MVIII SELF · WORKBOOK 03

THINK

Clear thinking

01 Ask a better question

02 Define your terms

03 What would change my mind?

04 The other side at its strongest

05 Common traps

06 First principles, and working backward

07 Write to find out

08 Decide, then review

THINK · LESSON 01

Ask a better question

Socratic questioning

> **In five minutes.** Take one claim you heard today. Write three questions about it: what does the key word mean, how does anyone know, and compared with what? Then answer one of them.

THE METHOD

1. Write the claim or question you are working on in one sentence at the top of a page.
2. Ask what each key word means here. Circle any word two people could read differently.
3. Ask for the evidence. How do we know? Compared with what? Who measured it, and how?
4. Ask what follows. If this is true, what else must be true? What would we expect to see if it were false?
5. Take the answer you get and ask one more question of it, the way Socrates asked Meletus which person knows the laws.
6. For anything you study, write your own questions with stems such as "Why does...?", "How is... related to...?" and "What would happen if...?" Answer them without notes.

REMEMBER

- **Write the claim in one sentence. Circle the words two people could read differently.**
- **Ask what it means, how anyone knows, and compared with what.**
- **Ask what would follow if it were true, and if it were false.**
- **Ask one more question of every answer.**
- **Write your own why and how questions. Answer them without notes.**

TRY IT · 20 MINUTES

FOR A CLASS

Read the first part of Socrates' defense in Plato's Apology, through his questioning of Meletus. Fifteen minutes. List every question Socrates asks Meletus, and mark each one: does it ask for a meaning, for evidence, or for what follows? Then write five questions of your own about the last textbook chapter you read, using the stems in step 6, and answer them from memory.

FOR WORK AND LIFE

Pick a claim you heard this week and are inclined to believe: a news story about health or money, a coworker's estimate, a product review. Write it in one sentence. Spend ten minutes writing questions only, no answers: what each word means, how anyone knows, compared with what, and what would follow. Then pick the two questions that matter most and find out the answers.

What it looks like done

WORKED ON The second sentence of the Enchiridion, chapter 1: "Not in our power are the body, property, reputation, offices"

QUESTIONS	ANSWERS FROM MEMORY
1. What does "in our power" mean here: fully, or partly?	1. Not sure. He seems to mean what is fully mine to decide. Check the text.
2. Is the body really out of my power, when I choose what I eat and how I train?	2. I choose the actions. The result, my weight or an injury, is not fully mine. So he may mean the outcome, not the effort.
3. How does Epictetus know? Is this an argument or a starting rule?	3. It reads as a starting rule. He gives no evidence in this chapter.
4. Compared with what? What does he put on the other list?	4. Opinion, desire, aversion: "whatever are our acts."
5. If he is right, what would follow about a bad review at work?	5. The review is not in my power. My reply to it is.
6. What would I expect to see if he were wrong?	6. Someone who controls a thing on his second list completely. Reputation comes closest, and even that depends on others.

CHECK YOURSELF

1. Why ask what a claim is being compared with?
2. Why ask one more question of the first answer?
3. Why write your own questions instead of reading the material again?

Answers at the back of the workbook.

Questions

QUESTIONS, THEN ANSWERS FROM MEMORY

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Define your terms

Defining your terms

> **In five minutes.** Pick the one word your current task or argument depends on. Write one sentence saying what it means here, then one thing it includes and one thing it leaves out.

THE METHOD

1. Find the word the question, plan or argument turns on. Write it at the top of a page.
2. Write what it means here in one sentence: first the wider kind of thing it is, then what sets it apart from others of that kind.
3. Test it on cases. List two things it should include and two it should leave out, and check that the definition sorts them correctly.
4. Where you can, add a number or a test someone else could check: "Done means the client has signed off in writing."
5. Share the definition before the argument or the plan begins, and ask whether others read the word the same way.
6. Use the word only in that sense from then on. If the meaning has to change, say so and write the new one.

REMEMBER

- **Find the word the question turns on.**
- **Define it: the wider kind first, then what sets it apart.**
- **Test it on two cases in and two cases out.**
- **Add a number or a check someone else could run.**
- **Agree on it before the argument starts. Hold it fixed.**

TRY IT · 20 MINUTES

FOR A CLASS

Take the key term in your next essay prompt or exam question: "assess," "cause," "significant," or the subject's own word, such as "market" or "cell." Fifteen minutes. Write a one-sentence definition with the wider kind and what sets it apart. List two examples it includes and two it leaves out. Then compare it with your textbook's definition and note where the two differ.

FOR WORK AND LIFE

Pick a goal or agreement that rests on one loose word: "done," "on time," "affordable," "healthy." Write what you mean by it in one sentence, with a number or a test if you can. Ask one other person to write theirs separately, without seeing yours. Compare the two, and agree on one wording before the next step.

What it looks like done

WORKED ON The phrase "in our power" in the Enchiridion, chapter 1

WHAT I'M EXPLAINING

"In our power," the term the whole chapter turns on.

EXPLAINED IN PLAIN WORDS, TO SOMEONE NEW TO IT

- Wider kind: things that happen in a person's life.
- What sets it apart: the ones that are a person's own act and can't be blocked by anyone else.
- Includes: what I believe about an event, what I go after, what I try to avoid.
- Leaves out: my body, my money, my reputation, my job title.

WHERE I GOT STUCK OR REACHED FOR JARGON

- My first try said "things I control." Too wide. I control my hand when I lift a cup, and Epictetus puts the body on the other list.
- "Act" is doing a lot of work here.

WHAT I LOOKED UP

Long's list: "opinion," "movement towards a thing," "desire, aversion," "turning from a thing." All of them happen in the mind. Lifting a cup is an act of the body, so it falls outside.

EXPLAINED AGAIN, SHORTER

In our power: what my own mind does (judging, wanting, avoiding), which no one else can stop.

CHECK YOURSELF

1. Why does an example not count as a definition?
2. Why test a definition on cases it should include and leave out?
3. Why add a number to a word like "soon" or "common"?

Answers at the back of the workbook.

THINK · LESSON 02 · PRACTICE

Explain it in plain words

WHAT I'M EXPLAINING

EXPLAINED IN PLAIN WORDS, TO SOMEONE NEW TO IT

WHERE I GOT STUCK OR REACHED FOR JARGON

WHAT I LOOKED UP

EXPLAINED AGAIN, SHORTER

What would change my mind?

What would change my mind

> **In five minutes.** Write one belief you're acting on this week and how sure you are, as a percentage. Under it, write one specific result that would make you lower that number.

THE METHOD

1. Write the belief in one sentence, and how sure you are, as a percentage.
2. Write what you would expect to see if it were wrong. Make it specific: a number, an event, or a result someone else could check.
3. List the strongest reason the belief might be false. Then a second one.
4. Look for that evidence on purpose, in the places most likely to have it.
5. Set a date to check. On that date, write what happened and your new percentage.
6. Move the percentage in steps as evidence comes in. One fact rarely justifies 0% or 100%.

REMEMBER

- **Write the belief, and how sure you are as a percentage.**
- **Name the result that would show it wrong.**
- **List the two strongest reasons it might be false.**
- **Look where that evidence would be.**
- **Set a date. Check, and move the percentage a step.**

TRY IT · 20 MINUTES

FOR A CLASS

Take the thesis of your next essay, or the hypothesis in a lab report. Ten minutes. Write it in one sentence with a confidence percentage. Under it, write two findings that would show it wrong, and where in your sources they would turn up if they existed. Search those places first. Then revise the thesis or the percentage, and note which way it moved.

FOR WORK AND LIFE

Pick a belief that a decision rests on: a supplier is reliable, a product will sell, a new routine is saving time. Write it with a percentage and the one result that would change your mind, such as a number by a date. Put the date on your calendar. On that day, write what happened and a new percentage before you reread the old one.

What it looks like done

WORKED ON A belief about a daily commute: the back roads are faster than the highway

THE QUESTION

Is the back-roads route to work faster than the highway at 8 a.m.?

WHAT I THINK, AND WHY

- Yes, 80% sure.
- The highway backs up at the bridge most mornings.
- The back roads never stop moving, so they feel quicker.

THE OTHER SIDE AT ITS STRONGEST

- The back roads have six lights and a school zone.
- Moving feels faster than sitting in traffic even when it takes longer.
- I remember the bad highway days and forget the smooth ones.

WHAT WOULD CHANGE MY MIND

- Test: time ten trips on each route over four weeks, door to door, leaving at the same minute.
- If the highway averages two minutes or more faster, I switch.
- Check date: the last Friday of the month.
- Result: highway 31 minutes on average, back roads 33. New belief: the highway is faster, 70% sure. Retest in winter.

CHECK YOURSELF

1. Why write down what would change your mind before looking at the evidence?
2. Why does a reason against your answer help more than a reason for it?
3. Why move a percentage in steps instead of switching all at once?

Answers at the back of the workbook.

THINK · LESSON 03 · PRACTICE

Both sides

THE QUESTION

WHAT I THINK, AND WHY

THE OTHER SIDE AT ITS STRONGEST

WHAT WOULD CHANGE MY MIND

THINK · LESSON 04

The other side at its strongest

Steelmanning

> **In five minutes.** Pick one view you disagree with. Write its best argument in three sentences, the way someone who holds it would put it. Then write one point in it you agree with.

THE METHOD

1. Write the question both sides are answering, in neutral words both would accept.
2. Write the other side's case at its strongest: its best evidence and best reasons, in the words its holders use. Draw on their sources, not their critics'.
3. Check it. Show it to someone who holds that view, or compare it with their own writing, and fix it until they would sign it.
4. List what you agree with, and anything you learned from that side.
5. Only then write your reply, to the strong version.
6. Note what would move you toward their side.

REMEMBER

- **Write the question in words both sides would accept.**
- **Write their case at its strongest, from their own sources.**
- **Check it with someone who holds it.**
- **List where you agree, and what you learned.**
- **Reply to the strong version only.**

TRY IT · 25 MINUTES

FOR A CLASS

Take an essay or seminar question with two serious positions. Twenty minutes. On one side of a page, write your view and its reasons. On the other, write the opposing view at its strongest, drawn from a source by someone who holds it. List two points you agree with. Then write your reply to the strong version in one paragraph, and compare it with the counterargument you would have written before.

FOR WORK AND LIFE

Before a meeting where two options compete, a vendor, a hire, a schedule, write the case for the option you don't favor as its best advocate would. Fifteen minutes. Read it to that advocate, or to someone who leans their way, and ask what you missed. Then list where you agree, and write your reply to the case they recognize.

What it looks like done

WORKED ON A team decision: replace the weekly status meeting with written updates

THE QUESTION

Should our team of eight replace the Monday status meeting with written updates?

WHAT I THINK, AND WHY

- Yes. The meeting takes an hour, so eight people lose eight hours a week.
- Most updates don't concern most people in the room.
- Written updates can be read in five minutes, at any time.

THE OTHER SIDE AT ITS STRONGEST

- The meeting is the one time the whole team hears the same thing at once. Problems that touch two people's work come out because both are in the room.
- Written updates get skimmed, or skipped. A blocked task can sit unseen for a week.
- New members learn how the team thinks by listening.
- Agree: blockers get caught in the meeting. Learned: two of last month's fixes started there.

WHAT WOULD CHANGE MY MIND

- If a month of written updates misses a blocker the meeting would have caught. Compromise to test: written updates, plus a 15-minute call for blockers only.

CHECK YOURSELF

1. Why answer the strongest version of a view and not the one most people state?
2. Why check your version with someone who holds the view?
3. Why does being smart not protect against favoring your own side?

Answers at the back of the workbook.

THINK · LESSON 04 · PRACTICE

Both sides

THE QUESTION

WHAT I THINK, AND WHY

THE OTHER SIDE AT ITS STRONGEST

WHAT WOULD CHANGE MY MIND

Common traps

Cognitive biases

> **In five minutes.** Before your next purchase over $50, or the next renewal, ask one question out loud: "If I were starting fresh today, with nothing already spent, would I still choose this?"

THE METHOD

1. Before a decision you care about, write the decision and your current leaning in one line.
2. Confirmation check: write what evidence would count against your leaning. Spend a few minutes looking only for that.
3. Sunk cost check: ask, "If I were starting fresh today, with nothing spent, would I choose this?" Decide on what comes next, not on what is gone.
4. Availability check: for any vivid example you are relying on, look up how often it actually happens. Use a count, not a memory.
5. Run all three as a written checklist, every time, and keep the list where you make decisions.

REMEMBER

- **Write the decision and your leaning in one line.**
- **Look on purpose for the evidence against it.**
- **Ask: starting fresh today, would I choose this?**
- **Swap one vivid example for a count.**
- **Run the checks on paper, every time.**

TRY IT · 20 MINUTES

FOR A CLASS

Take a research paper or essay you're writing. Fifteen minutes. List your sources and mark each as supporting or challenging your thesis. If the challenging column is short, search for two sources that disagree and read their abstracts. Then find one vivid example you used and check how typical it is against a figure from a reliable source.

FOR WORK AND LIFE

Pick a decision on the table: keep a subscription, continue a project, buy a certain car brand. Run the three checks on paper. Write the evidence against your leaning and look for it. Ask whether you would choose it fresh today. Replace one vivid story with a count. Note whether your leaning changed, and which check moved it.

What it looks like done

WORKED ON Whether to renew a language-learning app subscription, $90 a year, used twice in the last two months

WHAT THIS CHECKLIST IS FOR

Deciding whether to renew before the auto-charge on the 30th.

THE CHECKLIST

- Decision and leaning: renew. I've already put a year into it.
- Evidence against: app history shows 2 sessions in 60 days. Before that, about 3 a week.
- Fresh start: with nothing spent, would I pay $90 today for something I used twice in two months? No.
- What I'd lose is the streak and the year of progress. The progress is in my head, not the app. The streak is a sunk cost.
- Vivid example: a friend got fluent with this app. One case. I don't know how many people quit it.
- Decision: cancel the renewal. Use the free tier for a month. Resubscribe if I'm back to 3 sessions a week.

CHECK YOURSELF

1. Why ask whether you'd choose something fresh today?
2. Why look up a count instead of trusting a vivid example?
3. Why use a written checklist if you already know the names of the biases?

Answers at the back of the workbook.

THINK · LESSON 05 · PRACTICE

A checklist

WHAT THIS CHECKLIST IS FOR

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First principles, and working backward

First principles and working backward

> **In five minutes.** Pick one routine that costs you time or money. List three assumptions behind how you do it. Mark each one "checked" or "borrowed." For one borrowed one, ask how you would find out.

THE METHOD

1. Write the goal in one sentence, with how you will know it has been met.
2. List the assumptions in the current plan or routine. For each, ask: do I know this is true, or did I borrow it from habit or from someone else?
3. Keep only what you can check: a measured cost, a rule, a fact. Rebuild the plan from those.
4. Work backward from the goal. Ask what must be true just before it is met, then just before that, until you reach something you can do today.
5. Invert. Ask what would guarantee failure. List those causes, then check that the plan avoids each one.

REMEMBER

- **Write the goal, and how you'll know it's met.**
- **List the assumptions. Mark each one checked or borrowed.**
- **Rebuild from the checked ones only.**
- **Work back from the goal to a step you can take today.**
- **Ask what would guarantee failure. Fix the plan for each.**

TRY IT · 25 MINUTES

FOR A CLASS

Take one problem from your next problem set, or one claim from a textbook chapter. Fifteen minutes. Write what is given and what is asked. Work backward from the answer: what would you need to know just before it? Keep going until you reach something given. Then read Part Four of Descartes's Discourse and mark where he sets doubtful beliefs aside to find one he can't doubt.

FOR WORK AND LIFE

Pick a recurring cost or routine: a weekly grocery bill, a monthly report, a commute. Twenty minutes. List every assumption behind how it's done now, and mark each as checked or borrowed. Rebuild it from the checked ones only. Then write five ways to make it fail for certain, and see which of them the current version already does.

What it looks like done

WORKED ON A household's weekly grocery bill, about $210 for two adults

THE GOAL

Spend about $160 a week on groceries without eating worse. Measured by receipts over four weeks.

QUESTIONS, THEN ANSWERS FROM MEMORY

1. We need one big trip a week. Checked? Borrowed. It's how my parents shopped.
2. The big store is cheapest. Checked? No. I've never compared receipts.
3. We use what we buy. Checked? No. Something goes in the trash most weeks.
4. Brand names taste better. Checked? Only for coffee.
5. What is checked: last month's receipts. Produce and snacks were the largest lines.

WORKING BACK

- Week four at $160 needs a plan that already works in week three.
- That needs a shopping list built from meals, not from the aisles.
- That needs a meal plan for the week, written on Sunday.
- Today: write four dinners and list only what they need.

WHAT WOULD GUARANTEE FAILURE

- Shopping hungry. No list. Buying produce with no meal planned for it. Restocking snacks out of habit.
- The current routine does three of the four.

CHECK YOURSELF

1. Why mark each assumption as checked or borrowed?
2. Why work backward from the goal instead of forward from today?
3. What does asking how to guarantee failure add?

Answers at the back of the workbook.

Questions

QUESTIONS, THEN ANSWERS FROM MEMORY

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THINK · LESSON 07

Write to find out

Writing to learn

> **In five minutes.** Set a timer for five minutes. At the top of a page, write one question you keep circling. Write without stopping until the timer ends, then underline the one sentence that says most clearly what you think.

THE METHOD

1. Write the question at the top of the page, in one sentence.
2. Put your notes away. Write for ten minutes without stopping. Don't edit. If you get stuck, write the question again and keep going.
3. Read it back. Underline the one sentence that says most clearly what you think.
4. Mark the places where the writing went vague, contradicted itself, or ran out. Those are your open questions.
5. Check the marked places against your sources. Then write the view again, shorter, starting from the underlined sentence.

REMEMBER

- **Write the question at the top of the page.**
- **No notes. Write for ten minutes without stopping.**
- **Underline your clearest sentence.**
- **Mark where it went vague or ran out.**
- **Check those places. Rewrite it shorter, from the underlined line.**

TRY IT · 20 MINUTES

FOR A CLASS

After a lecture or a chapter, before reviewing anything, write for ten minutes on one question: what was the main argument, and do you believe it? No notes. Underline your clearest sentence and mark where you got stuck. Check those places in the text and write a five-sentence version. To practice on a hosted text, read Seneca's second chapter and write on whether his claim holds for your own week.

FOR WORK AND LIFE

Before a meeting where you have to recommend something, write for ten minutes on the question with no slides or notes: what should we do, and why? Underline the sentence that comes closest to an answer. Mark every place you hedged or skipped a step. Fill those gaps, then write the recommendation in three sentences and send it ahead of the meeting.

What it looks like done

WORKED ON A ten-minute freewrite on the Enchiridion, chapter 1, after reading it once

THE QUESTION

Do I believe my reputation is "not in my power"?

TEN MINUTES, NO NOTES

Epictetus says reputation is not in our power. That seems wrong at first because I work hard to be reliable and people notice. But then what people think is in their heads, not mine. I can be on time every day and someone can still decide I'm careless. So maybe what's mine is being reliable, and the reputation is a side effect that usually follows but doesn't have to. I don't know what he'd say about lying about yourself. That seems like trying to control the reputation directly. Also not sure if he means don't care about it or just don't count on it.

CLEAREST SENTENCE

What's mine is being reliable. The reputation usually follows, but doesn't have to.

WHERE IT WENT VAGUE

- "Don't care about it or don't count on it?" I don't know which he means.
- Lying about yourself: I didn't finish the thought.

SHORTER, FROM THE CLEAREST SENTENCE

My reliability is in my power. My reputation follows it most of the time, but other people decide it. Epictetus says to work on the first and not to stake my peace on the second. Check: does the chapter say "don't care," or "don't count on"?

CHECK YOURSELF

1. Why write without stopping or editing?
2. Why put the notes away before writing?
3. What are the marked vague places for?

Answers at the back of the workbook.

A lined page

Decide, then review

Decision journal and pre-mortem

> **In five minutes.** For one decision you make this week, write three lines before you act: what you chose, what you expect to happen by a date, and the main reason. Put the date on your calendar.

THE METHOD

1. Before deciding, write the decision, the date, and the options you turned down.
2. Write what you expect to happen, with a number and a date where you can, and how sure you are.
3. Write why: the reasons and facts you are relying on, and what you are unsure of.
4. Pre-mortem: imagine it is a year from now and the decision failed. Write the likeliest reasons, quickly, without editing.
5. Change the plan for any reason you can still prevent. Then decide.
6. On a set review date, write what happened before rereading the page. Then compare, and sort what went wrong into reasoning, missing information, and luck.

REMEMBER

- **Write the decision, the date, and what you expect, with a number.**
- **Write your reasons and what you're unsure of.**
- **Imagine it failed. List the likeliest reasons. Fix what you can.**
- **Set a review date.**
- **On that date, write what happened first. Then sort reasoning, information, and luck.**

TRY IT · 25 MINUTES

FOR A CLASS

Before your next exam, write a one-page decision: how you will study, for how many hours, and the grade you expect, with how sure you are. Imagine the exam went badly and list three reasons. Fix what you can. After the grade comes back, write what happened before rereading the page, then compare. Note which parts of the plan helped, which didn't, and which came down to luck.

FOR WORK AND LIFE

Pick a decision due this month: a purchase, a hire, a schedule change. Fifteen minutes. Write the decision, your expectation with a number and a date, and your reasons. Then spend five minutes on a pre-mortem: it failed, so why? Adjust the plan. Put the review date on your calendar, and on that day write the outcome before rereading.

What it looks like done

WORKED ON Accepting a job offer with higher pay and a longer commute

THE DECISION, AND THE DATE

Take the analyst job at the logistics company. Turned down: staying in my current role. March 3.

WHAT I EXPECT TO HAPPEN

- Pay goes from $58,000 to $66,000.
- Commute goes from 20 minutes to 45 each way.
- After a year I'll still be glad I moved: 70% sure.

WHY

- The raise is $8,000 a year before tax. The extra driving costs about $2,000 a year in gas.
- The work is closer to what I want to be doing in three years.
- The manager answered every question directly in the interview.

WHAT I'M UNSURE OF

- Whether the commute wears me down by winter.
- Whether "some remote days" means one a week or none.

A YEAR FROM NOW IT FAILED. THE LIKELIEST REASONS

- The commute ate my evenings and I stopped exercising.
- Remote days never happened.
- The manager left and the role changed.
- Fix now: get the remote policy in writing before I sign.

REVIEW ON (DATE). WHAT HAPPENED

Set for March 3, next year. On that day, write down what happened first, then reread this page.

CHECK YOURSELF

1. Why write the expectation down before the result is known?
2. Why imagine that the decision has already failed?
3. Why sort what went wrong into reasoning, information, and luck?

Answers at the back of the workbook.

THINK · LESSON 08 · PRACTICE

A decision page

THE DECISION, AND THE DATE

WHAT I EXPECT TO HAPPEN

WHY

WHAT I'M UNSURE OF

A YEAR FROM NOW IT FAILED. THE LIKELIEST REASONS

REVIEW ON (DATE). WHAT HAPPENED

THINK · ANSWERS

Check yourself: answers

LESSON 01 · ASK A BETTER QUESTION

1. **Why ask what a claim is being compared with?** A claim like "it works" or "it's behind" only means something next to a baseline: another diet, the planned date, doing nothing. Naming the comparison turns a vague claim into one that can be checked.
2. **Why ask one more question of the first answer?** First answers are often vague but sound complete, as "The laws" did for Meletus. The second question asks for the specific person, number or case, and that is usually where the real gap shows.
3. **Why write your own questions instead of reading the material again?** Writing a question makes you search the text and connect its parts to find what matters. In the studies, students who did this understood and recalled more than those who reread or reviewed notes.

LESSON 02 · DEFINE YOUR TERMS

1. **Why does an example not count as a definition?** An example shows one case. It doesn't say what the cases share, so it can't sort a new one. A definition names the wider kind and what sets this thing apart, which lets anyone apply it.
2. **Why test a definition on cases it should include and leave out?** A definition can sound right and still be too wide or too narrow. Checking it against two cases in and two out shows quickly whether it sorts things the way you meant.
3. **Why add a number to a word like "soon" or "common"?** People read the same loose word as very different amounts, as the studies on "rare" and "common" show. A number or a test leaves less room for each person to hear their own meaning.

LESSON 03 · WHAT WOULD CHANGE MY MIND?

1. **Why write down what would change your mind before looking at the evidence?** Once a result arrives, it is easy to decide it doesn't count. A test written in advance fixes what counts as evidence against the belief, so the result can't be explained away after the fact.
2. **Why does a reason against your answer help more than a reason for it?** Confidence rests on the evidence that comes to mind, and supporting reasons come easily. A reason against brings in what was left out, so the confidence matches the full picture better.
3. **Why move a percentage in steps instead of switching all at once?** Most single results are noisy. A step keeps the earlier evidence in the count, and lets a run of results move the belief further than any one could.

LESSON 04 · THE OTHER SIDE AT ITS STRONGEST

1. **Why answer the strongest version of a view and not the one most people state?** Beating a weak version leaves the strong one standing, and its holders unpersuaded. A reply that survives the best case is worth more, and you learn what the view actually gets right.
2. **Why check your version with someone who holds the view?** A version built from the outside often misses the reason that matters most to its holders. If they would sign it, you have their case. If not, they will tell you what's missing.
3. **Why does being smart not protect against favoring your own side?** In the studies, myside bias had little relation to intelligence. Skill at arguing can build a better case for what you already think. Practice at stating the other side is a separate habit.

LESSON 05 · COMMON TRAPS

1. **Why ask whether you'd choose something fresh today?** Money and time already spent are gone whatever you choose next. The fresh-start question takes them off the scale, so the decision rests on what each option will cost and give from here.
2. **Why look up a count instead of trusting a vivid example?** Vivid cases come to mind easily, and how easily something comes to mind feels like how often it happens. A count measures how often it actually happens.
3. **Why use a written checklist if you already know the names of the biases?** Knowing the names doesn't run the checks, and training effects carry over to real decisions only partly. A list used at the moment of deciding does the checking whether or not you remember to.

LESSON 06 · FIRST PRINCIPLES, AND WORKING BACKWARD

1. **Why mark each assumption as checked or borrowed?** Most plans copy earlier ones, and the copied parts are rarely tested. Marking them shows which parts rest on evidence and which rest on habit, so you know what to check before rebuilding.
2. **Why work backward from the goal instead of forward from today?** Forward planning asks what could be done first, and there are many options. Backward planning asks what must be true just before the goal, which narrows each step until it reaches something doable now.
3. **What does asking how to guarantee failure add?** Ways to fail are often easier to name than ways to succeed. Listing them turns vague risk into specific causes, and you can check the plan against each one.

LESSON 07 · WRITE TO FIND OUT

1. **Why write without stopping or editing?** Stopping to fix sentences keeps the writing near the first thought. Writing straight through forces the next sentence to follow from the last, and the places where it can't are what you need to know.
2. **Why put the notes away before writing?** With notes open, the writing copies them. Writing from memory makes you pull the ideas out and arrange them yourself, and in the study, tasks that required that kind of recall led to better scores.
3. **What are the marked vague places for?** They show where the understanding runs out. Those few places are what to check in the source, which saves rereading everything.

LESSON 08 · DECIDE, THEN REVIEW

1. **Why write the expectation down before the result is known?** Once the outcome is known, memory of what you expected shifts toward it. A page written beforehand keeps the real forecast, so the review compares the result with what you actually thought.
2. **Why imagine that the decision has already failed?** Picturing failure as a fact makes people explain it, and explanations come out longer and more specific. On a team, it also gives everyone a reason to name doubts they might otherwise keep quiet.
3. **Why sort what went wrong into reasoning, information, and luck?** Only bad reasoning calls for changing how you decide. Missing information calls for a better search next time. Luck calls for neither, and blaming the decision for it teaches the wrong lesson.