many hotel, motel, and theater owners. These owners felt that the policy was morally acceptable—in fact, some believed that to allow “non-whites” to mingle with white people in their establishments would have been morally wrong.

To say that the Nazis’ feelings and the establishment owners’ feelings justified their actions is to ignore the feelings of the people hurt by their

---

A better basis for judgment

Clearly, we need a better basis for ethical judgment than our feelings. But what, exactly, should that basis be? Let’s begin by noting that all the offenses noted in the above examples have one thing in common—they violate people’s rights.

This theme of rights is found in many important documents. For example, the U.S. Declaration of Independence declares that “all Men are created equal, and they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty, and the Pursuit of Happiness.” The United Nations Declaration of Human Rights claims that “human rights should be protected by the rule of law.” Similarly, medical associations’ codes of ethics speak of patients’ rights; legal codes of ethics affirm clients’ rights; and corporate codes of ethics acknowledge the rights of employees and customers.

Such acknowledgement of the rights of individuals is referred to in ethics as the principle of respect for persons. According to Errol E. Harris, the principle incorporates several requirements:

First, that each and every person should be regarded as worthy of sympathetic consideration, and should be so treated; secondly, that no person should be regarded as a mere possession, or used as a mere instrument, or treated as a mere obstacle, to another’s satisfaction; and thirdly, that persons are not and ought never to be treated in any undertaking as mere expendables (Harris, “Respect for Persons, Dædalus, Spring 1969, 113).

Over the centuries ethicists have identified three criteria helpful in deciding when actions honor the principle of respect for persons and actions, and that is irresponsible. That is precisely why an international court found the Nazis guilty of “crimes against humanity” and the Civil Rights Act of 1964 required the owners of establishments that serve the public to treat all patrons equally.

Many similar examples could be cited. Robbery, sexual harassment, spousal abuse, rape, child molestation, and murder may be prompted by powerful feelings, urges, and impulses. Nevertheless, they harm others and violate their rights. That is why they are against the law.
When the bombs were dropping on her native Trent in Italy during World War II, young Chiara Lubich and her companions sat huddled in bomb shelters reading the Gospel. Certain phrases had special meaning for them, especially “Love one another as I have loved you.” They decided that love is supposed to be lived, and not just talked about. Thus began the Focolare (“hearth”) Movement. The name is apt, for this movement warms and nurtures the cause of brotherhood.

The movement’s main focus is the “spirituality of unity.” Members combine passion for their own religious beliefs with deep respect for people of different beliefs and no beliefs. The movement has developed dialog relationships not only with the members of the various Christian denominations, but also with Jews, Buddhists, Muslims, and Hindus, as well as agnostics and atheists.

These relationships go far beyond listening politely to one another. They aim at discovering common values and finding ways to express those values together.

The Focolare Movement has established little towns that serve as “models for a new humanity.” There are twenty such towns and they are found on every continent. The people who live and visit there subscribe to the “law of reciprocal love.”

In Brazil and Argentina the movement developed an economic system known as “the economy of sharing.” In this system, participating businesses use one-third of their profits for capital reinvestment, one-third to raise the standard of living of the less privileged, and one-third for structures such as community centers in which the values of sharing and harmonious living are taught. More than 700 businesses are now participating in those and other countries.

In 1977 Chiara Lubich was awarded the Templeton Prize for Progress in Religion.

For more information on Chiara Lubich, see www.rc.net/focolare/chiara.htm.

The three criteria are obligations, moral ideals, and consequences. Let’s look more closely at each:

**Obligations.** Human relationships create various kinds of obligations, all of which place requirements or restrictions on people’s behavior. Contractual obligations require people to honor whatever terms they have agreed to honor. Employment obligations make demands on both employers and employees. Professional obligations require that clients’
or patients’ interests be served. Obligations of friendship demand mutual support, encouragement, and the keeping of confidences. Marital obligations demand mutual love and honor and faithful devotion in sickness and in health.

**Moral ideals.** Moral ideals, also known as virtues, are standards of excellence in behavior. There are many such ideals, the best known of which are justice, fairness, and honesty. Other important ideals include kindness, compassion, and forgiveness.

**Consequences.** This is the broadest of the criteria for making ethical judgments. All actions produce consequences. Some consequences are positive, others negative. Some impact the person who takes the action, others the people who are acted upon. (The effects may be physical, emotional, spiritual, social, and/or economic.) Similarly, some consequences occur immediately, whereas others are delayed for months and even years.

**Applying the criteria**
The three criteria provide a sound basis for deciding whether an action is ethical. Here is how to proceed:

**Step 1.** Examine the situation and determine the obligations, if any, that exist; the moral ideals that are relevant; and the people who are likely to be affected by whatever action is taken.

**Step 2.** Determine the various actions that could be taken and the various consequences—subtle as well as obvious, long-term as well as immediate—that each action would likely have on the people involved. *Caution: Be sure to consider all possible actions and not just the one you prefer. Also, resist the temptation to ignore unpleasant consequences.*

**Step 3.** Decide which action honors the obligations and the moral ideals and produces the most desirable consequences for the various people involved. In cases where a conflict exists between two obligations, two ideals, or an obligation and an ideal, decide which is the more important. Also, when you must choose between two good actions, choose the one that represents the greater good. Similarly, when your only choice is between two harmful actions, choose the one that does less harm.

**A sample case**
Luke, a senior journalism student, is facing a dilemma. Earlier this term, his final semester, he was given the major assignment of doing a feature story on an interesting person of his choosing. The assignment is due tomorrow. However, he hasn’t yet decided whom to interview, let alone conducted the interview and written the story. (One reason is that he
has been busy with his work in other courses; another, more significant
d reason is that he is socially hyperactive.)

Luke could ask his instructor for extra time but he knows that there
will be a penalty of at least one letter grade, possibly two, and he is
barely passing now. Moreover, if he were to repeat the course, he could
not graduate until the following year because the course is offered
only in the spring semester. For these reasons, Luke is considering two
alternatives. One is to search the Internet, find an obscure but well-
written feature article, and, after making strategic changes to disguise
it, submit it as his own. The other alternative is to create an imagi-
nary person, conduct an imaginary interview, and write a bogus
feature story. Given the difficulty of Luke’s situation, would either
of these alternative approaches be ethical? Let’s apply the criteria
and see.

**Step 1.** Luke has the obligation to do the work assigned to him and to
submit it on time. The relevant moral ideal is honesty, which in this
case prohibits both plagiarizing someone else’s work and passing fic-
tion off as fact.

**Step 2.** The most obvious action Luke could take would be to present
his case to the instructor and hope for a lenient penalty. One clear
consequence is that he could take satisfaction in his honesty and
willingness to accept responsibility for his laziness. Beyond that, the
consequences are uncertain. He could receive a low passing grade and
graduate on time, or he could fail the course and have to wait until next
year to graduate.

If Luke submits the article he found on the Internet as his own and
his deception is not discovered, he would graduate on time. However,
if the instructor discovered the plagiarism, Luke could fail the course
and even (depending on the college’s conduct code) be expelled.

Creating an imaginary person and writing a bogus feature story is
more likely to fool Luke’s instructor than plagiarizing an article. How-
ever, the consequences of this action could be harmful in the long-term.
Luke might be tempted to adopt it as a strategy for meeting deadlines
after he graduates and is working as a journalist. And if he gave in to
that temptation, he would run the risk of ruining his career. (If this
seems overly dramatic, be assured that it is not. In recent years, a num-
ber of journalists have suffered professional disgrace when their dis-
honesty was discovered.)

**Step 3.** In this case, the ethical judgment is clear: both plagiarizing and
creating a bogus story are unethical responses to the situation. Although
we might understand how a weak person might choose one of these
responses, there is no way to justify either response ethically.
Select one of the following ethical issues and examine it using the three-step approach for evaluating ethical issues. Record all your work on a separate sheet of paper.

A.
Harry and Ruth are a financially successful married couple aged 53 and 50, respectively. Harry is the president of his own company. Once a fashion designer, Ruth no longer works but maintains an active social schedule. They live in a large house on Lake Michigan in suburban Chicago. Recently, Ruth's 80-year-old mother, Angela, suffered a fall in her modest apartment, where she had lived alone for the last ten years since her husband died. Because Angela suffers from osteoporosis, the doctors recommended that she no longer live alone. As an only child, Ruth had to decide whether to let her mother move into her home or move her to an assisted living facility. After talking the situation over with Harry, Ruth decided on the assisted living facility.

B.
Lawrence Preston is a first-term congressman. The theme of the campaign that got him elected was to take government out of the hands of the special interest groups and return it to the people. Since taking office, however, he has been under considerable pressure from several special interest groups to endorse bills he believes are against the best interests of his constituents. He has asked two senior members of his party for their advice and they said: “Look at it this way, Larry. In order to represent your constituents' interests, you've got to stay in office. And you'll never get re-elected without the support of the special interest groups. So you’d better do as they say for a while. Postpone being a hero for a few terms.” He decides to take their advice.

C.
Ramona is a 35-year-old police woman who looks no older than 25. Her latest assignment is to go undercover and pose as a student at a university because the police suspect that a major drug operation is being run there. After a month on the job, she has made a number of friends among the students and faculty. Though she has no evidence that any of them are involved in the drug operation, she begins to feel guilty about not being able to be honest with them. Is it morally acceptable for her to continue on the assignment?

Find an ethical issue currently being discussed on campus. Analyze the issue, using the three-step approach for evaluating ethical issues. Detail your findings below.
Thinking critically about commercials

Advertisers spend billions of dollars a year on commercials. The cost of just one 15-second commercial can exceed $500,000. In many cases advertising goes beyond presenting the product or service. Advertisers stimulate viewers through appeals to desires: to be youthful, sexually appealing, successful, loved, or accepted by others. In advertising language, the aim is to “sell the sizzle, not the steak.”

In *Four Arguments for the Elimination of Television*, former advertising executive Jerry Mander claims that advertising exists only to create needs for products. The trick, he says, is to make people feel discontented. And the standard advertising formula for doing so is to (1) gain the audience’s attention, (2) arouse their interest, (3) stimulate a desire for the product, and (4) make the sales pitch.

The design of a commercial (or print ads, discussed in the next section), Mander explains, is no casual affair. Advertisers employ thousands of psychologists, behavioral scientists, perception researchers, and sociologists. These experts identify deep-seated human needs and desires, insecurities and fears. Then they determine how these can be used to the advertiser’s advantage. The most basic appeals are:

1. **Self-indulgence.** The appeal here is “Don’t deny yourself this [product or service]. Go ahead and treat yourself. You deserve it.”
2. **Impulsiveness.** Here the appeal is “Don’t delay. Don’t pause to think and evaluate. Just act.”
3. **Instant gratification.** This appeal is “Why wait? You can enjoy it now and it will make you feel s-o-o-o-o good.”

The techniques of advertising are the techniques of propaganda. Among the most common are the following:

*Bandwagon*

This technique creates the impression that everyone is buying the product or service. It appeals to the viewer’s urge to conform.
Glittering generality
Here the advertiser uses words and phrases to imply excellence and uniqueness. Few specifics are offered. “Amazing new discovery,” “now a stunning breakthrough,” and “unheard-of softness” are examples of glittering generality.

Empty comparison
This technique uses words such as better, bigger, and more (as in “more economical”) without completing the comparison. What, for example, does “greater cleaning power” mean? Greater than last year? Greater than the competition? Such a statement seems to make a serious claim. And yet we can’t hold the advertiser responsible for it because we aren’t sure just what is being claimed.

Meaningless slogan
Most large companies have slogans designed to create a positive impression. These create pleasant images but promise little.

United Airlines’ slogan, “Fly the friendly skies,” was designed to associate that airline with friendliness. “AT&T—The Right Choice” tried to link the act of choosing a telephone company with AT&T. Another slogan is “Michelin . . . because so much is riding on your tires,” and with these words we see pictures of adorable babies. The aim: to have viewers associate buying Michelin tires with protecting their children.

Testimonial
A testimonial is an endorsement for a product or a service. Actors, musicians, sports figures, and other well-known people are paid substantial sums of money to appear in commercials, lending their credibility and celebrity status to products. The words they speak may be written by someone else, and viewers often know this. Even so, advertisers still hope we’ll associate the celebrity with the product or service.

Transfer
One kind of transfer involves objects instead of people. For example, the Statue of Liberty or the flag could be shown with a product or service. These symbols arouse strong positive feelings in many people. Advertisers want viewers to transfer those feelings to the product.

Another common kind of transfer is the voice-over. Here the celebrity never appears in the commercial but acts as off-camera narrator. Even if the viewer cannot name the speaker, the voice may be familiar and make the message more appealing.

A less obvious use of transfer is the “party scene,” in which we see people enjoying themselves. The intended message is that the featured product—a beer or wine cooler—made the occasion enjoyable.
Stacking the deck

We noted this technique in our discussion of manipulation in Chapter Four. This technique is also commonly used in advertising when comparisons are made between the advertiser’s product and a competitor’s product. For example, one commercial showed a competitor’s fish sticks on a cookie sheet, all in black and white, looking as if they were still frozen. Then the scene shifted to the advertiser’s frozen dinner appetizingly presented in vibrant color, with steam rising.

A similar approach is used in many diet commercials. For example, a “before” picture will be a fuzzy black and white print, with the person dressed poorly and looking sad. In contrast, the “after” picture will be sharply focused, in color, and with the person well dressed and happy.

Misleading statement

This technique uses words that invite viewers to make an erroneous interpretation. Such statements appear to promise something but in reality do not. Long distance telephone ads used to include such statements.

One such commercial promises “Eight cents a minute for calls over ten minutes. That’s a 50 percent saving.” That invites thinkers to conclude that they will save 50 percent on every call. But the ad does not say what calls under ten minutes cost. Is it eight cents? Eighteen cents? Twenty-eight cents? We can’t be sure.

Another commercial says we can talk up to twenty minutes for ninety-nine cents. We’re tempted to think that’s a rate of less than five cents a minute. But wait. If the ninety-nine cents is a flat rate, then a five-minute call would cost almost twenty cents a minute and a two-minute call would cost almost fifty cents! That’s quite a difference.

The standard commercial break consists of four 15-second commercials. The average hour of television has forty-four commercials. If you watch four hours of television a day you encounter 176 appeals designed to short-circuit your critical thinking and create an artificial desire or need. Your best safeguard against this manipulation is to use your critical thinking skills.

exercise 71

Watch at least two hours of television. Pay close attention to the commercials. For this assignment the programs themselves are unimportant. If you wish, do some other activity between commercial breaks. Or tape the program first.

As you observe each commercial, note the product or service advertised, the scenes shown, and the people on camera. Also listen for the narrator, music, and other sounds.
Next, select three of the commercials you observed. On a separate sheet of paper, describe each commercial and then analyze it by answering the following questions:

- Does the commercial motivate the viewers to think or merely appeal to their emotions? Explain.
- What hopes, fears, or desires is the commercial designed to exploit? How?
- What attitudes and values does the commercial promote—for example, attitudes about success and happiness? How does the commercial promote them? Do you share these attitudes and values?
- Does the commercial use propaganda techniques? How?
- Would you classify this commercial as fair or unfair persuasion? What’s the evidence for your view?

Calculate the average attention shifts occurring during commercials. Proceed as follows, doing all your work on a separate sheet of paper:

1. Watch any half-hour or hour program. When a commercial break occurs, keep your eyes focused on the television set. Each time a new image appears on the screen, make a tally on the page. (Use a separate sheet of paper for this tally.) When the next commercial appears, resume your tally on a new line.
2. At the end of the program, divide the number of lines (that is, the number of commercials) into the grand total of stroke tallies. The answer will be the average attention shifts occurring during commercials for that program. Record your findings.
3. Comment on your findings. Were you surprised at the number of attention shifts per commercial? Explain. What possible reasons might advertising agencies have for changing images at that rate? Which of those reasons seems most likely? Explain.

This exercise extends the analysis of commercials you did in the previous exercise. Television commercials in the 1950s and 1960s were one minute long and contained relatively few images. Typically, one or more people talked about the product as they displayed it. In the 1970s and 1980s commercials were thirty seconds long and contained more images. Today’s commer-
Thinking critically about print advertising

Like television commercials, print advertising is designed to sell a product, a service, or an idea. Such advertising may appeal to the desire for happiness or the need for belonging, acceptance, or love. However, the commercials are fifteen seconds in length and contain considerably more images. What effect, if any, could this change have had on academic performance? Job performance? Personal relationships? Explain your thoughts carefully.

exercise 73 (cont.)

In past years the following slogans were popular. Reflect on them and decide if any of them are in any way objectionable. For each one you object to, write a brief explanation of your reaction. Use a separate sheet of paper for this exercise.

“Just do it.” (Nike slogan)
“Image is everything.” (Canon slogan)
“Life is short—play hard.” (Reebok slogan)
“On planet Reebok there are no rules.”
“Why ask why? Try Bud Dry.” (Budweiser slogan)
Voice asks, “What should I drink?” Narrator says, “Give your brain a rest. Try some Sprite.”
“Though we carry over 160,000 passengers a day, we serve each of them one at a time.” (US Airways slogan)
“Red Wolf is here. Follow your instincts.” (Red Wolf beer slogan)
“We measure success one investor at a time.” (Dean Witter slogan)

Thinking critically about print advertising

Like television commercials, print advertising is designed to sell a product, a service, or an idea. Such advertising may appeal to the desire for happiness or the need for belonging, acceptance, or love. However, the
techniques that print ads use are more limited. They cannot use sound or depict motion. They are strictly visual and static.

Advertisers know how to make a print ad effective. Every detail must contribute to the overall message. They take great care in choosing every word and picture.

Analyzing print ads involves studying these choices.

Always ask yourself whether the statements made in print ads make sense. Suppose an auto ad says, “Due to unprecedented demand, we are discounting hundreds of cars in our lot.” But think about it. If the demand were high, the prices wouldn’t be changed. The reality must be that too few people are buying.

Also read the fine print. No doubt you’ve gotten more than one credit card ad that says: “Why pay an adjustable rate of 17.9 percent or 18.9 percent when you can pay a low FIXED rate of only 4.9 percent?” You may even have gotten some that say “NO INTEREST.” Both offers certainly sounds like great deals . . . until you look at the fine print and learn that the rate is “fixed” or non-existent for three months. And after that? Presumably the sky’s the limit.

Look critically at the pictures in print ads, too. Their effect can be even more powerful than words. Cigarette ads have been especially clever in depicting smokers as physically attractive people having a wonderful time as they puff.

Other ads are equally clever. A perfume ad pictured a man and a woman in a highly aroused state. The caption read, “Unleash your fantasies.” The unspoken promise was that using the perfume would heighten sexual fulfillment.

Some ads are truly offensive. Another perfume ad showed a beautiful but frightened woman with several men clinging to her. The caption read “No one could protect her from herself.” And a jeans ad showed a woman being backed into a fence by cowboys. The implied meaning of these ads was that women enjoy being assaulted.

Some critics say most advertising is dishonest at best. They are especially troubled by the ads directed at the most vulnerable individuals, children. Defenders of advertising deny the charge, claiming that advertising is simply honest persuasion.
Visit the magazine section of your campus library. Skim at least a half-dozen magazines, looking for interesting print ads. Don’t limit yourself to magazines you already know. The wider your assortment, the more varied the ads you’ll find. Next, select two ads and describe each one. Then analyze them by answering the questions below. If you wish, attach a photocopy of the ads.

- Does the advertisement motivate the viewers to think or merely appeal to their emotions? Explain.
- What hopes, fears, or desires, if any, is the ad designed to exploit? How does it appeal to them?
- What attitudes or values, if any, does the ad promote—for example, attitudes about success? How does it promote them?
- Do you share those attitudes and values?
- What propaganda techniques, if any, are used? Explain how they are used.
- Would you classify this ad as fair or unfair persuasion? What’s the evidence for your view?

**FIRST AD**

*Description:*

*Analysis:*

**SECOND AD**

*Description:*

*Analysis:*
Thinking critically about the Internet

“LET THE BROWSER BEWARE!”
“SURF AT YOUR OWN RISK”

Don’t expect to find these warnings on the Internet. The ideas you find there have not been screened by a board of standards for accuracy or reasonableness. No logic police force patrols the Internet looking for violators. It is up to you to avoid being victimized. The critical thinking strategy you have been using throughout this book is your best protection. Here are the most important questions to ask whenever you use the Internet:

**Whose site is this?**

You will likely visit many different sites, including government (.gov), education (.edu), and commercial (.com) sites. Each site will most likely reflect the bias and/or agenda of the people who created and maintain it. Knowing whose site it is will help you evaluate the reliability of the information you find there.

**What function does the site serve?**

Every site has a specific purpose. Generally speaking, government and education sites are designed to provide the public with important or helpful information. In contrast, commercial sites are designed to sell products and/or services.

Expect the companies that have commercial websites to say good things about their own products and services and to ignore shortcomings and flaws. Don’t be surprised if they imply that their competitors’ products and services are inferior. Be aware that such statements and implications may or may not be true and should be tested rather than taken at face value.

As was pointed out in “Conducting Internet Research” in Chapter Five, you can eliminate commercial websites from your Internet searches by adding at the end of your search term the minus sign followed (without a space) by “.com.” For example, if you were searching for vitamin therapy you would type `vitamin therapy—.com`.

**Which statements are fact and which are opinion?**

A fact is a generally accepted reality, a matter that informed people agree about. An opinion, on the other hand, is a belief or a conclusion open to
dispute. Once we accept something as a fact, we are no longer inclined to think critically about it. That is why it is important not to confuse opinion with fact.

Such confusion is potentially greater on the Internet than in print or broadcast media because the dissemination of ideas is easier on the Internet. Anyone can say anything on the Internet and reach a worldwide audience. Not surprisingly, rumormongers, manipulators, and other mischief makers have flocked there.

To keep your critical thinking sharp, regard all statements as opinions unless you are certain they are universally endorsed.

**Where can statements of fact be confirmed?**

Statements that are offered as factual may in reality be false. (Even honest people make mistakes, and not everyone is honest.) Suppose you encounter the statement “The divorce rate has tripled in the past twenty years.” This is clearly a statement of fact. But is it factual? In other words, is it accurate? Prudence suggests that you seek confirmation by looking in an almanac or other statistical record.

The nature of the statement will determine where you can find verification. To confirm the statement that a congressional candidate was once convicted of sexual harassment, for example, you would check appropriate court records or, at the very least, determine what other sources, if any, support the claim. Endorsement of the statement by the candidate’s opponents would mean little; admission by his or her political allies would be significant.

**How widely shared is this opinion? What do authorities on the subject think of it?**

Knowing whether an opinion is shared by a majority or a minority will not tell you how reasonable it is. Minority opinions are not necessarily inferior. Many great insights can be traced to a single individual’s advancing an unpopular view. But for every minority view that eventually is proven right, several are proven wrong.

To put it simply, the odds favor the consensus views of informed people. Identify the full range of opinions on the issue by consulting other Internet websites that deal with the topic in question. (Also, consult print and broadcast media sources.) Hesitate to accept any opinion that is rejected by most informed people, as well as any opinion about which informed people are sharply divided.

**Is the reasoning behind the opinion logical?**

Look specifically for the following errors, which were discussed in Chapter Six, “Recognizing Errors in Thinking.” Each of them can be found in many places, including websites:
Errors of perception: “mine is better” thinking, selective perception, gullibility and skepticism, preconception, pretending to know, either/or thinking.

Errors of judgment: double standard, irrelevant criterion, overgeneralizing or stereotyping, hasty conclusion, unwarranted assumption, failure to make a distinction, oversimplification.

Errors of reaction: explaining away, shifting the burden of proof, attacking the person, straw man.

Does the evidence support the opinion?

In making this decision, consider all the evidence you have found. That includes the evidence offered in support of the opinion and the evidence you found in searching the Internet and other information sources. Remember, too, that your own personal observation and experience, if relevant to the issue, count as evidence.

exercise 76

We tend to take airline safety for granted. But when a serious accident or terrorist attack occurs anywhere in the world, the public begins questioning how safe air travel is in this country. The issue has many facets, including the age and condition of aircraft, the quality of maintenance, and the adequacy of air traffic control procedures and equipment. Investigate this issue on the Internet, using Google and the resource list you developed in Chapter Four. Then, on a separate sheet of paper, report the sites you consulted and what you found there. Finally, apply the critical thinking strategy you have been using throughout this book. State your conclusion and the reasoning that led you to it.

exercise 77

The issue of term limits concerns whether elected officials at the local, state, and/or national levels should be allowed to remain in office indefinitely or be limited to, say, two or three consecutive terms. Investigate this issue on the Internet, being careful to consider both pro and con arguments. Next, on a separate sheet of paper, report the sites you consulted and what you found there. Finally, apply the critical thinking strategy explained in this chapter to evaluate your findings. State your conclusion and the reasoning that led you to it.
Thinking critically about television programming

By high school graduation the average person has spent 11,000 hours in the classroom and 22,000 hours watching television. All things being equal, television has twice as much impact on a person’s mind as formal education.

Yet all things are not equal. Television producers have more means to maintain audience attention. They can use music to manipulate emotions. Directors can shift scenes to sustain interest and use applause tracks to cue responses. All this is evidence for television’s impact. The question continues to be debated: Is that impact mainly positive or negative?

exercise 78

Although sex education has been a part of most elementary and secondary curriculums for many years, it remains controversial. There has been sharp division on a number of matters including these:

- Is sex education helping to solve the problem of teen pregnancy or aggravating it?
- Do the methods and materials used in sex education support or challenge community standards?
- Should parents be given a larger role in the development of sex education programs?

Investigate these and related questions on the Internet, being careful to consider both pro and con arguments. Next, on a separate sheet of paper, report the sites you consulted and what you found there. Finally, apply the critical thinking strategy explained in this chapter to evaluate your findings. State your conclusion and the reasoning that led you to it.

exercise 79

Imagine that you’ve decided to buy a new car and need to find the best terms on an auto loan. Search the Internet, identify a number of lenders, and compare the terms they offer. Summarize your findings on a separate sheet of paper. Then decide which lender would be the best one for you and explain your reasoning in a brief composition.
In 1961 Newton Minow, then chairman of the Federal Communications Commission, called television a “vast wasteland.” Twenty-five years later his judgment was essentially the same. In Minow’s view and those of other critics, television seriously underestimates the viewer’s intelligence.

Other critics of television programming argue that it also creates mental habits and attitudes that hinder learning. These critics advance the following arguments:

- By keeping young people away from books, television denies them opportunities to develop imagination.
- Television aims programming at the lowest common denomina-tor. This deprives young people of intellectual challenge.
- By feeding young people a steady diet of slang and clichés, television hinders their language skills.
- Television limits game show questions to who? what? where? and when?—seldom how? and never why? This creates the impression that knowledge of trivia is the only knowledge worth having. It also implies that careful analysis of issues is unnecessary or boring.
- By using the narrative approach for most of its program-ming. Examples are soap operas, sitcoms, movies, and dramatic series. By doing so, television denies young people exposure to critical thinking. (Such thinking is more commonly expressed in analysis than in narrative.)
- Television fills the roster of talk shows with celebrities rather than authorities. By doing so, television creates the impression that it’s not what you know but how well you are known that’s important. It also promotes misinformation. For example, a television interviewer asked an actress, “Did your role in that television drama give you any insights into adoption fraud?” (That’s about as sensible as asking an actor who played a surgeon how to perform an appendectomy, or asking an actor who played an auto mechanic how to overhaul an engine.) Not surprisingly, the actress did not hesitate to offer her opinion.

Jerry Mander has analyzed why television has failed to live up to expectations. In *Four Arguments for the Elimination of Television*, he claims that television has a number of inherent limitations that cannot easily be overcome. For one thing, it is an artificial environment that viewers have no hand in creating. Even on newscasts, we see only what others decide to show us, and always from their particular perspective and according to their priorities. For every item included in the news, thousands are excluded.
Another limitation is that less dramatic things don’t play as well on television as more dramatic ones. That is why we see more angry expressions than happy ones, more fistfights and shootings than calm discussions, more car chases and explosions than tranquil scenes, more passionate sexual encounters than gentler expressions of friendship, caring, and tenderness.

A third limitation, according to Mander, is that the everyday pace of reality is not well suited to television. To make their stories interesting, programmers have to compress events. TV heroes are confronted by one dangerous situation after another, whereas in real life many tedious hours of inactivity intervene. Regular television viewing can create the unrealistic expectation that real life ought to be one peak experience after another.

The expectation is reinforced by the news. Reporters prefer to cover sensational stories. When they are forced to cover an ordinary event they often seek out the most dramatic or sensational aspect—for example, the single angry outburst in an otherwise calm and productive city council meeting. Antisocial behavior is deemed more newsworthy than social behavior.

The inherent limitations of television result in a number of biases in selecting program material. Mander finds more than thirty, including the following:

- A bias for war over peace and violence over nonviolence
- A bias for superficiality over depth, simplification over balance
- A bias for feelings of conflict over feelings of agreement
- A bias for dissatisfaction over satisfaction, anger over tranquility, jealousy over acceptance
- A bias for competition over cooperation
- A bias for materialism over spirituality
- A bias for the bizarre over the commonplace, the fixed over the evolutionary, the static over the dynamic

If these charges by Mander and others are valid, television may be responsible for a number of social problems. For example, it may cause or aggravate many of the difficulties students experience in school, some of which cause them to drop out before graduating. Television may also be responsible for the tendency of many people to settle for mediocrity rather than strive for excellence.

The following exercises direct your critical thinking to these questions: Is television programming harming our country and its citizens? If so, what can be done to correct that? If not, what can be done to make television programming an even more positive influence?
Select a television game show and watch it one or more times. Note the way the game is played, the kinds of questions asked, and the time allowed for responses. Also note background effects such as music, lights, or revolving wheels and any other significant details about the show. Then analyze what you’ve seen. Answer these and any other relevant questions:

• How intellectually demanding is the show? What is its appeal to viewers?

• What habits or attitudes could this show develop or reinforce in regular adult viewers? In children? Will these habits and attitudes help or hinder life in school, on the job, and at home?

Next, on a separate sheet of paper write a composition of at least several paragraphs expanding on your findings.

Select a television sitcom and watch it for one or more episodes. Then analyze what you saw. Answer these and other relevant questions:

• How original was the story line? Can you remember any other show you’ve seen with a similar plot?

• What attitudes and values did the show encourage? Do you share them?

• Did the characters rise above stereotypes: the dumb blonde, the know-it-all teenagers, and so on? Explain.
exercise 81 (cont.)

- Would you have laughed if the show had had no laugh track? How original were the jokes?

Next, on a separate sheet of paper write a composition of at least several paragraphs expanding on your findings.

exercise 82

Choose a television drama—a soap opera, detective or western show, or a movie. To help yourself think critically, pick a show you don’t normally see. Watch the show and then analyze what you saw. Answer these and any other relevant questions:

- Which characters did the show present favorably? What was the main action taken by each of those characters during the show?

- Think about the characters you chose in the above question. What view would each express on the following topics?
  
  * Reasoning with others
  * Violence
  * Sexual relationships
  * Marriage
  * Authority
  * Success
exercise 82 (cont.)

- Did the show include any incidents of violence and/or destruction? If so, describe them and explain whether their depiction was essential to the plot.

- Were people or principles betrayed during the show? If so, describe each incident and explain whether the betrayal was presented in a positive or a negative light.

- Did the show emphasize antagonism or harmony? Were issues resolved peacefully or violently? Explain.

On a separate sheet of paper write a composition of at least several paragraphs explaining whether the show you watched promoted desirable attitudes and habits.

exercise 83

Skim the television talk-show listings. Then select a show and watch it. Analyze what you saw, answering these and any other relevant questions:

- What was the show's theme or discussion topic?

- What fields did the guests represent: show business, education, particular professions, or others? Are the guests associated with specific attitudes, values, behaviors? If so, describe those attitudes, values, or behaviors.

- What was the reason each appeared on the show? For example, an author may have published a new book or an actress may have starred in a just-released film.
Thinking critically about television programming

exercise 83 (cont.)

- What kinds of questions did the host ask? Professional questions? Personal questions? Questions that seemed outside the person’s expertise?

- Were any specific attitudes and values encouraged? If so, what were they?

- How much time did the host allow for each answer? Did the guest have an opportunity to elaborate on answers? How much time was devoted to each guest?

- How many times was the discussion interrupted by commercial breaks?

Next, write a composition of at least several paragraphs on a separate sheet of paper. Focus on this question: Would regular viewing of talk shows like the one you watched be good preparation for the probing discussions conducted in college classrooms?

exercise 84

Watch the evening newscast on FOX News Channel (this is not the same as the Fox channel that shows situation comedies and movies). Then watch the newscast on one of the following: CNN, CBS, NBC, ABC. Compare their presentations of the news. Answer these and any other relevant questions:

- How much time, on average, was given to each news story?

- What details did the newscasters focus on? What questions did they pass over? Did you want answers to any of the latter questions?
exercise 84 (cont.)

- How were the newscasts similar? Look, for example, at the numbers and genders of the newscasters, construction of the studio sets, and each show’s format. How were the shows different?

- How many commercial breaks occurred during the newscast?

- Did the news reports offer different perspectives on the events reported on?

- What other types of stories might have been included?

On a separate sheet of paper write a composition explaining which network you would recommend to someone looking for a fair and objective presentation of the news. Be sure you offer reasons for your choice.

exercise 85

Consider the observations and judgments of the various kinds of television programming from the previous exercises. Decide what changes would improve television programming. Then, on a separate sheet of paper, write a letter to the Federal Communications Commission. State your ideas for improving programming and give reasons for acting on those ideas.

Thinking critically about movies

Some people believe critical thinking has little application to movies because movies are an art form—representations of life designed to give pleasure rather than arguments offered to persuade people.

This view is an example of either/or thinking. It assumes that entertainment and persuasion are mutually exclusive. They are not. Moviemakers
often want both to create a work of art and to influence people’s thinking. In some cases, the persuasive intention takes precedence.

It is true that movies almost never present ideas directly in the manner of non-fiction writing. Nevertheless, ideas are embedded in the stories. Simply said, they show the ideas rather than tell them. The effect is more emotional than intellectual, but no less potent for that.

If a filmmaker wants to hold an idea up to ridicule, for example, he need only create a character who holds that idea and make him or her appear ridiculous.

In order to think critically about movies, you must understand the various elements. The basic ones are the same as those in short stories, novels, and plays.

**Characters**

Every story has one or more main characters, and often a number of secondary ones. The way the characters are presented will influence the audience’s reaction to them.

**Setting**

The elements of setting are time, place, and the circumstances in which the story takes place.

**Plot**

The plot is the sequence of events that occurs in the story. The essential element in a movie plot is conflict. A challenge or problem confronts the characters and they struggle to solve it. The conflict may be external or merely within the character’s mind.

**Theme**

The theme of a movie is the message or lesson it offers. The theme is almost never stated directly, though the dialogue may contain statements that clearly imply it.

In addition to the basic elements, movies have three other elements not found in written literature—the performances of the actors, sound effects, and visual effects. Sound effects include background music as well as dialogue. Visual effects are created by moving the camera in for close-up shots or out for distance shots, as well as by varying the lighting and camera angles.

In thinking critically about movies, it is important to evaluate each of the elements and make a balanced judgment. Seldom will a movie be uniformly excellent in all elements. The characters, for example, may be richly drawn and the plot plausible and ingenious. Yet the acting may be poor and the theme an insult to the viewer’s intelligence.
The Golden Globe and Academy Awards reflect these distinctions. Rarely will a film “sweep” the awards. And even when it succeeds in doing so, or comes close, critical thinking will sometimes reveal serious weaknesses.

Consider, for example, the film that won a host of Academy Awards in the year 2000, *American Beauty*. (The awards included Best Picture, Best Actor, Best Screenplay, and Best Cinematography.)

The film is the story of Lester Burnam (played by Kevin Spacey) in the throes of a mid-life crisis. He quits his job, becomes obsessed with and nearly seduces his daughter’s teenage girlfriend, and begins smoking marijuana purchased from his daughter’s boyfriend. Only after he dies does he gain the (unoriginal) “insight” that our lives are quite small and insignificant compared to the vastness of the cosmos.

In the opinion of some reviewers all four adults are seriously disturbed. Lester’s neighbor is a homophobic Marine with secret homosexual urges. The neighbor’s browbeaten wife is nearly catatonic. Lester’s wife puts work above family and cheats on her husband with a fellow real estate agent, who is shallow and self-absorbed.

In contrast, all the teenagers are both pure of heart and wise. In fact, the drug pusher boyfriend has the controlling insight of the film, which Lester has to die to realize.

To sum up, *American Beauty* portrays adults as contemptible if not corrupt, especially those who represent discipline, order, and responsibility. Teenagers, on the other hand, are wonderful. Among the questions critical thinking raises about this film are these: Are the characterizations of adults and teenagers plausible? How reasonable is the theme?

---

**exercise 86**

Visit the Rotten Tomatoes website at www.rottentomatoes.com or another site that reviews current movies. Then follow the directions for EITHER “A” or “B” below:

**A**

Access the complete list of current box office film titles. Scan the list of films and find one that you have seen. Click on that title and access the excerpts from reviews. Find two that agree with your assessment of the film and two that disagree. Then click on each of the review excerpts, access the full review, and read it. On a separate sheet of paper, write a brief paper answering these questions: Did the reviews help you deepen your insight into the meaning and/or quality of the film? What are your strongest points of agreement and disagreement with the reviewers?
Thinking critically about music

Ridiculing another generation’s music has long been a popular pastime. Someone once defined an opera as an art form in which anything that is too dumb to be spoken is sung. Another person observed that classical music threatens to develop a tune with every other bar and then disappoints us. A third termed jazz an appeal to the emotions by an attack on the nerves. Another, writing of rock music, suggested that the proper pitch for most electric guitars is right out the window, followed by the player.

Yet the fact that each generation prefers its own music does not mean that all criticism is without merit. It is important to keep this in mind in evaluating contemporary music.

Music has changed greatly in the past half-century, perhaps more so than in any comparable period in history. In the late 1940s two older musical traditions continued in vogue. One was Big Band music, played for ballroom dancing ranging from the elegant foxtrot to frenetic jitterbugging. The other was jazz.

The 1950s brought rock and roll with its very different beat, both literally and figuratively. It may have lacked the refinement and style of jazz, but there was no doubting its raucous energy. From the days of
Elvis Presley’s “Blue Suede Shoes” to the present, rock and roll has undergone several transformations, notably to acid rock and then heavy metal. And other music forms have become popular—reggae, for example, and rap.

The differences between 1940s music and today’s music go beyond the overall sound or the beat. Because no amplification existed then, the loudest jazz band was much quieter than today’s groups. In those days, too, singers still crooned ballads in the manner of Bing Crosby and Frank Sinatra. Lyrics were meant to be understood and the singer’s voice was regarded as another fine instrument to be used with precision to produce pleasant, melodious sounds. Singers wore hair styles no different from those of business people. All that has changed.

A more significant difference than these is the ideas and attitudes conveyed by the lyrics themselves and the mannerisms that accompany them. Today’s lyrics and stage antics would have been unimaginable fifty years ago. Many popular videos celebrate the destruction of property, rape, child abuse, incest, sadism, murder, and suicide. Onscreen images depict these behaviors in graphic detail. And the average age of the audience that watches them is between 14 and 16.

Critics of contemporary music have charged that it is undermining the fundamental values of society and causing antisocial attitudes and behavior, including crime. Spokespeople for the music industry tend to dismiss such criticism, claiming that musicians are only exercising their right of free expression and no one can be harmed by that. The exercises that follow will give you an opportunity to examine this issue.

exercise 88

Go to iTunes or another online music store and examine a selection on new releases. Note the cover designs, song titles, and lyrics. Listen to releases from major groups. Then, on a separate sheet of paper, list each group you examined and record your observations.
Thinking critically about magazines

Literally hundreds of magazines are available on a variety of subjects, including animals, art, investment, computers, entertainment, hobbies, home and garden, nature, religion, science, and travel. Among the most widely read are news magazines such as *Time*, *Newsweek*, and *U.S. News and World Report*. Also popular are the general interest tabloid magazines such as *People*, *The Star*, and *The National Enquirer*.

Some magazines publish only staff-written articles. Others solicit articles from freelance writers. Every magazine has its own specific areas of interest, format, editorial requirements, and point of view.

A magazine’s target audience may be broad, as in the case of most news magazines, or narrow. There are magazines for political conservatives and magazines for liberals, some for men and others for women. Age, marital status, and work status are further areas of specialization. *McCall’s*, for example, is published for women in general; *Redbook*, for young mothers, ages 25–44; *Cosmopolitan*, for working women, 18–35, who are single, married, or divorced.

exercise 89

Analyze your findings about the music you researched. Answer these and any other relevant questions:

- On the basis of your inquiry, would you say the music conveys positive values and attitudes? Why or why not?

- Suppose that people applied the messages in the song lyrics to their lives. In what specific ways would their behavior be affected? Would the consequences be desirable or undesirable?

On the basis of your analysis in the previous two exercises, write a brief composition that answers the following questions: Are the complaints against popular music justified? If not, why not? If so, what action do you recommend? Who should take that action? Government? The music industry? Use a separate sheet of paper for this composition.

**Thinking critically about magazines**
Among the most common criticisms of news and/or general interest magazines are the following:

- The editorial biases of news magazines often result in a lack of objectivity in reporting, particularly on issues related to bias. A secular bias, for example, might prejudice the treatment of religion; a liberal political bias might prejudice the treatment of conservative proposals or programs.
- General interest magazines often promote shallowness and superficiality by focusing on the details of celebrities’ lives, particularly scandalous details.
- Many magazines allow their choice and treatment of subject matter to be influenced—and often compromised—by their advertisers.
- Many magazines tend to reinforce the values of popular culture—in particular, impulsiveness, self-indulgence, and instant gratification—rather than the values of traditional culture.

The following exercises invite you to apply critical thinking and decide whether these charges are valid. To complete these assignments you may decide to visit a newsstand, a library, or a bookstore.

**exercise 90**

Examine the current editions of several news magazines—*Time*, *Newsweek*, and *U.S. News and World Report*—or one written from a particular ethnic perspective. Select a single news item and compare the treatment it is given in each magazine. Decide which magazine’s treatment is most biased and which is least biased. Support your findings. Present your decision and explanation:
Check the covers of the current issues of magazines such as *Cosmopolitan, McCall’s, Esquire, Redbook*, and *Psychology Today*. (Feel free to include any other magazine to which you subscribe or in which you are interested.) Compare the titles of the articles listed on the covers. Do these titles raise any questions about the magazines’ themes, focuses, or editorial perspectives? Explain your findings.

---

Examine an edition of each of the following publications: *The Star, The National Enquirer*, and *People*. Read the articles, the special sections, and the advice columns. Sample the ads and look closely at the photographs. Then answer these questions:

- Suppose that a stranger to this country were to draw a conclusion about our society’s attitudes and values just from reading these publications. What conclusion do you think she would draw? What about these periodicals leads you to this conclusion?
Thinking critically about newspapers

The newspaper is an ancient form of communication that can be traced back to about 59 B.C. when the Roman *Acta Diurna* was posted in public places. Its greatest development, however, occurred after the invention of printing in the fifteenth century. More recently, the invention of the telegraph, the photocomposition process, and the communications satellite have made news gathering and publication faster and more efficient.

Other inventions, however, have challenged the newspaper’s position as the leading provider of information. The most notable of these inventions have been radio, television, and the Internet. Wireless cell phones have recently become a popular medium for news. All these make news available at the flip of a switch, whereas the newspaper is available, in most cases, only once a day.

The newspaper has a further disadvantage—it requires the effort of reading. In contrast, broadcast news is obtained effortlessly, and in a conveniently rapid pace, in moving pictures. In reaction to this handicap, the newspaper industry has simplified and shortened stories. A good example of this approach is the *USA Today* format.

Another change in print journalism over the past few decades concerns the treatment of fact and opinion. Traditionally, news stories presented only facts, objectively and without comment. A special place was reserved for commentary—the op-ed page (the term is short for opinion-editorial).

---

exercise 91 (cont.)

• Do you think these publications merely reflect our society’s attitudes and values or do they also help shape those attitudes and values? Explain.

---

On a separate sheet of paper, write a brief composition explaining what changes in format and emphasis you would recommend to improve these publications.
There the reader would find editorials presenting the newspaper’s official point of view on issues of the day, letters expressing readers’ reactions to previous news stories, and opinion essays written by professional columnists.

Today’s newspapers still have op-ed pages, with editorials, letters, and columns. But opinion is not always carefully screened out of news stories. Many journalists blend their interpretations and personal judgments into the news. Only the alert reader will understand where reporting ends and editorializing begins.

The op-ed page is often the most rewarding part of the newspaper because it is filled with lively analysis of current issues. The following exercises invite you to apply your critical thinking skills to that page.

**exercise 93**

Choose the largest newspaper in your area or a newspaper serving a larger audience, such as *USA Today*. Read the main editorial of the day. Also read any news story mentioned in the editorial. Then, on a separate sheet of paper, answer the following questions:

- What position does the editor take on the issue? What support does he or she offer for this position?
- What other positions could be taken on the issue? How might those positions be supported? Before answering these questions, you may wish to research the issue by visiting the library or interviewing experts.
- What are the editorial’s strengths and weaknesses?
- What position is most reasonable in light of the evidence? Present your response in a composition of at least several paragraphs. Another option is to write your response as a letter to the editor. If you do this, consider sending the letter to the newspaper.

**exercise 94**

Select an opinion column or a letter to the editor that interests you. Examine it critically. If appropriate, research the issue further. Then, on a separate sheet of paper, write a composition of at least several paragraphs stating and supporting your position on the issue. You may agree with the article or letter in the newspaper, disagree with it, or agree in part. Attach either a summary or a copy of the original article or letter.
What lessons can you draw from the “Good Thinking!” profiles of Oprah Winfrey and Chiara Lubich presented in this chapter? Explain how you can use each of those lessons in your career and/or personal life.
Write your answers on a separate sheet of paper.

1. List the four steps used in solving a problem.

2. How many guidelines are offered for successful relationships? Briefly explain the one you find most helpful to you personally.

3. In choosing a career, only one factor is important—what you would like to do. True or false? Explain.

4. State and briefly explain each of the three criteria for making ethical judgments.

5. Newton Minow believes that television has improved significantly over the past quarter-century. True or false? Explain.

6. Explain two common criticisms of magazine publishing.

7. The first newspaper was published in the nineteenth century. True or false? Explain.

8. Identify two criticisms commonly made of popular music.

9. Define each of the following terms:
   - Bandwagon
   - Glittering generality
   - Empty comparison
   - Meaningless slogan
   - Testimonial
   - Transfer
   - Stacking the deck
   - Misleading statement
10. Explain two criticisms commonly made of print advertising.

11. The function of most commercial websites is to provide a public service. True or false? Explain.

12. Name the elements to examine when evaluating a movie.

   Answers to this quiz may be found online.
Make the end a beginning

You’ve finished reading this book and completed its exercises and other opportunities to practice critical thinking. Now you have a choice. You can decide that this moment will mark the end of one more academic experience. If this is your choice, just consign the book to a box in your basement, and let it gather dust. As memory fades, the experiences you had with this book will be lost.

On the other hand, you can decide to make this book and critical thinking skills a vital part of your life. You can choose to make the end a beginning. One strategy is to buy a notebook and continue the journal you began here. If you use an actual notebook, as opposed to a computer document, use the left pages for recording observations, and reserve the right pages for reflecting on those observations. Since your reflections are likely to be lengthier than your observations, leave appropriate space between observations.

Here is a collection of quotations to help you get started. Some apply in many situations; others, in a limited number. A few may need qualification. All will provide excellent food for thought. *Bon appétit!*

*If I am not for myself, who will be for me? If I am not for others, what am I? And if not now, when?* —Rabbi Hillel

*Someone’s boring me . . . I think it’s me.* —Dylan Thomas

*A great many people think they are thinking when they are merely rearranging their prejudices.* —William James

*Each morning puts a man on trial and each evening passes judgment.* —Roy L. Smith

*There are two ways of exerting one’s strength: one is pushing down, and the other is pulling up.* —Booker T. Washington

*Happiness is not a state to arrive at, but a manner of traveling.* —Margaret Lee Rumbeck

*How glorious it is—and how painful—to be an exception.* —Alfred de Musset

*The man who most vividly realizes a difficulty is the man most likely to overcome it.* —Joseph Farrell

*You can tell the ideals of a nation by its advertisements.* —Norman Douglas
That man is the richest whose pleasures are the cheapest. —Henry David Thoreau
To read without reflecting is like eating without digesting. —Edmund Burke
Remember, no one can make you feel inferior without your consent. —Eleanor Roosevelt
Trend is not destiny. —Lewis Mumford
Success is a journey, not a destination. —Ben Sweetland
Many people’s tombstones should read “Died at 30. Buried at 60.” —Nicholas Murray Butler
Victory has a hundred fathers, but defeat is an orphan. —Count G. Ciano
A cathedral, a wave of a storm, a dancer’s leap, never turn out to be as high as we had hoped. —Marcel Proust
Men are not punished for their sins, but by them. —Elbert G. Hubbard
Never has a man who has bent himself been able to make others straight. —Mencius
Free will does not mean one will, but many wills in one [person]. —Flannery O’Connor
The offender never forgives. —Russian proverb
No matter which side of an argument you’re on, you always find some people on your side that you wish were on the other side. —Jascha Heifetz
Harris, Errol E. “Respect for Persons.” *Daedalus* (Spring 1969).


The following books on critical thinking and related subjects can help you deepen your understanding and expand your skill.


This page intentionally left blank
critical thinking (cont.)
changing one’s mind and, 36–38
checking facts, 27, 39, 125, 193
commercials and, 185–189
comprehensive strategy for, 38–39
ethical judgments and, 179–185
evaluating attitudes, 74
evaluating evidence, 32–35, 39, 126–127
identifying facts and opinions, 24–27, 38, 122–124
imaginative thinking, 88–89
importance of, 16–17
Internet and, 192–194
journals for, 38
magazines and, 207–210
movies and, 202–205
music and, 205–207
newspapers and, 210–211
in persuasive writing, 49–50
print advertising and, 189–191
for problem solving, 166–170
relationships and, 170–175
television and, 195–202
testing opinions, 28–32, 39, 125, 193–194
See also thinking
criticism, 79, 172
cultural influences, 73–74
"culture war," 74
curiosity, reactivating, 85–87

Dalton, Sky, 166
Declaration of Human Rights (United Nations), 181
Declaration of Independence (U.S), 181
description, 44
dictionaries, 107
dishonest appeals to emotion, 82–83
dissent, suppression of, 84, 85
distinctions, failure to make, 146–147
Dix, Dorothea, 119–120
double standard, 142–143
Dyer, Wayne, 29
dysfunctional relationships, 170

each other, one another, 57
Edison, Thomas, 80
either/or thinking, 140, 202
Ellis, Albert, 16–17
emotional language, 83
emotions
dishonest appeals to, 82–83
empty comparisons, 186
encyclopedias, 105, 107
Epictetus, 28
errors. See judgment errors; perception errors; reaction errors; thinking errors
Erskine, John, 28
ethical judgments, 179–185
applying criteria for, 182
feelings as basis for, 179–180
principle of respect for persons, 180–182
sample case, 182–183
evidence
anecdotes and cases-in-point, 118
testing judgments on, 96–97

Evinrude, Ole, 4
examinations, persuasion in, 44–45
examples, producing relevant, 87
exceptions, for testing opinions, 30, 39
experiments, 120–121
expert opinions, mistakes and, 22
expert testimony, 120
explaining away, 151–152
exposition, 44
Eyewitness testimony, 119
Faber, Frederick W., 172
facts
checking, 27, 39, 125, 193
in complex arguments, 103, 122–124
definition of, 24
on Internet, 192–194
vs. opinions, 24–27, 38
in persuasion, 47
in print journalism, 210–211
factual knowledge, 14
Faith of the Fatherless: The Psychology of Atheism (Vitz), 138
false rumors, 90
familiar ideas, bias toward, 22–23, 128–129, 145, 147
feelings
ethical judgments and, 179–180
sensitivity to others’, 173
vs. thinking, 23–24
first impressions, being wary of, 91
forgiveness, 174
Four Arguments for the Elimination of Television (Mander), 185, 196
Frankl, Viktor, 71
Freud, Sigmund, 70
frustration, dealing with, 2–5
Fry, Art, 4

Gates, Bill, 51
generalizations, 144
gentleman’s code, 80–81
Gide, André, 136
Gilbreth, Frank and Lillian, 3
Glasgow, Arnold H., 80
glittering generality, 186
Goldberg, Bernard, 81
Golden Rule, 48, 172
Google, 106
gossiping, 173
government publications, 105
grammar errors, 53, 54–57
group discussions, 61–63
gullibility, 137
habits
building good, 10
for individuality, 91–97
Harris, Errol E., 181
hasty conclusions, 144–145
Hazlitt, Henry, 167
headlines, biased, 81
health and medicine
resources, 108
Heimlich, Henry, 166
Henry, John, 80
hoaxes, 90
honesty, with self, 93
How to Win Friends and
Influence People
(Carnegie), 48
ideas
bias toward familiar,
128–129, 145, 147
examining unfamiliar,
22–23
in persuasive writing,
50, 51–52
producing many, 93–95
unwarranted assumptions
and, 146
imaginative thinking, 87–89
implications, of opinions,
29, 39
improvement, 78–79
impulsiveness appeal, 185
individuality
attitudes and, 73–78
definition of, 70
habits for, 91–97
influence of others and,
71–73
recognizing manipulation
and, 81–84
resisting manipulation
and, 85–90
influences
acknowledging, 70–73
recognizing manipulation,
81–84
See also manipulation;
persuasion
Information Please
Almanac, 105
informed opinion, 107
insights
being alert for, 8, 63, 95
producing many ideas for,
94–95
instant gratification appeal, 185
intelligence, 14
interest-assessment tests, 177
Internet
career resources on, 177
conducting research on,
106–109
evaluating facts and
opinions, 192–194
evaluative tools for, 108
identifying site creators, 192
identifying site function,
192
resource lists for, 107–108
search engines, 106–107
thinking critically about,
192–194
thinking errors and,
193–194
interviews, research, 109–110
irrelevant criterion, 143
Jordan, Michael, 30
Journalistic Fraud (Kohn), 81
journals
for critical thinking, 38
for learning experiences,
9–10
judgment errors, 142–151, 194
double standard, 142–143
failure to make
distinctions, 146–147
hasty conclusions, 144–145
irrelevant criterion, 143
overgeneralizing/
stereotyping, 143
oversimplification, 147
unwarranted assumptions,
145–146
judgments
in arguments, 127
ethical, 179–185
evidence for, 96–97
Kerry, John, 84
kindness, 174
Kingsley, Charles, 174
Klein, Joel, 51
knowledge, types of, 14, 25
Kohn, Bob, 81
Korzybski, Alfred, 137
Kwolek, Stephanie, 92
L’Amour, Louis, 23–24
lay, lie, 57–58
“leads,” biased, 81–82
learning strategies
building good habits, 10
controlling mental
activities, 6–8
dealing with frustration, 2–5
efficient study skills, 8
journals, 9–10
planning, 2
reading comprehension, 9
for unpleasant and
complex tasks, 5–6
legal information, 108
less, fewer, 57
library research
basic information sources,
103–105
Dewey Decimal System,
104
listening skills, 7, 62, 173
Loftus, Elizabeth, 21
logic, in arguments, 102
logical fallacies, 155
Lubich, Chiara, 181
magazines
common criticisms of, 208
library searches of, 105
testing critically about,
207–210
Mander, Jerry, 185, 196–197
manipulation
biased reporting, 81–82
dishonest appeals to
emotion, 82–83
repetition, 84
stacking the deck, 83–84
strategies for resisting,
85–90
suppressing dissent, 84
Man’s Search for Meaning
(Frankl), 71
Maurois, André, 173
McGowan, William, 81
McNamara, Frank, 5
meaningless slogans, 186
media
biased reporting, 81–82
influences of, 71–73, 74
magazines, 207–210
newspapers, 210–211
online sources, 107
See also television
mental pictures, 87
Mestral, George de, 5
mind
daring to change, 35–38
taking charge of, 6–8
“mine is better” thinking, 136–137
Minow, Newton, 196
misleading statements, 187
mistakes, in expert opinions, 22
mixed constructions, 55
Moon, Robert, 5
moral ideals, 182
Morris, Dick, 83
movies
elements of, 203
thinking critically about, 202–205
much, many, 57
music, thinking critically about, 205–207
narration, 44
Navasky, Victor, 22
news. See media
newspapers
library searches of, 105
thinking critically about, 210–211
New Thought Police, The (Bruce), 82, 84
New York Times Index, The, 105
note cards, 59–60
note taking, 7, 111
obligations, ethical judgments
and, 180–182
Occupational Outlook Handbook, 177
Of Blood and Hope (Pisar), 166
often, always, 147
op-ed pages, 210–211
opinions
allowing for differences in, 173
changing one’s, 36–38
in complex arguments, 103, 122–124
considering reverse, 31, 39
definition of, 24, 26
expert, 22
vs. facts, 24–27, 38
on Internet, 192–194
media influence on, 72–73
online sources for informed, 107
identifying audience objections in, 50–51
preparing rough draft, 52–53
statement of main ideas in, 50
usage errors in, 53, 57–59
writing style for, 52
Phelps, William Lyon, 80
physical mannerisms, 60
Pisar, Samuel, 166
plagiarism, 110–117
definition of, 110
quoting and paraphrasing and, 111–117
steps for avoiding, 111–112
using your own ideas, 115
planning strategies, 2
plot, 203
polls, biased reporting of, 82
popular culture, 71, 74
preconceptions, 139
predicate, agreement with subject, 54
preparation for group discussions, 61
for resisting manipulation, 85
pretending to know, 139–140
principal, principle, 58
principle of respect for persons, 181–182
print advertising, 189–191
problem solving
being alert for problems, 167
critical thinking and, 166
expressing the problem, 167
listing solutions, 168
selecting and refining solutions, 168
procrastination, 5–6
pronoun case, 54–55
pronoun references, 56
provided, providing, 58
public opinion, 28
published reports, 118–119
punctuation, 52
questions
interview, 110
in problem solving, 167–169
for resisting manipulation, 85–87
for thinking errors, 138
quotations
biased reporting and, 82
online sources for, 108
in research papers, 111–117
reaction errors, 151–156, 194
attacking the person, 152–153
explaining away, 151–152
shifting the burden of proof, 152
straw man, 153
Reader’s Guide to Periodical Literature, 105
reading comprehension, 9
reason is that, reason is 
because, 58
reasons, evaluating, 32–35, 118, 145
reference materials, 105, 107
reflecting, 9
relationships
definition of, 170
guidelines for successful, 172–174
persuasion in, 46
principles of positive, 47
responsibility in, 170–172
thinking critically about, 170–175
repetition, manipulating with, 84
reports, published, 118–119
research
for arguments, 103, 125–126
avoiding plagiarism, 110–117
Internet research, 106–109
interviews for, 109–110
library research, 103–105
note taking for, 111
research reviews, 121
for testing opinions, 31, 39
types of evidence, 118–121
responsibility, 170–172, 174
reviewing, 9
Rogers, Carl, 30
rudeness, 173
Santayana, George, 28
scenarios, creating realistic, 87–89
Schlesinger, Arthur, Jr., 29
Schlessinger, Laura, 84
scholarly works, 105
Scott, Arthur, 166
search engines, 106–107
seldom, never, 147
selective perception, 137
self-criticism, 79
self-esteem, earned, 80
self-improvement, 78–79
self-indulgence appeal, 185
Seligman, Martin, 144
Semmelweis, Ignaz, 25
sentences
avoiding fragments, 55
mixed constructions, 55
using variety, 52
wordy, 52
set, sit, 58
setting, 203
shifting the burden of proof, 152
skepticism, 137
skimming, 9
slogans, meaningless, 186
solutions, in problem solving, 168
sources
checking, 90
keeping record of, 111
quoting and paraphrasing, 111–117
See also research
spelling, 52
Sperry, Paul, 4–5
springboarding, 95
stacking the deck, 83–84, 187
statements
in arguments, 102
facts vs. opinions in, 24–27
misleading, 187
true and false, 19–20
statistical studies, 121
stereotyping, 143
Strauss, Levi, 3–4
straw man, 153
study skills, 8. See also learning strategies
subject-predicate
agreement, 54
success, effort and, 79–80
summaries, 123
superlatives, 56–57
suppression of dissent, 84, 85
surveys, 121
taste, matters of, 26
Tate, Marsha Ann, 108
Tavris, Carol, 96
television
bias in program selection, 197
commercials, 185–189
impact on learning, 196
inherent limitations of, 196–197
news coverage on, 196, 197
thinking critically about, 195–202
See also media
testimonials, 186
theme, 203
“therefore” relationships, 122–123
thinking
comprehensive strategy for, 38–39
definition of, 14–17
discovering truth and, 17–19
examining unfamiliar ideas, 22–23
vs. feeling, 23–24
identification of facts and opinions, 24–27
intelligence and, 14
key principles of, 17–24
making mistakes and, 22
principle of contradiction and, 19–21
before speaking, 173
See also critical thinking
thinking errors, 17
on Internet, 193–194
judgment errors, 142–151
multiplying of, 157
perception errors, 136–142
reaction errors, 151–156
three kinds of, 136
See also specific errors
through, threw, 58
time management, 3
for efficient studying, 8
planning your days, 2
transfers, in commercials, 186
truth, discovering, 17–19
unwarranted assumptions, 145–146
usage errors, 52, 57–59
use, usage, 58
<table>
<thead>
<tr>
<th>Verbal mannerisms, 60</th>
<th>Vitz, Paul C., 138</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewpoints</td>
<td>Vogt, Peter, 176–177</td>
</tr>
<tr>
<td>Bias toward personal, 128</td>
<td>voice-overs, 186</td>
</tr>
<tr>
<td>Considering other, 47, 96</td>
<td>Ward, C. M., 73</td>
</tr>
<tr>
<td>Constructing new, 89</td>
<td>Web sites. See Internet</td>
</tr>
<tr>
<td>Understanding audience, 47, 50–51</td>
<td>Web Wisdom: How to Evaluate and Create</td>
</tr>
<tr>
<td>See also opinions</td>
<td>Information Quality on the Web (Alexander, Tate), 108</td>
</tr>
<tr>
<td></td>
<td>who, whom, 58–59</td>
</tr>
<tr>
<td></td>
<td>Winfrey, Oprah, 171</td>
</tr>
<tr>
<td></td>
<td>Workplace, persuasion in, 45</td>
</tr>
<tr>
<td></td>
<td>World Almanac, The, 105</td>
</tr>
<tr>
<td></td>
<td>Writing. See persuasive writing</td>
</tr>
<tr>
<td></td>
<td>Writing style, 52–53</td>
</tr>
</tbody>
</table>