Seeking wisdom

- What do we want out of life? To be healthy, happy with our families, in our work, etc? What interferes with this? Isn't it often emotions like fear, anger, worry, disappointment, stress, and sadness caused by problems, mistakes, losses, or unreal expectations? Maybe we misjudged people, situations, the time or some investment. We chose the wrong occupation, spouse, investment, or place to live. Why?
- This book focuses on how our thoughts are influenced, why we make misjudgments and tools to improve our thinking. If we understand what influences us, we might avoid certain traps and understand why others act like they do. And if we learn and understand what works and doesn't work and find some framework for reasoning, we will make better judgements. We can't eliminate mistakes, but we can prevent those that can really hurt us.
- How do we achieve wisdom? It is hard to improve ourselves simply by looking at our own mistakes. The best way to learn what, how and why things work is to learn from others. Charles Munger says, "I believe in the discipline of mastering the best that other people have ever figured out. I don't believe in just sitting down and trying to dream it all up yourself Nobody's that smart.
- Darwin's lesson is that even people who aren't geniuses can outthink the rest of mankind if they develop certain thinking habits.

Psychology of mis-judgement

- The more emotional, confused, uncertain, insecure, excited, distracted, tired or stressed we are, the easier we make mistakes. Geniuses aren't excluded.
- Below is a list of 28 reasons for misjudgments and mistakes. It can be used as a checklist to explain or predict behavior or as a pilot's checklist to avoid fooling ourselves. One of the most important framework to decision making.

- Bias from mere association - automatically connecting a stimulus with pain or pleasure; including liking or disliking something associated with something bad or good. Includes seeing situations as identical because they seem similar.
- Underestimating the power of rewards and punishment - people repeat actions that result in rewards and avoid actions that they are punished for.
- Underestimating bias from own self-interest and incentives.
- Self-serving bias - overly positive view of our abilities and future. Includes over-optimism.
- Self-deception and denial - distortion of reality to reduce pain or increase pleasure. Includes wishful thinking.
- Bias from consistency tendency - being consistent with our prior commitments and ideas even when acting against our best interest or in the face of disconfirming evidence. Includes confirmation bias - looking for evidence that confirms our actions and beliefs and ignoring or distorting disconfirming evidence.
- Bias from deprival syndrome - strongly reacting (including desiring and valuing more) when something we like and have (or almost have) is (or threatens to be) taken away or "lost." Includes desiring and valuing more what we can't have or what is (or threatens to be) less available.
- Status quo bias and do-nothing syndrome - keeping things the way they are. Includes minimizing effort and a preference for default options.
- Impatience - valuing the present more highly than the future.
- Bias from envy and jealousy.
- Distortion by contrast comparison - judging and perceiving the absolute magnitude of something not by itself but based only on its difference to something else presented closely in time or space or to some earlier adaptation level. Also underestimating the consequences over time of gradual changes.
- Bias from anchoring - over-weighing certain initial information as a reference point for future decisions.
- Over-influence by vivid or the most recent information.

- Omission and abstract blindness - only seeing stimuli we encounter or that grabs our attention, and neglecting important missing information or the abstract.
- Bias from reciprocation tendency - repaying in kind what others have done for or to us like favors, concessions, information and attitudes.
- Bias from over-influence by liking tendency - believing, trusting and agreeing with people we know and like. Includes bias from over-desire for liking and social acceptance and for avoiding social disapproval. Also bias from disliking - our tendency to avoid and disagree with people we don't like.
- Bias from over-influence by social proof - imitating the behavior of many others or similar others. Includes crowd folly.
- Bias from over-influence by authority - trusting and obeying a perceived authority or expert.
- Sense-making - Constructing explanations that fit an outcome. Includes being too quick in drawing conclusions. Also thinking events that have happened were more predictable than they were.
- Reason-respecting - complying with requests merely because we've been given a reason. Includes underestimating the power in giving people reasons.
- Believing first and doubting later - believing what is not true, especially when distracted.
- Memory limitations - remembering selectively and wrong. Includes influence by suggestions.
- Do-something syndrome - acting without a sensible reason.
- Mental confusion from say-something syndrome - feeling a need to say something when we have nothing to say.
- Emotional arousal- making hasty judgments under the influence of intense emotions. Includes exaggerating the emotional impact of future events.
- Mental confusion from stress.
- Mental confusion from physical or psychological pain, the influence of chemicals or diseases.

- Bias from over-influence by the combined effect of many psychological tendencies operating together.

John invested in a biotech start-up that went sour and he lost money. After a success, we become overly optimistic risk-takers. After a failure, we become overly pessimistic and risk-averse — even in cases where success or failure was merely a result of chance. Good consequences don't necessarily mean we made a good decision, and bad consequences don't necessarily mean we made a bad decision.

The next time someone presents John an investment opportunity in a biotech start-up the chances are he will decline. He associates the new proposal to his earlier experience. And since people tend to believe that the future mirrors the past, he declines. But what happens if John's first investment made him a lot of money? Wouldn't John associate the new proposal to his old pleasurable experience? Isn't he therefore more likely to invest? This automatic association to what worked in the past causes people to under-react to new conditions and circumstances.

- One study tried to find out how disgust and sadness influenced economic decisions, All participants in the study watched a movie immediately before conducting financial transactions. Some watched a sad movie. Others a disgusting movie and a third group an emotionally neutral movie. Participants insisted that their feelings didn't affect what they were willing to pay for something or what price they were willing to accept. The study showed otherwise. Disgust reduced their selling and buying prices. Sadness cut their selling prices but raised their buying prices.

  We saw under loss aversion and deprival that we put a higher value on things we already own than on the same things if we don't own them. Sadness reverses this effect, making us willing to accept less money to sell something that we would pay for the same thing.

This means, that when we feel sad, which often reflects helplessness and loss, we may want to change our circumstances so we feel better. This may cause us to overpay for something or buy things we don't need. When we feel disgust we may be reluctant to buy anything new unless we find it is a real bargain. When we feel sadness or disgust we may want to get rid of things we have and sell them for less than what they are worth.

- We tend to make fast judgments. It is hard to change a first conclusion since a change implies we may be wrong (especially if we need to explain the change to others). We associate being wrong with a threat to our self-interest.

  Warren Buffet says: "What the human being is best at doing is interpreting all new information so that their prior conclusions remain intact." We look for evidence that confirms our ideas, beliefs, and actions. Devising reasons why we might be wrong doesn't come easily. For example, when we've made an investment, entered into a relationship or made other types of commitments, we tend to seek out evidence confirming that it was the right decision and to ignore information that shows it was wrong.

- **Below of the lists of few biases related to CEO that an investor must be weary of:**
  - Authority — the CEO is the authority figure who directors tend to trust and obey. He may also make it difficult for those who question him.
  - Social proof — the CEO is doing dumb things but no one else is objecting so all directors collectively stay quiet — silence equals consent; illusions of the group as invulnerable and group pressure (loyalty) may also contribute.
  - Reciprocation — unwelcoming information is withheld since the CEO is raising the directors fees, giving them perks, taking them on trips or letting them use the corporate jet.
  - Association and Persian Messenger Syndrome — a single director doesn't want to be the carrier of bad news.

- Self-serving tendencies and optimism ~ feelings of confidence and optimism: many boards also select new directors who are much like themselves; that share similar ideological viewpoints.
- Deprival — Directors don't want to lose income and status. Respecting reasons no matter how
- illogical - the CEO gives them reasons.
- Believing first and doubting later — believing what the CEO says even if not true, especially when distracted.
- Consistency — directors want to be consistent with earlier decisions — dumb or not.

Can we get rid of a bad CEO? Warren Buffett and Charles Munger says: *Our behavior is influenced by social situational factors, conditions and circumstances, the structure or description of a problem or choice, and our desires, mood and expectations.*

'We tend to overestimate personal characteristics and motives when we explain the behavior of others. We underestimate situational factors like social pressure, roles or things over which there are no control. An example is, blaming an individual rather than a poorly designed system for failure. Chance also matters. Maybe we sometimes give too much blame to people who had bad luck, and too much credit to those who were simply lucky.

What tends to inflate the price that CEO's pay for acquisitions? Studies found evidence of infection through three sources of hubris: 1) overconfidence after recent success, 2) a sense of self-importance; the belief that a high salary compared to other senior ranking executives imply skill, and 3) the CEO's belief in their own press coverage. The media tend to glorify the CEO and over-attribute business success to the role of the CEO rather than to other factors and people. This makes CEO's more likely to become both more overconfident about their abilities and more committed to the actions that made them media celebrities.

- We expect people to be consistent in their behavior. But we behave differently in different situations. For example, we behave differently at home, in school, at work, and among friends; when alone and when in a group; when seen and when anonymous.

> "But everybody else is doing it." Do you rely on others for advice and actions? Most people do. In True Believer, American philosopher Eric Hoffer wrote, "When people are free to do as they please, they usually imitate each other." We are social animals, influenced by what we see other people doing and believing. We believe that others know more than we do. We want what others want. Since everybody else wants it, we assume there has to be a reason. We avoid what others avoid. We imitate without thinking. Especially when many or similar people do it, when we are uncertain, in an unfamiliar environment, in a crowd, lack knowledge, or if we suffer from stress or low self-esteem.

- **Are the right incentives important?**

Incentives act as reinforcers. Charles Munger tells a story about the importance of getting the incentives right:

> From all business, my favorite case on incentives is Federal Express. The heart and soul of their system — which creates the integrity of the product —is having all their airplanes come to one place in the middle of the night and shift all the packages from plane to plane. If there are delays, the whole operation can't deliver a product full of integrity to Federal Express customers. And it was always screwed up. They could never get it done on time. 'They tried everything ~ moral suasion, threats, you name it. And nothing worked. Finally, somebody got the idea to pay all these people not so much an hour, but so much a shift— and when it's all done, they can all go home. Well, their problems cleared up overnight.

In the New York Police Department, they have a simple system. Your pension is based on your pay in your final year. So when anyone reaches the final year, everybody cooperates to give him about 1,000 hours of overtime. And he retires - in some cases after a mere 20 years of service - with this large income, Well, of course his fellow employees help him cheat the system. In substance, that's what's happened. But the one thing I guarantee you is that nobody has the least sense of shame. They soon get the feeling they're entitled to do it. Everybody did it before, everybody's doing it now ~ so they just keep doing it.

- Don't let money be the only motivation. If we reward people for doing what they like to do anyway, we sometimes turn what they enjoy doing into work. The reward changes their perception, Instead of doing something because they enjoy doing it, they now do it because they are being paid. The key is what a reward implies. A reward for our achievements makes us feel that we are good at something thereby increasing our motivation. But a reward that feels controlling and makes us feel that we are only doing it because we're paid to do it, decreases the appeal. Blaise Pascal said: "We are generally the better persuaded by the reasons we discover ourselves than by those given to us by others."

- **Are advisors always to be trusted?**

There is an old saying: "Never ask the village barber if you need a haircut." We are biased by our incentives as are others including lawyers, accountants, doctors, consultants, salesmen, organizations, the media, etc. What is good for them may not be good for us. Advisors are paid salesmen and may trick us into buying what we don't need.

All commissioned salesmen have a tendency to serve the transaction instead of the truth. I put consultants in the same category, sometimes even lawyers ~ sometimes especially lawyers, Many years ago, a Pasadena friend of mine made fishing tackle. I looked at this fishing tackle — it was green and purple and blue -I don't think I'd ever seen anything like them. Tasked him “God! Do fish bite these lures?” He said to me, “Charlie, I don’t sell to fish.”

Let’s look at the brokerage and investment banking business. Brokers have a strong incentive to get us to trade. They advise us what to buy and sell. Volume creates commissions. Investment bankers encourage overpriced acquisitions to generate fees. Investment bankers have every incentive to get initial public offerings (IPO) deals done, regardless of the company’s quality. Their compensation is tied to the revenues the deal brings in. Analysts are rewarded for helping sell the IPO. Brokers want to move the stock. What did Groucho Marx say? “I made a killing on Wall Street a few years ago...I shot my broker.”

- **Why do bankers approve risky loans?**

People who are rewarded for doing stupid things continue to do them. From their frame of reference, they acted logically based on how they were rewarded. The incentive system paid them to do the wrong thing. So if market share rather than profits pay a banker, he will write as many loans as possible. He is being rewarded every year while the net consequences of the bad loans won't be realized for a long time.

Charles Munger gives an example of how Lloyd’s Insurance rewarded their people:

They were paid a percentage of the gross volume that went through. And paying everybody a percentage of the gross, when what you're really interested in is the net, is a system — given the natural bias of human beings toward doing what's in their own interest even though it has terrible consequences for other people — that really did Lloyd's in.

Charles Munger says that projections should be handled with care:

> Mark Twain used to say, “A mine is a hole in the ground with a liar on the top.” And a projection prepared by anybody who stands to earn a commission or an executive trying to justify a particular course of action will frequently be a lie although it’s not a deliberate lie in most cases. The man has come to believe it himself, And that’s the worst kind. Projections should be handled with great care — particularly when they're being provided by someone who has an interest in misleading you.”

Warren Buffett adds:

> T have no use whatsoever for projections or forecasts. They create an illusion of apparent precision. The more meticulous they are, the more concerned you should be. We never look. at projections, but we care very much about, and look very deeply at, track records. If a company has a lousy track record, but a very bright future, we will miss the opportunity...

I do not understand why any buyer of a business looks at a bunch of projections put together by a seller of his agent. You can almost say that it’s naive to think that those projections have any utility whatsoever. We're just not interested.

Buffett also gives us a test:

> When they make these offerings, investment bankers display their humorous side: They dispense income and balance sheet projections extending five or more years into the future for companies they barely had heard of a few months earlier. If you are shown such schedules, I suggest that you join in the fun: Ask the investment banker for the one-year budgets that his own firm prepared as the last few years began and then compare these with what actually happened.

- People's interests are not only financial. They could also be social or moral. For example, public embarrassment, social exclusion, conscience, shame or guile may cause people to stop some undesirable behavior. For example, *by requiring restaurants to post hygiene quality scores in their front windows, the Los Angeles county health department caused a dramatic improvement in restaurant hygiene and a reduction in food-related illnesses.*

Investors are their own worst enemies,

After making a huge mistake, John said: “I was arrogant. My past success caused me to believe I could do anything.” Marcus Porcius Cato said: “Men's spirits are lifted when the times are prosperous, rich and happy, so that their pride and arrogance grow.” We tend to over-estimate our abilities and future prospects when we are knowledgeable on a subject, feel in control, or after we've been successful. As financial writer Roger Lowenstein writes in When Genius Failed: The Rise and Fall of Long-Term Capital Management: “There is nothing like success to blind one of the possibility of failure.”

When we fail, we blame external circumstances or bad luck. When others are successful, we tend to credit their success to luck and blame their failures on foolishness. When our investments turn into losers, we had bad luck. When they turn into winners, we are geniuses. This way we draw the wrong conclusions and don’t learn from our mistakes. We also underestimate luck and randomness in outcomes. When using advisers and if something turns out well, we take the credit, assigning the outcome to our skill. But if something turns out bad, we blame the advisor.

We deny and distort reality to feel more comfortable, especially when reality threatens our self-interest. To quote the Austrian psychologist Sigmund Freud: “Illusions commend themselves to us because they save us pain and allow us to enjoy pleasure instead.” We view things the way we want to see them. We hear what we want to hear and deny what is inconsistent with our deeply held beliefs. We deny unpleasant news and prefer comfort to truth. We choose the right people to ask. We make sense of bad events by telling ourselves comforting stories that give them meaning.

In one experiment psychologists found that people who lost a $10 theater ticket on the way to the theatre were reluctant to buy a second ticket. Those who instead lost a $10 bill on the way to buy a $10 theatre ticket saw the loss of the money and the purchase of the ticket as unrelated, so they would buy the ticket. Bur, in both cases, the loss was the same. ‘We should view our assets in terms of their entirety. A dollar is a dollar independent of where it comes from. What counts is what we put in or take out of our pocket.

Why do very bright people risk losing something that’s very important to them to gain something that’s totally unimportant? The added money has no utility whatsoever — and the money that was lost had enormous utility. And on top of that, their reputation gets tarnished and all of that sore of thing. So the gain/loss ratio in any real sense is just incredible... Whenever a really bright person who has a lot of money goes broke, it’s because of leverage... It’s almost impossible to go broke without borrowed money being in the equation.

- **Stress affects our decisions,**

  In another study researchers tried to find out the differences between business executives who became sick from exposure to high stress and those who didn’t. They found that executives who stayed healthy had a sense of commitment to work and families, felt in control, and had a positive attitude toward challenges. They saw challenges as part of life and an opportunity for growth rather than as a threat.

  > Warren Buffett says, “I have no stress whatsoever — zero. I get to do what I love to do every day. I'm surrounded by people that are terrific.” He continues, “All the businesses I run don’t take 5% of my time. We don't have regular staff meetings and the like. If you've

> got good businesses and the right managers, you don’t need that sort of thing — and if you don't, they don't help.”

Stress is neither good nor bad in itself. It depends on the situation and our interpretation. Stress can be controlled by our attitudes. The Austrian physician Dr. Hans Selye says in Stress without Distress that it is not stress that harms us but distress. We need challenges. He continues, “Without stress, there would no life...Complete freedom from stress is death.”

Creating the right system,

Charles Munger gives an illuminating example on the issue of stealing:

> A very significant fraction of the people in the world will steal if (A) it’s very easy to do and, (B) there's practically no chance of being caught. And once they start stealing, the consistency principle will soon combine with operant conditioning to make stealing habitual, So if you run a business where it’s easy to steal because of your methods, you're working a great moral injury on the people who work for you...

It’s very, very important to create human systems that are hard to cheat. Otherwise you're ruining your civilization because these big incentives will create incentive-caused bias and people will rationalize that bad behavior is OK.

Then, if somebody else does it, now you've got at least two psychological principles: incentive-caused bias plus social proof, Not only that, but you get Serpico effects: If enough people are profiting in a general social climate of doing wrong, then they'll turn on you and become dangerous enemies if you try and blow the whistle.

Systems thinking Failing to consider that actions have both intended and unintended consequences. Includes failing to consider secondary and higher order consequences and inevitable implications. Failing to consider the whole system in which actions and reactions take place, the important factors that make up the system, their relationships and effects of changes on system outcome. Failing to consider the likely reactions of others — what is best to do may depend on what others do. Failing to consider the implications of winning a bid — overestimating value and paying too much. Overestimating predictive ability or using unknowable factors in making predictions.

Remember Chinese philosopher Lao-Tsu (604-531 BC): "He who knows men is clever; He who knows himself has insight; He who conquers men has force; He who conquers himself is truly strong."

- How a choice is presented influences our preferences. For example, we prefer a product that is presented as "95% fat free" rather than "5% fat". We respond differently depending on whether something is presented in terms of gains or in terms of losses. A surgical procedure that has a 40% chance of success seems more appealing than one that has a 60% chance of failure.

Past performance is no guarantee of future results,

Consider evidence that describes what happens in most similar situations or to most people. Sometimes a track record is not a good indicator of what is likely to happen in the future. It may show up by luck. Imagine a room filled with 1,000 monkeys. Each is trying to predict the direction (up or down) of interest rates. At the end of 10 predictions, one monkey has a perfect record of predicting the direction of interest rates. He is considered a genius and the greatest economist in history. Even if it was just by chance. As soon as we have a large population of forecasters that predict events where chance plays a role, someone will be right, get press coverage and be presented as a hero. He will hold lectures and give sensible explanations.

> *Conditions, environments and circumstances change. People like to look for systems that have worked over the past 20 years or so. If you could make money based on what has worked the past 20 years, all of the richest people would be librarians.*
>
> \- Warren Buffett

Spanish-American philosopher George Santayana once said: “Those who cannot remember the past are condemned to repeat it.” How can we understand what is happening to us without any reference to the past? We conveniently forget to record our mistakes. But they should be highlighted. We should confess our errors and learn from them. We should look into their causes and take steps to prevent them from happening again. Ask: What was my original reason for doing something? What did I know and what were my assumptions? What were my alternatives at the time? How did reality work out relative to my original guess? What worked and what didn’t? Given the information that was available, should I have been able to predict what was going to happen? What worked well? What should I do differently? What did I fail to do? What did I miss? What must I learn? What must I stop doing?

Often we try to get too much information, including misinformation, or information of no use to explain or predict. We also focus on details and what's irrelevant or unknowable and overlook the obvious truths. Dealing with what's important forces us to prioritize. There are often just a few actions that produce most of what we are trying to achieve. There are only a few decisions of real importance. More information doesn’t equal more knowledge or better decisions. And remember that today we not only have access to more information, but also misinformation. Charles Munger says: “The harder you work, the more confidence you get. But you may be working hard on something that is false.”

Keep it simple,

Former General Electric CEO Jack Welch said: “You can't believe how hard it is for people to be simple, how much they fear being simple. They worry that if they're simple, people will think they’re simple-minded. In reality, of course, it’s just the reverse. Clear tough-minded people are the most simple.” Warren Buffett agrees: “We haven't succeeded because we have some great, complicated systems or magic formulas we apply or anything of the sort. What we have is just simplicity itself.” Charles Munger adds: “If something is too hard, we move on to something else. What could be more simple than that?”

> Berkshire is basically a very old-fashioned kind of a place and we try to exert discipline to stay that way. I don't mean old-fashioned stupid. I mean the eternal verities: basic mathematics, basic horse sense, basic fear, basic diagnosis of human nature making possible predictions regarding human behavior. If you just do that with a certain amount of discipline, I think it’s likely to work out quite well.

Importance of capital Allocation,

Many of our competitors...were stepping up to the same kind of expenditures and, once enough companies did so, their reduced costs became the baseline for reduced prices industry wide. Viewed individually, each company’s capital investment decision appeared cost-effective and rational; viewed collectively, the decisions neutralized each other and were irrational, or worse...(Would you believe that a few decades back they were growing shrimp at Coke and exploring for oil at Gillette?) Loss of focus is what most worries Charlie and me when we contemplate investing in businesses that in general look outstanding. All too often, we've seen value stagnate in the presence of hubris or of boredom that caused the attention of managers to wander... I dove focused management... And when you lose that focus — it shows... GEICO actually started fooling around in a number of things in the early 1980s. And they paid a price for it -— actually a very big price. They paid a direct price in terms of the cost for those things — because they almost all worked out badly. And then they paid an additional price in terms of the loss of focus on the main business.

Have patience in waiting for opportunities. Resist the temptation to always do something. If we are in a hurry, it's easier to make misjudgments. This is key in investing. Warren Buffett says, "In allocating capital, activity does not correlate with achievement. Indeed, in the fields of investments and acquisitions, frenetic behavior is often counterproductive." He continues: "If you feel like you have to invest every day, you're going to make a lot of mistakes. It isn't that kind of a business. You have to wait for the fat pitch."

> As Charles Munger says: Berkshire extracted a lot of capital out of it [the textile business] and put it elsewhere. And if Berkshire had tried to keep fighting the decline of that business with more and more money, it would have blown most of its capital. There's a time to fight and there's a time to run away. One of my favorite stories, relevant to this story, involves a town in the South. There was this huge grocery store owned by one of the great national chains. They're a formidable competitor and they had the dominant big grocery store in this town for many, many years doing big volume. Sam Walton of Wal-Mart announced that he was opening a much bigger, better grocery store with a lot of other wonderful products at incredibly low prices. And the existing very experienced and successful chain, did not wait for Sam Walton's store to open. They just closed their store right away.

- Misrepresentative evidence Failing to consider changes in factors, context or conditions when using past evidence to predict likely future outcomes. Includes not searching for explanations to why past outcome happened, what is required to make past record continue, and what forces can change it. Overestimating evidence from a single case or small or unrepresentative samples. Underestimating the influence of chance in performance (success and failure). Only seeing positive outcomes — paying little or no attention to negative outcomes and prior probabilities. Failing to consider variability of outcomes and their frequency. Failing to consider regression — in any series of events where chance is involved unique outcomes tends to regress back to the average outcome.

> While an increase in earnings from $8 million to $72 million sounds terrific — and usually is — you should not automatically assume that to be the case. You must first make sure that earnings were not depressed in the base year. If they were instead substantial in relation to capital employed, an even more important point must be examined: how much additional capital was required to produce the additional earnings?

Probabilities and number of possible outcomes,

Underestimating risk exposure in situations where relative frequency (or comparable data) and/or magnitude of consequences is unknown or changing over time. Underestimating the number of possible outcomes for unwanted events. Includes underestimating the probability and severity of rare or extreme events. Overestimating the chance of rare but widely publicized and highly emotional events and underestimating the chance of common but less publicized events. Failing to consider both probabilities and consequences (expected value). Believing events where chance plays a role are self-correcting — that previous outcomes of independent events have predictive value in determining future outcomes. Believing one can control the outcome of events where chance is involved. Judging financial decisions by evaluating gains and losses instead of final state of wealth and personal value. Failing to consider the consequences of being wrong.

> *“If someone could forecast the stock market, why are they selling advice through $100 newsletters?” Fidelity’s former manager Peter Lynch said in One Up on Wall Street: “There are 60,000 economists in the U.S., many of them employed full-time trying to forecast*

recessions and interest rates, and if they could do it successfully twice in a row, they'd all be millionaires by now... As far as [know, most of them are still gainfully employed, which ought to tell us something.”

Predictions about the future are often just projections of past curves and present trends. This is natural since our predictions about the future are made in the present. We therefore assume the future will be much like the present. But the future can’t be known until it arrives. It is contingent on events we can't see. For example, who in the year 1900, could foresee events like World War I and II, the 1929 stock market crash, Chernobyl or technologies like the television, laser, computer, internet or the DVD? Many key inventions happened by accident and sagacity.

You may consciously purchase a risky investment — one that indeed has a significant possibility of causing loss or injury — if you believe that your gain, weighted for probabilities, considerably exceeds your loss, comparably weighted, and if you can commit to a number of similar, but unrelated opportunities. Most venture capitalists employ this strategy. Should you choose to pursue this course, you should adopt the outlook of the casino that owns a roulette wheel, which will want to see lots of action because it is favored by probabilities, but will refuse to accept a single, huge bet. Similarly, in the medical field, some psychologists ensure themselves successive paydays by telling their patients that another visit is required. And they don’t talk about the limits of their knowledge. Their careers are at stake. As American actor Walther Matthau said, “My doctor gave me six months to live. When I told him I couldn't pay the bill, he gave me six more months.”

Predicting rains doesn’t count,

We often take too little notice of how variables interact. Take the economy as an example. There are many factors to consider. They include interest rates, currency exchange rates, balance of trade figures, unemployment rates, consumer confidence, political factors, the stock market, business cycles, biases, etc. These factors are interconnected, and it is hard to tell which is most important. Add to this that people's behavior isn't fixed. We are emotional creatures, our preferences change, and we react to each other's actual or expected decisions. A prediction may also make us change our expectations and behavior, making the prediction more or less likely to come true.

> Charles Munger says: "We try and predict what individual investments will swim well in relation to the tide. And then we tend to accept the effects of the tide as those effects fall."

> When thinking through consequences, consider what other people are likely to do. Since our interests may conflict with others, the final outcome of our decision often depends on what others will do. What other people do may depend on what they think we will do, their available choices, interests, and how they are thinking — including their misjudgments. As we have learned, humans don't always act rationally.

Don't believe people that say they can forecast unforeseeable variables. Nobody can forecast interest or currency rates, the GDP, turning points in the economy, the stock market, etc. Massive amounts of information, advanced computers or fancy mathematical formulas don't help.

> Warren Buffett says that we tend to put too much comfort in computer models and the precision they project: "We believe the precision they project can lull decision-makers into a false sense of security and thereby increase their confidence. In fact, such models chances of making a really huge mistake." Economics isn't like physics. There are no reliable or precise formulas where we easily can fill in the values of various economic factors, and then have the work done.

Charles Munger says: “Economics involves too complex a system...economics should emulate physics’ basic ethos, but its search for precision in physics-like formulas is almost always wrong in economics.” J.M. Keynes adds: “To convert a model into a quantitative formula is to destroy its usefulness as an instrument of thought.”

- “We have tons of problems. We are losing customers, we can't deliver on time, our inventory system doesn't work,” What is the core cause of these problems? Many times when we have a lot of problems, there may be one common reason for them all. When dealing with problems we must focus on what we want to achieve and make sure that we address the underlying cause and not act on symptoms that may look like causes. Maybe the symptoms were due to wrong policies or measuring instruments or goals, etc.

- Few companies can manage, over a ten to twenty-year period, to keep earning high returns on 20% or more on invested capital while reinvesting all or most of their earnings. Changes in the competitive arena, buyer habits, and the environment will make that almost a certainty.

  I do think enthusiasm is a good quality to have generally. It has helped me... I like managers in our businesses that are enthusiastic. These people are enthusiastic about their work in the same way people can get enthusiastic about golf, and that translates into results. If you are in a job that you are not enthusiastic about, find something else. You're not doing yourself any favor, and you’re not doing your employer any favor and you're going to make a change anyway at some point. We're here on earth only one time, unless Shirley MacLaine is right, so you ought to be doing something that you enjoy as you go along, and can be enthusiastic about.

- Intrinsic value is an estimate rather than a precise figure, and it is additionally an estimate that must be changed if interest rates move or forecasts of future cash flows are revised. Two people looking at the same set of facts, moreover — and this would apply even to Charlie and me — will almost inevitably come up with at least slightly different intrinsic value figures.

Using precise numbers is, in fact, foolish; working with a range of possibilities is the better approach.

Warren Buffett adds, “If somebody’s reinvesting all their cash flow, they better have some very big figures coming in down the road because a financial asset has to give you back a lot more cash one day in order to justify your laying out cash for it now.”

- Aristotle said: “Envy is pain at the good fortune of others.” We evaluate our own situation by comparing what we have with what others have. Aristotle continues: “We envy those who are near us in time, place, age or reputation.” It is people similar to us we envy most. Financial historian Charles P. Kindleberger says in Manias, Panics, and Crashes: “There is nothing so disturbing to one’s well-being and judgment as to see a friend get rich.” For example, studies show that how happy we are is partly determined by where we stand in relation to similar others. The 19th Century German philosopher Arthur Schopenhauer said: “As Hobbes observes, all mental pleasure consists in being able to compare oneself with others to one’s own advantage.”

You have to stick within what I call your circle of competence. You have to know what you understand and what you don’t understand. It’s not terribly important how big the circle is. But it’s terribly important that you know where the perimeter is.

Compound interest,

Compounding refers to “interest on interest.” If we invest $1,000 with a return of 6% a year, we receive $60 in the first year. If we reinvest that $60, next year we get another $60 from our original $1,000 investment, plus $3.6 from the $60 we reinvested. If we reinvest all our returns, the total value of our original $1,000 investment after 5 years is: $1,000 x 1.06 x 1.06 x 1.06 x 1.06 x 1.06 = $1,338. Time is the key to compound interest. Over short periods, compounding produces a little extra return. Over long periods, it has an enormous effect. Invest $2,500 each year for 40 years at 10% return and you will be a millionaire.

> The American car manufacturer Henry Ford said: "If there is any one secret of success, it lies in the ability to get the other person's point of view and see things from his angle as well as from your own."

We give more weight to the present than to the future. We seek pleasure today at a cost of what may be better in the future. We prefer an immediate reward to a delayed but maybe larger reward. We spend today what we should save for tomorrow. This means that we may pay a high price in the future for a small immediate reward. For example, we buy things we can't afford on credit cards.

We are impatient in the short run and patient in the far away future. Studies show that we tend to become less patient when rewards are more immediate. Our discount rates (the values we assign to something) are higher in the short run than in the long run. For example, when a small reward is due tomorrow and a larger reward is due in one year, people often prefer the small immediate reward. But when the small reward is due in one year and the larger reward in two years, people tend to prefer the larger long-term reward. Studies show that one explanation for this is that outcomes occurring in the future are perceived as less certain.

- "Facts do not cease to exist because they are ignored," said British novelist Aldous Huxley. If we only look to confirm our beliefs, we will never discover if we're wrong. Be self-critical and unlearn your best-loved ideas. Search for evidence that disconfirms ideas and assumptions. Consider alternative outcomes, viewpoints, and answers. Have someone tell you when your thinking is wrong. Warren Buffett says, "Charlie and I believe that when you find information that contradicts your existing beliefs, you've got a special obligation to look at it — and quickly."

> Warren Buffett describes what businesses are best to own: Leaving the question of price aside, the best business to own is one that over an extended period can employ large amounts of incremental capital at very high rates of return. The worst business to own is one that must, or will, do the opposite — that is, consistently employ ever-greater amounts of capital at very low rates of return.

Management,

Three quarters of our managers are independently wealthy. They don't need to get up and go to work at all. Most of them have tens and tens of million of dollars. So I've got to create or I've got to maintain an environment where the thing they want to do most in the world is to go to work that day and the next day. And, I say to myself, "What would make me feel that way?" One way is to feel you are running your own show. If I had people second- guessing me all day, | would get sick of it. I would say, "What the hell do I need this for?" And, that's exactly the way our managers would feel if I went around second-guessing them or telling them how to run their business.

> One friend of mine said that in hiring they look for three things: intelligence, energy, and character. If they don't have the last one, the first two will kill you because, it's true, if you are going to hire somebody that doesn't have character, you had really better hope they are dumb and lazy, because, if they are smart and energetic, they'll get you in all kinds of trouble.

Risk Management,

We don't price a thing according to its value but its relative price. If we for example bought a stock for $50 with a present price of $40, we judge how good our decision was in reference to our purchase price. Or if a stock we consider buying trades around $50 for some time and drops to $35, we tend to get anchored on the $50 and automatically assume that $35 is a bargain. The present price of a stock in relation to some past quote doesn’t mean anything. The underlying business value is what matters.

> Recognize your limits. How well do you know what you don’t know? Don't let your ego determine what you should do. Charles Munger says, “It is remarkable how much long-term advantage people like us have gotten by trying to be consistently not stupid, instead of trying to be very intelligent. There must be some wisdom in the folk saying: ‘It’s the strong swimmers who drown.”

If you understand a business — if you can see its future perfectly — then, obviously, you need very little in the way of margin of safety. Conversely, the more things that can happen, the more uncertainty there is, the more vulnerable the business is or the greater the possibility of change, the larger margin of safety you require...

> If you’re driving a 9,800 pound truck across a bridge that says it holds 10,000 pounds and the bridge is only about six inches above the ground, then you may feel OK. However, if the bridge is over the Grand Canyon, then you may want a little larger margin of safety. And, therefore, you may only drive a 4,000 pound truck across. So it depends on the nature of the underlying risk.

Keep in mind The media has its weaknesses, biases and vulnerability to manipulation and deception. Consider what is relevant and the normal outcome in similar situations. Accurate information is better than dramatic information. Back up vivid stories with facts and numbers.
Separate noise and chance events from what is important. Ask: Is it relevant? Does it make sense? Is it representative evidence? Was it a random event? Trends may be wrong. Ask: Is it a permanent or temporary effect?

"Why do you want to buy this stock? What must happen for the investment to succeed? What is the downside?" Reflect on what can go wrong. Ask: What may cause this to turn into a catastrophe? What is the potential downside? What should I worry about? What is the likelihood and magnitude of a possible loss? What's the worst thing that could happen? What can I do to prevent it? What will I do if it happens?

> Warren Buffett says: "It took Noah 20 years to build an ark. And people said he was being silly because the skies were beautiful. And of course, the whole time, he looked stupid — until it started raining. You can spend a long time building an ark while everybody else is out there enjoying the sun."

- TransCorp made a "huge" $1 billion in profits. Words like "big" or "small" have no meaning in themselves. A number has only a size in relation to another number. $1 billion says nothing about economic performance unless we compare it with how much capital was needed to generate it. What if IransCorp needed $100 billion in equity and debt to run the business? That's only a 1% return.

> We give too much weight to information we've seen, heard, read or experienced most recently. For example, when judging performance, we overweigh what happened most recently and underweigh or ignore the long term evidence or what on average happens (assuming those are representative of reality). We make predictions by extrapolating recent trends and conditions. The stock market falls into nose bleed territory and we assume the world is going under. After a bad event happens, we tend to overestimate the likelihood of it happening again. For example, studies show that after an earthquake, the number of people carrying earthquake insurance rises sharply.

Number games,

The grossly overpriced $100 tie seemed reasonable after John bought the fairly priced $1,500 suit. The order in which something is presented matters. Sales people often try to sell the more costly item first. We are out buying a computer and some diskettes. In comparison to $1,500 computer, diskettes at $10 seem like a bargain. After we buy the big ticket items, the add-ons seem cheap in comparison. Experiments have shown that we go across town to save $10 on a clock radio but not to save $10 on a large-screen TV. The difference between $100 and $110 seems like a larger saving than the difference between $2850 and $2860. But it's the same $10 saving.

The world is not going to come to an end because tomorrow there are 200 or 250 thousand more people on the planet than there were today. That's about the number it grows every day....it is like eating about 300 calories more each day than you burn up; it has no effect on you today. You don't get up from the table and all of a sudden everybody says, "My God, you look fat compared to when you sat down!" But, if you keep doing it over time, the incremental problems are hard to attack because that one extra piece of pie doesn't really seem to make a difference. The 250,000 people tomorrow don't seem to make any difference, but the cumulative effects of them will make a huge difference over time, just like overeating will make a huge difference over time. The time to attack those problems is early.

Price/value,

What you paid for your house, stock, or car has no relevance to its value. If the value is below what you paid, you don't have to get even. If you bought a stock for $100 and it is now $50, you should sell it, if it is not worth more than $50. Ask: Suppose I hadn't made the investment, would I make this investment today at today's price?

Experts matter?

“The more I didn’t understand, the more I believed the expert.”

Experts are sometimes more convincing when we don't understand them. Sometimes we are too impressed by something that sounds clever. For example, some people buy into investments just because they don’t understand them. They assume it must be something unique. As Warren Buffett says, “Techniques shrouded in mystery clearly have value to the purveyor of investment advice. After all, what witch doctor has ever achieved fame and fortune by simply advising “Take two aspirins’?”

Trumpeting EBITDA (earnings before interest, taxes, depreciation and amortization) is a particularly pernicious practice. Doing so implies that depreciation is not truly an expense, given that it is a “non-cash” charge. That’s nonsense. In truth, depreciation is a particularly unattractive expense because the cash outlay it represents is paid up front, before the asset acquired has delivered any benefits to the business. Imagine, if you will, that at the beginning of this year a company paid all of its employees for the next ten years of their service (in the way they would lay out cash for a fixed asset to be useful for ten years). In the following nine years, compensation would be a “non-cash” expense — a reduction of a prepaid compensation asset established this year. Would anyone care to argue that the recording of the expense in years two through ten would be simply a bookkeeping formality?

> The best judgment we can make about managerial competence does not depend on what people say, but simply what the record shows. At Berkshire Hathaway, when we buy a business we usually keep whoever has been running it, so we already have a batting average. Take the case of Mrs. B. who ran our Furniture Mart. Over a 50-year period, we'd seen her take $500 and turn it into a business that made $18 million pretax. So we knew she was competent...Clearly, the lesson here is that the past record is the best single guide.

> Then you run into the problem of the 14-year-old horse. Let's say you buy The Daily Racing Form and it shows that the horse won the Kentucky Derby as a four-year-old. Based on past performance, you know this was one hell of a horse. But now he's 14 and can barely move. So you have to ask yourself, "Is there anything about the past record that
> makes it a poor guideline as a forecaster of the future?"

Have the courage of your knowledge and experience. If you have formed a conclusion from the facts and if you know your judgment is sound, act on it — even though others may hesitate or differ. (You are neither right nor wrong because the crowd disagrees with you. You are right because your data and reasoning are right.

An excess of what seems like professionalism will often wind up hurting you horribly precisely because those careful procedures themselves often lead to overconfidence in their outcome... Long Term Capital Management, the well-known hedge fund recently collapsed as a result of its principals' overconfidence in their highly leveraged methods. And it collapsed despite those principals having 1Q's that must have averaged 160 or more...Smart, hard-working people aren't exempt from professional disasters resulting from overconfidence. Often they just go aground in the more difficult voyages on which they choose to embark based on self appraisals in which they conclude that they have superior talents and methods. It is, of course, irritating that extra care in thinking isn't all good ~ that it also introduces extra error. But most good things have undesired "side effects." And thinking is no exception.

Pricing power,

If you and I were looking at the chewing gum business (and we own no Wrigley's, so I use it fairly often in class), you'd pick a figure that you would expect unit volumes of chewing gum to grow in the next 10-20 years and you'd give me your expectations about how much pricing flexibility Wrigley’s has and how much danger there is that Wrigley’s market share might be dramatically reduced — you’d go through all of that... We’re evaluating the moat, the price elasticity that interacts with the moat in certain ways, the likelihood of unit demand changing in the future or management being either very bright with the cash that they develop or very stupid with it... I would say you can almost measure the strength of a business over time by the agony its managers go through in determining whether a price increase can be sustained... You can learn a lot about the durability of the economics of a business by observing the price behavior.

> Buffett: A very important principle in investing is that you don’t have to make it back the way you lost it. In fact, it’s usually a mistake to try to make it back the way you lost it.
>
> Munger: That's the reason so many people are ruined by gambling — they get behind and then they feel like they have to get it back the way they lost it. It’s a deep part of human nature.

Buffett: One of the important things in stocks is that the stock does not know that you own it. You have all these feelings about it: You remember what you paid. You remember who told you about it — all these little things. And it doesn’t give a damn. It just sits there. If a stock’s at $50, somebody's paid $100 and feels terrible; somebody else has paid $10 and feels wonderful — all these feelings. And it has no impact whatsoever...

Independence of thought,

The 19th Century American poet Ralph Waldo Emerson said: “It is easy in the world to live after the world’s opinion; it is easy in solitude to live after our own; but the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude.” What is popular is not always right. If you don’t like what other people are doing, don’t do it. Warren

Buffett says: “We derive no comfort because important people, vocal people, or great numbers of people agree with us. Nor do we derive comfort if they don't.”

John invested in an exclusive oil project since a group of sophisticated, wealthy investors were involved. They promised that he would quadruple his money in one year. A year later, he’d lost it all.

> ..you have to have some idea of why you're looking for the information. Don’t read annual reports the way Francis Bacon said you do science...where you just collect endless [amounts of] data and then only later do you try to make sense of it. You have to start with some ideas of reality. And then you have to look to see whether what you're seeing fits in with that basic thought structure.

Ponzi scheme,

Former chairman of the U.S. Securities and Exchange Commission, Arthur Levitt, Jr. says, “If you are dumb enough to invest based on a lavatory wall, you deserve to lose money.” In the early 1900s, Italian immigrant Charles Ponzi, took investors for $10 million by promising 40% returns on International Postal Reply Coupons. What he didn’t tell newer investors was that their money was being used to pay off earlier investors. In the end, the house of cards collapsed.

John attended a meeting where an investment proposal promising a 200% return was presented. All 30 people present at the meeting invested and all lost money. How could 30 smart individuals be fooled? Some basic math would have told them that the project was doomed to fail. Each individual automatically assumed that the other 29 individuals present at the meeting had evaluated the proposal. If there was something bad, someone else would have said so. “And since they invest, I invest.” It turned out that no one had taken the time to read through the proposal.

Warren Buffett says, “The most important thing to do when you find yourself in a hole is to stop digging.” Merely because you've spent money or time on some project or investment doesn’t mean you must continue to spend it in the future. Time, effort, and money spent are gone. Decisions should be based on where you want to be. Not where you've been. Base decisions on the present situation and future consequences. What happened in the past may be a guide for estimating how likely something is to happen in the future. Ask: What do I want to achieve? What causes that? Considering what I know today and what is likely to happen in the future, how should I act to achieve my goal? Will new money and time invested achieve my goal? Assume I never invested in this and it was presented to me for the first time, would I invest in it today? If not, then stop and do something about it.

Loss aversion,

We hate to admit we've lost money. Our loss aversion contributes to status quo bias — we prefer to hang on to what we have. We even put a higher value on the things we already own than we are willing to pay for the same things if we didn’t own them (giving them up feels like a loss). This is why many companies offer money-back guarantees on their products. Once we have taken possession ofsome item, we are not likely to return it.

Charles Munger says, “The deprival super-reaction syndrome of man helps cause much ruin as people’s cognition is distorted as a result of their suffering losses and seeing near misses.” We hate to sell losing stocks. It is the same as admitting to others and ourselves that we've made a mistake. We therefore hold on to our losers too long and sell our winners too soon. A realized loss feels worse than suffering the same loss on paper. The pain of feeling responsible for making a bad decision also plays a role (regret). The stock may bounce back after we've sold. And the more money and effort we've put in, the harder it is to let it go.

We also feel that losing the opportunity to make money is less painful than losing the same amount of money. But a lost opportunity of making $100 has the same value as a real loss of $100.

Margin of safety,

If we're trying to figure out what we should charge for, say, the chances of a 6.0 earthquake in California, we know that in the last century I think there've been 26 or so earthquakes in California that registered 6.0 or greater. And let's forget about whether they occur in remote areas. Let's just say we were writing a policy that paid off on a 6.0 or greater quake in California, regardless of whether it occurred in a desert and did no damage. Well, we would look at the history and we'd say, "Well, there've been 26 in the last century."

And we would probably assume a little higher number in the next century. That'd just be our nature. However, we wouldn't assume 50 — because if we did, we wouldn't write any business. But we might assume a little higher. If 1 were pricing it myself, I'd probably say, well, I'll assume that there are going to be 30 — or maybe 32 or something like that.

And then when I'm all through, I'll want to put a premium on it that incorporates a margin of safety. In other words, if I were to figure that the proper rate for 32 was $1 million, I would probably want to charge something more than $1 million to build in that margin of safety. But I want to be conservative at all the levels — and then I want to have that significant margin of safety at the end.

Right was to look at financial statements,

Some cash is always needed for reinvestment in capital expenditures for plant and equipment and working capital merely to enable a business to stay in business or maintain its unit volume and long-term competitive position. A classic example is a retail store that needs to install airconditioning because other stores have made the investment. It doesn't generate any extra business, but without it, the store may lose customers to competition.

Buffett also says that we have to watch out for certain figures: "When companies or investment professionals use terms such as "EBITDA" and "pro forma," they want you to unthinkingly accept concepts that are dangerously flawed."

These numbers routinely include (a) [reported earnings] plus (b) [depreciation, depletion, amottization, and certain other non-cash charges] — but do not subtract (c) [the average annual amount of capitalized expenditures for plant and equipment, etc.] Most sales brochures of investment bankers also feature deceptive presentations of this kind. These imply that the business being offered is the commercial counterpart of the Pyramids — forever state-of-the-art, never needing to be replaced, improved or refurbished.

Circle of competence,

First, we try to stick to businesses we believe we understand. That means they must be relatively simple and stable in character. If a business is complex or subject to constant change, we're not smart enough to predict future cash flows. Incidentally, that shortcoming doesn't bother us. What counts for most people in investing is not how much they know, but rather how realistically they define what they don't know. An investor needs to do very few things right as long as he or she avoids big mistakes.

Finally, be suspicious of companies that trumpet earnings projections and growth expectations. Businesses seldom operate in a tranquil, no-surprise environment, and earnings simply don't advance smoothly (except, of course, in the offering books of investment bankers).

> Charlie and I not only don't know today what our businesses will earn next year — we don't even know what they will earn next quarter. We are suspicious of those CEOs who

> regularly claim they do know the future — and we become downright incredulous if they consistently reach their declared targets. Managers that always promise to “make the numbers” will at some point be tempted to make up the numbers.

Words, definitions, propositions, statements, or goals don’t tell us anything. We need to understand what they mean. It is the same with knowledge. Knowledge is only valuable if it’s useful and something is only useful if we understand what it means.

What you're trying to do is to look at all the cash a business will produce between now and judgment day and discount it back to the present using an appropriate discount rate and buy a lot cheaper than that. Whether the money comes from a bank, an Internet company, a brick company...the money all spends the same. Why pay more for a telecom business than a brick business? Money doesn’t know where it comes from. There's no sense in paying more for a glamorous business if youre getting the same amount of money, but paying more for it. It's the same money that you can get from a brick company at a lower cost. The question is what are the economic characteristics of the bank, the Internet company or the brick company. That's going to tell you how much cash they generate over long periods in the future.

> He also says that we should do what we enjoy: “Do what turns you on. Do something that if you had all the money in the world, youd still be doing it. You’ve got to have a reason to jump out of bed in the morning... Don’t look for the money. Look for something you love, and if you're good, the money will come.

Over the long term, it’s hard for a stock to earn a much better return than the business which underlies it earns. If the business earns 6% on capital over 40 years and you hold it for that 40 years, you're not going to make much different than a 6% return — even if you originally buy it at a huge discount. Conversely, if a business earns 18% on capital over 20 or 30 years, even if you pay an expensive looking price, you'll end up with a fine result.