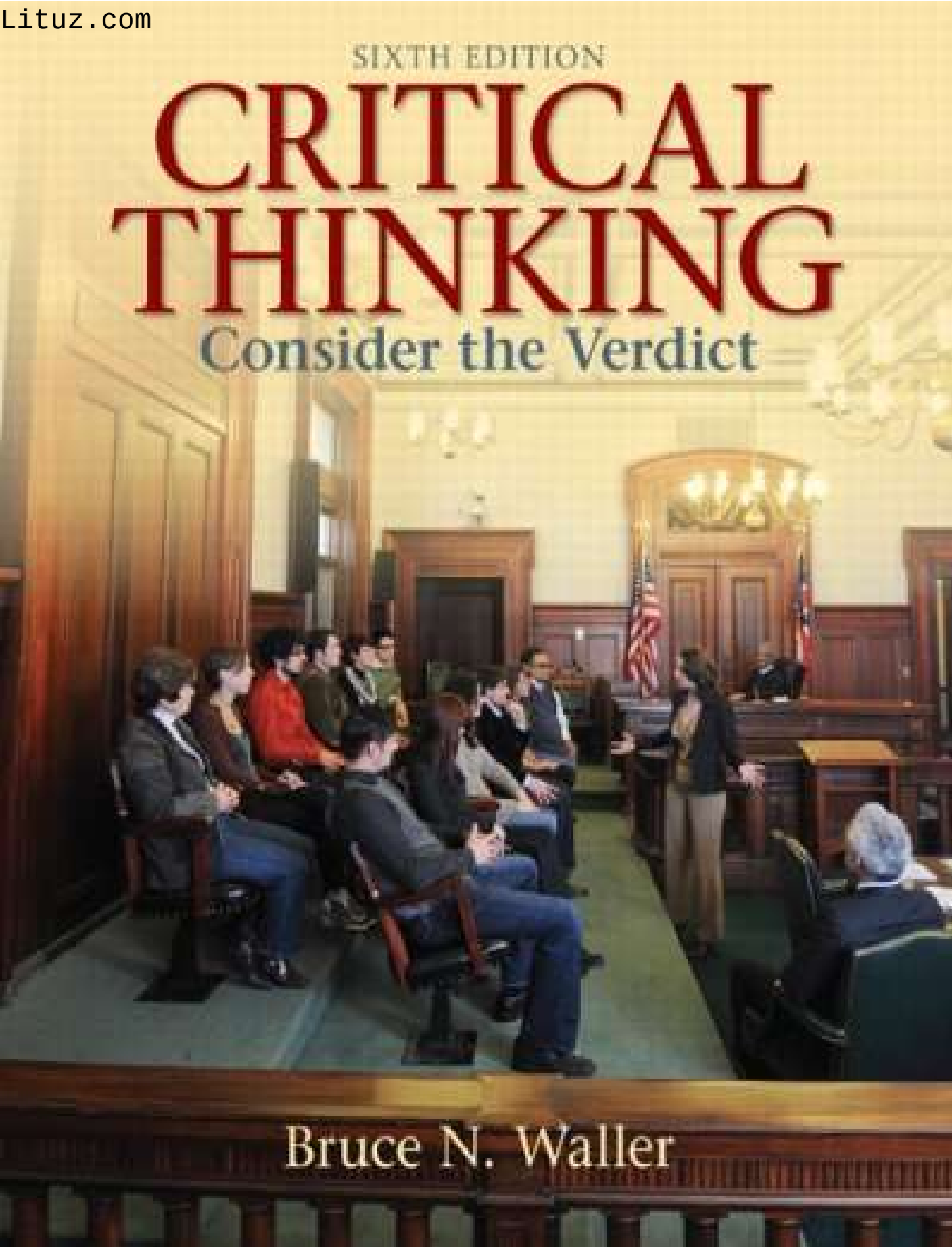
SIXTH EDITION

CRITICAL THINKING

Consider the Verdict



Bruce N. Waller

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Sixth Edition

Bruce N. Waller
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Preface

Critical thinking is a valuable skill: whether you are deciding which courses to take or career to pursue, what toothpaste to use or what stocks to buy, which candidate to vote for or which cause to support, which reports to believe or what claims to reject, critical thinking can be very useful. One of the most important places for careful critical thinking is the jury room. Serving on a jury is one of the most significant and basic ways that citizens actively participate in their government, and jury service makes strong demands on citizen-jurors. Jurors must set aside any biases and judge the issues fairly; they must reason carefully about what laws are involved and how those laws apply to the specific case at hand; they must evaluate testimony and weigh both its accuracy and its relevance; and they must give a fair hearing to both sides, distinguish sound from erroneous arguments, and ultimately reach a just and reasonable conclusion. The courts offer fascinating cases for examination and analysis, and the courts have long grappled with many of the key issues in critical thinking: questions about burden of proof, legitimate analogies, distinctions between relevant and irrelevant reasons, question-begging arguments and unfair questions, the weighing of testimony (including expert testimony and appeals to expert authority), the distinction between argument and testimony, the legitimate and illegitimate use of ad hominem arguments.

The courtroom demands a high level of critical thinking skill, and it is also a fascinating place for studying and developing the key skills of critical thinking: determining exactly what the conclusion is, and who bears the burden of proving it; separating false claims from reliable information; setting aside irrelevant distractions and focusing on the question at issue; and distinguishing between erroneous and legitimate arguments. The skills that make you an effective juror will also make you an intelligent consumer, an effective planner, and a wise citizen.

The sixth edition of *Critical Thinking: Consider the Verdict* uses the jury room as the focus for developing basic critical thinking skills, but it does not stop there. Those skills are also applied to the various arguments and issues that arise in our daily lives as consumers, students, planners, and citizens. While the courtroom and the jury room are valuable laboratories for learning and testing and applying critical thinking abilities, those abilities must also be exercised when reading editorial columns, debating social issues, making intelligent consumer choices, working effectively at a career, and fulfilling one's responsibilities as a thoughtful critical citizen of a democracy. Thus, most

of the exercises and examples are drawn from advertisements, social debates, political campaigns, editorials, and letters to the editor. Critical thinking skills are valuable in the jury room, but they are also valuable in the classroom, the boardroom, the laboratory, and the grocery store.

Critical thinking is often regarded as an adversarial process, where the stronger arguments triumph over the weaker. Adversarial critical thinking is common and is often valuable: Cases in court usually proceed through an adversarial process, and that can be a useful way of bringing out both strong and weak points in the arguments presented. But not all critical thinking follows the adversarial model, and the sixth edition of *Critical Thinking: Consider the Verdict* gives careful attention to the contexts when *cooperative* critical thinking may prove particularly useful. Several factors enhance effective cooperative critical thinking, and several argument fallacies are especially damaging to a cooperative critical thinking process. Both the promise and the pitfalls of cooperative critical thinking are examined in this new edition.

The sixth edition of *Critical Thinking: Consider the Verdict* contains a number of important changes and additions.

- Extensive new discussion of cooperative critical thinking (as distinguished from adversarial critical thinking), and examination of its special strengths and the contexts in which it is most effective.
- New and updated exercises and examples in every chapter.
- A new section on definitions, including examination of misleading definitions.
- Extensive new material on statistical fallacies and deceptions.
- A new section on the importance of scientific integrity and scientific cooperation.
- Additional new exercises in the special-review sections (the sections of cumulative exercises).

Critical Thinking: Consider the Verdict, sixth edition, provides a solid introduction to critical thinking; Chapters 18 and 19 offer introductory instruction in symbolic logic. Those two chapters are self-contained, and you may do either or both at any point in the course, or skip them altogether. The boxed exercises and examples throughout the text are not essential to understanding the chapters, but they do present interesting material and challenging questions. You can skip them, but you'll miss a lot of the fun.

Support for Instructors and Students

The moment you know. Educators know it. Students know it. It's that inspired moment when something that was difficult to understand suddenly makes perfect sense. Our MyLab products have been designed and refined with a single purpose in mind—to help educators create that moment of understanding with their students. The new MyThinkingLab delivers **proven results** in helping individual students succeed. It provides **engaging experiences** that personalize, stimulate, and measure learning for each student. And, it comes from a **trusted partner** with educational expertise and an eye on the future. MyThinkingLab can be used by itself or linked to any learning management system (LMS). MyThinkingLab—the moment you know.

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PowerPoint Presentation Slides for Critical Thinking: Consider the Verdict (0-205-15877-3)**:** These PowerPoint Slides help instructors convey critical thinking principles in a clear and engaging way. For easy access, they are available at www.pearsonhighered.com/irc.

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My students at Youngstown State University have been of enormous help in the preparation of the later editions. They have been kind enough to point out—often with admirable candor—the flaws and difficulties of earlier versions; but of even greater benefit has been their enthusiasm for the book: the times they have told me of actually enjoying the reading of a textbook and sharing the book with their friends and families, their fascination with many of the exercises, and most of all their reports of successful analyses of deceptive advertisements, of political speeches, and of attorneys' arguments during subsequent jury duty. A number of students brought me examples from their own reading and experience, and many of those examples are incorporated into the later editions.

My friend Jack Raver has frequently been helpful as a computer consultant, and is one of the most enthusiastic, energetic, and joyful arguers I have ever encountered. Lia Ruttan has been a wonderful source of fascinating cases and examples, particularly from the Canadian courts. Richard White has given me many very helpful ideas, especially in the area of cooperative critical thinking in special courts. Lauren Schroeder and Fred Alexander have been particularly helpful on arguments and issues related to politics and the environment.

Special thanks to all the wonderful people who helped in putting together the photographs for the cover and to accompany the exercises: Judge Lou D'Apolito who allowed us the use of his courtroom; two fabulous photographers, James Evans and Carl Leet; Gabriel Palmer-Fernandez and Deborah Mower, who played the roles of attorneys; Homer Warren, who looked wonderfully judicial; and all the jury members (many of whom are current YSU students, together with my long-suffering sons and lovely daughter-in-law)—Russell Waller, Adam Waller, Robyn Repko Waller, Zach Robbins, Cary Dabney, Amanda Benchwick, Sarah Lowry, Rebecca Soldan, William Soldan, Gary Davenport, Heather Carbon, and Mary Dillingham.

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CRITICAL THINKING

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1

Introduction

Listen to the **Chapter Audio** on **mythinkinglab.com**

You evaluate arguments and assertions every day: when choosing your breakfast cereal, evaluating reports on the effects of the caffeine in your coffee, reading your morning paper, deciding how to cast your vote. And occasionally you will consider arguments while serving on a jury. In the performance of your jury duty you will be expected to weigh evidence, consider competing arguments, reason carefully, and decide impartially. Some of your fellow jurors may disagree with your conclusion, so you must be able to evaluate their arguments and argue cogently for your own conclusions. So as we practice critical thinking, we'll examine a wide variety of courtroom and jury arguments: arguments that are interesting, important, and instructive. But we'll also study political arguments, advertisements, scientific claims, and a wide variety of other contexts where critical thinking skills are valuable.

Critical Thinking in Everyday Life

This book pays close attention to jury deliberation, but it is not exclusively or even primarily concerned with courtroom reasoning. Jury deliberation is profoundly important, but it is only a tiny fraction of the critical reasoning you must do. Every day you are bombarded with advertisements, and to find any helpful substance in them you will have to critically winnow out masses of chaff. You are a citizen in a democratic society, and thus it is your responsibility to carefully and rationally evaluate the policies and programs of your local, state, and federal government and to vote intelligently (and perhaps campaign) for the candidates you consider most capable. You encounter advertisements, the evening news, news magazines, opinion journals, scientific reports, editorials, textbooks—all making claims that are sometimes contradictory and sometimes slanting the material presented. Sorting these out, distinguishing fact from speculation, and weighing competing theories and interpretations require the same reasoning skills that are required of an effective and responsible juror.

The subject of this book is critical reasoning in all its applications. The only way to be effective at jury reasoning is to be good at reasoning, and good reasoning requires practice. It is not something that can be turned on and off like a politician's charm. Critical thinking cannot be hoarded for use exclusively in the jury room. Use it or lose it.

A Strong-Willed Jury

In New South Wales, a defendant was charged with the theft of several cows. The jury finished their deliberations, and returned to the court with this verdict: "Not guilty, if he returns the cows." The judge was outraged, and ordered the jury back for further deliberations. The jurors, deeply offended, soon returned with a new verdict: "Not guilty, and he doesn't have to return the cows."[1]

Play Fair

The first requirement for examining arguments intelligently—whether as a voter, a consumer, a reader, or a juror—is to be fair in your evaluations. Bias and prejudice close minds and stifle critical inquiry; the first task in good critical reasoning is to eliminate such bias.

At some point you will be in the jury box, and before the jury is impaneled you will be asked a few questions: perhaps by the judge; by the district attorney, and by the defense counsel if it is a criminal case; by lawyers for the plaintiff (the person suing the defendant) and for the defendant in civil suits. The idea is to seat a fair and impartial jury. This process is called the *voir dire.* (*Voir dire* is French, meaning "to see, to speak." However, *voir* is a corruption of the Latin *verus,* meaning "true"; thus the original meaning is "true talk."[2]) The *voir dire* process is supposed to detect any bias or narrowmindedness among potential jurors.

If the defendant is your lover, or if you will lose money if the plaintiff wins, or if the defendant recently ran off with your spouse, then it might be more difficult for you to remain completely impartial in considering the case. If from reading newspaper reports you have formed an unshakable conviction concerning the guilt or innocence of the accused, you will not be an open-minded juror.

Smart Jurors

Philadelphia Assistant District Attorney Jack McMahon advises rookie prosecutors on selecting a jury:

> My opinion is you don't want smart people [on the jury]. Because smart people will analyze the hell out of your case. They have a higher standard. They hold you up to a higher standard because they're intelligent people. They take those words "reasonable doubt" and they actually try to think about them. You don't want those people. You don't want people who are going to think it out.[3]

Seating a Jury

How far should the *voir dire* process go? That question is raised by the increased use of jury selection specialists, who use sophisticated techniques in an effort to discover which jurors are most likely to favor which side. A defendant being charged with drunken driving might wish not to seat a teetotaler or a juror whose child was recently killed by a drunk driver. But not all cases are so obvious. For example, in the famous trial of the "Harrisburg Seven" in 1971–1972 (in which Philip Berrigan and six other antiwar activists were charged by the federal government with conspiring to kidnap Henry Kissinger and blow up heating tunnels

in Washington, D.C.), a group of social scientists did extensive research on the attitudes of the population around Harrisburg, Pennsylvania, from which the jury pool would be drawn. They discovered important information for the defense. For example, while one might expect college-educated persons to be sympathetic to the antiwar defendants, that was not the case in Harrisburg. As Jay Schulman, who directed the research, states, "Contrary to what our lawyers expected, college-educated people were not likely to be liberal in Harrisburg. Liberal college graduates, it seems, leave Harrisburg for other places, and those who stay support conservative norms."[4] Thus the defense was alerted to be cautious of college graduates. (That does not mean that in 1972 all college graduates in Harrisburg were conservatives. It means only that Harrisburg college graduates were more *likely* to be conservative, and thus more likely to be unfavorably disposed toward the defendants.)

Jury Research: Eliminating or Selecting Bias?

Is the use of social scientists to investigate potential jurors a good thing? It is certainly legal, but that is not the question. Does it make a fair trial more likely, or does it subvert justice by unfairly "stacking" the jury? That is a hotly contested issue. Opponents of jury selection specialists claim that they rig juries to reach verdicts on the basis of the jurors' biases rather than on the basis of the evidence and the arguments. Those who favor the use of social scientific research during *voir dire* claim that it is essential in order to avoid seating prejudiced jurors who cannot weigh the case fairly. After all, prejudiced jurors cannot always be exposed simply by asking a few questions during *voir dire.* (Suppose a potential jury member is asked by the lawyer for a black defendant: "Do you know of any reason why you cannot consider this case honestly and fairly?" The potential juror is not likely to respond: "Yes, I do; I have an irrational prejudice against blacks." In fact, those who are prejudiced are often unwilling to admit their prejudice even to themselves: "No, I'm certainly not prejudiced against blacks; why, some of my best friends are black; I just don't want them moving into my neighborhood.") Detecting biased and unfair jurors is not an easy task. Not every prejudiced person has beady eyes and wears a hood.

There are obviously some serious problems in current methods of jury selection. Procedures that exclude certain segments of the population—for example, systematically excluding blacks from criminal juries through use of peremptory challenges—are unfair. Such abuses are too frequent and are sometimes systematic.

Baseball and Juries

Bert Neuborne, legal director for the American Civil Liberties Union, claims that in New York City during the 1950s (when New York had three major league baseball teams—the Yankees, the Dodgers, and the Giants), lawyers used a quick and easy method for selecting jury members:

> As Neuborne tells it, attorneys needed only one question: "What baseball team do you root for?" Yankee fans, the defense dismissed; Dodger fans, the prosecution dismissed. Giant fans were acceptable to both sides because, Neuborne says, they were "the only reasonable people in town."[5]

A handbook used in 1973 in Dallas County, Texas, gives the following instructions for criminal prosecution attorneys:

> You are not looking for a fair juror, but rather a strong, biased, and sometimes hypocritical individual who believes the Defendants are different from them in kind, rather than degree; you are not looking for any member of a minority group which may subject him to oppression—they almost always empathize with the accused.[6]

But it is essential in a fair trial that at least some members of the jury be able to empathize with the accused. Imagine how you would feel as a criminal defendant if all members of your race or ethnic group or political party or religion or socioeconomic group were systematically excluded from the jury that tried your case: It would hardly be a "jury of your peers."

Keeping Women in the Kitchen, on the Pedestal, and off the Jury

In 1966, the Mississippi Supreme Court (in *State* v. *Hall*, 187 So.2d 861) ruled that women could legally be excluded from Mississippi juries, for these reasons:

> The legislature has the right to exclude women so they may continue their service as mothers, wives, and homemakers, and also to protect them (in some areas, they are still upon a pedestal) from the filth, obscenity, and noxious atmosphere that so often pervades a courtroom during a jury trial.

In short: It's for your own good, girls.

Impartial Critical Thinking

The point of this chapter is that in your deliberations you must try to approach the case with an open mind, free of bias and favoritism. There will be those who wish to exploit your fears and prejudices and preconceptions: unscrupulous advertisers who play on our fears of social stigma to sell us overpriced and often unnecessary "remedies" for bad breath, body odor, and the terrors of "flaking and itching"; politicians who pander to our fears to sell us dubious foreign policies; and lawyers who hope that prejudices will substitute for arguments. It requires constant vigilance to avoid substituting our biases for rational reflection, but it is essential to do so if we are to reason well—in the jury room and the laboratory and the marketplace and the voting booth.

It is natural to feel a special sympathy with those who have similar goals and interests. Thus if you are a feminist liberal arts major at the old home state university, you may feel predisposed toward a defendant who is a feminist liberal arts major at the same school. That may be a natural tendency, but it is not a fair one. There may be some rotten apples even among the feminist liberal arts majors at state university, and the defendant may be one of them. It may also be difficult to be fair and impartial toward a defendant who is your exact opposite: a hard-nosed businessman who thinks the arts are a waste of time and that a woman's place is in the home. You may not feel sympathetic toward such an individual, and you wouldn't want to be stuck with him at a small dinner party. But if you are to consider the issues clearly, you must try to set aside that distaste. The issue is the person's guilt or innocence of some specific charge, and that has nothing to do with whether you like or dislike the defendant.

The same objectivity is required as you listen to the lawyers in the case. The district attorney may be a pompous ass and the defense attorney a great human being. That is irrelevant to which side has the stronger case, and you must set aside such personal likes

The Courtroom Is Not a Singles Bar

Ideally, jurors should start from a presumption of innocence, but without any bias for or against the defendant; and try to remain neutral until all the evidence is heard. One Canadian juror, Gillian Guess, failed to maintain that neutrality. During the course of a murder trial in which she served as a juror, she began sleeping with the defendant. She was later sentenced to 18 months in prison for obstruction of justice.

and dislikes in order to deliberate justly and accurately on the merits of the argument. Difficult as it may be, it is vitally important to separate argument sources and styles from argument content.

Adversarial Critical Thinking

Critical thinking is a useful weapon. People sometimes speak of skill in critical thinking as "verbal self-defense," or learning "how to win arguments." And since you are daily bombarded with arguments from advertisers and politicians, and often by arguments designed to deceive rather than enlighten you, learning how to protect yourself against misleading claims and flawed arguments is a very valuable skill. Effective argument and the effective critical analysis of argument can also serve a more positive function. Under the *adversarial* system of justice—practiced in Great Britain, the United States, Canada, Australia—lawyers on either side present arguments, and from that tough argumentative contest the truth emerges: or at least, such a struggle, when it functions well and both sides are represented by honest and skillful advocates, is often our most effective means of seeking the truthful outcome. From the local courthouse to the Supreme Court, both sides present their strongest *arguments* and probe for weaknesses in their opponents' arguments, and—if all goes well—from this contest the truth eventually emerges.

In some ways science is also an adversarial system. Scientists present their theories and the evidence in their support; and other scientists challenge those theories and seek evidence to refute them. Karl Popper, one of the great twentieth-century philosophers of science, saw this as the basic method of science: present bold theories, expose those theories to scrutiny and criticism from scientific adversaries, and through this method we develop *better* theories. Indeed, Popper thought that often the best scientific work was done when strong theoretical conjectures were refuted by powerful opposing arguments. A similar process often occurs in philosophy: Philosophers present their theories and arguments, and those theories and arguments are subjected to examination and criticism—criticism that often finds flaws in the proposed theory and results in better theories and better arguments.

The contest between adversaries—whether in the courtroom, the laboratory, or the philosophy seminar—is often a valuable method for seeking better theories and finding the truth. But the adversarial process is *not* a no-holds-barred, eye-gouging, ear-biting, anything goes brawl. Or at least, it *should* not be, and—when it works effectively—it is not. To the contrary, for the adversarial process to work well, it is essential that both sides play fair and behave respectfully. Sadly, the adversarial system does *not* always function well; and when it does not, that is usually because one or both sides have corrupted the process, and the contest is not fair. Suppose you have a small software development company, and you have developed a really innovative program that is a big improvement in some area of computer use, and that is likely to be very profitable for your company. A software giant comes in and steals your innovation, and sells it as their own. You hire a lawyer and sue the company that stole your product; and in a fair adversarial process, the evidence will come out, both sides will present their cases and their arguments, and you will win your case and recover damages. But the software giant has enormous funds at its disposal, while you have very little money. If their lawyers file motion after motion and cause one delay after another, then the legal costs for both sides will become enormous—costs the large corporation can easily afford, but costs that soon take all your money and force you to drop the suit. That sort of tactic destroys the effectiveness of the adversary system. Or suppose you are a poor person who is charged with a capital offense, such as murder. You cannot afford an attorney, so the state will appoint one for you. Unfortunately, in some cases, the state appoints a defense attorney for you who is grossly incompetent: in Texas, there have been several cases in which defendants were "represented" by attorneys who showed up drunk, or who actually slept through much of the trial. When

one adversary is impaired or incompetent or asleep, it is hardly surprising that the "adversary system" fails to function properly (and it is hardly surprising that a number of criminal convictions in Texas have been overturned by later tests of DNA evidence). As Samuel R. Gross states, "The American system of adversarial justice is predicated on the assumption that both sides are competently represented and have adequate resources to present their cases. That assumption is often false."[7]

And, of course, there are other ways the adversary system can go wrong: if the jury is racially prejudiced, or the judge is biased, or the evidence is falsified, or a juror is bribed, then the adversary system cannot work well. But that is not because the adversarial process is flawed, but because one or both of the adversaries break the rules. A baseball contest is a good way of determining which team is actually better—but not if one side bribes the umpire, and not if one side can afford top quality equipment while the other side uses equipment that is falling apart. The adversarial process can also work well in science, but that requires that the adversaries play by the rules. If someone falsifies research, or covers up adverse results, then the scientific adversarial process can break down: just as the adversarial process breaks down in criminal trials when there is perjured testimony or one side has an incompetent attorney, and just as civil adversarial processes break down when one side subverts the system by expensive delaying tactics.

For the adversarial process to work well, both sides must play by the rules. That is hardly surprising: it is true of almost any contest. A football match is a good way of determining which team is superior— but not if the referee is bribed, or the star player on one team has been paid to throw the game. But for the adversarial process to work at its *best*, more is required than simply adhering to the rules; in addition, both sides must be respectful of their opponents and of the process itself. When civility breaks down, the adversarial process suffers. That doesn't mean that the adversaries should be less energetic in their efforts to present the strongest case possible, and to find and exploit the weaknesses in the positions of their opponents. But such efforts should be consistent with being respectful toward one's opponent. The importance of respect and civility in the adversarial process is perhaps best observed in the British courts. There is a long and glorious tradition of debate and adversarial contest in the British courts; and it is there that the importance of civility and personal respect is quite clear; indeed, sometimes the tradition of civility is so strong it seems almost quaint. As the judge enters the courtroom, all present rise to show respect: a tradition that is found in many courts, following the British model. But in the British courts, the judge then bows to the barristers, the barristers bow to the judge and to each other. Barristers address one another as "my learned friend," and when one barrister rises to make an objection, the other immediately sits down; when the barrister has made his or her objection, the opposing barrister may then rise and offer arguments in response to the objection; but they would never stand and both talk at once. Remarks addressed to "the learned judge" are often preceded by "if your Lordship (or Ladyship) pleases." The barristers and the judge all wear white wigs and gowns, and with all the bowing and the very formal address—"My learned friend appears to have forgotten the evidence given this morning; perhaps I might refresh his memory"—may appear quaint; and indeed, if you ever have a free day in London, a visit to the Central Criminal Courts is wonderfully entertaining, and a better show than the changing of the guard at Buckingham Palace. But quaint and a bit old-fashioned as this elaborate formal courtesy may appear, it serves a very important function in the British adversarial system. It is a powerful reminder that the advocates must present their best arguments, and be zealous in looking for flaws in the opposing arguments; but that such a process need not and should not involve attacks on the person giving the arguments. And if the process is to work well, both sides must be attentive to opposing views, and neither distort nor misrepresent them in attempting to refute them. The elaborate courtesy and deep tradition of civility is not merely a quaint British tradition; instead, it is a vital element of an adversarial process that functions well, and that is genuinely interested in seeking the truth. Anyone who remembers or has seen clips of the O.J. Simpson

criminal trial will recall the constant sniping and insulting and bickering between the prosecution and the defense; and it is clear that the atmosphere of incivility and hostility was a burden on the entire trial process. Whatever one thinks of the outcome, the nasty atmosphere and personal animosity in evidence at the trial—not to mention the media circus—made it difficult for anyone to feel confident that justice had been done. Sometimes civility is strained, but the forms are generally maintained in the U.S. Senate: "Will the gentleman yield for a question? Will the gentle lady allow a comment?" In an era of political grandstanding, it seems almost quaint, like the wigs and the robes worn by the barristers (lawyers) and judges. But this elaborate courtesy also serves an important function.

Cooperative Critical Thinking

Adversarial critical thinking —when both sides play fair and play nice—can be a very valuable way of finding the truth and testing theories and trying out ideas: valuable in determining guilt or innocence in the courtroom, valuable for testing theories in the sciences, valuable for trying out new ideas and examining old beliefs in dorm room debates. But valuable as adversarial critical thinking is, the adversarial approach is not always best. *Cooperative* critical thinking is also valuable, and in some contexts is much more useful. Consider some rather homely examples of effective cooperative critical thinking, offered by legal scholar and legal ethicist Carrie Menkel-Meadow:

> . . . consider two sisters, who both seem to be fighting about a single orange, when one really desires the fruit for eating and the other the rind for cooking. Or, from my own personal experience, when, with a single piece of chocolate cake left, I wanted the icing (frosting) and my brother desired the cake, demonstrating that a horizontal, rather than a vertical, cut of the cake would maximize both of our desires. . . . [8]

Obviously not all problems yield such neat cooperative solutions; but by focusing on finding common grounds and shared interests, it is often possible to reach a conclusion in which no one *loses*, and everyone comes away satisfied. Notice that the solutions gained through cooperative critical thinking are not always *compromises*. In the example above, Carrie and her brother might have reached a *compromise* by splitting the piece of chocolate cake in half, leaving neither very satisfied; by considering carefully what each really desired, and how those desires could best be met, they found a solution that met the goals of both.

Carrie wanted frosting, and her brother wanted cake. By considering the problem cooperatively, they found a solution that worked for both of them. That brings out the crucial first step in effective cooperative critical thinking: getting clear on *exactly* what goals are in play. Getting clear on the goals is vital, but it isn't always easy. Carrie wants the piece of chocolate cake, and so does her brother. But in fact, that's not quite accurate. Carrie wants the chocolate *frosting*, while her brother wants the chocolate *cake*. Only by examining more critically their actual goals can cooperative critical thinking be successful. Of course, sometimes the goals are basically incompatible: Her brother wants to eat the entire piece of chocolate cake, frosting and all; and Carrie wants to eat the entire piece of chocolate cake while her brother watches and suffers, because she is angry at him for reading her diary. But perhaps even then careful consideration of goals can result in a favorable outcome for everyone: what Carrie really wants is an apology from her brother, and for her brother to understand that such an invasion of personal privacy is wrong, and a commitment that he won't do it again. In that case, it's not impossible that both might have their real wishes fulfilled. But again, that requires looking very carefully at what their real goals are: in her justifiable anger at her brother, she desires to get even with him; getting beyond that anger, and thinking carefully, she may gain a clearer understanding of what her own desires really are.

Adversarial critical thinking is often beneficial, but in the case of the chocolate cake cooperative critical thinking is likely to prove more helpful. In an adversarial contest, the arguments would probably turn on questions of fairness: who got the last piece of the last cake, who ate the most of this cake, who asked for the piece of cake first. Such arguments might eventually lead to a result, especially if mom is acting as judge and jury. But the loser is likely to feel resentful, and the winner may not get what he or she really wants: Carrie's brother gets the cake, but he has to eat through all that frosting to get to the part he really likes. The cooperative solution would have been better for everyone, including the winner of the adversarial contest.

The benefits of cooperative critical thinking are not limited to settling sibling disputes over a last piece of chocolate cake. The legal community has come to recognize that while the adversarial system is often a good way of resolving conflicts and finding truth and protecting individual rights, it works better in some settings than in others; and in those other settings, cooperative critical thinking has proved its worth. In the traditional adversarial divorce proceeding, lawyers for both sides battle to win everything they can for the party they represent: the house, the bank accounts, the retirement accounts, the dog, the kids. If I can get 100% of the bank accounts for my client, then I am a more successful and satisfactory adversarial advocate than if I only get 60%; and if I can get sole custody of the kids for my client, then that's a better adversarial outcome than joint custody. But is that really the best outcome? Assuming that both parents love their children, and are reasonably good parents, that is very unlikely to be the best outcome for the children. In fact, it is unlikely to be the best outcome for my client, when my client steps back from the adversarial conflict and carefully considers what he or she really wants: because what my client is likely to want most of all is an outcome that is best for the children, the children who are loved by both my client and my client's former spouse. Thus in many areas—particularly in domestic disputes involving children—courts have set up special alternative ways of handling conflicts and problems. Rather than adversarial procedures, these alternatives are likely to involve cooperative processes, often with the help of counselors.

In adversarial critical thinking, my goal is to present my own position in its most favorable light, probe your argument for weaknesses, reveal the flaws in your views, and establish my position and my arguments as superior: and to the victor, the spoils. In cooperative critical thinking there is still serious sustained inquiry, but the goals are different. Rather than trying to find weaknesses in your position, I am trying to find ways in which our positions can be reconciled. And rather than trying to gain all the spoils for myself, I am seeking a way that everyone can benefit. Which form of critical thinking is better? That's not a very helpful question: it's like asking which game is better, chess or tennis. They are quite different, and both are very useful in different contexts and for different goals.

Adversarial and cooperative critical thinking are quite different methods of thinking critically; but to practice either method effectively, two things are essential. First, whether the process is adversarial or cooperative, the most important step is being clear and precise on *exactly* what is at issue, what is the question. If you are evaluating an argument, you cannot begin to determine whether that argument is good or bad until you know what the argument is supposed to be proving. An argument that establishes that coal is a plentiful and cheap source of energy will be useless if the real issue is whether burning coal increases the danger of global warming. Consider an argument that Jane *might* have murdered Allen, that we cannot rule Jane out as a suspect in the murder: that argument will be useful if the question is being discussed by detectives investigating the murder; however, it will be useless if the district attorney presents the same argument to the jury in Jane's murder, where the question at issue is whether there is proof beyond a reasonable doubt that Jane did the foul deed. And if we are thinking cooperatively about where we should go to dinner, it's important that we each consider what our goal really is: is my main concern to save money, or eat healthy, or make my ex jealous by being seen