

FREE FIRST CHAPTER

CRITICAL THINKING IN A NUTSHELL

The Death Of Socrates

How To Become An Independent Thinker And Make Intelligent Decisions — Chapter One. About a 12-minute read.

The leaders of Athens sentenced the greatest mind of his generation to death.

Socrates was to ingest hemlock, a horrific way to die. The philosopher's entire body would become paralyzed before his bladder would be overwhelmed by toxicity. Socrates would experience frothing at the mouth and respiratory distress. Finally, a massive seizure would lead to death.

Many accused Socrates of "not believing the Gods of the city, introducing new gods, and corrupting the youth"*. In his informal role as an educator, Socrates had taught many of the youngest and brightest to question all assumptions. He taught them that ideas were not necessarily correct just because their parents or leaders said so. Socrates told his students to examine every idea on its merits alone.

Though accused of undermining authority, Socrates never supported rebellion for its own sake. Instead, he insisted that the ideas dispensed by people in positions of authority were not above question. Rather than defend a certain power structure, Socrates taught his students to seek out the truth.

Though Socrates died, his student Plato, and Plato's student Aristotle, carried this tradition forward. The man was dead, but his legacy remains immortal*. The method of inquiry he pioneered is still known as the Socratic Method, and it focuses on the development of ideas through constant dialogue. Each argument is teased out and broken down into its

underlying assumptions. Each assumption is exposed to ruthless scrutiny, no matter who made it and why*.

The trial of Socrates emphasizes the power of questioning established sources of authority and information. On one side stood the powers that decided to end the philosopher's life. On the other, Socrates' thought inspired a long-standing tradition*.

Critical thinking is an essential component of human progress. Without questioning authority and common wisdom, the science and progress we have today would be impossible. The study of evolution would be impossible if scientists were unwilling to challenge the Bible's literal interpretation. What if we still believed the world was flat? Or that kings enjoy a divine right to rule?

Critical thinking skills are among the most sought after in the modern economy. In a major survey of American business leaders, 93% of respondents agreed with the statement that "a demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than [a candidate's] undergraduate major"*. By becoming more critical thinkers, we become more well-rounded people. It doesn't hurt that we become more employable along the way, too*!

How To Define Critical Thinking

When people use the term critical thinking, it can mean different things. However, certain elements are essential for a fuller understanding of the concept. The Delphi Project provided one of the best-known definitions of the term:

*"Purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as an explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based"**.

A good translation of this definition into simple terms would be the ability to think about connected ideas thoroughly and independently, basing those ideas on factual evidence. It is the act of turning the full force of our reasoning toward resolving real-world problems.

How is this done? Critical thinkers gather and categorize the evidence relevant to their problem to gain relevant knowledge. As different elements of the problem and its potential solution are understood, critical thinkers connect an issue's disparate parts into one workable framework. Once critical thinkers have analyzed the problem by dividing it into digestible definitions and categories, they use this knowledge to solve it, making the connections necessary to understand and define the problem and all of its components.

Another approach to defining critical thinking is to look at what it isn't. The word "critical" can throw people off. This is not an approach designed to criticize things we don't like. You know that person at work you don't like? Ever notice how every time they talk, you try to find something wrong with their ideas? That isn't critical thinking. That's just being critical.

Critical thinking is not a more methodical way of defending ideas we agree with. Sometimes when we argue, we brilliantly defend our position, assuming that everything the other side says is wrong. You can see this happen in just about every argument held on social media. When we use our intellect to prove a point we have not thought through, we are not thinking critically, no matter how well we do it.

We often try to make ideas look better or worse than they are for our own gain. This is not critical thinking. A critical thinker is only interested in evaluating the strength of an argument as it is, without exaggerating reality in either direction. When we apply critical thinking, we attempt to treat arguments we like and dislike objectively and fairly.

What Is Critical Thinking Good For?

When you engage in critical thinking, your purpose is to attain one thing only: the truth. Your pursuit of truth means that you can avoid deception and identify which facts are accurate. This is because you will now know how to separate facts from spin, allowing you to arrive at true solutions*.

Does it sometimes seem like the world around you is operating wrong? Do you ever ask yourself why you encounter so many disorganized and inefficient systems? Have you ever thought that given a chance, you could do things better? You probably can.

We encounter incompetence and inefficiency far too often. To a great extent, this is because we don't question existing traditions and processes. Existing systems are usually not the product of design. Instead, outdated social beliefs, cultural norms, and simple inertia shape the systems we encounter. People in authority tell us what to believe, and far too often, we accept the common wisdom. Critical thinking provides us with the tools to cut through that.

From problems as small as where to go on vacation to large ones, such as who to marry, critical thinking allows us to make better decisions. These skills are essential in the current economy, with its emphasis on start-ups and entrepreneurship. Tech companies champion an approach of "disruptive innovation"*. They attempt to create new markets and value systems, which displace existing business models.

A disruptive plan is an exercise in critical thinking. To replace a current model, you will first examine it and assess its weaknesses and strengths. Next, you will design a more efficient plan, disregarding traditional "common sense" models.

Amazon took over the book market by disrupting the traditional marketplace. Bookstores remained beloved institutions, and it was still commonplace to go to a store to sell or buy a book. Nonetheless, this traditional business model suffered severe drawbacks. There was a good chance that some books customers wanted were unavailable because of limited shelf space. Prices were high due to significant overhead expenses. Finally, bookstores were unable to expose their customers to information on new books efficiently.

Amazon.com revolutionized book sales by coming to the business from the outside. Jeff Bezos, the entrepreneur behind the company, was uninterested in maintaining tradition. Instead, his mission was to use the internet to provide services efficiently. Only after researching several inefficient industries did he decide to enter the book business. He chose to sell books rather than other products since customers did not have to try them or taste them. They were well suited for remote purchases. As unpleasant as this may sound, from a business perspective, bookstores were rendered unnecessary.

Having reached this conclusion, Bezos designed a system that would overcome the flaws of the bookstore model. The information delivery problem was overcome by centering recommendations and reviews on the website homepage. Amazon overcame stocking problems by storing books in massive delivery centers across the country. Meanwhile, it lowered prices by stocking up in bulk and paying less overhead*.

What Jeff Bezos designed was a simple and intuitive solution to long-standing problems in the traditional industry. What made it revolutionary was that it ignored the value system and common wisdom of the book industry. Instead, Bezos examined each of the assumptions underlying the industry critically. Amazon.com is the product of critical thinking, a very profitable and successful one.

What Does Critical Thinking Consist Of?

The process of critical thinking involves recurring concepts and components.

Perception

Our first step to thinking about anything is to perceive the situation. We cannot be aware of a problem that requires solving unless we have perceived it first. It is important to keep in mind that our perception is not objective or neutral. Our perception is how we filter objective reality through our subjective value systems. For example, let's say you are setting up your monthly budget. You may find that you are unable to save a substantial amount of money. However, your parents instilled in you the importance of saving money. You may see this as a serious problem with your budgeting. If you live one day at a time, you may shrug your shoulders and say, "Thank goodness I have enough!"

Assumptions

Our assumptions are unexamined beliefs taken for granted. Our plans and actions are, usually unknowingly, built on assumptions. To foster critical thinking, we must be willing to examine our assumptions critically to see if they are accurate and serve a practical purpose. Remember, you cannot assume anything is true unless you have reviewed it thoroughly. Going back to our previous example, neither tendency is necessarily the correct one. Examine them carefully. If

you are going to actively decrease your budget in the future, you may not need to squeeze every penny. If your current budget is a long-term one, not saving anything can be a serious problem. Whatever your beliefs are on saving, examine how relevant they are to your current situation.

Emotions

Many people believe that rational thought is impossible unless you put your emotions aside. This is neither true nor realistic. Our natural feelings color and influence every decision we make, and the right emotions (such as care for our families and passion for a goal) are exactly what make problems worth solving. Emotions can be allies of critical thinking or obstacles to it; Chapter 4 is devoted to telling the two apart.

Language

The words we use are the nuts and bolts of critical thinking. We can turn our thoughts from vague concepts into firm ones by applying precise language to the problem. To think critically about any topic, we have to define the problem and our approach to solving it in an actionable manner. Critical thinking is only possible when we make an abstract representation of reality through words. Going back to our budgeting example: to unpack how much money we need to save, there are several concepts we need to take into account, such as inflation. Sure, our budget may be enough for right now. But will it be in the future? How likely are prices to rise? Correspondingly, to calculate how much we need to save, we have to understand the concept of interest. Putting the relevant factors into words and concepts helps us understand the problems we face.

Arguments

In the context of critical thought, the word argument is a crucial building block. It does not refer to people disagreeing with each other loudly. Instead, it is a well-reasoned list of assumptions and premises. When these assumptions form an argument, they result in a functional and rational conclusion. As we already discussed, we back up logical assumptions with logic and facts. Otherwise, we could be formulating conclusions based on faulty logic*.

Fallacies

Consistent human tendencies toward uncritical thinking are known as "fallacies": recurring errors of reasoning that will not stand up to critical scrutiny. They are the potholes on every road this book travels, so we have given them a full field guide in Chapter 4*.

Logic

This is a word for structured thinking, designed to evaluate information accurately. By analyzing the validity of premises and assumptions, a critical thinker can distinguish between fallacies and strong assumptions, and thus between truth and falsehood. If we are logical, we will replace a false premise or assumption with a valid one*. For example, let's say we only save \$10 a month. We may panic, think that we will always be living hand-to-mouth, and conclude we need to make significant changes in our employment or living situation. However, a logical look at our budget might reveal this is not true. If, for example, we pay \$500 a month on our student loans, and next month is the last payment, we may soon be saving \$510 a month! Applying a logical outlook to all the available information may change our overall evaluation of the problem.

Problem Solving

Critical thinking in the abstract may be interesting, but it does not make the world around us better. We usually apply these time-consuming skills when confronted with a severe problem in need of resolution. Finding a better way of approaching a problem or achieving a goal means little unless you take steps to apply it practically*.

Understanding these components is only half the battle; the real value comes from applying them.

Action Steps

Let's perform an exercise and see what role critical thinking has played in your life so far and how you can apply it in the future.

Take one of the most significant and most difficult decisions you have made in your life. Maybe moving to another state or country, marrying or breaking up with a significant other,

or quitting a job. It doesn't matter, as long as you had options and it wasn't easy to choose between them. Next, do the following:

1. Write down all the alternatives you had to the decision ultimately made.
2. Write down why you chose one over the other.
3. Were these reasons based on facts you thoroughly researched, or on assumptions?
4. What assumptions informed that decision?
5. How do you know these assumptions to be true? Have you examined their validity?
6. Do you make many of your decisions based on unfounded assumptions? What are some examples?

A WORKED EXAMPLE, SO YOU CAN SEE THE LEVEL OF HONESTY TO AIM FOR

Maya, 29, audits her decision to move cities for a job. "My alternatives: stay in my old role, take the remote offer, or move. Why did I move? I told myself it was the salary. Writing it down now, the real reasons were: (1) I assumed staying meant stagnating, though I never checked; my old company promoted two of my peers within a year of my leaving. (2) I assumed the new city would give me a better social life, but I knew nobody there, and it took two lonely years. (3) The salary difference, after rent, was \$150 a month. One of my three reasons was a fact, and it was the weakest one. The two that drove the decision were assumptions I never examined."

Maya's conclusion isn't that moving was wrong; it may still have been right. It's that she made a life-changing decision on two untested assumptions and one small fact, and never knew it until she wrote it down.

When we make decisions, we make many unproven assumptions. Sometimes they are the product of our upbringing or beliefs. For example, in American society, we are taught to pay our debts and emphasize self-sufficiency. This cultural inclination influences some individuals to continue to accrue debts they can't pay even though filing for bankruptcy

would be a much better option. Maybe these ideas were imparted to us by an authority figure. Half the time, we don't even know where they come from.

Although it is completely normal to make unfounded assumptions, this tendency can have negative repercussions. It may mean we are making bad decisions based on faulty information. The good news is that it isn't so hard to fix the problem. When we make an important decision, it is worth taking time to examine our assumptions and act based on accurate information and valid arguments.

Yes, it involves a bit of extra work. But after all, Socrates died for his right to question falsehoods. Don't we owe him a little extra effort?

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