

THIRD EDITION

# Asking the Right Questions

## A Guide to Critical Thinking



NEIL BROWNE / STUART M. KEELEY

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## Preface

This third edition of *Asking the Right Questions* represents our effort to build on the strengths of previous editions by incorporating new insights, acquired from our students, recent research, and dialogue with colleagues committed to teaching critical thinking.

We were motivated to write the first edition by a variety of personal experiences and observations. First, we were dismayed at the degree to which students and acquaintances showed an increasing dependence on “experts”—textbook writers, teachers, lawyers, politicians, journalists, and TV commentators. As the complexity of the world seems to grow at an accelerating rate, there is a greater tendency to become passive absorbers of information, uncritically accepting what is seen and heard. We became concerned that too many of us are not actively making personal choices about what to accept and what to reject.

Second, our experience in teaching critical-thinking skills to our students over a number of years convinced us that when individuals with diverse abilities are taught these skills in a simplified format, they can learn to apply them successfully. In the process, they develop greater confidence in their ability to make rational choices about social issues, even those with which they have formerly had little experience.

A third motivating factor was our inability to find a book with which to teach the skills we wanted students to learn. We did not want a philosophy text, but rather a book that, while informal in nature, would outline basic critical-reading skills explicitly, concisely, and simply. We did not find such a book.

Thus, we set out to write a text that would do a number of things that other books had failed to do. The text that resulted attempts to develop an integrated series of question-asking skills that can be applied to a wide variety of reading

material, from textbooks to magazine essays. These skills are discussed in an informal style. (We have written to a general audience, not to any specialized group.)

The development of *Asking the Right Questions* has leaned heavily on our joint experience of forty years as teachers of critical thinking. Our ideas have evolved in response to numerous classroom experiences with students at many different levels, from freshmen to Ph.D. students.

These experiences have taught us certain emphases that are particularly effective in learning critical thinking. For instance we provide many opportunities for the readers to apply their skills and to receive immediate feedback following the practice application. The book is replete with examples of writing devoted to controversial contemporary topics. The breadth of topics introduces the average reader to writings on numerous controversies with which he or she may have little familiarity. The book is coherently organized, in that critical questions are discussed sequentially as the reader progresses from asking questions to making decisions. In addition, it integrates cognitive and value dimensions—a very important aspect of critical reading and personal decision making.

New features in the third edition include the following:

1. Explicit treatment of different types of critical thinking,
2. Greater emphasis on creative thinking and the generation of rival hypotheses,
3. Explanation of the use and abuse of analogical reasoning,
4. Development of numerous class-tested practice exercises and illustrations,
5. Analysis of mental biases that hinder critical thinking.

Each new element emerged from the teaching experience of numerous colleagues.

Who would find *Asking the Right Questions* especially beneficial? Because of our teaching experiences with readers representing many different levels of ability, we have difficulty envisioning any academic course or program for which this book would not be useful. In fact, the first two editions have been used in law, English, pharmacy, philosophy, education, psychology, sociology, religion, and social science courses.

A few uses for the book seem especially appropriate. Teachers in general education programs may want to begin their courses by assigning it as a coherent response to their students' requests to explain what is expected of them. English courses that emphasize expository writing could use this text both as a format for evaluating arguments prior to constructing an essay and as a checklist of problems that the writer should attempt to avoid as he or she writes. Courses training prospective teachers and graduate assistants should find the book especially functional because it makes explicit much that teachers will want to encourage in their students. Courses in study-skill development may be enriched by supplementing their current content with our step-by-step description of the process of critical reading and thinking. The text can also be used as the central focus of courses designed specifically to teach critical reading and thinking skills.

While *Asking the Right Questions* stems primarily from our classroom experiences, it is written so that it can guide the reading habits of almost anyone. The skills that it seeks to develop are those that any critical reader needs to possess for reading to serve as a basis for rational decisions. The critical questions stressed in the book can enliven anyone's reading, regardless of the extent of his or her formal education.

This third edition owes a special debt to our critical thinking students. They have improved both the clarity and reasoning by their generous suggestions. We want to explicitly thank two students. Robert Fetterolf suggested the panning-for-gold metaphor, used so frequently in *Asking the Right Questions*. In ten minutes he developed a metaphor to contrast with the sponge model of learning. We had been searching in vain for years. Julie A. Harris was instrumental in creating several of the new examples and practice passages for the third edition.

Thanks also go to our reviewers, whose comments were most helpful: Lillian Back, University of Michigan; Diane W. Creel, Tompkins Cortland Community College; Libby Jones, Berea College; Jean Raulston, Imperial Valley College; Ruth E. Ray, Wayne State University; and Beth M. Waggenspack, Virginia Polytechnic Institute and State University.

**ASKING THE RIGHT QUESTIONS**  
*A Guide to Critical Thinking*



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# I

## *The Benefit of Asking the Right Questions*

### Introduction

Each of us is bombarded with information. Every day we encounter new facts and opinions. In textbooks, newspapers, and magazines, writers present ideas they want us to accept. One social scientist tells us violence on television is bad for young people; another tells us it does no harm. One economist argues for reducing taxes to stem inflation; another argues that we should increase interest rates. One educational critic recommends eliminating the “frills,” such as foreign language and physical education requirements; another recommends we expand such “necessities.” In all areas of knowledge there are issues about which experts in those fields disagree. You as a reader have the tough job of deciding which authority to believe. Whether you are reading a nursing journal, a critique of a poem, a textbook, or even the sports page, you will be faced with the problem of deciding which conclusions to accept, which to reject, and which to withhold judgment on.

As a thoughtful person you must make a choice about how you will react to what you see and hear. One alternative is to accept passively what you encounter; doing so automatically results in your making someone else’s opinion your own. A more active alternative consists of asking questions of yourself in an effort to reach a personal decision about the worth of what you have experienced. This book is written for those who prefer the second alternative.

## Critical Thinking to the Rescue

Listening and reading critically—that is, reacting with systematic evaluation to what you have heard and read—requires a set of skills and attitudes. These skills and attitudes are built around a series of critical questions.

We could have expressed them as a list of things you should do, but a system of questions is more consistent with the spirit of curiosity, wonder, and intellectual adventure essential to critical thinking. Thinking carefully is always an unfinished project, a story looking for an ending that will never arrive. Critical questions provide a structure for critical thinking that supports a continual, on-going search for better opinions, decisions, or judgments.

Consequently, critical thinking, as we will use the term, refers to the following:

1. Awareness of a set of interrelated critical questions,
2. Ability to ask and answer critical questions at appropriate times, and
3. Desire to actively use the critical questions.

The goal of this book is to encourage you in all three of these dimensions.

The critical questions will be shared with you bit by bit, one question at a time. As a package, they will be useful whenever you choose to react to what you are hearing or reading. This book will guide you through the critical questions so you can recognize their benefit to every thinking person.

These skills and attitudes will be especially helpful to you as a student and as a citizen. As a student, they should be useful whenever you are asked to

1. react critically to an essay or to evidence presented in a textbook,
2. judge the quality of a lecture or speech,
3. form an argument,
4. write an essay based on a reading assignment, or
5. participate in class.

As a citizen, you should find them especially helpful in shaping your voting behavior and your purchasing decisions, as well as improving your self-confidence by increasing your sense of intellectual independence.

## The Sponge and Panning for Gold: Alternative Thinking Styles

One approach to thinking is similar to the way in which a sponge reacts to water: by *absorbing*. This commonly used approach has some clear advantages.

First, the more information you absorb about the world, the more capable you are of understanding its complexities. Knowledge you have acquired provides a

foundation for more complicated thinking later. For instance, it would be very difficult to judge the value of a sociological theory before you had absorbed a core of knowledge about sociology.

A second advantage of the sponge approach is that it is relatively passive. Rather than requiring strenuous mental effort, it tends to be rather quick and easy, especially when the material is presented in a clear and interesting fashion. The primary mental effort is concentration and memory.

While absorbing information provides a productive start toward becoming a thoughtful person, the sponge approach has a serious disadvantage: It provides no method for deciding which information and opinions to believe and which to reject. If a reader relied on the sponge approach all the time, she would believe whatever she read *last*.

We think you would rather choose for yourself what to absorb and what to ignore. To make this choice, you must read with a special attitude—a question-asking attitude. Such a thinking style requires active participation. The writer is trying to speak to you, and you should try to talk back to him, even though he is not present.

We call this interactive approach the *panning-for-gold* style of thinking. Gold is a soft, bright yellow metal that has been highly valued since prehistoric time. It is found in most parts of the world, but almost always in low concentrations. Because gold is so frequently found in unexpected locations, finding it is a challenging and difficult task.

One technique for finding gold is panning for it in rivers or streams. To pan for gold one must actively search in the gravel of the flowing water, using carefully controlled motions of the pan to retain gold-bearing sand. Worthless silt swirls away. The pan is gyrated again and again, while the miner visually examines the pan for valuable gold.

The process of panning for gold provides a model for active readers and listeners as they try to determine the worth of what they read and hear. The task is challenging and sometimes tedious, but the reward can be tremendous. To distinguish the gold from the gravel in a conversation requires you to ask frequent questions and to reflect about the answers.

The sponge approach emphasizes knowledge acquisition; the panning-for-gold approach stresses active interaction with knowledge as it is being acquired. Thus, the two approaches can complement each other. To pan for intellectual gold, there must be something in your pan to evaluate.

Let us more closely examine how the two approaches lead to different behavior. What does the individual who takes the sponge approach do when he reads material? He reads sentences carefully, trying to remember as much as he can. He may underline or highlight key words and sentences. He may take notes summarizing the major topics and major points. He checks his underlining or notes to be sure he is not forgetting anything important. His mission is to find and understand what the author has to say.

What does the reader who takes the panning-for-gold approach do? Like the person using the sponge approach, he approaches his reading with the hope that he will acquire new knowledge. Then the similarity ends. The panning-for-gold approach requires that the reader ask himself a number of questions, to clarify logical steps in the material and help identify important omissions. The reader who uses the panning-for-gold approach frequently questions why the author makes various claims. He writes notes to himself in the margins indicating problems with the reasoning. He continually interacts with the material. His intent is to critically evaluate the material and formulate personal conclusions based on the evaluation.

### An Example of the Panning-for-Gold Approach

The federal minimum wage law requires employers to pay a certain minimum wage. Naturally enough, employers resist increases in the minimum wage, while many employees would like it to rise. Let's look at one proposal to raise the minimum wage. Try to decide whether the argument is convincing.

The rate of inflation over the last decade has far exceeded the growth in the minimum wage. The gap between the cost of living and the minimum wage has forced many minimum wage earners to live well below the poverty line. A full-time minimum wage worker can expect to earn approximately \$7,000 a year. With a spouse and two children, this worker is earning \$4,600 less than the established poverty line for a family of four. The full-time minimum wage worker is like a drowning swimmer who can never survive.

In California, the gap between what a job pays and what welfare pays is shrinking rapidly. A mother and child on welfare can expect to receive \$6,348 a year. A full-time minimum wage worker earns just a few hundred dollars more. Such a narrow gap diminishes the incentive to work.

Inflation has simply outpaced the cost of living. Congress should raise the minimum wage to a level where it will not be worthless relative to the cost of living. Resulting job losses would be minimal as a result of the current labor shortage. An increase in the federal wage will help restore work incentives and reduce the welfare burden. More importantly, an increased minimum wage will help many workers escape poverty.

If you apply the sponge approach to the passage, you probably would try to remember the reasons why an increase in the minimum wage is a favorable proposal. If so, you will have absorbed some knowledge. However, are you sure that you should be convinced by the above reasons? You cannot evaluate them until you have applied the panning-for-gold approach to the passage—that is, until you have asked the right questions.

By asking the right questions you would discover a number of possible weaknesses in the proposal for an increase in the federal minimum wage. For instance, you might be concerned about all of the following:

1. Is an increased minimum wage the most effective way to help the working poor?



2. Does inflation affect the poor more or less than it affects those making much more than the minimum wage?
3. What kinds of jobs will be cut as a result? Will the loss of these jobs hurt the working poor more than an increased wage will help them?
4. Will smaller companies that cannot afford the increased wage be forced out of business?
5. What does it mean to “far” exceed the growth in the minimum wage?
6. Is the “drowning swimmer” analogy relevant to the argument?

If you want to ask these kinds of questions, this book is especially for you. Its primary purpose is to help you know when and how to ask questions that will enable you to decide what to believe.

The most important characteristic of the panning-for-gold approach is *interactive involvement*—a dialogue between the writer and the reader, or the speaker and the listener.

Clearly, there are times when the sponge approach is appropriate. Most of you have used it regularly and have acquired some level of success with it. It is much less likely that you are in the habit of employing the panning-for-gold approach—in part, simply because you have not had the training and practice. This book will not only help you ask the right questions, but will also provide frequent opportunities for practicing their use.

## Panning for Gold: Asking Critical Questions

It would be nice if what other people were really saying was always obvious, if all their essential thoughts were clearly labeled for us, and if the writer or speaker never made an error in his or her reasoning. If this were the case, we could read and listen passively and let others do our thinking for us. However, the true state of affairs is quite the opposite. A person’s reasoning is often not obvious. Important elements are often missing. Many elements that *are* present are unclear. Other elements that are present do not even belong there. Consequently, critical reading and listening is a sorting process through which you must identify what makes sense and distinguish this clear thinking from the sloppy thinking that characterizes much of what you will encounter.

What’s the point? The inadequacies in what someone says will not always leap out at you. You must be an *active* searcher. You can do this by *asking questions*. The best search strategy is a critical-questioning strategy. Throughout the book we will be showing you why certain critical questions are so important to ask. A powerful advantage of these questions is that they permit you to ask searching questions even when you know very little about the topic being discussed. For example, you do not need to be an expert on child care to ask critical questions about the adequacy of day-care centers.