

NOTES FROM: *Principles*, by Ray Dalio

SUMMARY: The quality of Ray Dalio's decision-making led to him growing his hedge fund, Bridgewater Associates, to more than \$124,000,000,000 in Assets Under Management (AUM), becoming a very wealthy man himself in the process. But that's one of the *least* interesting things about him. *How his mind works is incredible. And incredibly rare.*

What I appreciate the most about Ray's thought processes is that he just wants to *be* right - he doesn't necessarily care if the right answer comes from *him*.

To that end, he seeks out the most believable people in particular subject areas, attempts to understand their viewpoint - and most importantly, what *led them* to their viewpoint - before engaging in what he calls productive disagreement with the people whose opinion he rejects, or at least doesn't fully understand.

Principles is the first book in a series of incredibly in-depth, well-researched, and thoughtful books exploring global macroeconomic trends, historical cycles, and market volatility. He's not right about *everything*, and he's certainly not perfect, but if you want to become a more critical thinker, *that's kind of the whole point*.

"To Barbara, the half of me who has made me whole for more than forty years."

"Whatever success I've had in life has had more to do with my knowing how to deal with my *not* knowing than anything I know."

"Principles are a way of classifying the situations we deal with into types, and then reverting back to a set of practices that help us deal with them."

"Having a good set of principles is like having a good collection of recipes for success."

"To be principled means to consistently operate with principles that can be clearly explained."

"I'd like to know which principles are most important to the politicians who want me to vote for them and to all the other people whose decisions affect me."

"Do we have common principles that bind us together - as a family, as a community, as a nation, as friends across nations? Or do we have opposing principles that divide us? What are they? Let's be specific. This is a time when it is especially important for us to be clear about our principles."

"If you can think for yourself while being open-minded in a clearheaded way to find out what is best for you to do, and if you can summon up the courage to do it, you will make the most of your life."

"Think for yourself to decide 1) what you want, 2) what is true, and 3) what you should do to achieve #1 in light of #2."

“People who have shared values and principles get along. People who don't will suffer through constant misunderstandings and conflicts.”

"I learned my principles over a lifetime of making a lot of mistakes and spending a lot of time reflecting on them."

"I got excited about visualizing things to go after, had some painful failures going after them, learned principles that would prevent me from making the same sort of mistakes again, and changed and improved, which allowed me to imagine and go after even more audacious goals and do that rapidly and repeatedly for a long time."

"I believe that the key to success lies in knowing how to both strive for a lot and fail well. By failing well, I mean being able to experience painful failures that provide big learnings without failing badly enough to get knocked out of the game."

“One has to be an independent thinker who correctly bets against the consensus, which means being painfully wrong a fair amount.”

“Shift your perspective from ‘I know I'm right’ to ‘How do I know I'm right?’”

“Operate by principles that are so clearly laid out that their logic can easily be assessed, and you and others can see if you walk the talk.”

“Think for yourself! What do you want? What is true? What are you going to do about it?”

“Experiment by making a series of bets over the course of your life, adjusting after experience and making more refined bets over time.”

“Ask yourself what you want, seek out examples of other people who got what they wanted, and try to discern the cause-and-effect patterns behind their achievements so you can apply them to help you achieve your own goals.”

"You had better make sense of what happened to other people in other times and other places, because if you don't, you won't know if these things can happen to you and, if they do, you won't know how to deal with them."

“Most everything has happened repeatedly before for logical cause-effect reasons.”

“In trading, you have to be defensive and aggressive at the same time. If you are not aggressive, you are not going to make money, and if you are not defensive, you are not going to keep money.”

“There are always risks out there that can hurt you badly, even in the seemingly safest bets, so it's always best to assume you're missing something.”

“It's senseless to have making money as your goal, as money has no intrinsic value - its value comes from what it can buy, and it can't buy everything. It's smarter to start with what you really want, which are your real goals, and then work back to what you need to attain them. Money will be one of the things you need, but it's not the only one, and certainly not the most important one once you get past having the amount you need to get what you really want.”

“In thinking about the relative importance of great relationships and money, it was clear that relationships were more important because there is no amount of money I would take in exchange for a meaningful relationship, because there is nothing I could buy with that money that would be more valuable.”

“The best way to answer the question of how you know you're right is by finding other independent thinkers who are on the same mission as you, and who see things differently than you. By engaging them in thoughtful disagreement, you'll be able to understand their reasoning and have them stress-test yours. That way, you can all raise your probability of being right.”

"I just want to be right - I don't care if the right answer comes from me."

“Seek out the smartest people who disagree with you, so you can try to understand their reasoning. Know when not to have an opinion. Develop, test, and systematize timeless and universal principles. Balance risks in ways that keep the big upside while reducing the downside.”

“To do exceptionally well, you have to push your limits, and if you push your limits, you will crash and it will hurt a lot. You will think you have failed - but that won't be true unless you give up.”

“When looking to have low risk and high returns at the same time, you have to go slowly when faced with the choice between two things that are seemingly at odds. That way you can figure out how to have as much of both as possible. There is almost always a good path that you just haven't discovered yet, so look for it until you find it, rather than settle for the choice that is then apparent to you.”

“Maturity is the ability to reject good alternatives in order to pursue even better ones.”

"I urge you to be curious enough to want to understand how the people who see things differently from you came to see them that way."

“Making a handful of good, uncorrelated bets that are balanced and leveraged well is the surest way of having a lot of upside without being exposed to unacceptable downside.”

“Have agreed-upon ways of deciding, if disagreements remain, so that we can move beyond them without resentments.”

“While one gets better at things over time, it doesn't become any easier if one is also progressing to higher levels.”

"The search for business excellence and for personal realization need not be mutually exclusive - and can, in fact, be essential to each other."

"There is nothing to prompt learning like pain and necessity."

"While the economic machine is more powerful than any political system in the long run (ineffective politicians will be replaced and incapable political systems will change), the interaction between the two is what drives economic cycles in the here and now - and it's often not pretty to watch."

MK: It helps to form an archetypal picture of anything you're trying to study, and then work on spotting the differences between different manifestations of that event, phenomenon, or type.

MK: There are far fewer *types* of people in the world than there are people, and far fewer different *types* of situations than there are situations. So matching the right types of people to the right types of situations is key.

"The satisfaction of success doesn't come from achieving your goals, but from struggling well."

MK: Imagine instantaneously achieving your biggest goal, the surprising effect that would have on your happiness, and how you'd likely - and very quickly - feel the desire to find something *new* to struggle for."

"Having the basics doesn't get much better when you have a lot of money, and they don't get much worse if you *don't* have much money."

"I cannot say that having an intense life with accomplishments is better than having a relaxed life filled with savoring, though I can say that being strong is better than being weak, and that struggling gives one strength."

"The happiest people discover their own nature and then match their own life to it."

MK: Passing on knowledge is like passing on DNA, and it's even *more* important, because it lasts longer than the individual.

"Most of our encounters with reality fall under one category or another, and the total number of categories is not enormous."

"There is nothing more important than understanding how reality works and how to deal with it."

Dreams + Reality + Determination = A Successful Life

"Some people possess knowledge and experience that can help solve your problem better than you can. Knowing when *not* to make your own decision is one of the most important skills you can develop."

“Most people think that the universe revolves around people, and they don't see the universal laws that govern reality as a whole.”

“Nature optimized for the whole, not for the individual.”

“If you come up with something the world values, you almost can't help but be rewarded.”

"Evolving is life's greatest accomplishment and its greatest reward."

“Mankind will certainly either go extinct or evolve into a higher state.”

“Reality is optimizing for the whole, not for you, but if you *contribute* to the whole, you will likely be rewarded.”

"My instinctual and intellectual goal is simply to evolve and contribute to evolution in some tiny way while I'm here, and while I am what I am."

Pain + Reflection = Progress

“Expose yourself to others who have opposing views, but who share your interest in finding the truth, rather than being proven right.”

"After seeing how much more effective it is to face the painful realities that are caused by your problems, mistakes, and weaknesses, I believe you won't want to operate any other way. It's just a matter of getting in the habit of doing it."

“If you're not failing, you're not pushing your limits, and if you're not pushing your limits, you're not maximizing your potential.”

“Life will inevitably bring you such moments, and it'll be up to you to decide whether you want to go back for more.”

“Most things in life are just ‘another one of those.’”

“You can never see yourself completely objectively, so you will have to rely on the input from other people whom you trust.”

“Don't worry about looking good - worry instead about achieving your goals.”

“Don't overweight first-order consequences relative to second- and third-order ones.”

“Don't let pain stand in the way of progress.”

The 5-Step Process to Get What You Want Out of Life:

1. Have clear goals.
2. Identify and don't tolerate the problems that stand in the way of your achieving those goals.
3. Accurately diagnose the problems to get at their root causes.
4. Design plans that will get you around them.
5. Do what's necessary to push these designs through to results.

“After going through this process, you will look at the new results you achieve and go through the process again. To evolve quickly, you will have to do this fast and continuously, setting your goals successively higher.”

“Don't confuse goals with desires. Desires are things that you want that can prevent you from reaching your goals.”

“What will ultimately fulfill you are things that feel right at both levels, as both desires and goals.”

“If you limit your goals to what you know you can achieve, you are setting the bar way too low.”

“Tolerating a problem has the same consequences as failing to identify it.”

“Like principles, root causes of problems manifest themselves over and over again in seemingly different situations.”

“Proximate causes are typically the actions (or lack of actions) that lead to problems, so they are described with verbs (I missed the train because I didn't check the train schedule). Root causes run much deeper and they are typically described with adjectives (I didn't check the train schedule because I am forgetful). You can only truly solve your problems by removing their root causes, and to do that, you must distinguish the symptoms from the disease.”

“Look at the patterns of your mistakes, and identify at which step in the 5-step process you typically fail.”

“Once you understand what you're missing and gain the open-mindedness that will allow you to get help from others, you'll see that there's virtually nothing you can't accomplish.”

“To be effective, you must not let your need to be right be more important than your need to find out what's true.”

“If you're like most people, you have no clue how other people see things and aren't good at seeking to understand what they are thinking, because you're too preoccupied with telling them what you yourself think is correct.”

“After all, when two people reach opposite conclusions, then odds are, someone must be wrong. Shouldn't you want to make sure that someone isn't you?”

“Remember that you're looking for the best answer, not simply the best answer that you can come up with yourself.”

“Are we going to try to convince each other that we are right, or are we going to open-mindedly hear each other's perspectives to try to figure out what's true and what to do about it?”

“Are you arguing with me, or seeking to understand my perspective?”

“People who change their minds because they learned something are the winners, whereas those who stubbornly refuse to learn are the losers.”

“It doesn't pay to be open-minded with everyone. Instead, spend your time exploring ideas with the most believable people you have access to.”

“Holding wrong opinions in one's head and making bad decisions based on them, instead of having thoughtful disagreements, is one of the greatest tragedies of mankind.”

MK: Triangulate the opinions of several believable experts at once and listen in on their thoughtful disagreements, just like Ray did with his cancer diagnosis.

“Take some time to record the circumstances in which you've consistently made bad decisions because you failed to see what others saw. If you ever find yourself about to make a decision in one of these areas without consulting others, understand that you're taking a big risk and that it would be illogical to expect that you'll get the results you think you will.”

“Gaining open-mindedness doesn't mean losing assertiveness.”

“The biggest threat to good decision-making is harmful emotions.”

“Play out different scenarios through time to visualize how to get an outcome consistent with what you want.”

“No sensible person should reject a believable person's views without great fear of being wrong.”

MK: Think of every decision as a bet with a probability and a reward for being right, and a probability and a penalty for being wrong.

“Once you understand ‘expected value,’ you also understand that it's not always best to bet on what's most probable.”

MK: “Expected value” is reward multiplied by its probability of occurring, minus penalty and *its* probability of occurring.

MK: Sometimes it's smart to take a chance, even when the odds are overwhelmingly against you, if the cost of being wrong is negligible, relative to the reward that comes with the slim chance of being right.

“Raising the probability of being right is always valuable, no matter what your probability of being right already is.”

“An organization is a machine consisting of two major parts: culture and people.”

“Each influences the other, because the people who make up an organization determine the kind of culture it has, and the culture of the organization determines the kinds of people who fit in.”

Idea Meritocracy: “A system that brings together smart, independent thinkers, and has them productively disagree to come up with the best possible collective thinking and resolve their disagreements in a believability-weighted way.”

“In most companies, people are doing two jobs: their *actual* job and the job of managing others' impressions of how they're *doing* their job.”

“It is a fundamental law of nature that you get stronger only by doing difficult things.”

“Anyone you see succeeding is only succeeding at the things you're paying attention to.”

“Weaknesses are generally revealed in the pattern of mistakes that you make.”

“Start by writing down your mistakes and connecting the dots between them.”

“If you want to evolve, you need to go where the problems and the pain are.”

“Give people two uninterrupted minutes to clearly explain their position without worrying that they will be drowned out by a louder voice.”

“Simply ask who is more likely to be right.”

“Having open-minded conversations with believable people who disagree with you is the quickest way to get an education and to increase your probability of being right.”

“Many of the opinions you will hear won't be worth much, including your own.”

“Don't pay as much attention to people's conclusions as to the reasoning that *led them* to their conclusions.”

“It is common for conversations to consist of people sharing their conclusions, rather than exploring the reasoning that *led* to those conclusions. As a result, there is an over-abundance of confidently-expressed bad opinions.”

“People should be up-front in expressing how confident they are in their thoughts.”

“If your thinking has been stress-tested by other believable people who support you, it has a greater probability of being heard.”

“Don't hold opinions about things you don't know anything about.”

“There are a lot of incompetent people in the world trying to do things they're not good at, so the chances are good that you're one of them.”

“The ultimate Responsible Party will be the person who bears the consequences of what is done.”

When putting someone in a position of responsibility, make sure their incentives are aligned with their responsibilities and they experience the consequences of the outcomes they produce

People typically don't change all that much, at least not on short timescales

It is best to assume that they won't change unless there is good evidence to the contrary that they will

It's better to bet on changes you have seen than those you hope for

No one person possesses everything required to produce success, yet everyone must excel

School performance is an excellent gauge of certain things like memory, processing speed, and generally determination, but has limited value with respect to assessing things like creativity and common sense

Hire people you want to share your life with

You will always have uses for great people

Great questions are a much better indicator of future success than great answers

Since money only lets you get what you really want, there must be some things that are more important than money

Evaluate accurately, not kindly

In the end, being accurate is being kind

Put your criticisms and compliments in context, for example, how serious they are and how they impact the total evaluation

Giving critical feedback isn't easy, and the recipient needs to sympathize with the person dispensing the criticism because of that fact

If you're not worried, you need to worry - and if you're worried, you don't need to worry. That's because worrying about what can go wrong will protect you and not worrying about what will go wrong will leave you exposed.

Assign people the job of perceiving problems, give them time to investigate, and make sure they have independent reporting lines so that they can convey problems without any fear of recrimination. Without these things in place, you can't rely on people raising all the problems you need to hear about.

The fact that no one seems concerned doesn't mean nothing is wrong

Things don't just happen by themselves - they happen because specific people did or didn't do specific things.

Constantly compare your outcomes to your goals

- 1) Is the outcome good or bad?
- 2) Who is responsible for the outcome?
- 3) If the outcome is bad, is the responsible party incapable and/or is the design bad?

Don't confuse the quality of someone's circumstances with the quality of their approach to dealing with the circumstances

Identifying the fact that someone else doesn't know what to do doesn't mean that you know what to do

Remember that a root cause is not an action but a reason. Root causes are described in adjectives, not verbs, so keep asking "why" to get at them. Since most things are done or not done because someone decided to do them or not do them in a certain way, most root causes can be traced to specific people who have specific patterns of behavior.

Managers usually fail or fall short of their goals for one (or more) of five reasons:

- 1) They are too distant
- 2) They have problems perceiving bad quality
- 3) They have lost sight of how bad things have become because they have gotten used to it
- 4) They have such high pride in their work that they can't bear to admit they are unable to solve their own problems
- 5) They fear adverse consequences from admitting failure

Everyone must be overseen by a believable person who has high standards

A good double-check can only be done by someone who is capable of doing the work themselves

Remember that almost everything will take more time and cost more money than you expect

In constructing your metrics, imagine the most important questions you need answered in order to know how things are going and imagine what numbers will give you the answers to them

Any single metric can mislead; you need enough evidence to establish patterns

No matter your position, you can always practice being open-minded and assertive at the same time, and thinking about your and others' believabilities when deciding what to do