

Wesco Financial's Charlie Munger

“A Lesson on Elementary, Worldly Wisdom As It Relates to Investment Management & Business.”

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The theory of modern education is that you need a general education before you specialize. And I think to some extent, before you are going to be a great stock picker, you need some **general education**.

A particularly astute student of human nature—particularly insofar as it relates to business and investing. Below is his lecture at the University of Southern California in 1994.

ALL TOO LITTLE WORLDLY WISDOM IS DELIVERED BY MODERN EDUCATION

Charlie Munger:

To be a great stock picker, you need some general education

The talk is sort of along the lines that some behaviorist psychologists call Grandma's rule—after the wisdom of Grandma when she said that you have to eat the carrots before you get the dessert.

The carrot part of this talk is about the general subject of worldly wisdom of Grandma when she said that you have to eat the carrots before you get the dessert.

The carrot part of this talk is about the general subject of worldly wisdom, which is a pretty good way to start. After all, the theory of modern education is that you need a **general education** before you specialize. And I think to some extent, before you are going to be a great stock picker, you need some general education.

So, emphasizing what I sometimes waggishly call remedial worldly wisdom, I am going to start by waltzing you through a few basic notions.

WITHOUT MODELS FROM MULTIPLE DISCIPLINES, YOU WILL FAIL IN BUSINESS AND IN LIFE.

What is elementary, worldly wisdom? Well, the first rule is that you can't really know anything if you just remember isolated facts and just try to bang them back. If the facts don't hang together on a *latticework of theory*, you don't have them in usable form.

You have got to have models in your head. And you have got to array your experience—both vicarious and direct—on this latticework of models. You may have noticed students who just try to remember and pound back what is remembered. Well, they fail in school and fail in life. You have got to hang experience on a latticework of models in your head.

Absent enough models, your brain will torture reality

What are the models? Well, the first rule is that you have got to have multiple models—because if you have just one or two that you are using, the nature of human psychology is such that you will torture reality so that it fits your models, or at least you will think that it does. You become the equivalent of a chiropractor who, of course, is the great boob in medicine.

It is like the old saying, “To the man with only a hammer, every problem looks like a nail.” And of course, that is the way the chiropractor goes about practicing medicine. But that is a disastrous way to think and operate in the world. So you have got to have multiple models.

And the models have to come from multiple disciplines—because all the wisdom is not to be found in one little academic department. That is why poetry professors, by and large, are so unwise in a worldly sense. **So you have got to have multiple models across an array of disciplines.**

Fortunately, it isn't all that tough

You may say, “My God, this is already getting way too tough.” But fortunately, it is not that tough—because 80 to 90 important models will carry about 90% of the freight in making you a worldly-wise person. And, of those, only a mere handful really carries very heavy freight.

So let us briefly review what kind of models and techniques constitute this basic knowledge that everybody has to have before they proceed to being really good at a **narrow art like stock picking**.

YOU ARE GIVING A HUGE ADVANTAGE TO OTHERS IF YOU DON'T LEARN THIS SIMPLE TECHNIQUE.

The great useful model is permutations & combinations.

First there is mathematics. Obviously, you have got to be able to handle numbers and quantities—basic arithmetic.

And the great useful model, after *compound interest*, is the elementary math of *permutations and combinations*. And that was taught in my day in the sophomore year in high school. I suppose by now in great private schools, it is probably down to the eighth grade or so.

It is very simple algebra. And it was all worked out in the course of about one year in correspondence between Pascal and Fermat. They worked it out casually in a series of letters.

Your brain isn't designed to figure it out spontaneously.

It is not hard to learn. What is hard is to get so you use it routinely almost every day of your life. The Fermat/Pascal system is dramatically consonant with the way that the world works. And it's fundamental truth. So you simply have to have the technique.

Many educational institutions—although not nearly enough—have realized this. At Harvard Business School, the great quantitative thing that bonds the first year class together is what they call decision-tree theory. All they do is take high school algebra and apply it to real life problems. And the students love it. They are amazed to find that high school algebra works in life....

By and large, as it works out, people can't naturally and automatically do this. If you understand elementary psychology, the reason they can't is really quite simple: The basic neural network of the brain is there through broad genetic and cultural evolution. And it is not Fermat/Pascal. It uses a very crude, shortcut-type of approximation. It's got elements of Fermat/Pascal in it. However, it is not good.

Without it, you are giving a huge advantage to others.

So you have to learn. If you don't get this elementary, but mildly unnatural, mathematics of elementary probability into your repertoire, then you go through life like a one-legged man in an ass-kicking contest. You are giving a huge advantage to everybody else.

One of the advantages of a fellow like Buffett, is that he automatically thinks in terms of decision trees and the elementary math of permutations and combinations.

NEXT, YOU HAVE TO KNOW ACCOUNTING—ALONG WITH ITS LIMITATIONS.

Double-entry bookkeeping was a hell of an invention.

Next, **you have to know accounting**. It is the language of practical business life. But you have to know enough about it to know its limitations—because although accounting is the starting place, it is only a crude approximation. For example, everyone can see that you have to more or less just guess at the useful life of a jet airplane or anything like that. Just because you express the depreciation rate in neat numbers doesn't make it anything you really know.

In terms of the limitations of accounting, one of my favorite stories involves a very great businessman named Carl Braun who created CF Braun Engineering Company. It designed and built oil refineries—which are very hard to do. And Braun would get them to come in on time and not blow up and have efficiencies and so forth. This is a major art.

He threw out his accountants and used his engineers to devise a new accounting method for building refineries. Carl Braun who demonstrated both the importance of accounting and the importance of knowing its limitations.

AN IRON RULE OF WORLDLY WISDOM: ALWAYS, ALWAYS TELL PEOPLE WHY.

Braun's five W's: Who, What, Where, When and Why.

He had another rule, from **psychology**, which, if you are interested in wisdom, ought to be part of your repertoire—like elementary mathematics of permutations and combinations.

His rule of all the Braun Company communications was called the five W's—you had to tell **who was going to do what, where, when and why**. And if you wrote a letter or directive in the Braun Company telling somebody to do something, and you didn't tell him or her why, you would get fired. In fact, you would get fired if you did it twice.

If you tell people why, they'll be much more likely to comply.

You might ask why that is so important? Well, again that is a rule of psychology. Just as you think better if you array knowledge on a bunch of models that are basically answers to the question, why, why, why, **if you always tell people why they will understand it better, they will consider it more important, and they will be more likely to comply**.

So there is an iron rule that just as you want to start getting worldly wisdom by asking why, why, why in communicating with other people about everything, you want to include why, why, why. Even if it is obvious, it is wise to stick in the why.

ENGINEERING HAS MORE THAN ITS SHARE OF MODELS. AND THEY ARE THE MOST RELIABLE ONES, AS WELL.

The most reliable models? **Engineering models**, of course.

Engineering models are the most reliable. Engineering quality control is very much based on the elementary mathematics of Fermat and Pascal.

You have to understand normal occurrence distributions.

You have to understand normal distributions—the **Bell Curve**.

Engineering has more than its share of powerful models.

The engineering idea of **back up systems** is a powerful idea. The engineering idea of **breakpoints**—that is a very important model too. The notion of **critical mass**—that comes out of physics—is a very powerful model.

All of these things have great utility in looking at ordinary reality. And all of this cost-benefit analysis—hell that is all elementary high school algebra, too. It has just been dolled up a little bit with fancy lingo.

THE HUMAN MIND HAS ENORMOUS POWER BUT IT HAS STANDARD MALFUNCTIONS.

Our brains take shortcuts, so we are subject to manipulation.

I suppose the next most reliable models are from **biology/physiology** because, after all, all of us are programmed by our genetic makeup to be much the same.

Our brains take shortcuts. So we're subject to manipulation.

I suppose the next most reliable models are from biology/physiology because, after all, all of us are programmed by our genetic makeup to be much the same.

And then when you get into psychology, of course, it gets very much more complicated. But it is an ungodly important subject if you are going to have any worldly wisdom.

Once you can demonstrate that point quite simply: There is not a person in this room viewing the work of a very ordinary professional magician who doesn't see a lot of things happening that are happening. And the reason why is that the perceptual apparatus of a brain has shortcuts in it. The brain cannot have unlimited circuitry. So someone who knows how to take advantage of those shortcuts and cause the brain to miscalculate in certain ways can cause you to see things that are not there.

Therefore you must know your brain's limitations.

Now you get into the **cognitive** function as distinguished from the **perceptual** function. And there, you are equally—more equally in fact—likely to be misled. Again, your brain has a shortage of circuitry and so forth—and it's taking all kinds of little automatic shortcuts.

So when circumstances combine in certain ways—or more commonly, your fellow man starts acting like the magician and manipulates you on purpose by causing your cognitive dysfunction—you are a patsy.

And so just as a man working with a tool has to know its limitations, a man working with his cognitive apparatus has to know its limitations. And this knowledge, by the way, can be used to control and motivate other people....

Very eminent places miseducate people like you and me.

So the most useful and practical part of psychology—which I personally think can be taught to any intelligent person in a week—is ungodly important. And nobody taught it to me by the way. I had to learn it later in life, one piece at a time. And it was fairly laborious. It is so elementary though that, when it was all over, I just felt like a total horse's ass.

And yeah, I'd been educated at Cal Tech and the Harvard Law School and so forth. So very eminent places miseducated people like you and me.

Psychology of misjudgment is terribly important to learn. ****

The elementary part of psychology—the psychology of misjudgment, as I call it—is terribly important to learn. There are about 20 little principles (Investor Psychology). And they interact, so it gets slightly complicated. But the guts of it are unbelievably important.

Terribly smart people make totally bonkers mistakes by failing to pay heed to it. In fact, I have done it several times during the last two or three years in a very important way. You never get totally over making **silly mistakes**.

Man's mind can be manipulated in amazing ways.

There is another saying that comes from Pascal, which I've always considered one of the really accurate observations in the history of thought. Pascal said, "The mind of man at one and the same time is both the glory and the shame of the universe."

And that is exactly right. It has enormous power. However, it also had these standard malfunctions that often cause it to reach wrong conclusions. It also makes man extraordinarily subject to manipulation by others. For example, roughly half of the army of Adolph Hitler was composed of believing Catholics. Given enough clever psychological manipulation, what human beings will do is quite interesting.

Consider the real interest and the psychological factors...

Personally, I've gotten so that I now use a kind of two-track analysis. First, what are the factors that really govern the interests involved, rationally considered? And second, what are the subconscious influences where the brain at a subconscious level is automatically doing these things—which by and large are useful, but which often malfunction.

One approach is rationality---the way you work out a bridge problem: by evaluating the real interests, the real probabilities and so forth. And the other is to evaluate the psychological factors that cause *subconscious conclusions*—many of which are wrong.

ORGANISMS, PEOPLE & COMPANIES WHO SPECIALIZE CAN GET TERRIBLY GOOD IN THEIR LITTLE NICHE.

Like it or not, the economy is a lot like an ecosystem.

Now we come to another somewhat less reliable form of human wisdom—**microeconomics**. And here, I find it quite useful to think of a free market economy—or partly free market economy—as sort of the equivalent of an ecosystem....

This is a very unfashionable way of thinking because early in the days after Darwin came along, people like the robber barons assumed that the doctrine of the survival of the fittest authenticated them as deserving power—you know, "I'm the richest. Therefore, I'm the best. God's in his heaven, etc."

And that reaction of the robber barons was so irritating to people that it made it unfashionable to think of an economy as an ecosystem. But the truth is that it is a lot like an ecosystem. And you get many of the same results.

In nature and in business, specialization is key.

Just as in an **ecosystem**, people who narrowly specialize can get terribly good at occupying some little niche. Just as animals flourish in niches, similarly, people who specialize in the business world—and get very good because they specialize in the business world—and get very good because they specialize—frequently find good economics that they wouldn't get any other way.

Advantages of scale are ungodly important.

And once we get into microeconomics, we get into the concept of advantages of scale. Now we are getting closer to investment analysis—because in terms of which businesses succeed and which businesses fail, advantages of scale are ungodly important.

For example, one great advantage of scale taught in all of the business schools of the world is cost reductions along the so-called **experience curve**. Just doing something complicated in more and more volume enables human beings, who are trying to improve and are motivated by the incentives of capitalism, to do it more and more efficiently.

The very nature of things is that if you get a whole lot of volume through your joint, you get better at processing that volume. That is an enormous advantage. And it has a lot to do with which businesses succeed and fail.....

AND THERE ARE OTHER ECONOMIES: GEOMETRIC, ADVERTISING, INFORMATION, EVEN PSYCHOLOGICAL.

There are even geometric economies of scale.

Let us go through a list—albeit an incomplete one—of possible advantages of scale. Some come from simple geometry. If you are building a great circular tank, obviously as you build it bigger, the amount of steel you use in the surface goes up with the square and the cubic volume goes up with the cube. So as you increase the dimensions, you can hold a lot more volume per unit area of steel.

And there are all kinds of things like that where the simple geometry—the simple reality—gives you an advantage of scale.

For example, network TV advertising made the rich richer.

For example, you can get advantages of scale from TV advertising. When TV advertising first arrived—when talking color pictures first came into our living rooms—it was an unbelievably powerful thing. And in the early days, we had three networks that had whatever it was—say 90% of the audience.

Well, if you were Proctor & Gamble, you could afford to use this new method of advertising. You could afford to use this new method of advertising. You could afford the very expensive cost of network television because you were selling so damn many cans and bottles. Some little guy couldn't. And there was no way of buying it in part., big volume, you could not use network TV advertising—which was the most effective technique.

So when TV came in, the branded companies that were already big got a huge tailwind. Indeed, they prospered and prospered and prospered until some of them got fat and foolish, which happens with prosperity—at least to some people.....

The informational advantage of brands is hard to beat.

And your advantage of scale can be an informational advantage. If I go to some remote place, I may see Wrigley chewing gum alongside Glotz's chewing gum. Well, I know Wrigley is a satisfactory product, whereas I don't know anything about Glotz's. So if one is 40 cents and the other is 30 cents, am I going to take something I don't know and put it in my mouth—which is a pretty personal place, after all, for a lousy dime?

So, in effect, Wrigley simply by being so well known, has advantages of scale—which you might call an informational advantage.

Everyone is influenced by what others do and approve.

Another advantage of scale comes from psychology. The psychologists use the term, “**social proof**”. We are all influenced—subconsciously and to some extent consciously—by what we see others do and approve. Therefore, if everybody's buying something, we think it is better. We don't like to be the one guy who is out of step.

Again, some of this is at a subconscious level and some if it isn't. Sometimes we consciously and rationally think, I don't know much about this. They know more than I do. Therefore, why shouldn't I follow them?”

All told, your advantages can add up to one tough moat.

The social proof phenomenon which comes right out of psychology gives the huge advantages to scale—for example, with very wide distributions, which of course is hard to get. One advantage of Coca-Cola is that it is available almost everywhere in the world.

Well, suppose you have a little soft drink. Exactly how do you make it available all over the Earth? The worldwide distribution setup—which is slowly won by a big enterprise—gets to be a huge advantage....And, if you think about it, once you get enough advantages of that type, it can become very hard for anybody to dislodge you.

THINGS TEND TOWARD A WINNER TAKE ALL. THEREFORE, IT PAYS TO BE #1, #2 OR OUT.

Things tend to cascade toward winner take all.

There is another kind of advantage to scale. In some businesses, the very nature of things is to sort of cascade toward the overwhelming **dominance** of one firm. The most obvious is daily newspapers. There is practically no city left in the U.S. aside from a few very big ones, where there is more than one daily newspaper.

And again, that is a scale thing. Once I get most of the circulation, I get most of the advertising. And once I get most of the advertising and circulation, why should anyone want the thinner paper with less information in it? So it tends to cascade to a winner-take-all situation. And that is a separate form of the *advantages of scale* phenomenon.

Similarly, all these huge advantages of scale allow greater specialization within the firm. Therefore, each person can be better at what he does.

It is not irrational to insist on being #1 or #2 or out.

And these advantages of scale are so great, for example, that when Jack Welch came into General Electric, he just said, “To hell with it. We're either going to be #1 or #2 in every field we are in or we are going to be out. I don't care how many people I have to fire and what I have to sell. We are going to be #1 or #2 or out.”

That was a very tough minded thing to do, but I think it was the correct decision if you are thinking about maximizing shareholder wealth. And I don't think it is a bad thing to do for a civilization either, because I think that General Electric is stronger for having Jack Welch there.

HOWEVER, BIGGER ISN'T ALWAYS BETTER—THERE ARE ALSO DISADVANTAGES OF SCALE.

Bigger isn't always better. Sometimes, it is just the reverse.....

And there are also **disadvantages of scale**. For example, we—by which I mean Berkshire Hathaway—are the largest shareholders in Capital Cities/ABC. And we had trade publications there that got murdered—where our competitors beat us. And the way they beat us was by going to a **narrower specialization**.

We'd have a travel magazine for business travel. So somebody would create one, which was addressed solely at corporate travel departments. Like an ecosystem, you are getting a narrower and narrower specialization.

Well, they got much more efficient. They could tell more to the guys who ran corporate travel departments. Plus, they didn't have to waste the ink and paper mailing out stuff that corporate travel departments were not interested in reading. It was a more **efficient** system. And they beat our brains out as we relied on our broader magazine.

That is what happened to the Saturday Evening Post and all those things. They're gone. What we have now is *Motor Cross*—which is read by a bunch of nuts who like to participate in tournaments where they turn somersaults on their motorcycles. But they CARE about it. For them, it is the principle purpose of life. A magazine called *Motor cross* is a total necessity to those people. And its profit margins would make you salivate.

Just think of how narrowcast that kind of publishing is. So occasionally, scaling down and intensifying gives you the big advantage. Bigger is not always better.

Another defect of scale—flush, fat, stupid bureaucracy.

The great defect of scale, of course, which makes the game interesting—so that the big people don't always win—is that as you get big, you get bureaucracy. And with the **bureaucracy** comes the **territoriality**—which is again grounded in human nature.

And the incentives are perverse. For example, if you worked for AT&T in my day, it was a great bureaucracy. Who in the hell was really thinking about the shareholder or anything else? And in a bureaucracy, you think the work is done when it goes out of your in-basket. But, of course, it isn't. It is not done until AT&T delivers what it is supposed to deliver. So you get big, fat, dumb, unmotivated bureaucracies.

Bureaucracy's a terrible problem—especially in government.

They also tend to become somewhat corrupt. In other words, if I have got a department and you have got a department and we kind of share power running this thing, there is sort of an unwritten rule: "If you won't bother me, I won't bother you and we're both happy." **So you get layers of management and associated costs that nobody needs.** All the, while people are justifying all these layers, it takes forever to get anything done. **They are too slow to make decisions and nimbler people run circles around them.**

The constant curse of scale is that it leads to big, dumb bureaucracy—which, of course, reaches its highest and worst form in government where the incentives are really awful. That doesn't mean we don't need governments—because we do. But it is a terrible problem to get big bureaucracies to behave.

Some companies deal with bureaucracies well: e.g., GE.

So people go to stratagems. They create little decentralized units and fancy motivation and training programs. For example, for a big company, General Electric has fought bureaucracy with amazing skill. But that is because they have a combination of a genius and a fanatic running it. And they put him in young enough so he gets a long run. Of course, that is Jack Welch.

Others don't deal with it very well at all....

But bureaucracy is terrible.... And as things get very powerful and very big, you can get some really dysfunctional behavior. Look at Westinghouse. They blew billions of dollars on a bunch of dumb loans to real estate developers. They put some guy who'd come up by some career path—I don't know exactly what it was but it could have been refrigerators or something—and all of a sudden, he is loaning money to real estate developers building hotels. It is a very unequal contest. And in due time, they lost all those billions of dollars.

You get a lot of dysfunction in a big, fat happy place.

CBS provides an interesting example of another rule of psychology, namely, *Pavlovian* association. If people tell you what you really don't want to hear—what is unpleasant—there is an almost automatic reaction of antipathy. You have to train yourself out of it. It isn't fore destined that you have to be this way. But you will tend to be this way if you don't think about it.

Television was dominated by one network—CBS—in its early days. And Paley was god. But he didn't like to hear what he didn't like to hear. And people soon learned that. So they told Paley only what he liked to hear. Therefore, he was soon living in a cocoon of unreality and everything was corrupt—although it was a great business.

So the idiocy that crept into the system was carried along by this huge tide. It was a Mad Hatter's tea party the last ten years under Bill Paley.

And that is not the only example by any means. You can get severe malfunction in the high ranks of business. And of course, if you are investing, it can make a hell of a lot of difference. If you take all the acquisitions that CBS made under Paley, after the

acquisition of the network itself, with all his dumb advisors—his investment bankers, management consultants and so forth who were getting paid handsomely—it was absolutely terrible.

For example, he gave something like 20% of CBS to the Dumont Company for a television set manufacturer, which was destined to go broke. I think it lasted all of two or three years or something like that. So very soon after he'd issued all that stock, Dumont was history. **You get a lot of dysfunction in a big fat happy powerful place where no one will bring unwelcome reality to the boss.**

An everlasting battle between the pros and cons of size.

So life is an everlasting battle between those two forces—to get these advantages of scale on one side and a tendency to get a lot like the U.S. Agriculture Department on the other side—where they just sit around and so forth. I don't know exactly what they do. However, I do know that they do very little useful work.

A CASE STUDY IN ECONOMIES VS DISECONOMIES—WALMART VERSUS SEARS, ROEBUCK.

A Chain store can be a fantastic enterprise.

On the subject of advantages of economies of scale, I find chain stores quite interesting. Just think about it. The concept of a chain store was a fascinating invention. You get this **huge purchasing power**—which means that you have lower merchandise costs. You get a whole bunch of *little laboratories* out there in which you can conduct experiments. And you get specialization.

If one little guy is trying to buy across 27 different merchandise categories influenced by traveling salesmen, he is going to make a lot of dumb decisions. But if your buying is done in “HQ for a huge bunch of stores, you can get very bright people that know a lot about refrigerators and so forth to do the buying.

The reverse is demonstrated by the little store where one guy is doing all the buying. It is like the old story about the little store with salt all over its walls. And a stranger comes in and says to the storeowner, “You must sell a lot of salt.” And he replies, “No, I don't. But you should see the guy who sells me the salt.”

So there are huge purchasing advantages. And then there are the slick systems of forcing everyone to do what works. So a chain store can be a fantastic enterprise.

Sam Walton played the game harder and better than anyone.

It is quite interesting to think about Wal-Mart starting from a single store in Bentonville, Ark—against Sears, Roebuck with its name, reputation and all of its billions. How does a guy in Bentonville, Ark with no money blow right by Sears, Roebuck? And he does it in his own lifetime—in fact, during his own late lifetime because he was already pretty old by the time he started out with one little store....

He played the chain store game better and harder than anyone else. **Walton invented practically nothing. But he copied everything anybody else ever did that was smart**—and he did it with more than fanaticism and better employee manipulation. So he just blew right by them all.

And he had a very shrewd strategy....

He also had a very interesting competitive strategy in the early days. He was like a prizefighter who wanted a great record so he could be in the finals and make a big TV hit. So what did he do? He went out and fought 42 palookas. Right? And the result was a knockout, knockout, and knockout—42 times.

Walton, being as shrewd as he was, basically broke other small town merchants in the early days. With his more efficient system, he might not have been able to tackle some directly head-on at the time. But with his better system, he could sure as hell destroy those small town merchants. And he went around doing it time after time after time. Then as he got bigger, he started destroying the big boys. Well, that was a very, very shrewd strategy.

I believe the world is better for having a Wal-Mart.

You can say, “Is this a nice way to behave?” Well, capitalism is a pretty brutal place. But I personally think that the world is a better for having a Wal-Mart. I mean you can idealize small town life. But I've spent a fair amount of time in small towns. And let me tell you—you shouldn't get too idealistic about all those businesses he destroyed.

Plus a lot of people who work at Wal-Mart are very high grade, bouncy people who are raising nice children. I have no feeling that an inferior culture destroyed a superior culture. I think that is nothing more than nostalgia and delusion. But, at any rate, it an interesting model of how **the scale of things and fanaticism combine** to be very powerful.

Sears was a classic case study in *dis*-economics.

And it is also an interesting model on the other side—how with all its great advantages, the disadvantages of bureaucracy did such terrible damage to Sears Roebuck. Sears had layers and layers of people it didn't need. It was very bureaucratic. It was slow

to think. And there was an established way of doing, thinking. If you poked your head up with a new thought, the system kind of turned on you. It was everything in the way of a dysfunctional big bureaucracy that you would expect.

In all fairness, there was also much that was good about it. But it just wasn't as lean and mean and shrewd and effective as Sam Walton. And, in due time, all their advantages of scale were not enough to prevent Sears from losing heavily to Wal-Mart and other similar retailers.

A MODEL WE HAVE HAD TROUBLE WITH—ANTICIPATING COMPETITION AND ITS EFFECTS

In some markets, no one makes out. In others, everyone does.

Here is a model that we have had trouble with. Maybe you'll be able to figure it out better. Many markets get down to two or three big competitors—of five or sixes. And in some of those markets, nobody makes any money to speak of. But in others, everybody does very well.

Over the years, we've tried to figure out why the competition in some markets gets sort of rational from the investor point of view so that the shareholders do well, and in other markets, there is destructive competition that destroys shareholder wealth.

It is easy to understand why air travel is so unprofitable....

It is a pure **commodity** like airline seats; you can understand why no one makes any money. As we sit here, just think of what airlines have given to the world—safe travel, greater experience, time with your loved ones, you name it. Yet, the net amount of money that has been made by the shareholders of airlines since Kitty Hawk, is now a negative figure—a substantial negative figure. Competition was so intense that, once it was unleashed by deregulation, it ravaged shareholder wealth in the airline business.

But why is the cereal business so profitable?

Yet, in other fields—like cereals, for example—almost all the big boys make out. If you are some kind of medium grade cereal maker, you might make 15% on your capital. And if you are really good, you might make 40%. But why are cereals so profitable—despite the fact that it looks to me like they are competing like crazy with promotions, coupons and everything else? I don't fully understand it.

Obviously, there is a **brand identity factor** in cereals that doesn't exist in airlines. That must be the main factor that accounts for it.

Maybe it boils down to individual psychology....

And maybe the cereal makers by and large have learned to be less crazy about fighting for market share—because if you get even one person who is hell-bent on gaining market share... For example, if I were Kellogg and I decided that I has to have 60% of the market, I think I could take most of the profit out of cereals. I'd ruin Kellogg in the process. But I think I could do it.

In some businesses, the participants behave like a demented Kellogg. In other businesses, they don't. Unfortunately, I do not have a perfect model for predicting how that is going to happen.

For example, if you look around at bottler markets, you will find many markets where bottlers of Pepsi and Coke both make a lot of money and many others where they destroy most of the profitability of the two franchises. That must get down to the peculiarities of individual adjustment to market capitalism. I think you would have to know the people involved to fully understand what was happening.

A FEW WORDS ON PATENTS, TRADEMARKS AND FRANCHISES.

Patents haven't made people much money—until recently.

In microeconomics, of course, you have got the concept of patents, trademarks, exclusive franchises and so forth. Patents are quite interesting. When I was young, I think more money went into patents than came out. Judges tended to throw them out—based on arguments about what was really invented and what relied on prior art. That isn't altogether clear.

But they changed that. They didn't change the laws. They just changed the administration—so that it all goes to one patent court. And that court is now very much more pro-patent. So I think people are now starting to make a lot of money out of owning patents.

But trade market and franchised have always been great.

Trademarks, of course, have always made people a lot of money. A trademark system is a wonderful thing for a big operation if it is well known.

The **exclusive franchise** can also be wonderful. If there were only three television channels awarded in a big city and you owned one of them, there were only so many hours a day that you could be on. So you had a natural position in an oligopoly in the pre-cable days.

And if you get the franchise for the only food stand in an airport, you have a captive clientele and you have a small monopoly of a sort.

A BASIC LESSON OFTEN FORGOTTEN: A NEW TECHNOLOGY CAN KILL YOU.

You have to discern when technology will help and hurt.

The great lesson in microeconomics is to discriminate between when technology is going to help you and when it is going to kill you. And most people do not get this straight in their heads. But a fellow like Buffett does.

For example, when we were in the textile business, which is a terrible commodity business, we were making low-end textiles—which are a real commodity product. And one day, the people came to Warren and said, “They’ve invented a new loom that we think will do twice as much work as our old ones.”

And Warren said, “Gee, I hope this doesn’t work—because if it does, I’m going to close the mill.” And he meant it.

Advances in commodity businesses go to buyers alone.

What was he thinking? He was thinking, “It is a lousy business. We are earning substandard returns and keeping it open just to be nice to the elderly workers. But we are not going to put huge amounts of new capital into a lousy business.”

And he knew that the huge productivity increases that would come from a better machine introduced into the production of a commodity product would all go to the benefit of buyers of the textiles. Nothing was going to stick to our ribs as owners.

That is such an obvious concept—that there are all kinds of wonderful new inventions that give you nothing as owners **except the opportunity to spend a lot more money in a business that is still going to be lousy**. The money still won’t come to you. All of the advantages from great improvements are going to flow through to the customers.

The newspaper business is another matter altogether....

Conversely, if you own the *only* newspaper in Oshkosh and they were to invent more efficient ways of composing the whole newspaper, then when you got rid of old technology and got new fancy computers and so forth, all of the savings would come right through to the bottom line.

A three-year payback means a 4% per year return.

In all cases, the people who sell the machinery—and, by and large, even the internal bureaucrats urging you to buy the equipment—show you projections with the amount you will save at current prices with the new technology. However, they don’t do the second step of the analysis—which is to determine how much is going to flow through to the customer. I’ve never seen a single projection incorporating that second step in all my life. And I see them all the time. Rather, they always read: “This capital outlay will save you so much money that it will pay for itself in three years.”

So you keep buying things that will pay for themselves in three years. And after 20 years of doing it, somehow you have earned a return of only about 4% per annum. That is the textile business.

And it isn’t that the machines weren’t better. It is just that the savings didn’t go to you. The cost reductions came through all right. But the benefit of the cost reductions didn’t go to the guy who bought the equipment. It is such a simple idea. It is so basic. And yet it is so often forgotten.

THE NATIONAL CASH REGISTER MODEL IS EXACTLY WHAT YOU ARE LOOKING FOR

Early birds have huge advantages...

Then there is another model from microeconomics, which I find very interesting. When technology moves as fast as it does in a civilization like ours, you get a phenomenon, which I call **competitive destruction**. You know, you have the finest buggy whip factory all of a sudden in comes this little horseless carriage. And before too many years go buy your buggy whip business is dead. You either get into a different business or you are dead—you are destroyed. It happens again and again and again.

And when these new businesses come in, there are **huge advantages** for the early birds. And when you are an early bird, there is a model that I call “surfing”—when a surfer gets up and catches the wave and just stays there, he can go a long, long time. But if he gets off the wave, he becomes mired in the shadows....

But people get long runs when they are right on the edge of the wave—whether it is Microsoft or Intel or all kinds of people, including National Cash Register in the early days.

National Cash Register was a lead pipe cinch...

The cash register was one of the great contributions to civilization. It is a wonderful story. Patterson was a small retail merchant who did not make any money. One day, somebody sold him a crude cash register, which he put into his retail operation. And it instantly changed from losing money to earning a profit because it made it so much harder for the employees to steal....

But Patterson, having the kind of mind that he did, didn't think, "Oh, good for my retail business." He thought, "I'm going into the cash register business." And, of course, he created National Cash Register.

And he surfed. He got the best distribution system, the biggest collection of patents and the best of everything. He was a fanatic about everything important as the technology developed. I have in my files an early National Cash Register Company report in which Patterson described his methods and objectives. And a well-educated orangutan could see that buying into his partnership with Patterson in the early days, given his notions about the cash register business, was a total 100% cinch.

And, of course, that is exactly what an investor should be looking for. In the long life, you can expect to profit heavily from at least a few of those opportunities if you develop the wisdom and will to seize them. At any rate, "*surfing*" is a very powerful model.

FIGURE WHERE YOU HAVE AN EDGE THEN, PLAY THERE AND ONLY THERE.

If we don't believe we have an advantage, we don't play.

However, Berkshire Hathaway, by and large, does not invest in these people that are "surfing" on complicated technology. After all, we are cranky and idiosyncratic—as you may have noticed.

And Warren and I don't feel like we have any great advantage in the high-tech sector. In fact, we feel like we are at a big disadvantage in trying to understand the nature of technical developments in software, computer chips or what have you. So we tend to avoid that stuff, based on our personal inadequacies.

Figure where you have an edge—and stay there.

Again, that is a very, very powerful idea. Every person is going to have a circle of competence. And it is going to be very hard to advance that circle. If I had to make my living as a musician....I can't even think of a level low enough to describe where I would be sorted out to if music were the measuring standard of the civilization.

So you have to figure out what your own aptitudes are. If you play games where other people have the aptitudes and you don't, you are going to lose. And that is as close to certain as any prediction that you can make. You have to figure out where you have got an edge. And you have got to play within your own circle of competence.

Life is much like trying to be a good plumbing contractor.

If you want to be the best tennis player in the world, you may start out trying and soon find out that it is hopeless—that other people blow right by you. However, if you want to become the best plumbing contractor in Bemidji, that is probably all right by two-thirds of you. It takes **will**. It takes the **intelligence**. But after a while, you will gradually know all about the plumbing business and **master the art**. That is an attainable objective, given enough **discipline**. And people who could never win a chess tournament or stand in center court in a respectable tennis tournament can rise quite high in life by slowly developing a circle of competence—which results partly from what they were born with and partly from what they slowly develop through work.

So some edges can be acquired. And the game of life to some extent for most of us is trying to be something like a good plumbing contractor in Bemidji. Very few of us are chosen to win the world's chess tournaments.

(Editor's note: Munger's comments remind your editor of Buffett's comments in John Train's The Money Masters. Buffett asks Train, "How do you beat Bobby Fisher?" Answer: "Play him in anything but chess.")

One person's garbage is another's treasure.

Some of you may find opportunities "surfing" along in the new high tech fields--The Intels, the Microsofts and so on. The fact that we don't think we are very good at it and have pretty well stayed out of it doesn't mean that it is irrational for you to do it.

TO A MAN WITH PROFICIENCY IN MATH, EFFICIENT MARKET THEORY LOOKS LIKE A NAIL.

On to dessert—the selection of common stocks...

Well, so much for the basic microeconomic models, a little bit of psychology, a little bit of mathematics, helping create what I call the general substructure of worldly wisdom. Now if you want to go from carrots to dessert, I will turn to stock picking—trying to draw on this general worldly wisdom as we go.

I do not want to get into emerging markets, bond arbitrage and so forth. I am talking about nothing but plain vanilla stock picking. That, believe me, is complicated enough. And I am talking about common stock picking.

Do as I do, not as I say...

The first question is, "What is the nature of the stock market?" And that gets you directly to this efficient market theory that got to be the rage—a total rage—long after I graduated from law school.

And it is rather interesting because one of the greatest economists of the world is a substantial shareholder in Berkshire Hathaway and has been from the very early days After Buffett was in control. His textbook always taught that the stock market was

perfectly efficient and that nobody could beat it. But his own money went into Berkshire and made him wealthy. So, like Pascal in his famous wager, he **hedged his bet**.

The iron rule of life: only 20% of us can be in the top 5th.

Is the stock market so efficient that people can't beat it. Well, the efficient market theory is obviously roughly right—meaning that markets are quite efficient and it is quite hard for anybody to beat the market by a significant margin as a stock picker by just being intelligent and working in a disciplined way.

Indeed, the average result has to be the average result. By definition, everybody can't beat the market. As I always say, the iron rule of life is that only 20% of the people can be in the top fifth. That is just the way it is. So the answer is that it is partly efficient and partly inefficient.

Efficient market theory is seductive. Only it is not true...

And, by the way, I have a name for people who went to the extreme efficient market theory that enable them to do pretty mathematics. So I understand its seductiveness to people with large mathematical gifts. It just had a difficulty in that the fundamental assumption did not tie properly to reality.

Again, to **the man with a hammer, every problem looks like a nail**. If you are good at manipulating higher mathematics in a consistent way, why not make an assumption, which enables you to use your tool?

BETTING ON HORSES AND PICKING STOCKS HAVE MORE THAN A LITTLE IN COMMON.

Odds on horses and stocks are set by the market.

The model I like—to sort of simplify the notion of what goes on in a market from common stocks—is the pari-mutual system at the racetrack. If you stop to think about it, a **pari-mutual system is a market**. Everybody goes there and bets and the odds change based on what has been bet.

That is what happens in a stock market.

Any damn fool can see that a horse carrying a light weight with a wonderful win rate and a good post position etc., etc. is way more likely to win than a horse with a terrible record and extra weight and so on and so on. But if you look at the damn odds, the bad horse pays 100 to 1, whereas the good horse pays 3 to 2. Then it is not clear which is statistically the best bet using the mathematics of Fermat and Pascal. The prices have change in such a way that it is very hard to beat the system.

And then the track is taking 17% of the top. So not only do you have to outwit all the other betters, but you have got to outwit them by such a big margin that on average you can afford to take 17% of your gross bets off the top and give it to the house before the rest of your money can be put to work.

Believe it or not, some people make money-betting horses....

Given those mathematics, is it possible to beat the horses only using one's intelligence? Intelligence should give some edge, because lots of people who don't know anything go out and bet lucky numbers and so forth. Therefore, somebody who really thinks about nothing but horse performance and is shrewd and mathematical could have a very considerable edge, in the absence of the frictional cost caused by the house take.

Unfortunately, what is a shrewd horseplayer's edge does in most cases is to reduce his average loss over a season of betting from the 17% that he would lose if he got the average result to maybe 10%. However, there are actually a few people who can beat the game after paying the full 17%.

I used to play poker when I was young with a guy who made a substantial living doing nothing but bet harness races...Now harness racing is a relatively inefficient market. You don't have the depth of intelligence betting on harness races that you do on regular races. What my poker pal would do was to think about harness races as his main profession. And he would bet only occasionally when he saw some mispriced bet available. And by doing that, after paying the full handle to the house—which I presume was around 17%—he made a substantial living.

You have to say that is rare. However, the market was not perfectly efficient. And if it weren't for that big 17% handle, lots of people would regularly be beating lots of other people at the horse races. It is efficient, yes. But it is not perfectly efficient. And with enough shrewdness and fanaticism, some people will get better results than others.

It ain't easy, but it is possible to outperform in stocks, too.

The stock market is the same way—except that the house hand is so much lower. If you take transaction costs—the spread between the bid and the ask plus the commissions—and if you don't trade too actively, you are talking about fairly low transaction costs. So that with enough fanaticism and enough discipline, some of the shrewd people are going to get way better results than average in the nature of things.

It is not a bit easy. And, of course, 50% will end up in the bottom half and 70% will end up in the bottom 70%. But some people will have an advantage. And in a fairly low transaction cost operation, they will get better than average results in stock picking.

What works betting horses also works for stock picking.

How do you get to be one of those who is a winner—in a relative sense—instead of a loser?

Here again, look at the pari-mutuel system. I had dinner last night by absolute accident with the president of Santa Anita. He says that there are two or three betterers who have a credit arrangement with them, now that they have off-track betting, who are actually beating the house. They are sending money out net after the full handle—a lot of it to Las Vegas, by the way—to people who are actually winning slightly, net, after paying the full handle. They are that shrewd about something with as much unpredictability as horse racing.

And the one thing that all those winning betterers in the whole history of people who have beaten the pari-mutuel system have is quite simple. **They bet very seldom.**

Winners bet big when they have the odds—otherwise, never.

It is not given to human beings to have such talent that they can just know everything about everything all the time. But it is given to human beings who work all the time. But it is given to human beings who work hard at it—who look and sift the world for a mispriced bet—that they can occasionally find one.

And the wise ones bet heavily when the world offers them that opportunity. They bet big heavily when the world offers them that opportunity. They bet big when they have the odds. And the rest of the time, they don't. It is just that simple.

AS USUAL, IN HUMAN AFFAIRS WHAT WINS ARE INCENTIVES.

It is obvious to us, And yet nobody operates that way.

That is a very simple concept. And to me it is obviously right—based on experience not only from the pari-mutuel system, but everywhere else.

And yet, in investment management, practically nobody operates that way. We operate that way—I'm talking about Buffett and Munger. And we're not alone in the world. But a huge majority of people have some other crazy construct in their heads. And instead of **waiting for a near cinch and loading up**, they apparently ascribe to the theory that if they work a little harder or hire more business school students, they'll come to know everything about everything about everything all the time.

To me, that is totally insane. **The way to win is to work, work, work, work and hope to have a few insights.**

Most of Berkshire's billions came from a handful of ideas.

How many insights do you need? Well, I'd argue that you don't need many in a lifetime. If you look at Berkshire Hathaway and all of its accumulated billions, the top ten insights account for most of it. And that is with a very brilliant man—Warren's a lot more able than I am and very disciplined—devoting his lifetime to it. I don't mean to say that he is only had ten insights. I am just saying that most of the money came from ten insights.

So you can get very remarkable investment results if you think more like a winning pari-mutuel player. Just think of it as heavy odds against game full of bullshit and craziness with an occasional mispriced something or other. And you are not going to be smart enough to find thousands in a lifetime. **And when you get a few, you really load up. It is just that simple.**

A simple but powerful way to improve your results..

When Warren (Buffett) lectures at business schools, he says, "I could improve your ultimate financial welfare by giving you a ticket with only 20 slots in it so that you had 20 punches—representing all the investments that you got to make in a lifetime. And once you'd punched through the card, you couldn't make any more investments at all."

He says, "Under those rules, you'd really think carefully about what you did and you would be forced to load up on what you really thought about. So you would do so much better."

As long as clients buy salt, investment managers will sell it.

Again, this is a concept that seems perfectly obvious to me. And to Warren, it seems perfectly obvious. But this is one of the very few business classes in the U.S. where anybody will be saying so. It just isn't the conventional wisdom.

To me, it is obvious to me that the **winner has to bet very selectively**. It has been since very early life. I don't know why it is not obvious to many other people.

I don't think the reason why we got into such idiocy in investment management is best illustrated by a story that I tell about the guy who sold fishing tackle. I asked him, "My God, they're purple and green. Do fish really take these lures?" And he said, "Mister, I don't sell to fish."

Investment managers are in the position of that fishing tackle salesman. They are like the guy who was selling salt to the guy who already had too much salt. And as long as the guy will buy salt, why they will sell salt. But isn't what ordinarily works for the buyer of investment advice.

As usual, in human affairs, what wins are incentives.

If you invest Berkshire Hathaway-style, it would be hard to get paid as an investment manager as well as they are currently paid—because you would be holding a block of Wal-Mart and a block of Coca-Cola and a block of something else. You'd be sitting on your ass. And the client would be getting rich. And, after a while, the client would think, "Why am I paying this guy half a percent a year on my wonderful passive holdings?"

So what makes sense for the investor is different from what makes sense for the manager. And, as usual in human affairs, **what determines the behavior are incentives for the decision maker.**

Getting the incentives right is a very, very important lesson

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 process 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 is all done they can all go home.. Well, their problems cleared up overnight.

So getting the incentives right is a very, very important lesson. It was not obvious to Federal Express what the solution was. But maybe now, it will hereafter more often be obvious to you.

IF SECTOR ROTATION IS VERY LUCRATIVE, WE HAVE NEVER SEEN THE EVIDENCE.

Once you factor in the odds, the market is not easy to beat.

All right, we have now recognized that the market is efficient as a pari-mutuel system is efficient—with the favorite more likely than the long shot to do well in racing, but not necessarily give any betting advantage to those that bet on the favorite.

In the stock market, some railroad that is beset by better competitors and tough unions may be available at one-third of book value. In contrast, IBM in its heyday might be selling at 6 times book value. So it is just like the pari-mutuel system. Any damn fool could plainly see that IBM had better business prospects than the railroad. But once you put the price into the formula, it wasn't so clear anymore what was going to work best for a buyer choosing between the stocks. So it is a lot like a pari-mutuel system. And, therefore, it gets very hard to beat.

I know of no really rich "sector rotators"

What style should the investor use as a picker of common stocks in order to try to beat the market—in other words, to get above average long-term result? A standard technique that appeals to a lot of people is called "sector rotation" You simply figure out when oils are going to outperform retailers, etc., etc., etc. You just kind of flit around being in the hot sector of the market making better choices than other people. And presumably, over a long period of time, you get ahead.

However, I know of no really rich sector rotator. Maybe some people can do it. I am not saying they can't. All I know is that all the people I know who got rich—and I know a lot of them—did not do it that way.

RICH OR POOR, IT IS GOOD TO HAVE A HUGE MARGIN OF SAFETY.

A significant discount = more upside + a margin of safety

The second basic approach is the one that Ben Graham used—much admired by Warren and me. As one factor, Graham had this concept of value to a private owner—what the whole enterprise would sell for if it were available. And that was calculable in many cases.

Then, if you could take the stock price and multiply it by the number of shares and get something that was one third or less of sellout value, he would say that you have got a lot of edge going for you. Even with an elderly alcoholic running a stodgy business, this signifies excess of real value per share working for you, which means that all kinds of good things can happen to you. You had a huge margin of safety—as he put it—by having this big excess value going for you.

The aftermath of the 1930s was a bargain hunter's dream.

But he was, by and large, operating when the world was in shell shock from the 1930s—which was the worst contraction in the English-speaking world in about 600 years. Wheat in Liverpool, I believe, got down to something like a 600-year low, adjusted

for inflation. People were so shell-shocked for a long time thereafter that Ben Graham could run his Geiger counter over this detritus from the collapse of the 1930's and find things selling below their working capital per share and so on.

Today, stated assets evaporate at the first sign of trouble.

And in those days, working capital actually belonged to the shareholders. If the employees were no longer useful, you just sacked them all, took the working capital and stuck it in the owners' pockets. That was the way capitalism then worked.

Nowadays, of course, the accounting is not realistic—because the minute the business starts contracting, significant assets are not there. Under social norms and the new legal rules of the civilization, so much is owed to the employees, that the minute the enterprise goes into reverse, some of the assets on the balance sheet are not there anymore.

Strange things can happen in the technology area.

Now, that might not be true if you run a little auto dealership by yourself. You may be able to run it in a way that there is no health plan and this and that so that if the business gets lousy, you can take your working capital and go home. But IBM can't or at least it didn't just look at what disappeared from its balance sheet when it decided that it had to change size both because the world had changed technologically and because its market position had deterioration.

And in terms of blowing it. IBM is some example. Those were brilliant, disciplined people. But there was enough turmoil in technological change that IBM got bounced off the wave after "surfing" successfully for 60 years. And that was some collapse—an object lesson in the difficulties of technologies and one of the reasons why Buffett and Munger don't like technology very much. We don't think we are any good at it, and strange things can happen.

One way to keep finding "bargains" is to redefine the term.

At any rate, the trouble with what I call the classic Ben Graham concept is that gradually the world wised up and those real obvious bargains disappeared. You could run your Geiger counter over the rubble and it wouldn't click.

But such is the nature of people who have a hammer—to whom, as I mentioned, every problem looks like a nail—that the Ben Graham followers respond by changing the calibration on their Geiger counters. In effect, they started defining a bargain in a different way. And they kept changing the definition so that they could keep doing what they'd always done. And it *still* worked pretty well. So the Ben Graham intellectual system was a very good one.

Having an unstable business partner has its rewards.

Of course, the best part of it all was his concept of "Mr. Market". Instead of thinking the market was efficient. He treated it as a manic-depressive who comes by every day. And some days he says, "I'll sell you some of my interest for way less than you think it is worth." And other days, "Mr. Market" comes by and says, "I'll sell you some of my interest at a price that is way higher than you think it is worth." And you get the option of deciding whether you want to buy more, sell part of what you already have or do nothing at all.

To Graham, it was a blessing to be in business with a manic-depressive who gave you this series of options all the time. That was a very significant mental construct. And it has been very useful to Buffett, for instance, over his whole lifetime.

GRAHAM WASN'T TRYING TO PLAY OUR GAME—I.E., PAYING UP FOR BETTER BUSINESSES

Ben Graham wasn't trying to do what we did.

However, if we'd stayed with classic Graham the way Ben Graham did it, we would never have had the record we have. And that is because Graham didn't want to ever talk to management. And his reason was that, like the best sort of professor aiming his teaching at a mass audience, he was trying to invent a system that anybody could use. And he did not feel that the man in the street could run around and talk to managements and learn things. He also had a concept that the management would often couch the information very shrewdly to mislead. Therefore, it was very difficult. And that is still true, of course—human nature being what it is.

Our leap—paying up for quality

And so having started out as Grahamites—which, by the way, worked fine—we gradually got what I would call better insights. And we realized that some company that was selling at 2 or 3 times book value could *still* be a hell of a bargain because of the momentum implicit in its position, sometimes combined with an unusual managerial skill plainly present in some individual or other or some system or other.

And once we'd gotten over the hurdle of recognizing that a thing could be a bargain based on quantitative measures that would have *horrified* Graham, we started thinking about better businesses.

Bulk of Berkshire's billions brought by better businesses.

And, by the way, the bulk of the billions in Berkshire Hathaway have come from the better businesses. Much of the first \$200 or \$300 million came from scrambling around with our Geiger counter. But the great bulk of the money had come from the great businesses.

And even some of the early money was made by being temporarily present in *great businesses*. Buffett Partnership, for example, owned American Express and Disney when they got pounded down.

FROM THE VIEWPOINT OF A RATIONAL CLIENT, INVESTMENT MANAGEMENT TODAY IS BONKERS.

A tremendous advantage at Berkshire—no clients.

Most investment managers are in a game where the clients expect them to know a lot about a lot of things. We did not have any clients who could fire us at Berkshire Hathaway. So we didn't have to be governed by any such construct. And we came to this notion of finding a mispriced bet and loading up when we were very confident that we were right. So we are way less diversified. And I think our system is miles better.

However, in all fairness, I do not think a lot of money managers could successfully sell their services if they used our system. But if you are investing for 40 years in some pension fund, what difference does it make if the path from start to finish is a little more bumpy or a little different than everybody else's so long as it is all going to work out well in the end? So what if there is a little extra volatility.

Investment management today is really hobbling itself.

In investment management today, everybody wants not only to win, but also to have the path never diverge very much from a standard path except on the upside. Well, that is a very artificial, crazy construct. That is the equivalent in investment management to the customer of binding the feet of the Chinese women. It's the equivalent of what Nietzsche meant when he criticized the man who had a lame leg and was proud of it.

That is really hobbling yourself. Now, investment managers would say, "We have to be that way. That is how we are *measured*." And they may be right in terms of the way the business is now constructed. But from the viewpoint of a rational consumer, the whole system is "bonkers" and draws a lot of talented people into socially useless activity.

******IF YOU DON'T LOAD UP ON GREAT OPPORTUNITIES, THEN YOU ARE MAKING A BIG MISTAKE.******
Weight your trades.

It is much better to attempt something attainable.

And the Berkshire system is not "bonkers". It is so damned elementary that even the bright people are going to have limited, really valuable insights in a very competitive world when they are fighting against other very bright, hard-working people.

And it makes sense to load up on the very few good insights you have instead of pretending to know everything about everything at all times. **You are much more likely to do well if you start out to do something *feasible* instead of something that is not feasible.** Isn't that perfectly obvious?

How many of you have 56 brilliant insights in which you have equal confidence? Raise your hands please. How many of you have two or three insights that you have some confidence in? I rest my case.

I would say that Berkshire Hathaway's system is adapting to the nature of the investment problem as it really is.

The trick is getting into better businesses.

We have really made the money out of high quality businesses. In some cases, we just bought the whole businesses. And in some cases, we just bought a big block of stock. But when you analyzed what happened, the big money has been made in the high quality businesses.

Over the long term, it is hard for a stock to earn a much better return than the business, which underlies its earnings. If the business earns 6% on capital over 40 years and you hold it for 40 years, you are not going to make much different than a 6 percent 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 end up with one hell of a result.

Finding 'em small is a very beguiling idea...

So the trick is getting into better businesses. And that involves a lot of these advantages of scale that you could consider momentum effects.

How do you get into these great companies? One method is what I would call the method of finding them small—**get 'em when they are little**. For example, buy Wal-Mart when Sam Walton first goes public and so forth. And a lot of people try to do just that. And it is a very beguiling idea. **If I were a young man, I might actually go into it.**

We have to buy them big. And it gets harder all the time.

But it doesn't work for Berkshire Hathaway anymore because we have got too much money. We can't find anything that fits our size parameter that way. Besides, we are set in our ways. But I regard finding them small as a perfectly intelligent approach for somebody to try with discipline. It is just something that I have done.

Finding them big obviously is very hard because of the competition. So far, Berkshire's managed to do it. But can we continue to do it? What is the next Coca-Cola investment for us? Well, the answer to that is I don't know. I think it gets harder for us all the time...

Not loading up on great opportunities is a big mistake.

And ideally—we have done a lot of this—you get into a great business which also had a great manager because management matters. For example, it has made a hell of a difference to General Electric that Jack Welch came in instead of the guy who took over Westinghouse—one *hell* of a difference. So **management** matters too.

And some if it is predictable. I do not think it takes a genius to understand that Jack Welch was a more insightful person and a better manager than his own peers in other companies. Nor do I think it took tremendous genius to understand that Disney had basic momentums in place, which are very powerful and that Eisner and Wells were very unusual managers.

So you do get an occasional opportunity to get into a wonderful business that is being run by a wonderful manager. And, of course, that is hog heaven day. If you don't load up when you get those opportunities, it is a big mistake.

It is usually better to bet on the business than the manager...

Occasionally, you will find a human being who is so talented that he can do things that ordinary skilled mortals can't. I would argue that Simon Marks who was second generation in Marks and Spenser of England—was such a man. Patterson was such a man at National Cash Register. And Same Walton was such a man.

These people do come along—and in many cases, they are not that hard to identify. If you have got a reasonable hand—with the fanaticism and intelligence and so on that these people generally bring to the party—then management can matter much.

However, averaged out, betting on the quality of management. In other words, if you have to choose one, **bet on the business momentum, not the brilliance of the manager.**

But, very rarely, you find a manager who is so good that you have to follow him into what looks like a mediocre business.

MAKE A FEW GREAT INVESTMENTS AND SIT ON YOUR ASSETS

There are huge mathematical advantages to doing nothing.

Another very simple effect I very seldom see discussed is the **effect of taxes**. If you are going to buy something, which compounds for 30 years at 15% per annum and you pay one 35% tax at the very end, the way that works out is that after taxes, you keep 13.3% per annum.

In contrast, if you bought the same investment, but had to pay taxes every year of 35% out of the 15% that you earned, then your return would be 15% minus 35% of 15%—or only 9.75% per year compounded. So the difference there is over 3.5%. and what 3.5% does to the numbers over long holding periods like 30 years is truly eye opening. If you sit on your ass for long, long stretches in great companies, you can get a huge edge from nothing but the way income taxes work.

Even with a 10% per annum investment, paying a 35% tax at the end gives you 8.3% after taxes as an annual compounded result after 30 years. In contrast, if you pay 35% each year instead of at the end, your annual result goes down to 6.5%. So you add nearly 2% of after-tax return per annum if you only achieve an average return by historical standards from common stock investments in companies with low dividend payout ratios.

Tax-related motivations have led to many big boners.

But in terms of business mistakes that I've seen over a lifetime, I would say that trying to minimize taxes too much is one of the great standard causes of really dumb mistakes. I see terrible mistakes from people being overly motivated by tax considerations.

Warren and I personally do not drill oil wells. We pay our taxes. And we've done pretty well, so far. Anytime somebody offers you anything with a big commission and a 200-page prospectus, don't buy it. Occasionally, you will be wrong if you adopt "Munger's Rule". However, over a lifetime, you will be a long way ahead—and you will miss a lot of unhappy experiences that might otherwise reduce your love for your fellow man.

Make a few great investments and sit on your assets

There are huge advantages for an individual to get into a position where you make a few great investments and just sit on your ass: You are paying less to brokers. You are listening to less nonsense. And if it works, the governmental tax system gives you an extra 1, 2 or 3 percentage points per annum compounded.

And you think that most of you are going to get that much advantage by hiring investment counselors and paying them 1% to run around, incurring a lot of taxes on your behalf. Lots of luck!

Great companies' stock prices often reflect their quality.

Are there any dangers in this philosophy? Yes, Everything in life has dangers. Since it is so obvious that investing in great companies works, it gets horribly overdone from time to time. In the Nifty-Fifty days, everybody could tell which companies were the great ones. So they got up to 50, 60 and 70 times earnings. And just as IBM fell off the wave, other companies did, too. **Thus, a large investment disaster resulted from too high prices. And you have got to be aware of that danger....**

So there are risks. Nothing is automatic and easy.. But if you can find some fairly priced great company and buy it and sit, that tends to work out very, very well indeed—especially for an individual.

AND THERE'S THE ULTIMATE NO0-BRAINER—LIKE FINDING MONEY IN THE STREET.

Within the growth stock model, there is a sub-position: There are actually businesses, that you will find a few times in a lifetime, where any manager could raise the return enormously just by raising prices—and yet they have not done it. So they have huge **untapped pricing power that they are not using**. That is the ultimate no-brainer.

That existed in Disney. It is such a unique experience to take your grandchild to Disneyland. You are not doing it that often. And there are a lot of people in the country. And Disney found that it could raise those prices a lot and the attendance stayed right up.

So a lot of the great record of Eisner and Wells was utter brilliance but the rest came from just raising prices at Disneyland and Disney World and through video cassette sales of classic animated movies.

Coca-cola had it all. It was *perfect*.

At Berkshire Hathaway, Warren and I raised the prices of See's Candy a little faster than others might have. And, of course, we invested in Coca-Cola—which had some untapped pricing power. And it also had brilliant management. So a Goizueta and Keough could do much more than raise prices. It was perfect.

You will occasionally find money in the street.

You will get a few opportunities to profit from finding under pricing. There are actually people out there who don't price everything as high as the market will easily stand. And once you figure that out, it is like finding money in the street—if you have **the courage of your convictions**.

MODELS FROM BERKSHIRE HATHAWAY INVESTMENTS: COKE, GILLETTE, GEICO & THE WASHINGTON POST

Model #1: Betting on newspapers in two newspaper towns.

If you look at Berkshire's investments where a lot of the money had been made and you look for the models, you can see that we twice bought into two-newspaper towns, which have since become one-newspaper towns. So we made a bet to some extent...

The Washington Post was a rare opportunity indeed.

In one of those—The Washington Post—we bought it at about 20% of the value to a private owner. So we bought it on a Ben Graham-style basis—at one fifth of obvious value—and, in addition, we faced a situation where you had both the top hand in a game that was clearly going to end up with one winner and a management with a lot of integrity and intelligence. That one was a real dream. They are very high-class people—the Katherine Graham family. That is why it was a dream—an absolute damn dream.

Of course, that came about aback in 1973-74. And that was almost like 1932. That was probably a once-in-40-years-type denouement in the markets. That investment's up about 50 times over our cost. If I were you, I wouldn't count on getting any investment in your lifetime quite as good as the Washington Post was in '73 and '74.

But it doesn't have to be that good to take care of you.

Model #2: A low-priced item + a global marketing advantage.

Let me mention another model. Of course, Gillette and Coke make fairly low-priced items and have a tremendous marketing advantage all over the world. And in Gillette's case, they **keep surfing along on new technology**, which is fairly simple by the standards of microchips. But it is hard for competitors to do.

So they have been able to stay constantly near the edge of improvements in shaving. There are whole countries where Gillette has more than 90% of the shaving market.

Model #3: The cancer surgery formula

GEICO is a very interesting model. It is another one of the 100 or so models you ought to have in your head. I've had many friends in the **sick-business-fix-game** over a long lifetime. And they practically all use the following formula—I call it the cancer surgery formula:

They look at this mess. And they figure out if there is anything sound left that can live on its own if they cut away everything else.

Of course, if that doesn't work, they liquidate the business. But it frequently does work.

And GEICO had a perfectly magnificent business—submerged in a mess, but still working. Misled by success, GEICO had done some foolish things. **They got to thinking that, because they were making a lot of money, they know everything.** And they suffered huge losses.

All they had to do was to cut out all the folly and go back to the perfectly wonderful business that was lying there. And when you think about it, that is a very simple model. And it is repeated over and over again.

And, in GEICO's case, think about all the money we passively made... It was a **wonderful business combined with a bunch of foolishness that could easily be cut out.** And people were coming in who were temperamentally and intellectually designed so they were going to cut it out. That is a model you want to look for.

And you may find one or two or three in a long lifetime that are very good. And you may find 20 or 30 that are good enough to be quite useful.

THE INVESTMENT MANAGEMENT BUSINESS: DON'T PRACTICE PSYCHOLOGICAL DENIAL

Investment managers as a whole don't add any value...

Finally, I'd like to once again talk about investment management. That is a funny business, because on a net basis, the whole investment management business together gives no value added to all buyers combined. That is the way it had to work.

Of course, that is not true of plumbing and it isn't true of medicine. If you are going to make your careers in the investment management business, you face a very peculiar situation. And most investment managers handle it with psychological denial—just like a chiropractor. That is the standard method of handling the **limitations of the investment management process.** But if you want to live the best sort of life, I would urge each of you *not* to use the psychological denial mode.

However, it is not impossible to add value.

I think a select few—a small percentage of the investment managers—can deliver value added. But I don't think brilliance alone is enough to do it. I think that you have to have a little of **this discipline of calling your shots and loading up**—if you want to maximize your chances of becoming one who provides above average real returns for clients over the long pull.

But I'm just talking about investment managers engaged in common stock picking. I am agnostic elsewhere. I think there may well be people who are so shrewd about currencies and this, that and the other thing that they can achieve good long-term records operating on a pretty big scale in that way. But that doesn't happen to be my milieu. I'm talking about stock picking in American stocks.

I think it is hard to provide a lot of value added to the investment management client, but it is *not* impossible.

Outstanding Investor Digest

WORLDLY WISDOM REVISITED (December 29, 1997)—Excerpts from a lecture and answers to student questions thereafter during a visit last year to a Stanford Law School Course he endowed entitled, "Business: What Lawyers Should Know." The course is taught by Professor William Lazier, without whose assistance this feature would not have been possible (OID).

HOW DO YOU GET WORLDLY WISDOM? TAKE THE BEST MODELS FROM ALL DISCIPLINES

Without learning, Berkshire wouldn't be what it is today.

What I'm going to try to do today is to extend the remarks I made two years ago at the U.S.C. Business School... You were assigned a transcript of my U.S.C. talk. And there is nothing in them I said then that I wouldn't repeat today. But I want to amplify what I said then....

It is perfectly clear...that if Warren Buffett had never learned anything new after graduating from the Columbia Business School, Berkshire would be a pale shadow of its present self. **Warren would have gotten rich—because what he learned from Ben Graham at Columbia was enough to make anybody rich. But he wouldn't have the kind of enterprise Berkshire Hathaway is if he hadn't kept learning.**

What do you need? The best models from all disciplines

How do you get worldly wisdom? What system do you use to rise into the tiny percentage of the world in terms of having sort of an elementary practical wisdom?

I've long believed that a certain system—which almost any intelligent person can learn—works way better than the systems that most people use. As I said at the U.S.C business School, what you need is a **latticework of mental models** in your head. And **you hang your actual experience and your vicarious experience (that you get from reading and so forth) on this latticework of powerful models**. And, with that system, things gradually get to fit together in a way that enhances cognition.

And you need the models—not just from one or two disciplines, but also from all the important disciplines. You need the best 100 or so models from microeconomics, physiology, psychology particularly, elementary mathematics, hard science and engineering (and so on).
You need not be an expert, but you must learn 'em *right*.

You don't have to be a huge expert in any of those fields. All you have got to do is **take the really big ideas and learn them early and well**.

You can't learn those 100 big ideas you really need the way many students do—where you learn 'em well enough to bang 'em back to the professor and get your grade and then you simply empty them out as though you were emptying a bathtub so you can take in more water next time. If that is the way you learn the 100 big models you are going to need, you will be an “also ran” in the game of life.

You have to learn the models so that they become part of your ever-used repertoire.

THINK THINGS THROUGH FORWARD AND BACKWARD. IT WORKS IN ALGEBRA AND IT WORKS IN LIFE.

An incredibly useful trick: thinking things through backwards.

By the way, there is no rule that you can't add another model or two even fairly late in life. In fact, I've done that. I got most of the big ones quite early. However, once you have gotten these models in your head, what else do you need?

Well, there is one mental trick that is unbelievably useful. And that is, as you think through reality using these models, think it through forward and also think it through backward. In other words, follow the injunction of the great algebraist, Carl Jacobi, who said, “Invert”. Always invert.”

You are absolutely no good in algebra if you can't turn the problems around and solve them backwards. Indeed, if I ask any of you who plan to get married and have five children. “What are the odds that at least one of them will be a girl?”, you can all solve that immediately if you do it backwards. But if you try and do it forward, it is hell on earth. So Jacobi was plainly *right*.

What worked for Jacobi in algebra works in life.

And what worked for Jacobi in algebra works in the *rest* of life. For example, if you were hired by the World Bank to help India, it would be very helpful to determine the three best ways to increase the man-years of misery in India—and, then, turn around and avoid those ways. So think it through backward as well as forward. It is a trick that works in algebra and a trick that works in life.

If you don't, you will never really be a good thinker. That is just the way it is. When it gets complicated, it is very helpful to think it through forward and backward.

Always try to disprove your own assumptions.

And, of course, the mental habit of thinking backward forces **objectivity**—because one of the ways you think a thing through backward is you take your initial assumption and say, “**Let's try to disprove it.**”

That is not what most people do with their initial assumption. They try to confirm it. It is an automatic tendency in psychology—often called “**first-conclusion bias**.” But it is only a tendency. You can train yourself away from the tendency to a substantial degree. You just constantly take your own assumptions and try to disprove them. That is part of the winning game of thinking both forward and backward.

Darwin proved the value of a diligent, objective curiosity.

Darwin is a great model in terms of objectivity. And the reason why I especially like Darwin is that his example provides reasonable hope of **mental improvement** to a great many people. Almost everyone in this room has a higher IQ than Darwin. Yet, Darwin's body now lies right next to Newton in Westminster Abbey.

Part of his secret was **doggedness**. Part of his secret was an immense objectivity. And part of his secret, of course, was an extreme curiosity. And what a diligent, objective curiosity will do for you in this life to elevate you above your intellectual betters—is a lot. If Darwin could take modest intellectual endowments and end up next to Newton in Westminster Abbey, we can all learn something from him.

And one of the great things to learn from Darwin is the value of extreme objectivity. He tried to disconfirm his ideas as soon as he got 'em. He quickly put down in his notebook anything that disconfirmed a much-loved idea. He especially sought out such things.

Well, if you keep doing that over time, you get to be a perfectly marvelous thinker instead of one more klutz repeatedly demonstrating first-conclusion bias.

AND FORCES FROM THESE MODELS COMBINE –SOME NEGATIVELY, SOME EXPLOSIVELY.

Big forces from these models combine in more ways than one.

The next great model is the idea that especially big forces often come out of these 100 models—which several models combine... You get **lollapalooza effects when two, three or four forces are all operating in the same direction**. And, frequently, you don't get simple addition. It is often like critical mass in physics where you get a nuclear explosion if you get to a certain point of mass—and you don't get anything much worth seeing if you don't reach the mass.

Sometimes the forces just add like ordinary quantities and sometimes they combine on a break point or critical mass basis. And you have got to understand.....

It is true. Life is just one damn relatedness after another.

More commonly, the forces coming out of these 100 models are *conflicting* to some extent. And you get huge miserable trade-offs.

But if you can't think in terms of **trade-offs and recognize trade-offs** in what you are dealing with, you are a horse's *patoot*. You clearly are a danger to the rest of the people when serious thinking is being done. You have to recognize how these things combine. And you have to realize the truth of biologist of Julian Huxley's idea that, **"Life is just one damn relatedness after another."** So you must have the models and you must see the relatedness and the effects from the relatedness.

You want a lot of auto catalysts in your career and business life.

Another model that I like very much like, I've taken from E. O. Wilson. Harvard's great ant specialist biologist—and that is **autocatalysis in chemistry**. If you get a certain kind of process going in chemistry, it speeds up on its own. So you get this marvelous boost in what you are trying to do that runs on and on. Now, the laws of physics are such that it doesn't run on forever. But it runs on for a goodly while. So you get a huge boost. You accomplish A—and, all of a sudden, you are getting A+B+C for a while.

Well, you want a lot of autocatalysis in your career and your business life, etc. So you look for autocatalytic effects.

THE BEST ACADEMIC VALUES REALLY WORK AS WELCH, BUFFETT AND GRAHAM HAVE SHOWN.

Worldly Wisdom is quite academic. Witness Welch and Buffett.

Well, doesn't this sound way too academic for somebody who is coming in from the marts of trade and talking about worldly wisdom? Is practical worldly wisdom as academic as all this sounds? My answer is, "Yeah, it is." Read the annual letters from Jack Welch and Warren Buffett relating to General Electric and Berkshire Hathaway, respectively. Jack Welch has a PhD. In engineering. And Warren plainly could have gotten a PhD. in any field he wanted to pursue. And both gentlemen are inveterate teachers.

Worldly wisdom is quite academic when you get right down to it. Look at what General Electric has achieved—and, for that matter, what Berkshire Hathaway has achieved.

And don't forget Graham...

Of course, Warren had a professor/mentor—Ben Graham—for whom he had great affection. Graham was so academic that when he graduated from Columbia, three different academic departments invited him into their Ph.D. programs and asked him to start teaching immediately as part of the Ph.D. program: Those three departments being: literature, Greek and Latin classics, and mathematics.

Graham had a very academic personality. I knew him. He was a lot like Adam Smith—very preoccupied, very brilliant. He even looked like an academic. And he was a good one. And Graham, without ever really trying to maximize the gaining of wealth, died rich—even though he was always generous and spent 30 years teaching at Columbia and authored or co-authored the best textbooks in his field.

So I would argue that academia has a lot to teach about worldly wisdom and that the **best academic values really work**.

DON'T BE LIKE THE WORLD GENERALLY. INSTEAD, BE LIKE THE LITTLE RED HEN.

Be multi-disciplinary—whatever academia & business say.

Of course, when I urge a multi-disciplinary approach—that you have got to have the main models from a broad array of disciplines and you have got to use them all—I'm really asking you to **ignore jurisdictional boundaries**.

And the world isn't organized that way. It discourages the jumping of jurisdictional boundaries. Big bureaucratic business discourages it. And, of course, academia itself discourages it. All I can say there is that, in that respect, academia is horribly wrong and dysfunctional.

And some of the worst dysfunctions in businesses come from the fact that they balkanize reality into little individual departments and territoriality and turf protection and so forth. So if you want to be a good thinker, you must develop a mind that can jump the jurisdictional boundaries.

You don't have to know it all. Just take in the best, big ideas from all these disciplines. And it is not that hard to do....

I might try and demonstrate that point by using the analogy of the card game of contract bridge. Suppose you want to be good at declarer play in contract bridge. Well, you know the contract—you know what you have to achieve. And you can count up the sure winners you have by laying down your cards and your invincible trumps.

But if you are a trick or two short, how are you going to get the other needed tricks? Well, there are only six or so different standard methods: You have got long-suit establishment. You have got finesses. You have got throw in plays. You have got crossruffs. You have got squeezes. And you have got various ways misleading the defense into making errors. So it is a very limited number of models.

But if you only know one or two of those models, then you are going to be a horse's patoot in declarer play.

What works in contract bridge works in life.

Furthermore, these things interact. Therefore, you have to know how the models interact. Otherwise, you can't play the hand right.

Similarly, I've told you to think forward and backward. Well, great declarers in bridge think, "How can I take the necessary winners?" But they think it through backwards, too. They also think, "**What could you possibly go wrong that could cause me to have too many losers?**" And both methods of thinking are useful. So to win in the game of life, get the needed models into your head and think it through forward and backward. What works in bridge will work in life.

That contract bridge is so out of vogue in your generation is a tragedy. China is way smarter than we are about bridge. They are teaching bridge in grade school now. And God knows the Chinese do well enough when introduced to capitalist civilization. If we compete with a bunch of people that really know how to play bridge when our people don't, it will be just one more disadvantage we don't need.

The world isn't multi-disciplinary. But you can be.

Since our academic structure, by and large, doesn't encourage minds jumping jurisdictional boundaries, you are at a disadvantage because, in that one sense, even though academia's very useful to you, you have been mis-taught.

My solution for you is one that I got at a very early age from the nursery" the story of the Little Red Hen. The punch line, of course, is, "Then I'll do it myself, said the Little Red Hen."

So if your professors won't give you an appropriate multi-disciplinary approach—if each wants to overuse his own models and underuse the important models in other disciplines—you can correct that folly yourself. Just because he is a horse's patoot, you don't have to be one, too. You can reach out and grasp the model that better solves the overall problem. All you have to do is know it and develop the right mental habits.

And it is kind of fun to sit there and out-think people who are way smarter than you are because you have trained yourself to be **more objective and multi-disciplinary...**

Furthermore, there is a lot of money in it—as I can testify from my own personal experience.

TESTING OUT OUR MULTI-DISCIPLINARY APPROACH WITH A (MOSTLY) HYPOTHETICAL EXAMPLE....

Does this stuff really work? Let us find out...

If I am right in this multi-disciplinary approach, which exalts proper academic values, I ought to be able to come up with some exercise that demonstrates its value. So I want you to join me today in a very odd mental construct: Let us go back to 1885 in Atlanta and invent from scratch a new nonalcoholic beverage business out of which we will all get rich. What are we going to do?

Our first decision: Will our beverage be hot or cold?

Well, our first decision is whether we are going to have a cold beverage or a hot beverage. By the way, today we are allowed to use all the models that academia has developed—including those developed after 1885. That is the rule of today's game.

Well, to me, it is obvious that we go for a cold beverage. Man has had fire for many eons and hot beverages are widely available. Cold beverages are hard. There is no refrigeration in 1885. And the general theory of ice is galloping like crazy, but it is far from having become ubiquitous. Furthermore, we know enough physics to see that refrigeration is feasible and will come along in due course. We also know that physiology requires huge ingestion of preferably cold liquid when man is working hard or is hot from climatic effects. So there is a huge tailwind to be gained by creating a cold beverage that we are not going to have with a hot beverage.

So just by knowing a few simple models from physics and physiology, we can see it has to be a **cold** beverage.

FROM ECONOMICS & LAW, TRADEMARK & PROTECTION, FROM PSYCHOLOGY, CONDITIONED REFLEXES...

We will never get very rich without a trademark and a brand

How do we make a lot of money out of a new cold beverage? Out of twin doctrines from microeconomics and law, obviously it must be a trademarked beverage with its own label and trade dress.

And we have to arrange that people don't order just a generic bottle or glass of our beverage. They must order it by name—our trademarked name. We will never get very rich from this business except by using a trademark and creating a brand strong enough that people order our new beverage by its trademarked name.

That, again, is obvious based on elementary models taken from the disciplines of law and microeconomics.

If it is repeat behavior we want, we next turn to psychology...

Obviously, we must get a lot of repeat business for our beverage—repeat business that is triggered by our trademark.

Well, what model am I talking about whereby people automatically repeat the activity of buying and consuming something in response to a trademark? Well, you look in your psychology book. And, lo and behold, in the most important two segments in every psychology book, you find *conditioned reflexes*. Obviously, if someone is constantly buying a trademarked beverage, they are demonstrating a conditioned reflex—with the trademark, the shape of the bottle, the color of the liquid, etc. being the stimulus and their buying it and consuming it being the response.

In major part, your business is operant conditioning

So you read on in the psychology book looking for very elementary models. And under conditioned reflexes is operant conditioning—Skinnerism. The food value and so forth of the beverage is the reinforcer. And the trade dress, trade name and look of the beverage is the stimulant. So you have got operant conditioning—straight out of B.F. Skinner. **That, in major part, is what your business is when you try to establish a beverage sold under a trademark.**

MERE ASSOCIATION HAS ENORMOUS POWER IN BUSINESS—AT LEAST AS PROPERLY DEFINED.

“Pavlovian mere-association effects” have enormous power.

Then, you go on to the second kind of conditioned reflex—and that is straight Pavlov, except the textbooks call it “*classical conditioning*.” That is a terrible name—because it doesn't guide the mind to the full power of the idea.

So, like the Little Red Hen, I don't have to use a silly name just because the psychology professors do. So I'll invent my own name. I call what the textbooks refer to as classical conditioning “Pavlovian mere-association effects”-because mere association has enormous power. And your mind is guided to recognition of that when you use a name like “Pavlovian mere-association effects.”

Well, how do you get Pavlovian mere-association effects? Obviously, you associate this beverage and its trademarks with every other good thing that people like generally: exalting events, sex objects, happy times—you name it.

Pavlovian mere association distorts cognition.

Of course, that is what Coca-Cola's advertising campaign does. There is never a big, important, positive-image-type event in the world that Coca-Cola isn't there. They know that these Pavlovian mere-association effects increase the consumption of their beverage.

In fact, it actually improves the drinker's experience. The human mind, under principles of psychology, works in such a manner that advertising actually makes you enjoy Coke more when you are drinking it. It doesn't just induce you to try it. It actually improves its effects. In effect, cognition is distorted by Pavlovian mere-association effects.

And, therefore, we are going to make this beverage a maximized reinforcer. And we are going to develop a very clever trade name and trade dress in order to maximize **Pavlovian mere-association effects**.

Business school professors haven't quite got it yet.

If you ask the average business school professor, “What is the business of the Coca-Cola Company?” he won't give you the right answer. But the right answer was given to me once by Don Keough—the very eminent, recently retired president of Coca-Cola. And what Keough said was, “**The business of the Coca-Cola Company is to create and maintain conditioned reflexes.**”

So Keough and Munger have the same idea exactly. And, by the way, we are right. As for the business school professors who talk in a different language—well, maybe they should change.

BY COMBINING AND REINFORCING ELEMENTS, WE CAN ACHIEVE LOLLAPALOOZA EFFECTS.

Next, we want as powerful a reinforcing effect as we can get.

In designing our new beverage, we are mindful of combinatorial effects. And we are mindful of autocatalysis and so forth. Once we get this thing going, we want it to run. We want as powerful a reinforcing effect as we can possible get. So we together think out what we are going to do to this beverage to make it a powerful reinforcer. And what do we do? We put in food value. The reason rates, pigeons and so forth are trained in operant conditioning with food is that food is nearly an automatic reinforcer. So we're going to include some caloric value in our drink.

And why stop with food value? We can include a stimulant.

Another reinforcing trick is a **stimulant**—for instance, caffeine. Why should we hold back? We want fancy combinatorial effects. And once we realize that we get extra-powerful effects—what I call lollapalooza effects—from combining a bunch of things to work in the same direction, we are not going to stop with food value. We are going to have food value plus a stimulant: caffeine. It is obvious. Both plainly work. So there is no reason not to combine them. We want the double effect. It is bet4ter reinforcement.

And we care about the totality of the experience. So flavor.

Flavor is a very important reinforcer. And, here again, we know enough physiology and biology to know that people are genetically programmed to like sweet flavors. So it is going to be some kind of sweet flavor.

Aroma and texture are also very much part of the experience. And, therefore, we are going to care about the totality of the essential experience which people have as they consume our new beverage.

You win big by getting tow or three forces working together.

We will put sugar in because it is a stimulant, too. By making our caloric content sugar, we get food value plus two kinds of stimulants. ...Again, I'm trying to get lollapalooza effects by combining. It is perfectly obvious. This is the way you win big in the world—**by getting two or three forces working together in the same direction.**

NEXT, THINKING BACKWARD, WHAT DON'T WE WANT? AFTERTASTE, COPYCATS, NEGATIVE ASSOCIATIONS.

What don't we want? People discouraged from drinking it.

But, as I said, you have to think things through forward and backward. So, next, we will think it through backward. It is dangerous just to think forward. That way, you will miss important points. Let me demonstrate:

What don't we want in our new drink? Well, again, we know enough elementary physiology to know that animals are genetically programmed to reject surfeits of certain flavors. It is not good for animals just to gorge and gorge and gorge on some things. So there are automatic turnoff mechanisms in human physiology.

And we want people to just keep swilling our new drink—time after time with no surfeit mechanism discouraging additional consumption. If you try and drink six cream sodas in a row on a hot day, you will chock to death on the aftertaste. It will be a ghastly experience.

So just by thinking backward, we get a huge and useful bit of wisdom. We don't want any aftertaste. We want people to be able to swill this stuff all day long in hot climates—in cold climates, too, for that matter. We don't want them discouraged by their own physiological response to an aftertaste.

So we want to experiment around and get a flavor with virtually no aftertaste. And, incidentally, that is exactly what Coca-Cola has—except they were not smart enough to do it my way on purpose when they started out. They just stumbled onto the right answer.

And we don't the huge cost of shipping water.

What else don't we want? Well, again, just using elementary **engineering and mathematics**, we know that we don't want to ship a lot of water and extra weight and volume of containers all over the world. Obviously, that would cost us a fortune. Therefore, basically, what we are going to sell is **syrap**.

What else don't we want? We don't want it easily copied.

Also, we are trying to add additional lollapalooza effects. So what else can we do? Well, it happens that carbonation increases the overall sensual experience—in terms of flavor and so forth...Besides, we like making it a little more difficult for competitors to copy. We want it to be reasonably complicated because we want to achieve a big edge that others can't easily copy. Therefore, we carbonate our drink.

So far, so good...

So after we have experimented, we are going to use caffeine and sugar as stimulants, have a marvelous flavor with virtually no aftertaste, carbonate our beverage and make it cold. All of this takes care of providing reinforcement to maximize the creation of a conditioned reflex based on operant conditioning.

And we know that we don't want it to look cheap.

The next problem is to maximize the obtaining of a conditioned reflex grounded in Pavlovian mere-association effects. But when we finally solve the earlier problems, our liquid is clear—like 7-Up. But if we think in terms of Pavlovian mere-association effects, we realize that our liquid looks cheap and ordinary—like water. And we don't want that. We want it to look expensive and exotic. So we stick in burnt caramel and whatever color the natural flavor of the drink to something vaguely like wine.

We think Pavlovian mere-association effects will be way stronger if our product doesn't look cheap and ordinary. So we stick in this artificial color. And, now, we pretty well have our beverage.

Pavlovian mere-association effects suggest we make it look expensive, exotic and unusual. So we invent in a name. And, somehow, we come up with Coca-Cola. We have an exotic script. We make the bottles shaped in a slightly unusual way—and the glasses, too, for that matter. And now we have got trade dress.

So now we are prepared to go out into the world with our new beverage.

MERE-ASSOCIATION EFFECTS DICTATE LOOK AND FEEL—A SECRET FORMULA, HEAVY ADVERTISING, ETC.

We can't copyright the flavor. So we will do the next best thing.

And, obviously, **we want protection**. We know enough microeconomics to know that anything that works will get competition... we think forward and backwards. And thinking backwards, we know that we need antidotes to competition.

Well, you can't copyright or trademark a flavor. So we do the next best thing. We are going to keep the formula secret.

Flavors can be quite tricky to duplicate—even today.

And this is way back in 1885. They don't have mass spectrometers. It is hard to duplicate flavors.

One of my favorite business stories comes from Hershey. They get their flavor because they make their cocoa butter in old stone grinders that they started with in the 1800s in Pennsylvania. And a little bit of the husk of the cocoa bean winds up in the chocolate. Therefore, they get that odd flavor that people like in Hershey's chocolate.

Hershey knew enough when they wanted to expand into Canada to know that shouldn't change their winning flavor. Therefore, they copied their stone grinders... Well it took them five years to duplicate their own flavor. As you can see, flavors can get quite tricky.

Flavors are so tricky that permanent royalties are paid.

Even today, there is a company called International Flavors and Fragrances. It is the only company I know that does something on which you can't get a copyright or a patent, buy which nevertheless receives a permanent royalty. They manage to do that by helping companies develop flavors and aromas in their trademarked products—like shaving cream. The slight aroma of shaving cream is very important to consumption. So all of this stuff is terribly important.

At any rate, we are going to keep our formula secret. We will make a big hoopla over our secrecy. And that will add to our product's mystique—which will further enhance its mere-association effects.

Mere-association effects dictate heavy advertising and free signs.

And since we want to play this Pavlovian mere-association game in all of our advertising, we know a heavy percentage of revenues will have to go into advertising.

And we know we have to give free signs to everybody who sells our product because (A) it advertises the product; (B) there is an informational advantage (it tells people where they can get the product if they want it); and (C) we don't have to pay for the space; all we have to do is pay for the sign. So we are going to give free signs to all the drug stores, etc.

GETTING THERE FIRST OFFERS HUGE ADVANTAGES: E.G., SOCIAL PROOF, ECONOMIES, DISTRIBUTION, ETC.

If we sweep the country fast, we can harness social proof.

And we get the idea early that we are going to distribute our product. So we think through autocatalysis again. And we realize that if we can sweep the country fast with our product, we harness another doctrine right out of the psychology books: **social proof**. If you see everybody else drinking Coca-Cola, you are likely to drink it. People are enormously influenced by what they see other people doing. Indeed, they are enormously influenced by what they see other people doing. Indeed, they are enormously influenced to miscalculate because they see other people miscalculating in the same way....

There are just HUGE advantages to getting there first.

Also, we get a big informational advantage if we can buy all kinds of advertising, sweep the country first and cheaply spread our image over the countrywide sales while competitors suffer under poorer advertising economics. So there are huge advantages to getting there first.

Competitive factors dictate being ubiquitous, too.

Also, think through **operant conditioning**—again, going into a reverse mode. How do you lose a conditioned reflex that is working for you? Well, the customer tries something else and discovers that it is a big reinforcer. So he shifts brands.

We know, in matrimony, that if you are always available, the spouse is less likely to shift brands.

And people don't tend to organize marriage to include permanent long separations. Similarly, if you are selling a product and it is always available, people are less likely to shift to some other product and get reinforced by it.

So availability has to be a religion in our new business. And, indeed, availability is a religion at Coca-Cola. And, again, it ties right into the psychology books.

It helps distribution as a matter of logistics and so on, too. But it *protects* the *conditioned reflex* business by preventing the other guy's product from getting reinforced because yours is always available.

LIKE COCA-COLA, WE'LL FRANCHISE—BUT WE WON'T MAKE THEIR MISTAKES.

The fastest way to sweep the country is to franchise.

All right, now we have Coca-Cola. We have our distribution in mind. We then have to decide how we are going to sweep that country fast. Now we get into relatedness—tradeoffs. The fastest way to do it is to franchise. After all, we are poor and small when we start. And that is the way that coca-cola did it.

We won't count on there never again being inflation.

But we have the advantage in today's exercise of playing the game in 1885, but knowing what we know today—of having modern knowledge. And, therefore, very importantly, we won't do what the Coca-Cola Company was so mistaken to do as it started out—which was to give bottling franchises in perpetuity at fixed prices for syrup. That was insane.

Well, it just so happened that 1885 was right in the middle of a long period of stable-to-declining prices in the English-speaking world—a very remarkable period. However, the Coke people failed to think rationally about what they were doing.

If they'd assimilated a broad, general education, they'd have remembered that the price of wheat in drachmas during the decline of the Roman Empire rose by 50,000% and that the failure rate of all great civilizations is 100%—and they wouldn't have assumed there was never going to be any inflation.

Again, if you have an appropriate education, you can avoid some mistakes that other people make. Of course, the Coke people should have made a different decision under which they could make bottlers pay for advertising that the whole system, including the bottlers, needed.... And, clearly, you won't guarantee a fixed price for syrup with its expensive ingredients, including sugar. And ever-fixed syrup price can ruin you—under inflationary conditions or under conditions requiring more advertising.

And we'll model our distribution more like McDonald's.

And, clearly, we want more control over our franchisees than Coca-Cola originally got. We want to do it more like McDonald's did way later.

Well, you get the general idea. These academic ideas are enormously practical. And thinking things through forward and backward has enormous utility. And my life and career tend to demonstrate, you have many defects, as I do—and this way of thinking will carry you through.

OUR BRAINS ARE MORE SUITED FOR MOTION THAN MATH. FORTUNATELY, THERE IS A REMEDY—THE GRAPH.

There is a reason based in biology why graphs work so well.

Now let's return to another subject. Suppose that we have a different problem—only this time in real time. This time, it is 1996. And we want to predict the future of the Coca-Cola Company. Will elementary models help us make a good prediction?

I have distributed to the class a Value Line graph demonstrating the Coca-Cola Company's recent history and financial results. I was willing to do that without paying a royalty to the Value Line Company because I'm going to tout its product. The Value Line graphs, as short-form digests of reality, company by company, are the best of their kind that America produces. The Value Line people have a sensationally good idea—to put the data in exactly the form they put it in and to put it in graph form.

And there is a reason rooted in biology why **graphs work so well**. If you turn a somersault or juggle milk bottles, your neural apparatus is doing automatic differential equations with huge accuracy. Yet, if you try and think out numbers in ordinary probabilities, you are a considerable klutz.

Our brains are more suited to motion than math

My friend, Dr. Nat Myhrvold, who is the chief technology officer at Microsoft, is bothered by this. He's a PhD physicist and knows a lot of math. And it disturbs him that biology could create a neural apparatus that could do automatic differential equations at fast speed—and, **yet, everywhere he looks, people are total klutzes at dealing with ordinary probabilities and ordinary numbers.**

By the way, I think Myhrvold's wrong to be amazed by that. The so-called fitness landscape of our ancestors forced them to know how to throw spears, run around, turn corners and what have you long before they had to think correctly like Myhrvold. So I don't think he should be so surprised. However, the difference is so extreme that I can understand how he finds it incongruous.

A system that actually taps into our primitive neural network.

At any rate, mankind invented a system to cope with the fact that we are so intrinsically lousy at manipulating numbers. It is called the graph. Oddly enough, it came out of the Middle Ages. And it is the only intellectual invention of the monks during the Middle Ages I know of that is worth a damn. The graph puts numbers in a form that looks like motion. So it is using some of this primitive neural stuff in your system in a way that helps you understand it. So the Value Line graphs are very useful.

Value Line graphs and data are just marvelously useful.

The graph I've distributed is on log paper—which is based on the elementary mathematics of compound interest—which is one of the most important models there is on earth. So there is a reason why that graph is in that form.

And if you draw a straight line through data points on a graph on log paper, it will tell you the rate at which compound interest is working for you. So these graphs are marvelously useful.

I don't use their predictions because our system works better for us than theirs—in fact, a lot better. But I can't imagine not having their graphs and their data. It is a marvelous, marvelous product.

AND IF YOU ARE TRYING TO LOOK FORWARD, BIG, SIMPLE MODELS CAN HELP THERE, TOO.

Will it continue? The answer lies in our models.

So we are trying to figure out if Coca-Cola Company can continue its utterly remarkable performance. Here is a company that earns way more than 50% per annum on book value after taxes. And it is growing like crazy.

How are we going to figure out if it is going to continue? It doesn't help to sit there and mumble its past numbers to yourself mindlessly. What you have to do is reach into your head for two or three of the big, simple models.

We now know that it is a conditioned reflex company that relies on trademarks. What are the chances that they can continue doing it?

Will they continue having legal protection internationally?

Obviously, the first thing we have to decide is whether they are going to continue having legal protection for their trademarks. Otherwise, we shouldn't buy Coca-Cola.

Well, that involves knowing enough microeconomics, knowing enough law and knowing enough about the history of the international arena, (because Coke makes over 80% of its profit outside of North America), so that you can make a guess as to whether trademarks are going to continue to be pretty well respected all over the world.

Trademarks create huge incentives to make products reliable.

Well, we know that in counterfeiting, in most of the long history of the world, the ordinary remedy has been death—because everybody can see that a money exchange system won't work if people can counterfeit the currency.

And it is only a small step from that to realize that if you are talking about a food product—and, after all, it can make you sick, it can kill you, it can do a lot of things—if you protect the trademark, you create this huge incentive in people to make the product reliable.

A fish story (one that got away) about the power of trademarks.

I might tell a little story to illustrate that point. Carnation didn't have the total trademark on the name "Carnation" when it started out. And as it got bigger and bigger, it kept buying up all the little Carnation trademarks that other people had on their products.

But there was this one guy who sold Carnation Fish. So help me, God, that was his trade name, Don't ask me why. And every time they'd say, "We'll pay you \$250,000," he'd say, "I want \$400,000." And, then, four years later, they'd say, "We'll give you \$1 million," and he'd say, "I want \$2 million." And they just kept doing that all the way through. And they never did buy the trademark—at least, they hadn't bought it the last time I looked.

In the end, Carnation came to him sheep-facedly and said, "We'd like to put our quality control inspectors into your fish plants to make sure that your fish are perfect; and we will pay all the costs,"—which he quickly and smirkingly allowed. So he got free quality control in his fish plants—courtesy of the Carnation Company.

So they should be protected, have been and probably will be.

This history shows the enormous incentive you create if you give a guy a trademark (he can protect). And this incentive is very useful to the wider civilization... As you see, Carnation got so that it was protecting products that it didn't even own.

That sort of outcome is very, very desirable (for society). So there are some very fundamental microeconomic reasons why even communist countries should protect trademarks. They don't all do it, but there are very powerful reasons why they should. And, by and large, averaged out around the world, trademark protection has been pretty good.

So I think we can bet reasonably that Coca-Cola will enjoy pretty good trademark protection in the future. But we have to be able to make a judgment on that subject before we know enough to buy stock in the Coca-Cola Company. So that is one judgment.

OUR MODELS SUGGEST LOTS OF UPSIDE POTENTIAL AND POWERFUL COMPETITIVE ADVANTAGES.

Quantity of liquid consumed is finite, but it is also huge.

Next, we have to figure out how big this market could be. Well, that isn't so hard. We just need ordinary physiology and ordinary arithmetic.

Every human being needs about 64 ounces of liquid every day to stay alive. We have about 6 billion people on Earth. So we just multiply the product of these numbers by the number of days in the year...And, obviously, we are not going to get more beverage sold per year than that. But that is a hell of a lot of beverage.

Coke has room to grow its worldwide volume many-fold.

And, then, we can figure out roughly what share of the world's liquid is currently ingested in the form of Coca-Cola Company products. It is an awesome number—particularly in the U.S.

But per capita consumption of Coca-Cola products worldwide averages out much lower than it is in the U.S. And much of the World's population lives in markets where average consumption is still less than 10 8-ounce servings per year. So Coca-Cola still has miles to go. Clearly, they have room to multiply their current volume many-fold.

Add an extra 1-2 cents of profit per serving is not inconceivable.

What else could impact the profits of the Coca-Cola Company? Well, we've got to figure out how much they are making out of each serving of Coca-Cola. And I haven't done that computation recently. But my guess is that it is something within hailing distance of 1 cent per serving. That is all that is sticking to the ribs of the Coca-Cola Company pre-tax.

Could it go to 2 cents—or even 3 cents. That doesn't seem inconceivable for a company so dominant, does it?

So there is no reason Coke's profits couldn't grow 16 times.

Then, of course, there is the possibility of a little inflation. After all, they are selling syrup. You could hardly imagine a better-protected position versus inflation.

And when you put all three of these factors together (—higher consumption, higher profits per serving and inflation—) it isn't hard at all for me to imagine the profits of the Coca-Cola Company in due course being 16 times what they are today—even though they are already making more than \$3 billion a year after-tax.

Now that may strike you as very extreme. But if you go through the arithmetic, it is not inconceivable. So, at least, something good could happen. It may take a long time. But what the hell, you people have a long time. I wish I did.

They have competed successfully for years—for good reasons.

We want to estimate the chances that competition will do in Coca-Cola. Remember—think it through forward and think it through in reverse.

Well, they have been competing for a long time. And look how they are winning. Coca-Cola has certain advantages: They can afford to sponsor the Olympics. They can afford lots of things. They have the advantages of scale.

And they are available all over the Earth. That is an edge that others don't have. And in recent years, their market share has actually been going up a little, net—in spite of the fact that they have so much already.

You can quarrel with my conclusion, but not the approach.

So, going through these simple models, you get at least a rational way to look at Coke's future. You may disagree with me when I say something as extreme as I've just said. But I don't think you can quarrel with my basic approach. It is a rational way to examine the outer limit of possibility on the upside. And, as you can see, it is quite high.

You don't have to sit there just twiddling your thumbs....

However, you don't have the basic mental models for dealing with the models, then all you can do is sit there twiddling your thumbs as you look at the Value Line Graph. But you don't have to twiddle your thumbs. You have just got to learn 100 models and a few mental tricks and keep doing it all of your life. It is just not that hard.

And the beauty of it is that most people won't do it—partly because they have been miseducated. And I'm here trying to help you avoid some of the perils, which might otherwise result from that miseducation.

End.

OID March 13, 1998

WESCO FINANCIAL'S CHARLIE MUNGER WORLDLY WISDOM REVISITED: LESSON #2, PART 2 "MASTER THE BEST THAT OTHERS HAVE FIGURED OUT NO ONE'S SMART ENOUGH TO DREAM IT UP HIMSELF."

This lecture was given to Stanford Law School. The lecture was called, "Business: What Lawyers Should Know."

ONE OF THE MOST EXTREME DISTORTIONS—BEWARE THE IDEOLOGICAL MISFUNCTIONS.

The most important missing models may be from psychology.

OK. We've been through some of the general ideas in the search for worldly wisdom. And now I want to turn to something even more extreme and peculiar than the talk I've already given you. Of all the models that people ought to have in useful form and don't, perhaps the most important lie in the area of **psychology**.

A junior professor disputes the greatest semanticist ever....

I recently had an instructive experience: I just returned from Hong Kong. I have a pal there who is the headmaster of one of the leading schools. He gave me this book called *The Language Instinct* written by Steven Pinker. Well, Pinker is a semanticist professor who rose in the shadow of Noam Chomsky—linguistics Institute Professor at M.I.T.—who is probably the greatest semanticist who ever lived....

And Pinker says that human language ability is not just learned—it is deeply buried. To a considerable extent, in the genome. It is not in the genome of the other animals, including the chimpanzee, to any really useful extent. It is a gift that came to humans. And Pinker proves his point pretty well.

Of course, Chomsky's already proven it. You have to be pretty ignorant not to realize that a good deal of language ability is right there in the human genome. And even though you have to work like hell to improve it through education, you start with a big leg up in your genes.

And the junior professor is clearly right.

Pinker can't understand why Chomsky—who, again, is such a genius—takes the position that the jury is still out about why this ability is in the human genome. Pinker, in effect, says: "Like hell the jury is still out! The language instinct got into humans in exactly the same way that everything else got there—through Darwinian natural selection."

Well the junior professor is clearly right—and Chomsky's hesitation is a little *daft*.

What's blinded Chomsky is quite clear—it is ideological bias.

But if the junior professor and I are right, how has a genius like Chomsky made an obvious misjudgment? The answer is quite clear to me—Chomsky is passionately ideological. He is an extreme egalitarian leftist who happens to be a genius. And he is so smart that he realizes that if he concedes this particular Darwinian point, the implications threaten his leftist ideology. So he naturally has his conclusion affected by his ideological bias.

I think that this is the way the human mind works—and the process doesn't exempt people merely because they are smart and work hard.

Heavy ideology is one of the most extreme distorters...

And that gets into another lesson in worldly wisdom: If **ideology** can screw up the head of a Chomsky, imagine what it does to people like you and me.

Heavy ideology is one of the most extreme distorters of human cognition. Look at these Islamic Fundamentalists who just gunned down a bunch of Greek tourists shouting, “God’s work!”

Ideology does some strange things and distorts cognition terribly. If you get a lot of heavy ideology young—and, then, you start expressing it—you are really locking your brain into a very unfortunate pattern. And you are going to distort your general cognition.

Warren Buffett decided early on that ideology was dangerous.

There is a very interesting history if you take Warren Buffett as an example of worldly wisdom: Warren adored his father—who was a wonderful man. But he was a very heavy ideologue, (right wing, it happened to be), who hung around with other very heavy ideologues, (right wing, naturally).

Warren observed this as a kid. And he decided that ideology was dangerous—and that he was going to stay a long way from it. And he has throughout his whole life. That has enormously helped the accuracy of his cognition.

And I was lucky ideology-wise to have a good role model.

I learned the same lesson in a different way. My father hated ideology. Therefore, all I had to do was imitate my father and, thereby, stay in what I regarded as the right path. People like Dornan on the right or Nader on the left have obviously gone a little daft. They are extreme examples of what ideology will do to you—particularly violently expressed ideology. Since it pounds ideas in better than it convinces out, it is a very dangerous thing to do.

Therefore, in a system of multiple models across multiple disciplines, I should add as an extra rule that you should be very wary of heavy ideology.

Being 100% sure on hard issues makes you a lousy thinker.

You can have heavy ideology in favor of accuracy, diligence, and objectivity. But a heavy ideology that makes you *absolutely sure* that the minimum wage should be raised or that it shouldn’t—and it is kind of a holy construct where you know you are right—makes you a bit nuts.

This is a very complicated system. **And life is one damn relatedness after another.** It is all right to think that, on balance, you suspect that civilization is better if it lowers the minimum wage or raises it. Either position is OK. But being totally *sure* on issues like that with a strong violent ideology, in my opinion, turns you into a lousy thinker. So beware of ideology-based mental malfunctions.

THREE VERY POWERFUL FORCES FROM PSYCHOLOGY—BUT DON’T LOOK TO THE TEXTS OR THE PROFESSORS.

Don’t ask the barber if you need a haircut.

Another source of malfunction that comes directly out of psychology is what I call **incentive-caused bias**: A doctor decides that some procedure that is good for him is also good for you. Or a lawyer decides that some case that is good for him to litigate is good for you—when it is really not.

People at a subconscious level are so influenced by this incentive-caused bias that it is one of the principal things that you will have to deal with all your life. So, obviously, this is a very powerful psychological idea. But don’t look to the psychology texts. They are *daft*.

And, yet, it is not effectively dealt with in the psychology texts. You will not find an adequate account of incentive based bias—what it does to human cognition and how it screws up human institutions—in any psychology book that I have read. Admittedly, I have only read three. However, they just don’t have it right.

Another reason that I mentioned Pinker, the semanticist who wrote the book that I told you about earlier, is that at the end of his book, he says (roughly), “I’ve read the psychology textbooks. And they’re daft.” He says, “This whole subject is misorganized and misthought.”

Well, I have far less in the way of qualifications than Pinker. In fact, I’ve never taken a single course in psychology. However, I’ve come to exactly the same conclusion—that the **psychology texts, while they are wonderful in part, are also significantly daft.**

You won’t even find an adequate treatment of simple denial.

In fact, just take simple psychological denial. A couple of centuries before the birth of Christ, Demosthenes said, “What a mans *wishes*, that also will he *believe*.” Well, Demosthenes was right.

I have a family acquaintance whose much-loved son—who was brilliant and a star football player—flew off an aircraft carrier and never came back. Well, his mother thought he was still alive. **The mind will sometimes flip so that the wish becomes the belief.** It will do so at various levels. Individuals vary in how much psychological denial they get. But mis-cognition from denial overwhelmingly pervaded the reality that you are going to have to deal with. And, yet, you won’t find an adequate treatment of simple psychological denial in psychology texts.

A lot has been discovered but one has put it all together.

So you can’t learn psychology the way your professors teach it. You have got to learn a lot more that they don’t teach—because they don’t handle their own subject correctly.

Psychology to me, as currently organized, is like electromagnetism after Faraday, but before Maxwell—a lot has been discovered, but no one mind has put it all together in proper form. And it should be done because it wouldn’t be that hard to do—and it is *enormously* important.

Psychology without envy, denial or incentive-caused bias?!

Just open a psychology text, turn to the index and look up envy. Well, envy made it into one or two or three of the *Ten Commandments*. Moses knew all about envy. The old Jews when they were herding sheep knew all about envy. It is just that psychology professors don’t know about envy.

Books that thick are teaching a psychology course without envy?! And with no simple psychological denial?! And no incentive-caused bias?!

HOW CAN SMART PEOPLE BE SO DUMB? NO CHECKLIST. AND WITHOUT ONE, YOU WILL SCREW UP TIME AFTER TIME.

Even the most publicized experiment isn’t very well understood.

And psychological texts don’t deal adequately with combinations of factors. I told you earlier to be aware of the lollapalooza effect when two or three or more forces are operating in the same direction.

Well, the single most publicized psychology experiment ever done is the Milgram experiment—where they asked people to apply what they had every reason to believe was heavy electrical torture on innocent fellow human beings. And they manipulate most of these decent volunteers into *doing* the torture.

Milgram performed the experiment right after Hitler had gotten a bunch of believing Lutherans, Catholics and so forth to perform unholy acts they should have known were wrong. He was trying to find out how much authority could be used to manipulate high-grade people into doing things that were clearly and grossly wrong.

And he got a very dramatic effect. He managed to get high-grade people to do many awful things.

But it wasn’t just authority. It was a lollapalooza effect....

But, for years it was in the psychology books as a demonstration of authority—how authority could be used to persuade people to do awful things.

Of course, that is mere first-conclusion bias. That is not the complete and correct explanation. Authority is part of it. However, there were also quite a few other psychological principles, all operating in the same direction, which achieved that lollapalooza effect precisely because they acted in combination toward the same end.

How can they be so stupid? They don’t use a model checklist.

People have gradually figured that out. And if you read the recent psychology texts at a place like Stanford, you will see that they’ve now managed to get it about two-thirds right. However, here is the main experiment in all of psychology. And even at Stanford, they still leave out some of the important causes of Milgram’s results.

How can smart people be so wrong? Well, the answer is that they don’t do what I’m telling you to do—which is to take all the main models from psychology and use them as a *checklist* in reviewing outcomes in complex systems.

No pilot takes off without going through his checklist: A,B,C,D....And no bridge player who needs two extra tricks plays a hand without going down his checklist and figuring out how to do it.

But these psychology professors think they are so smart that they don’t need a checklist. But they are not that smart. Almost nobody is. Or, maybe, nobody is.

And without a checklist, you will screw up time after time, too.

If they use the checklist, they would realize the Milgram experiment harnesses six psychological principles, at least, not three. All they'd have to do is go down the checklist to see the ones they misses.

Similarly, without this system of getting the main models and using them together in a multi-modular way, you will screw up time after time after time, too.

YOU BETTER NOT DISREGARD LOLLAPALOOZA EFFECTS BECAUSE THEY CAN MAKE YOU RICH OR KILL YOU.

Because you can't demonstrate it doesn't justify ignoring it.

One-reason psychology professors so screw up denial is that it is hard to do demonstrative experiments without conduct forbidden by ethics. To demonstrate how misery creates mental dysfunction in people, think of what you have to do to your fellow human beings. And you have to do it without telling them about the injury to come. So, clearly, there are ethical reasons why it is practically impossible to do the experiments necessary to best lay out the ways human misery creates human mental malfunction.

Most professors solve this problem, in effect, by assuming, "If I can't demonstrate it with my experiments, then it doesn't exist." However, obviously, that is asinine. If something is very important, but can't be perfectly and precisely demonstrated because of ethical constraints, you can't just treat it like it doesn't exist. You have to do the best you can with it—with such evidence as is available.

Animal research is unpopular, but consider Pavlov's data.

Pavlov himself spent the last 10 years of his life torturing dogs. And he published. Thus, we have a vast amount of data about misery-caused mental malfunction in dogs—and its correction. Yet, it is in no introductory psychology book that you will ever see.

I don't know whether they don't like the fact that Pavlov tortured dogs or whether B.F. Skinner, by over claiming when he lapsed into his literary mode, made the drawing of implications from animal behavior into human behavior unpopular. However, for some crazy reason or other, the psychology books are grossly inadequate in dealing with misery-caused mental malfunction.

You can't afford to miss lollapalooza effects-good or bad.

You may say, "What difference does all this psychological ignorance make?" Well, if I'm right, you need these models that are blanked out by this ignorance. And, furthermore, you need them in a form whereby, if there are 20 constructs, you have all 20. In other words, you shouldn't be operating with 10. And you need to use them as a checklist. So you have to go back and put it in your own head what I'd call the psychology of misjudgment is a form whereby you have all of the important models and you can use them.

And you especially need them when four or five forces from these models come together to operate in the same direction. In such cases, you often get lollapalooza effects—which can make you rich or they can kill you. So it is essential that you beware of lollapalooza effects.

There is only one right way to do it" You have to get the main doctrines together and use them as a checklist. And, to repeat for emphasis, you have to pay special attention to combinatorial effects that create lollapalooza consequences.

BUSINESS SCHOOLS HAVE ADDRESSED IT SOME. LAW SCHOOLS SHOULD, TOO. MEANWHILE....

Business schools had the sense to address the problem.

Since the psychology professor refuses to put it own subject in the proper order, my own idea has been that law schools simply ought to do it for them.

And, in fact, business schools have done some of that. Almost no business school reaches out for a psychologist from the undergraduate department. Instead, they change all the psychological terms. They invent new terms such as "organizational behavior". And they have the sense to fix some of the deficiencies of undergraduate psychology and teach it to business school students who need it. But they don't have the sense to do the whole job.

Properly taught, it'd be the most interesting thing you study.

Law schools could do the whole thing. I think the subject is so *important* that it ought to be the first thing that happens when you come to law school. I don't think it would take a week for people as smart as you to romp through psychology properly, learn the main ideas and how they intertwine. And the problems would be so interesting that it might be the single most interesting thing that ever happens to you at law school. And the rest of law school would become more interesting too.

You are deficient. But you can fix it—just as I did...

But, of course, as far as I know, it isn't done. To me, it is perfectly asinine. How many of you are satisfied with what you know about **psychology and the practical utility of what you have in your heads in terms of dealing with what you have to deal with? How many of you think you have a good repertoire? (No Response).**

How many of you feel quite deficient? (Many respond.) Well, you are right. But you can fix it. Once I realized how ignorant I was. I just bought three undergraduate psychology texts and waded right through. I just stuck everything that was obviously right and important into my little list of principles. And the three or four important things that I could see that they were leaving out, I just stuck in as additions to my system of models.

Doing it that way, you develop a complete system. And using such a complete system is the way that you should go through life if worldly wisdom is what you are after. Remember the **Little Red Hen** and do it yourself.

KNOWING HOW YOUR MIND CAN BE BROKEN, YOU CAN TRULY TRAIN YOURSELF TO BEWARE.

Moonies have learned how to create lollapalooza effects.

Let me give you an example I gave in a previous talk at Cal Tech about how these lollapalooza effects in psychology creep in. Let's take Moonie conversions. How do you take a normal kid who is just a little miserable, take him off for a weekend in the country and turn him into a brainwashed zombie who, for the rest of his life, sells flowers on the street corner? Is that a lollapalooza effect? Yeah, it is obvious. It is a total lollapalooza.

How does it happen? You would think the introductory psychology books would tell you. But they don't.

What worked for Pavlov works for the Moonies.

But I will tell you how. Pavlov's dogs broke down at a certain point. He could break down any dog. He never failed. **And like Pavlov's dog, the human mind has a break point**, which varies from person to person. Therefore, the Moonies just apply all of this pressure and get a high percentage of people's minds to "snap"—which is the exact name they use in their "conversion" game. The mind "snaps". And it does. It breaks. So Pavlov broke dogs' minds, whereas the Moonies break people's minds.

Again, breaking people's minds is a lollapalooza effect. The Moonies achieve it by combining psychological tendencies to act in the same direction. There are about 20 standard tricks that can be used to trigger lousy cognition of that type. And the Moonies have figured out how to play four, five, six, seven. Or eight of them at the same time. For example, they use social proof: everyone present except the "conversion" target is an ardent believer. They use stress. Stress. **Stress makes people suggestible.** That is another psychological principle. They do four, five or six things at once—and the "conversion" process works to create a "snap" in a sadly high fraction of cases.

But you are not totally doomed by it. You can protect yourself.

Everyone should know the principles involved in Moonie tactics and their **special power in combination**. Universities should know and disseminate this knowledge as a matter of high moral obligation. They should hate losing students to "religious" totalize in cults. Just imagine having to call some loving parents to tell them, "You've lost your child to the Moonies." That is a disgrace at any institution.

But one beauty of psychology that we should consider as we emphasize these horrors is that you are not totally doomed by your natural psychological tendencies. You can correct those psychological deficiencies to some extent. Ben Franklin did it. And Darwin did it. He trained himself out of first conclusion bias—which is an automatic tendency of the human mind. Once you understand elementary psychology well, you can train yourself to beware confluences of psychological tendencies. So tendency is not destiny.

CAPTAIN COOK KNEW ELEMENTARY PSYCHOLOGY YOU SHOULD, TOO—FOR PROTECTION AND PERSUASION.

And you can use these psychological tendencies to persuade.

You can also learn when you are playing the **game of persuasion**—for a reputable reason (I hope)—to combine these forces in a way that makes you more effective.

Let me give you an example of that—of wise psychology of yore. In Captain Cook's day, he took these long voyages. At the time, *scurvy* was the dread of the long voyage. And in scurvy, your living gums putrefy in your mouth—after which the disease gets unpleasant and kills you.

And being on a primitive sailing ship with a bunch of dying sailors is a very awkward business. So everybody was terribly interested in scurvy, but they didn't know about Vitamin C. Well, Captain Cook, being a smart man with a multiple model kind of approach, noticed that Dutch ships had less scurvy than English ships on long voyages. So he said, "What are the Dutch doing that is different?"

And he noticed they had all these barrels of sauerkraut. So he thought: "I'm going on these long voyages. And it is very dangerous. Sauerkraut may help." So he laid in all this sauerkraut which, incidentally, happens to contain a trace of vitamin C.

You can lead a sailor to sauerkraut, but you can't make him.

But English sailors were a tough, cranky and dangerous bunch in that day. They hated “krauts”. And they were used to their standard food and booze. So how do you get such English sailors to eat sauerkraut?

Well, Cook didn't want to tell'em that he was doing in the hope it would prevent scurvy—because they might mutiny and take over the ship if they thought that he was taking them on a voyage so long that scurvy was likely.

But Cook knew elementary psychology. And you should, too.

So here is what he did: Officers ate one place where the men could observe them. And for a long time he served sauerkraut to the officers, but not to the men. And, then, finally, Captain Cook said, “Well, the men can have it one day a week.”

In due course, he had the whole crew eating sauerkraut. I regard that as a very constructive use of elementary psychology. It may have saved God knows how many lives and caused God knows how much achievement. However, if you don't know the right techniques, you can't use them.

If you don't, your education has been gravely deficient.

So the psychology is very important. And it has constructive, honorable uses, like that of Captain Cook, and destructive, dishonorable uses, like the Moonies or the charlatan who uses it to sell swampland to retired teachers. So people should know how these things work.

But I'll bet that not one person in this room could describe the eight standard psychological techniques used by the Moonies to induce conversion. Who thinks he can? (no response) See? I say that your education has been gravely deficient.

And it is not so hard to correct. You can learn what you need.

And it is not difficult. There are only about 20 or so psychological principles on a satisfactory checklist. And as you deal with a patch of reality, you run through your checklist and see if any principle explains anything. You are not going to find it very hard.

So I recommend that you treat your educational deficiencies as a serious problem and fix them. And, in the course of doing that, you will learn the psychology you need.

WORLDLY WISDOM IS ACTUALLY VERY ELEMENTARY, BUT THE REWARDS ARE ABSOLUTELY AWESOME.

Psychology's worked wonders for Coke and Tupperware.

As I demonstrated, I think psychology has worked *wonders* for Coca-Cola. And just think of all the harmless pleasure that their products have provided—to say nothing of the \$3+ billion per year after taxes.

And Tupperware's made a huge and profitable business. Tupperware?! Little plastic containers—sold with no fancy selling quarters, but, instead, in people's homes at Tupperware parties?! What in hell is going on here?

The Procter & Gamble Rule is elementary worldly wisdom.

There are two very good lessons in the case of Tupperware: Lesson #1 is what I call the “Procter & Gamble Rule”. Procter & Gamble has an internal rule that they don't allow their product development people to come in and say, “Procter & Gamble, you have all of this marketing muscle. Therefore, you should use it to sell this so-so product.”

What Procter & Gamble says to its product development people is, “First, you make the product truly superior. Then, and only then, will we put our marketing muscle behind it.”

That is a very good rule. You want lollapalooza effects, which often come best from a combination of factors operating in the same direction. It is foolish to use just good, clever marketing when good clever marketing plus a superior product works so much better. It is obvious. So Procter & Gamble does that.

When I took you through the Coca-Cola example, I was following the Procter and Gamble Rule: First, make the product better, Get all the aftertaste. Add all the bells and whistles. Then, and only then, apply the muscle distributing it.

The Moonies have nothing on Tupperware.

Tupperware is a very good product. Even so, it wouldn't have sold worth a damn except for the fact that they invented a selling system with considerable similarity to that of the Moonies—except, of course, that Tupperware does little damage in the world. The Tupperware system uses about six psychological tricks, right out of the standard repertoire of 20 that they play at the same time at the “Tupperware parties”.

And, lo and behold, Tupperware has earned pretax billions—from a combination of elementary psychology and the Procter & Gamble Rule.

It's actually very simple—and the rewards are awesome.

Again, the Procter & Gamble Rule's automatic. You want lollapalooza effects? Incorporate clever marketing plus a good product. Don't try to do either one alone.

Worldly wisdom is mostly very, very simple. And what I'm urging on you is not that hard to if you have the will to plow through and do it. And the rewards are awesome—absolutely awesome.

But maybe you are not that interested in awesome rewards or avoiding a lot of misery or being more able to serve everything you love in life. And, if that is your attitude, then don't pay attention to what I've been trying to tell you—because you are already on the right track....

THE SINGLE BEST WAY TO DESTROY YOUR CIVILIZATION: JUST CREATE SYSTEMS THAT ARE EASY TO CHEAT...

If you make it easy to steal, you're working a great injury.

It can't be emphasized too much that the **issues of morality** are deeply entwined with worldly wisdom considerations involving psychology. For example, take the issue of stealing. A very significant fraction of the people in the world will steal if (A) it is very easy to do and, (B) there is practically no chance of being caught.

And once they start stealing, the consistency principle—which is a big part of human psychology—will soon combine with operant conditioning to make stealing habitual. So if you run a business where it is easy to steal because of your methods, you are working a great moral injury on the people who work for you.

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

It's dangerous to ignore these principles & let slop creep in.

Then, if somebody does it, now you've got at least two psychological principles: **incentive-caused bias plus social proof.** Not only that, but you have got *Serpico* effects: If *enough* people are profiting in a general social climate of doing wrong, then they will turn on you and become dangerous *enemies* if you try and blow the whistle. It is very dangerous to ignore these principles and let slop creep in. Powerful psychological forces are at work for evil.

To ruin civilization, create systems people can easily cheat.

How does this relate to the law of business? Well, people graduate from places like Stamford Law School and go into the legislatures of our nation and with the best of motives pass laws, which are easily used by people to cheat. Well, there could hardly be worse thing you could do.

Let's say you have a desire to do public service. As a natural part of your planning, you think in reverse and ask, "What can I do to ruin our civilization?" That's easy. If what you want to do is ruin your civilization, just go to the legislature and pass laws that create systems wherein people can easily cheat. It will work perfectly.

Take the workers' compensation system in California. Stress is real. And its misery can be real. So you want to compensate people for their stress in the workplace. It seems like a noble thing to do.

But the trouble with such a compensation practice is that it is practically impossible to delete huge cheating. And once you reward cheating, you get crooked lawyers, crooked doctors, crooked unions, etc. participating in referral schemes. You get a total miasma of disastrous behavior. And the behavior makes all the people doing it *worse* as they do it. So you were trying to help your civilization. But what you did was create enormous *damage*, net.

So it's much better to let some things go uncompensated—to **let life be hard**—that to create systems that are easy to cheat.

You must stop the slop early. Letting it run leads to tragedy.

Let me give you an example: I have a friend who made an industrial product at a plant in Texas not far from the border. He was in a low margin, tough business. He got massive fraud in the workers' compensation system—to the point that his premiums reached 32% of payroll. And it was not that dangerous to produce his product. It is not like he was a demolition contractor or something...

So he pleaded with the Union, "You've got to stop this. There is not enough money in making this product to cover all of this fraud."

But, by then, everybody does it. It can't be that wrong. Eminent lawyers, eminent doctors, eminent chiropractors—if there are any such things—are cheating."

And no one could tell them, “You can’t do that anymore.” Incidentally, that’s Pavlovian mere association, too. **When people get bad news, they hate the messenger.** Therefore, it was very hard for the union representative to tell all of these people that the easy money is about to stop. That is not the way to advance as a union representative. Anyway, the human tragedy was that they *couldn’t* stop.

So my friend closed his plant and moved the work to Utah among a community of believing Mormons. Well, the Mormons were not into workers’ compensation fraud—at least they aren’t in my friend’s plant. And guess what his workers’ compensation expense is today? It is 2% of payroll—down from 32%.

This sort of tragedy is caused by letting the slop run. You must stop slop early. It is very hard to stop slop and moral failure if you let it run for a while

YOU COULD HARDLY IMAGINE A MORE POWERFUL FORCE. AND, YET, IT ISN’T EVEN IN THE PSYCHOLOGY BOOKS.

A very interesting psychology experiment—in Las Vegas...

Let me explain one of the reasons why it is hard to stop previously rewarded slop. And here’s another example of something that is not handled very well in the psychology books. It is demonstrated by one of the most interesting recent experiments in psychology. It was done not by professors, but by commercial types in Las Vegas. The old mechanical slot machine had a certain natural number of near misses. And it could only have so many—because that was how it was constructed. But once they made it electronic, they could program it to include as few or as many near misses as they wanted—in other words, bar, bar, almost bar, but something else.

One company had the dominant share of slot machines. But another company built electronic slot machines with an artificially enhance number of near misses. And whenever they put one of their machines besides another machine that was exactly the same in every way except that it wasn’t programmed for so many near misses would get about 20% more play over the course of a day—and people were pulling extra fast.

Too many near misses would sulky Nevada’s reputations...

Well, this was an extremely manipulative thing to do. But that is human nature in capitalism. **People will manipulate their fellow man to make money if they can get by with it.**

But what happened was quite interesting. The company with the dominant share sued under Nevada laws that say you have to be honest in gambling. You see, Nevada tolerates prostitution, but they don’t like pimps and whores rolling the Johns because it is bad for the state’s reputation. Likewise, they don’t mind manipulating people to their disadvantage using standard practices of legal gambling, but they hate “cheating” gambling. So the company with the leading market share in slot machines now go to the third World? It is what you would *expect*...

A very powerful phenomenon, but it is not even in the books.

What psychological principle is demonstrated by the fact, that play is so much higher on the machine with the artificial number of near misses?

If you turn to the psychology textbooks, you won’t find the answer very well laid out. You can hardly imagine a more powerful phenomenon than contemporary gambling. Moreover, gambling history is very instructive. One reason why horse races, bingo and these things have always been so popular is because of all the **near misses**. Obviously, a very powerful psychological force is at work here. But it is not properly dealt with in the psychology books.

There is a way higher reaction to loss than gain.

What is the force? I’ve invented my own name for it. I will call it “deprival super-reaction syndrome”. And it happens (A) when a thing you like is taken away from you and (B) when you almost have something you like and “lose” it. Either way, the result is a powerful, subconscious, automatic deprival super-reaction syndrome that distorts your cognition.

And it is very interesting. In static electricity, it is so many units—coulombs in that case—plus or minus, from a same-size event. The forces are the same in amount, only reverse in direction.

In psychology, it doesn’t work that way. In many ways, people react to a minus five-unit force way more negatively than they react positively to a force of five unit plus, enhancing irrational attempts to “get even.” And that is very important to know. **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.**

Deprival super-reaction syndrome in business and history.

Does all this miscognition caused by operation of elementary psychological principles have practical consequences? You bet it does. Try to get takeaways in labor negotiations. (A) You’re facing deprival super-reaction syndrome—people just go bananas. And (B) the union representative has to bring his members the deprival message and endure the Pavlovian mere-association hatred that results. Therefore, he won’t do it—psychological effects making it hell.

All of those strikes in the late 1800s and the early 1900s where Pinkerton guards were shooting people were about takeaways. Arriving immigrants were willing to work cheap. And capitalist proprietors tried to reduce wages—sometimes because they felt that they had to because their competitors were doing it and sometimes because they simply wanted to make more money.

At any rate, all of that murder and mayhem was the result of deprivation super-reaction syndrome plus the reality that nobody wanted to be the carrier of bad news. So deprivation super-reaction syndrome is a very powerful force with enormous practical consequences.

Moreover, deprivation super-reaction syndrome helps cause what I call the *Serpico Syndrome*. In life, messy as it is, these psychological tendencies interact in ways, which are often quite predictable.

Gambling's a huge force in society, but not in psychology texts.

Therefore, it is hard to understand why the psychology texts so underemphasize gambling... Look at the present civilization—with Indian tribal casinos and all of the illegal betting on sports.... Clearly, we have a huge mass of gambling driven by powerful psychological forces.

However, if you look under gambling in a 1,000-page psychology text, you will occasionally find a sentence or two pointing out that B.F. Skinner's conditioned-reflex extinction curves partly explain how gambling hooks you. And, by the way, they do. But that is only a small part of it.

So to understand gambling, you have to do it yourself...

Part of how gambling hooks you is that you get behind and want to catch up. Deprivation super-reaction syndrome sends a surge of irrationality through your mind. And that is a big part of what hooks and destroys people...

So gambling can be explained by two or three psychological doctrines in combination. But it is easy to reduce this type of miscognition if you work at it. Unfortunately, the people who teach psychology in America seem to feel no obligation to put them together and teach it right. Therefore, you have got to do it yourself...

IF BRILLIANT FOLKS AT COKE CAN MAKE A HUGE BONER, SO CAN YOU, BUT YOU DON'T HAVE TO.

The "New Coke" snafu....

Could you describe what psychological forces went into the decision to change the Coke formula and where the big psychological breakdown was there?

Oh, that is a wonderful question.... Coke had consultants and lawyers and experts—including advertising experts who were much trained in psychology. Plus, the gentlemen running Coke—Keogh and Goizueta—were both brilliant. And so were their junior executives. They'd spent their entire lives thinking about the soft drink business and building up Pavlovian mere-association effects—which were powerfully aiding their business.

But they learned that, by a slight but mildly significant margin, people preferred the taste of Pepsi in blind taste test results, they decided to change Coke's flavor. And it was such a big change that they couldn't just sneak it in. Therefore, they decided that they'd have to announce the change—which, of course, they announced as an improvement.

It was a ghastly error—caused by ignorance.

But, by that time, of course, Coke had already spent umpteen-billion dollars to make people associate its long-established flavor with everything good in life. All it had was a trademarked flavor with stimulation and food value—the power of which had been dramatically enhanced by Coke's past use of psychology. Now Coke was going to tell the public that the flavor was going to change and that the change was an improvement?!

Of course, the "New Coke" decision was totally asinine. I just taught you about deprivation super reaction syndrome and how it is such a basic powerful force—not so much in the psychology textbooks, but in psychology as it really is. Coke was sure to get, a huge hostile reaction.

So it was a ghastly error. But I will say this—they reversed course and scrambled back quickly. If they hadn't, Coke's competitors would have brought out the "Old Coke" flavor under their own trademarks. So that error almost led to the biggest single mishap in the history of business—all as a result of ignorance about elementary psychology.

Brilliant people mad that blunder, but you don't have to.

It demonstrates that universities provide gravely deficient psychological education. If it weren't so, the brilliant, well-trained people at Coke could not have made such an error. And one of the reasons I'm here giving this talk is I figure that if people as brilliant as the folks at Coke were so miseducated that they couldn't apply an ordinary lesson from psychology to something as important as what they were doing with the most valuable trademark in the world, then I suspect that some of you might benefit from a little of this instruction.

If all those smart people—ad experts, lawyers, Goizueta and Keogh (who, again, are both brilliant)—can make very important mistakes like that, then so can you. But you don't have to. **All you have to do is open up the psychology texts, assimilate**

about 16 little doctrines into your repertoire, add the four or five that the books don't contain or explain well and add better recognition of how these things combine. And boom---you've got an edge on the rest of humanity. It'll help you in business. It will help you in law. It will help you in life. It will help you in love. It will help you in *everything*.

But that was a marvelous question about Coke. The "New Coke" story, properly explained, ought hereafter to be in every introductory psychology text, forever.

But there are limits to the use of these techniques....

Of course, as I said before, there is one big consideration that needs huge and special attention as part of any use of techniques deliberately harnessing elementary psychological forces: And that is that once you know how to do it, there are real moral limits regarding how much you should do it. Not all of what you know how to do should you use it to manipulate people.

Also, if you are willing to transcend the moral limits and the person you are trying to manipulate realizes what you are doing because he also understands this psychology, he will hate you. There is wonderfully persuasive evidence of this effect taken from labor relations—some in Israel. So not only are there moral objections, but there are also practical objections—big ones in some cases.....

WE'VE SUCCEEDED BY MAKING THE WORLD EASY—NOT BY SOLVING HARD PROBLEMS.

About 98% of the time, we agree with Jack Welch....

STUDENT: How do you incorporate psychology in your investment decisions? I think it would be more than just picking products that will appeal to everybody like coke. After all, there are a lot of smart people out there who obviously think just the way that you showed us today. So are you looking for failure in the thinking of other investors as you go about picking successful companies?

MUNGER: What makes investment hard, as I said at U.S.C., is that it is easy to see that some companies have better businesses than others. **But the price of the stock goes up so high that, all of a sudden, the question of which *stock* is the best to buy gets quite difficult.**

We've never eliminated the difficulty of that problem. And 98% of the time, our attitude toward the market is (that) we're *agnostics*. We don't know. Is GM valued properly vis-à-vis Ford? We don't know.

We've succeeded by making the world *easy*.

We're always looking for something where we think **we have an insight, which gives us a big statistical advantage.** And sometimes it comes from psychology, but often it comes from something else. And we only find a few—maybe one or two a year. We have no system for having automatic good judgment on all investment decisions that can be made. Ours is a totally different system.

We just look for a no-brainer decisions. As Buffett and I say over and over again, we don't leap over seven-foot fences. Instead, we look for one-foot fences with big rewards on the other side. So we've succeeded by making the world easy for ourselves, not by solving hard problems.

We only find a few that meet our criteria. But that's enough.

Student: Based on statistical analysis and insight?

MUNGER: Well, certainly when we do make a decision, we think that we have the insight advantage. And it is true that some of the insight is statistical in nature. However, again, we find only a few of those.

It doesn't help us merely for favorable odds to exist. They have to be in place where we can recognize them. So it takes a **mispiced opportunity that we are smart enough to recognize.** And that combination doesn't occur often.

But it doesn't have to. If you wait for the big opportunity and have the courage and vigor to grasp it firmly when it arrives, how many do you need? For example, take the top 10 business investments Berkshire Hathaway's ever made. We would be very rich if we'd never done anything else—in two lifetimes.

So, once again, we don't have any system for giving you perfect investment judgment on all subjects at all times. That would be ridiculous. **I'm just trying to give you a method you can use to sift reality to obtain an occasional opportunity for rational reaction.**

If you take that method into something as competitive as common stock picking, you're competing with many brilliant people. So, even with our method, we only get a few opportunities. Fortunately that happens to be enough.

WE HAVE A SPECIAL LACK OF APPETITE IN HIGH TECH. WHY SHOULD WE PLAY WHETRE WE'RE DISADVANTAGED.

Openmindedness is not just a virtue. It's a necessity.

Student: Have you been successful in creating an atmosphere where people below you can do the same things you're talking about doing yourself? For example, you have talked about the tendency towards commitment and consistency....

MUNGER: ...Mostly about the terrible *mistakes* it causes you to make.

Student: ...How have you created an atmosphere comfortable enough for people to abandon that tendency and admit they have made a mistake?

For example, someone earlier this year from Intel talked about problems that occurred with their Pentium chip. One of the most difficult things for them to do was to realize that they have been going about it the wrong way and turn course. And it is very difficult to do that in a complex structure.

How do you foster that?

MUNGER: Intel and its ilk create a coherent culture where teams solve difficult problems on the cutting edge of science. That is radically different from Berkshire Hathaway. Berkshire is a holding company.. We've decentralized all the power except for natural headquarters-type capital allocation.

By and large, we've chosen people we admire enormously to have the power beneath us. It is easy for us to get along with them on average because we love and admire them. And they create the culture for whatever invention and reality recognition is going on in their businesses. And included in that reality recognition is the recognition that previous conclusions were incorrect.

But we're a totally different kind of company. It is not at all clear to me that Warren or I would be that good at doing what Andy Grove does. We don't have special competence in that field. We are fairly good at relating to brilliant people we love. But we have defects. For example, some regard me as absentminded and opinionated. I might be a mess at Intel.

However, both Warren and I are very good at changing our prior conclusions. We work at developing that facility because without it, disaster often comes.

Why not high tech? We have a special lack of aptitude there.

Student: Would you talk a little bit about your seeming predilection away from investing in high technology stocks—on your own part and the part of Berkshire Hathaway. One of the things I found eye opening and a little surprising is how the difficulties of running a low-tech business aren't all that different.

Munger: They're all hard. But why should it be easy to get rich? In a competitive world, shouldn't it be impossible for there to be an easy way for everybody to get rich? Of course, they are all hard.

The reason we are not in high-tech businesses is that we have a special lack of aptitude in that area. And, yes—a low-tech business can be plenty hard. Just try to open a restaurant and make it succeed.

Why play to our weaknesses instead of our strengths?

Student: You seem to be suggesting that there is a special aptitude required in high-tech business—that they're harder. But aren't they equally difficult?

Munger: The advantage of low-tech stuff for us is that we think we understand it fairly well. The other stuff we don't. And we'd rather deal with what we understand.

Why should we want to play a competitive game in a field where we have no advantage—maybe a disadvantage—instead of playing in a field where we have a clear advantage?

Each of you will have to figure out where your talents lie. And you will have to use your advantages. But if you try to **succeed in what you are worst at, you are going to have a very lousy career.** I can almost guarantee it. To do otherwise, you'd have to buy a winning lottery ticket or get very lucky somewhere else.

THERE'S NO WAY TO AVOID LOTS OF MISTAKES. BUT YOU HAVE TO LEARN HOW TO HANDLE THEM.

USAir wasn't a bet on the common, but it was a mistake.

Student: Warren Buffett has said that the investment Berkshire mad in an airline was a good example of what not to do. What chain of thinking led to that wrong decision?

Munger: We were not buying stock in USAir on the theory that the common shareholders were certain to prosper—because the history of the airline business in terms of taking care of shareholders has been terrible. It was a preferred stock with a mandatory redemption. In effect, we were loaning money to USAir and we had this equity kicker.

We weren't guessing whether it would be a great place for the shareholders. We were guessing whether it would be a great place for the shareholders. We were guessing whether it would remain prosperous enough to pay off a credit instrument—carrying a fixed dividend and a mandatory redemption. And we guessed that the business would not get so bad that we'd have a credit threat for

which we were not being adequately compensated by the high rate we were getting. As it happened. USAir went right to the brink of going broke. It was hanging by a thread for several months.

It's since come back. And we'll probably get all our money plus the whole coupon. But it was a mistake.

There is no way you can avoid making many mistakes

Munger: I don't want you to think we have any way of learning or behaving so you won't make a lot of mistakes. **I'm just saying that you can learn to make fewer mistakes than other people—and how to fix your mistakes faster when you do make them. But there is now way that you can live an adequate life without making many mistakes.**

One of the tricks in life is to get so you can handle mistakes.

Munger: In fact, one trick in life is to get so **you can handle mistakes Failure to handle psychological denial is a common way for people to go broke:** You have made an enormous commitment to something. You have poured effort and money in. And the more you put in, the more that the whole consistency principle makes you think, "Now it has to work. If I put in just a little more, then it will work."

And deprivation super-reaction syndrome also comes in: You're are going to lose the whole thing if you don't put in a little more. People go broke that way—because they can't stop, rethink and say, "I can afford to write this one off and live to fight again. I don't have to pursue this thing as an obsession—in a way that will break me."

Part of what you must learn is how to handle mistakes and new facts that change the odds. Life, in part, is like a poker game, wherein you have to learn to quit sometimes when holding a much-loved hand.

A MARVELOUS MODEL: YOU JUST SIT THERE WHILE THE WORLD CARRIES YOU FORWARD BY THE BILLION.

Like Coke, Disney just got this enormous tailwind.

Student: Could you talk about the thoughts that went into your decision to swap your Capital Cities stock for Disney rather than taking cash. In the media, it was reported that you mentioned thinking about taking the cash.

Munger: Disney's a perfectly marvelous company, but it is also very high-priced. Part of what it does is to make ordinary movies—which is not a business that attracts me at all. However, part of what Disney has is better than a great gold mine. My grandchildren—I mean, those videocassettes....

Disney is an amazing example of autocatalysis.. They had all those movies in the can. They owned the copyright. And just as Coke could prosper when refrigeration came, when the videocassette was invented, Disney didn't have to invent anything or do anything except take the thing out of the can and stick it on the cassette. And every parent and grandparent wanted his descendents to sit around and watch that stuff at home on videocassette. So Disney got this enormous tailwind from life. And it was billions of dollars worth of tailwind.

Obviously, that's a *marvelous* model if you can find it. You don't have to invent anything. All you have to do is to sit there while the world carries you forward.....

Disney's been brilliant about creating the new stuff, too.

MUNGER: Disney's done a lot of new things right. Don't misunderstand me. But a lot of what happened to Disney was like what a friend of mine said about an ignorant fraternity brother of his who succeeded in life. "He was a duck sitting on a pond. And they raised the level of the pond."

Eisner and Wells were brilliant in how they ran Disney. But the huge tailwind from videocassette sales on all of the old stuff that was there when they came in, that was just an automatic break for the new management.

To be fair, they have been brilliant about creating new stuff—like *Pocahontas* and *The Lion King*—

To catch the same tailwind. But by the time it is done, *The Lion King* alone is going to do plural billions. And, by the way, when I say "when it's done", I mean 50 years from now or something. But plural billions—from one movie?

THE MANLY ART OF WAGERING IS ONE THING. PROFESSIONAL GAMBLING IS QUITE ANOTHER.

Why investment over law? I just did what came naturally.

STUDENT: Could you talk about why you left the law?

MUNGER: I had a huge family. Nancy and I supported eight children... And I didn't realize that the law was going to get as prosperous as it suddenly got. The big money came into law shortly after I left it. By 1962, I mostly out. And I was totally out by 1965. So that was a long time ago.

Also, I preferred making the decisions and gambling my own money. I usually thought I knew better than the client anyway. So why should I have to do it his way? So, partly, it was a desire to get resources permitting independence.

Also, the bulk of my clients were terrific. But there were one or two I didn't enjoy. Plus, I like the independence of a capitalist. And I'd always had a sort of a gambling personality. I like figuring things out and making bets. So I simply did what came naturally.

Why would I ever want to wager against house odds?

Student: Do you ever gamble Las Vegas style?

MUNGER: I won't bet \$100 against house odds between now and the grave. I don't *do* that. Why *should* I? I will gamble recreationally with my pals. And I'll occasionally play a much better bridge player, like Bob Hamman, who might be the best card player in the world. But I know I'm paying for the fun of playing with him. That's recreational.

As of gambling with simple mechanical house odds against me, why in the world would I ever want to do that—particularly given how I detest the manipulative culture of legalized gambling. And I'm not comfortable in Las Vegas, even though it does now include a higher percentage of wholesome family recreation. I don't like to be with many of the types who hang around card parlors and so forth. So I don't like legalized gambling.

On the other hand, I do like the manly art of wagering, so to speak. And I like light social gambling among friends. But I don't like the professional gambling milieu.

Money management has been a gold mine, only not for us...

STUDENT: Could you say something about how the mutual fund and money management business has changed since you got into it—and the growth of the capital markets?

MUNGER: Actually, I didn't really get *into* it. I had a little private partnership for 14 years—up until a little over 20 years ago. However, I never had enough money from other people to amount to a hill of beans—at least by current investment-management standards. So I've never really been part of the mutual fund business.

But the money management business has been one of the great growth businesses in the recent history of the United States. It's created many affluent professionals and multi-millionaires. It's been a perfect gold mine for people who got in early. The growth of pension funds, the value of American corporations, and the world's wealth have created a fabulous profession for many and carried lots of them up to affluence.

And we deal with them in a variety of ways. However, we haven't been part of it for many years. We've basically invested our own money for a long, long time.

Student: do you expect this bull-run to continue?

MUNGER: Well, I'd be amazed if the capitalized value of all American business weren't considerably higher 25 years from now. And if people continue to trade with one another and shuffle these pieces of paper around, then money management may be a marvelous business for the managers. But except for what might be called our own money, we're really not in it.

WARREN AND I ARE IN UNCHARTERED TERRITORY. AND I'M NOT SURE THAT WE'LL DO IT RIGHT.

Adapt your strategy to your nature and talents. I did.

Student: I was interested in the evolution of your investment strategy from when you first began—using the Ben Graham model—to the Berkshire Hathaway model would you recommend that model to a beginning investor—i.e., dumping most of it or all of it into one opportunity we think is a great one and leaving it there for decades? Or is that strategy really for a more mature investor?

MUNGER: Each person has to play the game given his own marginal utility considerations and in a way that takes into account his own psychology. If losses are going to make you miserable—and some losses are inevitable—you might be wise to utilize a very conservative pattern of investment and saving all your life. So you have to adapt your strategy to your own nature and your own talents. **I don't think there's a one-size-fits-all investment strategy that I can give you.**

Mine works fine for *me*. But, in part, that's because I'm good at taking losses. I can take them psychologically. And, besides, I have very few. The combination works *fine*.

Warren and I have never done this before. We're learning.

Student: You and Buffett have said that Berkshire's stock is overvalued and you wouldn't recommend buying it.

MUNGER: We didn't say (we thought it was overvalued). We just said that wouldn't buy it or recommend that our friends buy it at the prices then prevailing. But that just related to Berkshire's intrinsic value as it was at that time.

Student: If I had the money, I would buy it—because you have been saying that your returns will go down for 20 years.....

MUNGER: Well, I hope that your optimism is justified. But I do not change my opinion. After all, today, we're in unchartered *territory*—with high valuations and a huge amount of capital. We've never done it before. So we're *learning*.

A continuation of hog heaven-level returns is impossible.

Student: Everything you and Buffett say seems logical. But it sounds like exactly the same language that Ben Graham was using 30 years ago when he was saying the stock market was overvalued-when it was at 900.

MUNGER: Oh, I don't think that we share that with him. Graham, great, great though he was as a man, had a screw loose as he tried to predict outcomes for the stock market as a whole. In contrast, Warren and I are almost always agnostic about the market.

On the other hand, we *have* said that common stocks generally have generated returns of 10-11% after inflation for many years and that those returns can't continue for a very long period. And they *can't*. It is simply impossible. The wealth of the world will compound at no such rate. Whatever experience Stanford has had in its portfolio for the last 15 years, its future experience is virtually certain to be worse. It may still be OK. But it's been a hog heaven period for investors over the last 15 years. Bonanza effects of such scale can't last forever.

That our returns will slow isn't an opinion. It is a promise.

Student: Berkshire's annual report got a lot of press for being pessimistic and for expressing concern about the shrinking pool of opportunities as the company gets bigger and bigger? Where does that leave you 10 years from now?

MUNGER: We've said over and over that our future rate of compounding our shareholders' wealth is going to go down compared to our past—and that our size will be an anchor dragging on performance. And we've said over and over again that this is not an *opinion* but a *promise*.

However, Let's suppose that we were able to compound our present book value at 15% per annum from this point. That would not be so bad and would out OK for our long-term shareholder. I'm not just saying that we could afford to slow down some, as we surely will, and still do OK for the long-term shareholder....

By the way, I'm not promising that we will compound our present book value at 15% per annum.

WHAT COULD POSSIBLY BE MORE VALUABLE IN LIFE THAN KNOWING WHAT YOU KNOW AND WHAT YOU DON'T.

You can't make sure you're right. That is the point.

STUDENT: You have talked about how important it was not to have an extreme ideology. What responsibility, if any, do you think the business and legal communities have for helping inner city areas, spreading the wealth and so on?

MUNGER: I'm all for fixing social problems. I'm all for being generous to the less fortunate. And I'm all for being generous to the less fortunate. And I'm all for doing things where, based on, a slight preponderance of the evidence, you guess that it's likely to do more good than harm....

What I'm *against* is being very confident and feeling that you know, for sure, that your particular intervention will do more good than harm given that you're dealing with highly complex systems wherein everything is interacting with everything else.

Student: So what you are saying just make sure that what your doing is doing more good...

MUNGER: You can't make sure. That's my point...

What could be more than knowing what you know.?

MUNGER: On the other hand, I did recently reverse the conclusions of two sets of engineers. How did I have enough confidence in such a complicated field to do that? Well, you might think, "Oh, this guy is just an egomaniac who's made some money and thinks he knows everything."

Well, I may be an egomaniac, but I don't think I know everything. But I saw huge reasons in the circumstances for bias in each set of engineers as each recommended a course of action very advantageous to itself. And what each was saying was so consonant with a natural bias that it made me distrust it. Also, perhaps I knew enough engineering to know that what they were saying didn't make sense.

Finally, I found a third engineer who recommended a solution I approved. And, thereafter, the second engineer came to me and said, "Charlie, why didn't I think of that?"—which is to his credit. It was a much better *solution*, both safer and cheaper.

You must have the confidence to override people with more credentials than you whose cognition is impaired by incentive-caused bias or some similar psychological force that is obviously present. But there are also cases where you have to recognize that you have no wisdom to *add*—that your best course is to trust some expert....

In effect, you have got to know what you know and what you don't know. What could possibly be more useful in life than that?

When you don't know, don't be afraid so say so....

STUDENT: You've discussed Coke's mistake. Do you have any thoughts about where Apple went wrong?

MUNGER: Let me give you a very good answer—one I'm copying from Jack Welch, the CEO of General Electric. He has a Ph.D. in Engineering. He is a star businessman. He is a marvelous guy. And recently, in Warren's presence, someone asked him, "Jack, what did Apple do wrong?"

His answer? "I don't have any special competence that would enable me to answer that question." And I'll give you the same answer. That is not a field in which I'm capable of giving you any special insight.

On the other hand, in copying Jack Welch, I am trying to teach you something. When you don't know and you don't have any special competence, don't be afraid to say so.

Nobody expects you to know everything...

MUNGER: There's another type of person I compare to an example from biology: When a bee finds nectar, it comes back and does a little dance that tells the rest of the hive, as a matter of genetic programming, which direction to go and how far. So about 40 or 50 years ago, some clever scientist stuck the nectar straight up. Well, the nectar's never straight up in the ordinary life of a bee. The nectar's out. So the bee finds the nectar and returns to the hive. But it doesn't have the genetic programming to do a dance that says straight up. So what does it do?

Well, if it were like Jack Welch, it would just sit there. But what it actually does is to dance this incoherent dance that gums things up. And a lot of people are like that bee. They attempt to answer a question like that. And that is a huge mistake. Nobody expects you to know everything about everything.

I try to get rid of people who always confidently answer questions about which they don't have any real knowledge. To me, they're like the bee dancing its incoherent dance. They are just screwing up the hive.

A GREAT LESSON MY FATHER TAUGHT ME EARLY THAT I'VE HELD THROUGH ALL THESE DECADES.

There are perverse incentives at work in law firms...

Student: As someone who's been in legal practice and business, how did you incorporate, or did you incorporate, these models into your legal practice? And how did it work? I suspect many of us have seen law firms that don't appear to adhere to these kinds of models.

Munger: Well, the models are there. But just as there are perverse incentives in academia, there are perverse incentives in law firms. In fact, in some respects, at the law firms, it is much *worse*.

The Grant McFayden model....

Munger: Here's another model from law practice: When I was very young, my father practiced law. One of his best friends, Grant McFayden—Omaha's Pioneer Ford dealer—was a client. He was a perfectly marvelous man—a self-made Irishman who'd run away uneducated from a farm as a youth because his father beat him. So he made his own way in the world. And he was a brilliant man of enormous charm and integrity—just a wonderful man.

In contrast, my father had another client who was a blowhard, overreaching, unfair, pompous, difficult man. And I must have been 14 years old or thereabouts when I asked, "Dad, why do you do so much work for Mr. X—this blowhard instead of working more for wonderful men like Grant McFayden?"

My father said, "Grant McFayden treats his employees right, his customers right and his problems right. And if he gets involved with a psychotic, he quickly walks over to where the psychotic is and works out an exit as fast as he can. Therefore, Grant McFayden doesn't have enough remunerative law business to keep you in Coca-Cola. But Mr. X is a walking minefield of wonderful legal business."

What drove me from practicing law...

Munger: This case demonstrates one of the troubles with practicing law. To a considerable extent, **you're going to be dealing with grossly defective people.** They create an enormous amount of the remunerative law business. And even when your own client is a paragon of virtue, you will often be dealing with gross deficiencies on the other side or even on the bench. That is partly what drove me out of the profession.

The rest was my own greed, but my success in serving greed partly allowed me to make easier the process of being honorable and sensible. Like Ben Franklin observed, “It’s hard for an empty sack to stand upright.”

You can work for defectives, but live like Grant McFayden.

Munger: I’d argue that my father’s model when I asked him about the two clients was totally correct deduction. He taught me the right lesson. The lesson? As you go through life, you may sell your services once in awhile to an unreasonable blowhard if that is what you must do to feed your family. But run your own life like Grant McFayden. That was a great lesson.

And by making me reach, he taught me a lesson for good.

Munger: And he taught it in a very clever way—**because instead of just pounding it in, he told it to me in a way that required a slight mental reach.** And I had to make the reach myself in order to get the idea that I should behave like Grant McFayden. And because I had to reach for it, he figured, I’d hold it better. And, indeed, I’ve held it all the way through until today—through all these decades. That is a very clever teaching method.

There, again, we’re talking about elementary psychology. It is elementary literature. Good literature makes the reader reach a little for understanding. Then, it works better. You hold it better. It is the commitment and consistency tendency. If you’ve reached for it, the idea’s pounded in better.

As a lawyer or executive, you want to teach them something else. And you can use lessons like this. Isn’t that a great way to teach a child? My father used indirection on purpose. And look at how powerfully it worked—like Captain Cook’s wise use of psychology. I’ve been trying to imitate Grant McFayden ever since—for all my life. I have had a few lapses. But, at least, I’ve been trying.

BY THINKING CORRECTLY AND KNOWING A FEW TRICKS, YOU CAN ADD GREAT VALUE TO THOSE AROUND YOU.

If you think correctly, you can add great value...

Student: At the end of your article in OID, you mentioned that only a select few investment managers actually add any value. Since you are speaking to an audience of future lawyers, what would you encourage us to do in order to be able to add value in our profession.

Munger: To the extent you become a person who thinks correctly, you can add great value. To the extent that you have learned it so well that you have enough confidence to intervene where it takes a little courage, you can add great value. And to the extent that you can prevent or stop some asininity, which would otherwise destroy your firm, your client or something or someone that you care about, you can add great value.

Humorous examples can enormously aid persuasion.

Munger: And there are constructive tricks you can use. For example, one reason my old classmate, Joe Flom of Skadden Arps, had been such a successful lawyer is that he is very good at dreaming up little, **vivid examples that serve to pounded the point home in a way that really works.** It is enormously helpful when you are serving clients or otherwise trying to persuade someone in a good cause to come up with a little humorous example.

The ability to do that is a knack. So you could argue that the Joe Floms of the world are almost born with a gift. **But he’s honed the gift. And to one degree or another, all of you were born with the gift. And you can hone it, too.**

Another psychological principle—appealing to *interest*.

Munger: Occasionally, you get into borderline stuff. For instance, suppose you have got a client who really wants to commit tax fraud. If he doesn’t push the tax law way beyond the line, he can’t stand it. He can’t shave in the morning if he thinks there’s been any cheating he could get by with that he hasn’t done. And there are people like that. They just feel they are not living dangerously enough.

You can approach that situation in either of two ways: (A) You can say, “I just won’t work for him.” And duck it. Or, (B) you can say, “Well, the circumstances of my life require that I work for him.” And what I’m doing for him doesn’t involve my cheating. Therefore, I’ll do it.

And if you see he wants to do something really stupid, it probably won’t work to tell him, “What you are doing is bad. I have better morals than you.”

That offends him. You’re young. He’s old. Therefore, instead of being persuaded, he is more likely to react withy, “Who in the hell are you to establish the moral code of the whole world?”

But, instead, you can say to him, “You can’t do that without three other people beneath you knowing about it. Therefore, you are making yourself subject to blackmail. You are risking your reputation. You are risking your family, your money, etc.”

That is likely to work. And you are telling him something that is true. Do you want to spend a lot of time working for people where you have to use methods like that to get them to behave well? I think the answer is no. But if you are hooked with it, appealing to interest is likely to work better as a matter of human persuasion than appeal to anything else. That, again, is a powerful psychological principle with deep biological roots.

CEO's don't like the idea of being ruined, disgraced and fired.

Munger: I saw that psychological principle totally blown at Salomon. Salomon's general counsel knew that the CEO, Gutfreund, should have promptly told the Federal authorities all about Salomon's trading improprieties in which Gutfreund didn't participate and which he hadn't caused. And the general counsel urged Gutfreund to do it. He told Gutfreund, in effect, "You're probably not legally required to do that, but that is the right thing to do. You really should."

But it didn't work. The task was easy to put off—because it was unpleasant. So that is what Gutfreund did—he put it off.

And the general counsel had very little constituency within Salomon except for the CEO. If the CEO went down, the general counsel was going to go down with him. Therefore, his whole career was on the line. So to save his career, he needed to talk the dilatory CEO into doing the right thing.

It should have been child's play to get the job done right. All the general counsel had to do was to tell his boss, "John, this situation could ruin your life. You could lose your wealth. You could lose your reputation..." And it would have worked. CEOs don't like the idea of being ruined, disgraced and fired.

Salomon executives made that mistake.

Munger: And the ex-general counsel of Salomon is brilliant and generous—and he had the right idea. However, he lost his job because he didn't apply a little elementary psychology. He failed to recognize that what works best in most cases is to appeal to a man's interest.

But you don't have to get similarly lousy results when you face similar situations. Just remember what happened to Gutfreund and his general counsel. **The right lessons are easily learned if you will work at it.** And if you do learn them, you can be especially useful at crucial moments when others fail. And to the extent that you do become wise, diligent, objective and, especially able to persuade in a good cause, then you are adding value....

HIGHER LEGAL AND REGULATORY COSTS ARE A REALITY. AND IT WILL EVER BE THUS. BUT SOCIETY ADAPTS.

Not everyone favors less fraud...

Student: Would you discuss how the threat of litigation—shareholder lawsuits and so forth—and legal complexity in general has effected decision making in big business?

Munger: Well, every big business screams about its legal costs, screams about the amount of regulation, screams about the complexity of its life, screams about the plaintiff's bar—particularly the class action plaintiff's bar. So there is an absolute catechism on that where you could just copy the screams from one corporation to another and you'd have hardly changed a word.

But what causes the screams has, so far, been a godsend for the law firms... The big law firms have had a long updraft. And they now tend to kind of cluck like an undertaker in a plague. And undertaker, of course, would look very unseemly if he were jumping up and down and playing his fiddle during the plague. So law firm partners say, "Oh, isn't it sad—all this complexity, all this litigation, all this unfairness."

But, really they're somewhat schizophrenic on the subject because it's been very good for them. Some recent California initiatives created some interesting conduct. Part of the defense bar lobbied quietly against certain propositions and, effectively, against their clients because they didn't want their clients to catch them in the process. And the reason that they did so was because they saw that the defense bar would suffer if it became harder for plaintiffs to bring cases.

If you make a living fighting overreaching and it keeps your children in school and somebody proposes a system that eliminates it—well, that is an adult experience and an adult choice that you have to make.

And it will ever be thus...

Munger: So big corporations adapt. They have more litigation. They have a bigger legal department. They scream about what they don't like. But they adapt.

Student: But hadn't that legal complexity consumed a lot more of companies' resources over the last few decades?

Munger: The answer is yes. Hardly a corporation in America isn't spending more on lawsuits and on compliance with various regulations than it was 20 years ago. And, yes, some of the new regulation is stupid and foolish. And some was damn well necessary. And it will ever be thus, albeit some ebb and flow.

I don't think big rich corporations should make helmets...

Student: But have you seen or experienced any change in decision-making at corporations in their being less likely to take on riskier investments for fear of failure or liability?

Munger: The only place I saw—with another friend, not Warren (Buffett) – (was where) I was part owner of the biggest shareholder in a company that invented a better policemen’s helmet. It was made of Kevlar or something of that sort. And they brought it to us and wanted us to (manufacture) it.

As a matter of ideology, we’re very pro-police... I believe civilization needs a police force—although I don’t believe in policemen creating too many widows and orphans unnecessary either. But we like the idea of a better policemen’s helmet.

However, we took one look at it and said to the people who invented it. “We’re a rich corporation. We can’t afford to make a better policemen’s helmet. That is just how the civilization works. All risks considered, it can’t work for us. But we want the civilization to have them.

So don’t maximize what we get for it. Get somebody else to make it.... Transfer the technology or whatever to somebody who can do it. But we are not going to.”

Thus, we didn’t try to disadvantage policeman by keeping them from) getting new helmets, but we decided not to manufacture helmets ourselves.

There are businesses—given the way the civilization had developed—where being the only deep pocket around is bad business. In high school football, for example, a paraplegic or quadriplegic will inevitably be created occasionally. And who with deep pockets can the injured person best sue other than the helmet manufacturer....

I think big, rich corporations are seldom wise to make football helmets in the kind of a civilization we’re in. And maybe it should be harder to successfully sue helmet makers.

There are various ways of adapting to the litigation climate.

Munger: I know two different doctors—each of whom had a sound marriage. And when the malpractice premiums got high enough, they divorced their wives and transferred most of their property to their wives. And they continued to practice—only without malpractice insurance.

They were angry at the civilization. They needed to adapt. And they trusted their wives. So that was that. And they’ve not carried any malpractice insurance since.

People adapt to a changing litigation climate. They have various ways of doing it. That is how it’s always been and how it is always going to be.

NAVY MODEL IS BETTER THAN LAW SCHOOL MODEL—BECAUSE THE CIVILIZATION WORKS BETTER.

Better a few get treated harshly than society be corrupted.

Munger: What I personally hate most are systems that make fraud *easy*. Probably way more than half of all chiropractic income in California comes from pure fraud. For example, I have a friend who had a little fender bender—an auto accident—in a tough neighborhood. And he got two chiropractors’ cards and lone lawyer’s card before he’d even left the *intersection*. They’re in the *business* of manufacturing claims that necks hurt.

In California, I believe the Rand statistics showed that we have twice as many personal injuries per accident as in many other states. And we aren’t getting twice as much real injury per accident. So the other half of that is fraud. People just get so that they think everybody does it and it is all right to do. I think it’s *terrible* to let that stuff creep in.

If I were running the civilization, compensation for stress in workers’ comp would be zero—not because there’s no work-caused stress, but because I think the net social damage of allowing stress to be compensated at all is worse than what would happen if a few people that had real work-caused stress injuries went uncompensated.

The Navy model causes people to pay attention.

Munger: I like the Navy system. If you’re a captain in the Navy and you’ve up for 24 hours straight and have to go to sleep and you turn the ship over to a competent first mate in tough conditions and he takes the ship aground—clearly through no fault of yours—they don’t court martial you, but your naval career is *over*.

Napoleon said he liked luckier generals—he wasn’t into supporting losers. Well, the Navy likes luckier captains. You can say, “That’s too *tough*. That is not law school. That’s not due process. **Well, the Navy model is better in its context than would be the law school model. The Navy model really forces people to pay attention when conditions are tough—because they know that there is no *excuse*.** Very simply, if your ship goes aground, your career is over.

“It doesn’t matter whether it was your fault or not. Nobody is interested in your fault. It’s just a rule that we happen to have—for the good of all, all effects considered.”

The civilization works better with some of these rules.

Munger: I like some rules like that. I think that the civilization works better with some of these no-fault rules. But that stuff tends to be anathema around law schools. “It’s not due process. You’re not really searching for justice.”

Well, I am searching for justice when I argue for the Navy rule—for the justice of fewer ships going aground. Considering the net benefit, I don’t care if one captain has some unfairness in his life. After all, it’s not like he is being court marshaled. He just has to look for a new line of work. And he keeps vested pension rights and so on. So it is not like it is the end of the world.

So I like things like that. However, I’m in a minority.

ACHIEVING WORLDLY WISDOM ISN’T THAT HARD. AND THE BENEFITS AND FUN LAST A LIFETIME.

It is not that hard....

Student: I’d like to hear you talk a little bit more about **judgment**. In talk, you said we should read psychology textbooks and take the 15 or 16 principles that are best or the ones that make sense...

Munger: The ones that are obviously important and obviously right. That’s correct....And then you stick in the ones that are obviously important and not in the book---and you have got a system.

Student: Right. My problem seems to be the prior step—which is determining which ones are obviously right. And that seems to me to be a more essential question to ask.

Munger: No, no. You overestimate the difficulty. Do you have difficulty understanding that people are heavily influenced by what other people think and what other people do—and some of that happens on a subconscious level?

Student: No, I don’t I understand that.

Munger: Well, you can go right through the principles. And one after the other, they’re like that. It is not that hard...

Do you have any difficulty with the idea that operant conditioning works—that people will repeat what worked for them the last time?

If you want it all laid out, maybe you should be a Moonie.

Student: It just seems to me like there is a lot of other things out there, as well, that also make a lot of sense. The system would quickly get too complicated, I imagine—as a result of too much cross talk.

Munger: Well, if you’re like me, it is kind of fun for it to be a little complicated. If you want it totally easy and totally laid out, maybe you should be a Moonie. I don’t think that is the way to go. **I think you will just have to endure the world—as complicated as it is. Einstein has a marvelous statement on that: “Everything should be made as simple as possible, but no more simple.”**

I’m afraid that is the way it is. If there are 20 factors and they interact some, you will just have to learn to handle it—because that is the way the world is. But you won’t find it that hard if you go at it Darwin-like, step by step with curious persistence. You’ll be amazed how good you’ll get.

It’s awesome—in more ways than one....

Student: You’ve given us about three of the models that you use. I wondered where you found the other ones. And, second, do you have an easier way for us to find them than going through a psychology textbook. I’m not adverse to doing that, but it takes longer.....

Munger: There are a relatively small number of disciplines and a relatively small number of truly big ideas. And it is a lot of fun to figure it out. Plus, if you figure it out and do the outlining yourself, the ideas will stick better than if you memorize them using somebody else’s cram list.

Even better, the fun never *stops*. I was mis-educated horribly. And I hadn’t bothered to pick up what is called modern Darwinism. I do a lot of miscellaneous reading, too. But I just missed it. And in the last year, I suddenly realized I was a total damned fool and hadn’t picked it up properly. So I went back. And with the aid of Dawkins—Oxford’s great biologist—and others, I picked it up....

Well, it was an absolute circus for me in my 70s to get the **modern Darwin synthesis** in my head. It is so awesomely beautiful and so awesomely right. And it is so simple once you get it. So one beauty of my approach is that the fun never stops... I suppose that it does stop eventually when you are drooling in the convalescent home at the end. But, at last, it lasts a long time.

A COURSE ON “REMEDIAL WORLDLY WISDOM” WOULD BE FABULOUS VALUE-WISE AND FUN-WISE.

Remedial Worldly Wisdom should be taught in law school.

Munger: If I were czar of a law school—although, of course, no law school will permit a czar—I’d create a course which I’d call “Remedial Worldly Wisdom” that would, among other useful things, include a fair amount of properly taught psychology. And it might last three weeks or a month.

I think you could create a course that was so interesting—with pithy examples and powerful principles---that it would be a total *circus*. And I think that it would make the whole law school experience better.

And I’d call it “Remedial” for a reason.

Munger: People raise their eyebrows at that idea. “People don’t do that kind of thing.” They may not like the derision that is implicit in the title: “Remedial Worldly Wisdom”. But the title would be my way of announcing, “Everybody ought to know this.” And, if you call it remedial, isn’t that what you are saying? “This is really basic and everybody has to know it.”

Such a course would be a perfect circus. The examples are so legion. I don’t see why people don’t do it. They may not do it mostly because they don’t want to. But, also, maybe they don’t know how. And maybe they don’t want to offend their undergraduate departments. I don’t know what it is.

But the whole law school experience would be much more fun if the really basic ideas were integrated and pounded in with good examples for a month or so before you got into conventional law school material.... I think the whole system of education would work better. But nobody has any interest in doing.

Inanity has a way of creeping into most areas of academia.

Munger: But, boy, what a school would be like that pounded a lot of the silliness out. But the right way to pound it out is not to have some 70+ year-old capitalist come in and tell seniors, “Here is a little remedial worldly wisdom.” This is not the way to do it.

On the other hand, a month at the start of law school that really pounded in the basic doctrines... Many of the legal doctrines are tied to other doctrines. They’re joined at the *hip*. And, yet, they teach you those legal doctrines without pointing out they’re tied to the other important doctrines?! That’s insanity—absolute insanity.

The human mind needs reasons. So does education & society.

Munger: Why do we have a rule that judges shouldn’t talk about legal issues that aren’t before them? In my day, they taught us the rule, but not in the way giving reasons tied to the guts of the undergraduate courses. It’s crazy that people don’t have those reasons. The human mind is not constructed so that it works well without having the reasons. You’ve got to hang reality on a theoretical structure with reasons. That is the way it hangs together in usable form so that you are an effective thinker.

And to teach doctrines—either with no reasons or with poorly explained reasons?! That’s *wrong*.

Even the name would force sense...

Munger: Another reason why I like the idea of having a course on remedial worldly wisdom is that it would force more sense on the professors. It would be awkward for them to teach something that was contravened by lessons that were obviously correct and emphasized in a course named “Remedial Worldly Wisdom.” Professors doing so would really have to justify themselves.

IT’S A SCREAMING OPPORTUNITY FOR SOMEBODY, BUT I’M NOT EXACTLY HOLDING MY BREADTH.

Munger: Is that a totally crazy idea? It may be crazy to expect it to be done. However, if somebody had done it, would you have found it useful?

Student: I think it would be a wonderful thing to have. Unfortunately, when it is created, we won’t be here anymore. You’re proposing that this would be good to teach people in a course form so it would be accessible to them. Is there any way that it could be more accessible to us—other than having to.

Munger: I get requests for pointers to easy learning all the time. And I’m trying to provide a little easy learning today. But one talk like this is not the right way to do it. The right way would be in a book....

I hope that what I’m saying will help you be more effective and better human beings. And if you don’t get rich, that won’t bother me. But I’m always asked this question: “Spoon feed me what you know.” And, of course, what they’re often saying is, “Teach me how to get rich with soft white hands faster, but teach me faster, too.”

I don’t have much interest in writing a book about myself. Plus it would be a lot of work for somebody like me to try and do it in my 70s. And I have plenty else to do in life. So I’m not going to do it. But it is a *screaming opportunity* for somebody. And I’d provide the funds to support the writing of an appropriate book if I found someone with the wisdom and the will to do the job right.

Psychology professors may not be rocket scientists generally.

Munger: Let me turn to some of the probable reasons for present bad education. Part of the trouble is caused by the balkanization of academia. For instance, psychology is most powerful when combined with doctrines from other academic departments. But if your psychology professor doesn't know the other doctrines, then he isn't capable of doing the necessary integration.

And how would anyone get to be a psychology professor in the first place if he were good with non-psychology doctrines and constantly worked non-psychology doctrines into his material? Such would-be professor would usually offend his peers and superiors.

There have been some fabulous psychology professors in the history of the world. **Cialdini of Arizona State** was very useful to me, as was B.F. Skinner—for his experimental results, if divorced from his monomania and utopianism. But averaged out, I don't believe that psychology professors in America are people whose alternative career paths were in the toughest part of physics. And that may be one of the reasons why they don't get it right.

I admire a college president who tries to correct the disgrace.

Munger: The schools of education, even at eminent universities, are perverted by psychology. And they're almost an intellectual disgrace. It is not unheard of for academic departments—even at great institutions—to be quite deficient in important ways. And including a lot of material labeled as psychological is no cure-all.

And given the academic inertia, all academic deficiencies are very hard to fix. Do you know how they tried to fix psychology at the University of Chicago? Having tenured professors who were terrible, the president there actually abolished the entire psychology department.

And Chicago, in due course, will probably bring back a new and different psychology department. Indeed, by now, it probably has. Perhaps conditions are now better. And I must admit that I admire a college president who will do something like that.

And psychology's unable to attract Nobel Laureate-types...

Munger: I do not wish to imply in my criticism that the imperfections of academic psychology teaching are all attributable to some kind of human fault common only to such departments. Instead, the causes of many of the imperfections lie deep in the nature of things—in irritating peculiarities that can't be removed from psychology.

Let me demonstrate by a "thoughtful experiment" involving a couple of questions: Are there not many fields that need a synthesizing super-mind like that of **James Clark Maxwell**, but are destined never to attract one? And is academic psychology, by its nature, one of the most unfortunate of all the would-be attractors of super-minds? I think the answers are yes and yes.

One can see this by considering the case of the few members of each generation who can, as fast as fingers can move, accurately work through the problem sets in thermodynamics, electromagnetism and physical chemistry. Such a person will be begged by some of the most eminent people alive to enter the upper reaches of hard science.

Will such a super-gifted person instead choose academic psychology wherein lie very awkward realities: (A) that the tendencies demonstrated by social psychology paradoxically grow weaker as more people learn them, and, (B) that clinical (patient-treating) psychology has to deal with the awkward reality that happiness, physiologically measured, is often improved by believing things that are not true? The answer, I think, is plainly no. The super-mind will be repelled by academic psychology much as Noel Laureate physicist, Max Planck, was repelled by economics, wherein he saw problems that wouldn't yield to his methods.

MASTER THE BEST THAT OTHERS HAVE FIGURED OUT. NOBODY IS SMART ENOUGH TO DO IT THEMSELVES.

Workaholic or workaphobic, don't neglect worldly wisdom.

Student: We talk a lot about trade-offs between the quality of our life and our professional commitments...Is there a time for a professional life, learning about these models and doing whatever else interests you? Do you find time to do fun things besides learning?

Munger: I've *always* taken a fair amount of time to do what I really wanted to do--some of which was merely to fish or play bridge or play golf...

Each of us must figure out his or her own life-style... You may want to work 70 hours a week for 10 years to make partner at Cravath and thereby obtain the obligation to more of the same. Or you may, say "I'm not willing to pay that price." Either way, it is a totally personal decision, which you have to make by your own lights.

But, whatever you decide, I think it is a huge mistake not to absorb elementary worldly wisdom if you are capable of doing it because it makes you better able to serve others, it makes you better able to serve yourself and it makes life more fun. So if you have an aptitude for doing it, I think you'd be crazy not to. Your life will be enriched--not only financially, but in a host of other ways--if you do.

Many activities are dignified by the need for money.

Munger: Now this has been a very peculiar talk for some businessman to come in and give at law school--some guy who's never taken a course in psychology telling you that 11 of the psychology textbooks are wrong. This is very eccentric. But all I can tell you is that I'm sincere.

There's a lot of simple stuff that many of you are quite capable of learning. And your lives will work way better, too, if you do. Plus, learning it is a lot of fun. So I urge you to learn it.

We just pretend to be businessmen, but it's a pretty good act.

Student: Are you in effect fulfilling your responsibility to share the wisdom that you've acquired over the years?

Munger: Sure. Look at Berkshire Hathaway. I call it the ultimate didactic enterprise. Warren is never going to spend any money. He's going to give it all back to society. He is just building a platform so people will listen to his notions. And the platform's not so bad either. But you could argue that Warren and I are academics in our own way....

Better to learn from the best. It is too hard to do otherwise.

Student: Most of what you said is very compelling. And your quest for knowledge and, therefore, command of the human condition and money are all laudable goals.

Munger: I don't know if the quest for money is so laudable.

Student: Well, then--understandable.

Munger: *That* I'll take. I don't sneer, incidentally, at making sales calls or proofreading bond indentures. If you need the money, it is fun earning it. And if you have to try a bunch of cases in the course of your career, you will learn something from doing that. You ought to do something to earn money. Many activities are dignified by the fact that you earn money.

Student: I understand your skepticism about overly ideological people. But is there an ideological component to what you do? Is there something that you're irrationally passionate about?

Munger: Yeah, I am passionate about *wisdom*. I'm passionate about accuracy and some kinds of curiosity. Perhaps I have some streak of generosity in my nature and a desire to serve values, which transcend my brief life. But maybe I'm here to show off. Who knows?

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 is that *smart*.

NOTES:

What capital spending is required just to stay in place—new vs. old investment.

Good businesses throw off one no-brainer after another, while poor businesses throw off Hobson choices.

It is tough to move to new locations. If the business won't stand mismanagement, then it is not the real thing. The business must stand some misjudgment.

Freddie Mac is a marvelous business, but its success is its own anchor.

Why buying assets at discount is tougher now (Aug. 1997). Tax laws changed so that a corporation with appreciated assets including goodwill couldn't sell out in a way that got its shareholders money and gave the buyer a write-up on those assets without imposing a tax at the corporate level. That had a huge negative impact on liquidating values.

No business is so wonderful that you can't overpay for it.

There is a time to sow and a time to reap and a time to just get through without getting killed.

You must have multiple models and run your reality through it. Focus on high returns to capital.

Generally speaking, I am not drawn to the idea of wonderful opportunities where everybody is getting into everybody's else's business. That looks to me as more competitive pressure.

It is very basic. What you are trying to do is find mis-priced bets available in the public markets. You search in areas where you have an advantage instead of a disadvantage.

Read the Selfish Gene. Garret Hardin's Living within Limits.

When you get into consumer products, you are really interested in finding out, or thinking about, what is in the mind of how many people throughout the world about a product right now--and what is likely to be in their minds five or ten or 20 years from now.

So it is not share of market but share of mind that counts.

If you protect your share of mind and execute, then nobody is going to catch you.

The name of the game is continuing to learn valuable lessons from success and failure.

We learned that it made great sense to figure out what pond to jump into and what pond to stay out of.

Some businesses are winner take all but not soft drinks.

The problem is that most companies that repurchase shares are in so-so businesses. And the repurchases are being done for motivations other than intensifying the interests of the shareholders in a wonderful business.

Study the lesson of Coke.

Read: Only the Paranoid Survive—which describes strategic inflection points.

OID December 31, 2002 Wesco Annual Meeting

Buying a wonderful business at a moderate price. Munger is an astute observer of errors in human cognition and human nature generally.

A Pilot doesn't take off without a checklist. An investor can crash without one, too. Have a list of useful models and use them in a checklist fashion.

Where can we have an insight that others don't have?

I don't think hyperactivity will normally improve results. I knew a person who only did 8 things in his lifetime. He started with a small poke, and if something wasn't a near cinch, he did not do it. It takes judgment, a lot of discipline and an absence of hyperactivity.

Ben Franklin's Life is a great example.

Read Moody's.

Scientific literacy is terribly important—especially outside of science.

People calculate too much—and they think too little.
