

THE ASPEN INSTITUTE  
ASPEN IDEAS FESTIVAL 2018

Success in Leadership and Life: A Function of Principles

THURSDAY, JUNE 28, 2018  
Doerr-Hosier Center, McNulty Room,  
Aspen Meadows Campus  
ASPEN, COLORADO

SPEAKERS:

Ray Dalio  
Gary Pinkus

Gary Pinkus:

... get us started. For those of you I haven't met, and I think that probably includes most people in the room, I'm Gary Pinkus. I'm the chairman of McKinsey and Company in North America. Ray, in many ways, is a man who needs no introduction, so I will be brief in my intro. I think at this point, probably everybody has heard of Bridgewater, the company that Ray founded, I think in the late '70s if I remember correctly, out of an apartment in Manhattan. Bridgewater over time has arguably been the single most successful hedge fund in the world, and has continued to be over multiple years, which is really in and of itself maybe the most significant point, of maintaining excellence for as long as Ray and Bridgewater have.

Today we're going to talk not about Bridgewater, we're going to talk about the set of principles that Ray has developed over time to both guide his life and guide his company. Ray was kind enough to ultimately work from, I think, what had been a set of publishing those principles on the web to codifying them in a book, that in 2017 became the number one best seller I think on the New York Times, number one best seller on Amazon. I've read it. It's fascinating. I don't necessarily agree with everything Ray has in it, and Ray loves it when people don't disagree with everything he's got in it.

What I'm going to do is pass the stage over to Ray to talk a little bit about his principles. I'll come back on. I've got a couple questions for him, but I suspect by the time you've seen his presentation, you'll have at least a couple questions for him. I'll say it again just because it bears repeating, challenge Ray. He loves a good debate, particularly in front of an audience. Don't be hesitant to offer a counterpoint of view and push him a little on this. So, Ray, over to you.

Ray:

Oh, thanks. I'd love to talk about principles. There are principles in general I want to distinguish. There are principles in general and then there are principles that I have that work for me, and I want to distinguish the two because we're going to talk about both of them. I think the most important thing is for each individual to have their own principles and to be crystal clear on those principles. I think as a society as a whole, we're not as clear on those principles. If we were to think about maybe as a country what are the principles that bind us together, what are the principles that separate us, if we all had that clarity, I think everybody's got to have their own principles, so I'll talk about principles in general, but we'll get into mine.

I'm saying, when I say principles what I'm referring to is the fact that whenever you're in a situation, how would you best handle that situation? There are overarching principles. What are your values and how do you live your life out consistent with those values? Then at various levels, there are tactical principles, like, I don't know, how do you give a talk like this, or whatever it is?

What I stumbled on was that when I would make trades, I wrote down the reason I would make a trade. When I was in a situation, I would write down what my principle for dealing with that situation was, and that helped me a lot. If there's one message that I would want to convey to you, it would be almost like, rather than just make decisions, when you're in a situation it would be invaluable if you think about what are your criteria for making that decision, and also write them down. I stumbled across this by accident, 'cause when I would make trades I would say, if I put down what were my criteria, and then I closed the trade out, I would then find how it did. I learned that by writing those criteria down, I could then go back, if I was clear enough, and see how those criteria would have worked in history. That gave me a perspective that I didn't have.

I learned that if I was able to write them clearly enough, in other words in the form of what we call algorithms, or used to be called formulas, we would be able to then put that out, and then whatever information would come in, it would collect, that information would come in and we would be able to make decisions in an algorithmic way. The clarity of writing down one's principles is invaluable.

What I did was, then when writing those principles down, we have a culture that you'll learn about, about radical truth and radical transparency, everything's sort of taped, and you eliminate the duality. You have the consistency of you walk in your talk. That has an effect of building trust and then having all sorts of things.

Anyway, what I want to explain is while there are all sorts of principles for everything, you all are in different areas, you all have all different encounters in your life, I think in principles for everyone I would say that's a great thing to do because if you write them down and you're crystal clear, not only over a period of time when you encounter new things do you then examine how those new things work relative to your principles, you evolve those, but it helps your communications with other people in such an important way, 'cause they know where you stand and that's been fabulous.

In general, I think it's great that there are principles I would recommend everybody do that. It's been invaluable. I'm just saying that you could have a million things that their principle is about. In my experience, as we get into two areas, economics, investments, and work were the things that we're going to talk about. I'm going from the general principle level to the down to the, okay, what are my principles.

Just to be clear, my principles, they're just my principles. Everybody has to have their own principles, and there's nothing saying that my principles, I'm just throwing them out there because they helped me.

I'm at a stage in my life in which I'm in what I would describe, a transition from the second stage of my life to the third stage of my life. I think life happens the way I see it sort of three stages. The first stage of your life, you're dependent on

others, you're learning, you're a student, and that's your first phase of your life. Second phase of your life, you're working, others are depending on you, and you're trying to be successful. As you go to the third stage of your life, you're free of obligations, and the joy that you have is that other people are successful without you, your kids as they grow older, they're successful, the people that you work with, and there's a transition into that third stage of life that I think seems natural which is that you want to help others be successful without you. You don't want to be more successful yourself. I have no desire to be more, I mean, I've got my things, but the most important thing is to help other people be successful. In that, to pass along the things that were of value to you.

In this way that we operated, this was invaluable to us, and so I wrote the book, and I'm going to be sharing it with you in I think an unusual way of operating that has produced an unusual amount of success. I just feel compelled to pass that along and then we can discuss it.

Okay, so this is how life has looked for me. Going after my audacious goals, and then encountering successes and failures, but most importantly, failures. The most important thing about the failures is you get more lessons out of the failures than you get out of your successes. That's the learning process. I don't think failures are as appreciated they should be, because they provide really learning, and it really has to do with I think how you deal with failure.

Failure produces pain, and so I have an expression, that pain plus reflection equals progress. Pain plus quality reflection equals progress. That's been my experience, and because I'm in the markets or because I'm an entrepreneur trying to be successful, and when you encounter those things, and you encounter them a lot, and my mentality, my state of mind about them began to change. I started to look at problems like puzzles that would give me gems if I could solve the puzzle. The puzzle was what would I do differently in the future, and the gems were principles that I would write down for doing something different in the future so that I don't make the same mistakes again and I don't have those pains. Then I would write down those principles. The failure helped me learn principles, and then by learning those principles and changing, then I improved, then I went after the more audacious goals. That's what it looks like to me.

If I would describe it, I think achieving success in whatever you're going to after happens in five steps. In other words, first you have to know your goals, what are your specific goals, and you've got to be focused on those goals. Then on the way to your goals, you have to identify and not tolerate your problems. Those are your barriers that stand in the way of you getting to your success. How you approach that is really important. Then with those specific problems in mind, you have to diagnose those problems to get at their root cause. Their root cause is often what you don't do well or what somebody else doesn't do well, and you can't let the barrier, an ego barrier, stand in the way of looking at those things. It could be whatever it is at the root cause, you have to diagnose that particular problem and get at that root cause, and then as a result, you have to design,

step four is that you have to design something different. You have to design a change. How would you make that approach to it better? Then you have to follow up.

You have to have your goals crystal clear. You will encounter your problems on the ways to your goals. You have to get at that root diagnosis, including whatever weaknesses you or the system that you're developing has. You have to have the design to get around those specific problems, and then you have to have the capacity to follow through with that design. If you do that, anybody does that, they do it over and over again, you can't help but be successful, in my opinion.

If people fail, they fail at one of those things, and because of our nature, people have strengths and weaknesses. We're weak at one or two of those types of things and that stands in the way of the success.

What I want to give you is an example of a situation that happened to me. The upshot was making a big mistake. In the late '70s, I had calculated that American banks had lent a lot more money to foreign countries than those countries were going to be able to pay back. Then I estimated that we would have a very big debt crisis, and we'd have a very big economic crisis. This was a very controversial point of view, so I got a lot of attention for this controversial point of view.

As a result of that, Mexico defaulted in August of 1982, and a lot of countries had problems. As a result of that, I got a lot of attention. I was asked to testify to Congress, I was on Wall Street Week, and I couldn't have been more wrong, but here you'll get a [inaudible 00:12:25].

It's a great privilege and a great honor to be able to appear before you in examination with what is going wrong with our economy. The economy is now flat, teetering on the brink of failure.

Speaker 3: You were recently quoted in an article. You said, "I can say this with absolute certainty because I know how markets work."

Ray: I can say with absolute certainty that if you look at the liquidity base in the corporations and the world as a whole that there's such a reduced level of liquidity that you can't return to an era of stagflation.

Wasn't I arrogant? Incredibly arrogant. I couldn't have been more wrong. I couldn't have been more wrong. That was the exact bottom in the stock market. I lost money for me, I lost money for my clients, I lost so much money that I had to let everybody in my company go. I didn't have a big company then, I don't know, it was eight people or something. I had to borrow \$4,000 from my dad to pay for my family bills. I was broke and very publicly wrong, and that hurt.

Yet, that ended up being one of the best things that ever happened to me in my life. Sometimes painful things are really good. What that gave me was a fear of being wrong, that gave me a humility, that gave me an open-mindedness that I needed in order to be successful. In other words, from that point on, while I didn't lose that audaciousness that I wanted to go after and make my bets, I kept asking myself how do I know I'm right at the same time? I wanted to find the smartest people I could who would disagree with me, because in other words, if I can get the smartest people and I hear their reasoning, I would raise my probability of being right.

The real question was, simultaneously, how do I know I'm right? In that process, I raised my probability of being right by learning the art of thoughtful disagreement, trying to find people to disagree with me. I've got this perspective, reflected in [inaudible 00:14:39], I think there's so much attention paid to knowing what you know, you're a smart guy, you know a lot, and so on, and everybody's proud about what they know. I think knowing is great, but I think that one of the keys to success is knowing what you don't know and how to deal with that well, or knowing that you don't know enough. In other words, that open-mindedness that lets you bring in that. Humility, all you want to do if you want to be successful is just find the right things to do wherever you can get it. If you can get it from other places or other people, that's great, right? I don't care if the decision comes from me, I just want the best one possible.

I wanted to build a culture that's an idea meritocracy. Okay, as an entrepreneur and an investment manager, I have to bet against the consensus and be right. In other words, the consensus is built into the price in the markets. When you're placing a bet, you have to think differently and be successful. I have to be an independent thinker in order to be successful, same for an entrepreneur. What I wanted was a culture of independent thinkers. I want to bring in people, and by independent thinkers, that means that we're going to have a lot of disagreement, and that disagreement is a really good thing. I wanted that, and in order to do that, bring in these independent thinkers who also had audacious goals, and I wanted then to have then an idea meritocracy.

Okay, so this is the big thing. Can you have an idea meritocracy in which there's great collective decision making? I want to talk about the power of an idea meritocracy and how to really have it. Then through our idea meritocracy, we had to develop principles and systemized rules of how we would be with each other. Then we had our successes and our failures, and as a result of the failures, we learn more, we built these decision rules into algorithms that help us make decisions. That compounded effective algorithms, we should talk about that. That's big. Then as a result you have your successes, and you have happier employees and you have happier clients. Then you go on for more audacious goals.

Basically that's what we call as looping, and we've been doing this looping for that period of time. I want to explain it to you so that I pass it along because I think it's been unique and great in certain ways, but it's very different.

What do I mean by to have an idea meritocracy? Wouldn't it be great if we all had idea meritocratic decisions so that you could get the right answer on the basis of merit? I think there are three things that you need to do in order to have an idea meritocracy. First, you have to put your honest thoughts on the table, and other people have got to put their honest thoughts on the tables. Most people don't do that. Most people have these things in their minds, but they're not radically truthful with each other. So you have to put your honest thoughts on the table.

Second thing is you have to understand the art of thoughtful disagreement. In other words, to appreciate disagreement, to be curious about the other person's point of view, to work it through so that you can get at the best answer, because if there's disagreement, if two people disagree, how do you know the one that's wrong isn't you? You have to understand the art, the ability to take it in, how do you change, and how do you move forward to what is likely the best thing? There's an art to this thoughtful disagreement brought about by curiosity and so on. It works. It's a sensible thing.

Then third, of course, like any organization or any family, if there's disagreements that remain, you have to have protocols for getting past that disagreement. In our case, we do what I call believability way to decision making. I'll explain what that is, but you have to get past your disagreement and you should have a protocol for that.

That's what I mean by having an idea meritocracy. The other key thing is knowing what people are like, knowing honestly their strengths and weaknesses, like on a team. What are your strengths and weaknesses? When you know what someone is like, you know what you can expect from them. That's real important. I think it's important for their personal development because it's your state of mind. Do you want to come into an environment like this? People who come to Bridgewater basically said, "I would like to know what my weaknesses are as well as my strengths, so that I can get around them and build on that." Knowing what people are like in a totally forthright way is a tremendous power.

What I'm going to do is give you a brief video that will take you into a meeting and will explain some of the tools that we use to try to have this idea meritocracy.

A week after the US election, our research team held a meeting to discuss what a Trump presidency would mean for the US economy. Naturally people had different opinions on the matter and how we were approaching the discussion. The Dot Collector collects these views. It has a list of a few dozen attributes, so whenever someone thinks something about another person's thinking, it's easy for them to convey that assessment. They simply note the attribute and provide a rating from one to ten.

For example, as the meeting began, a researcher named Jen rated me a three, in other words badly, for not showing a good balance of assertiveness and open-mindedness. As the meeting, transpired, Jen's assessment of people added up like this. Others in the room had very different opinions. That's normal. Different people are always going to have different opinions. Who knows who's right?

Let's just look at what people thought about how I was doing. Some people thought I did well, others poorly. With each of these views, we can explore the thinking behind the numbers. Here's what Jen and Larry said. Note that everyone gets to express their thinking, including their critical thinking, regardless of their position in the company. Jen, who's 24 years old and fresh out of college, can tell me, the CEO of the company, that I'm approaching things terribly. This tool helps people both express their opinions and separate themselves from their opinions to see things from a higher level.

When Jen and others shift their attentions from inputting their opinions to looking down on the whole screen, their perspective changes. They see their own opinions as just one of many, and naturally start to ask themselves, how do I know my opinion is right? That shift in perspective, of going above it and seeing the full range of views, shifts the conversation from arguing over individual opinions to figuring out objective criteria for determining which opinions are best.

Behind the Dot Collector is a computer that is watching what all these people are thinking, correlates it with how they think, and communicates back to each of them based on that. Then it draws the data from the meetings to create a pointless painting of what people are like and how they think, and it does all that guided by algorithms. Knowing what people are like helps to match them up better with their jobs. For example, a creative thinker who is unreliable might be matched up with someone who is reliable but not creative. Knowing what people are like also allows us to decide what responsibilities to give them, and to weigh our decisions based on people's merits. We call it their believability.

Here's an example of a vote that we took where the majority of people felt one way, but when we weighed people's views on the basis of their merits, the answer was completely different. This process allows us to make decisions not based on democracy and not based on autocracy, but based on algorithms that take people's believability into consideration.

Yeah, we really do that. Just imagine right now there are all different thoughts that are going on in everyone's head right now, totally different thoughts, and we're attached to those particular opinions. Now imagine it was just all crystal clear, that actually you would know what everybody's thinking on that. Then when you go above that, and you look at it, and you would say on a habit, how do you know my thinking is right? 'Cause if you're above it and you're looking down, can you separate yourself from your own opinions and go above that and

take a look at that? Then imagine that as it collects data on you and other people, it gets to know you, and then interacts with you so that knowing what you're like and what your perspectives are, is taken into consideration in terms of using these algorithms to help to operate that way. That's kind of what it's like.

Now I've taken it pretty much to an extreme because I really do believe in this idea meritocratic way of operating, and I do believe that finding out what's true even about the things you don't wish were true, like whether you have weaknesses and that kind of thing, is incredibly invaluable. What is the barrier? The barriers, what I call this two yours. I've asked psychologists about, neuroscientists about it, and I think when we have our conversation, it will surface. It's the issue that there is a thoughtful part of you, intellectual part of you, and then there's an emotional part of each person. Those two things often conflict.

When we ask people, "Would you like to know your weaknesses?" Okay, now the intellectual part of you will say, "Of course I'd want to know my weaknesses. It'd be stupid not to know my weaknesses," right? The emotional part of you would say, "I don't know, it's uncomfortable." Or "Do you want me to tell you what I really think about you?" Intellectually, "Yeah, I want to know what you really think about me," but let's say if I'm a boss and I'm hiring somebody or I'm going to put them in a job and so on, and I have all these scenarios, and I'm not saying what I really think about them, they won't be a participant in that conversation of whether they should get the job or whether they aren't getting the job, they won't learn the lessons and all of those things, so intellectually you want it, but emotionally there's a challenge of it. When the people come into the place, it takes a while to get used to, but people intellectually want to find out what's true, good or bad, and then deal with it and find it in an idea meritocratic way.

To do this with radical transparency, so radical transparency means everybody can sort of see everything. We tape everything and let everybody see pretty much everything. That's it pretty much. I'll take your questions, but I should say that in order to do this, I think when I'm looking at you all and I would say if you were operating in an organization, I would say these are the questions that you might have.

Do you want these things that I'm going to show you, and in what degrees? First question, do you want idea meritocratic decision making? 'Cause there's either autocratic decision making or democratic decision making, typically, like the boss. Would you like idea meritocratic decision making, believing that if you can understand the merit of what people are doing well and poorly that you can make better decisions?

Okay, do you want to know what people are really like, yourself and others? I'm curious to what you'd be answering to these questions. If I had my Dot Collector, I'd know. Do you want radical truthfulness and radical transparency?

In what degree? Each one of these things, in what degree do you want to have truthfulness and transparency? In what degree? Any one of these things, not a black and white answer, but I would ask you to go away asking yourself those questions.

Then algorithmic decision making, I believe so much that if you take your criteria and you write them down, and then almost on anything you can convert that into decision rules in much the way the same brain works. The brain is 89 billion little computers, neurons, and then it takes in data, and then it processes it into decisions. If you put those in algorithms, it's such a powerful way to improve your decision making. Even like here we are today, I think that you're going to see in the future a vast change in the world because of algorithmic decision making. Do you want to make algorithmic decision making, and then in what degree?

Those are the questions that I'll leave you with. This is, in order to help this happen along, we created a whole bunch of tools. I won't get into what the tools are, but in order to have that infrastructure, we wanted to have structure protocols that operate by that. I'm going to be putting almost all those tools out there so that everybody can have that, so I wanted to pass along those principles, that way of operating, and I want to then pass along those tools, and then I will be done with my transition and I will go to the third phase of my life peacefully. Let's have a conversation about that.

Gary Pinkus:

I'm going to start with something, Ray, you touched on, but I'd love to go a little deeper on this notion of radical transparency. I think Ray's questions to all of us, I've certainly reflected on them since the first time I heard them, of how deep and to what degree, because it's hard to argue with all four of the things you put up there, right? We would want to know more about ourselves, et cetera, but I'm reminded a little of that scene in a few good men, remember when Jack Nicholson's talking to Tom Cruise, and he says, "You can't handle the truth." How many people can actually handle the truth in the real world, not just Bridgewater but the real world?

Ray:

I think it's an exercise. What our experience has been, I think that we're largely raised and operating in an environment in which that's not the norm for a variety of reasons. I think it's one of those situations we face. Do we want to let our emotional part of us be in control or do we want our intellectual part of it? It might have to do with whether do I eat that piece of cake, or whatever it is, and so I think it pays to make sure that there's a reconciliation between one's emotional self and one's intellectual self to make that decision. That's really the essence of what I'm talking about.

When we say, can we handle it, initially I think it's uncomfortable, but it's like exercising or doing anything else. The question is, do you want it? Is it good for you? Then, how do you exercise so that you develop the habit? Habit is key. Then, will you get a better life as a result from it? So if I was to ask, to answer your question directly, which is how many people want it? Not many people

initially want it, because we're operating in that environment. I would ask, would you want it? Do you think it's right? Then you make the choice for yourself whether you would want that. It comes down to the same simple questions. Would you like to know your weaknesses? That's your internal wrestling question.

Gary Pinkus: I'll personalize this and I'll pardon in advance, but it's obviously worked incredibly well for Bridgewater. In your family, would all four of your children, would your wife answer the question the same way perhaps the employees at Bridgewater would?

Ray: I think in any relationship you have to define how you're going to be with each other. For example, are you going to be radically truthful? Are you going to be radical transparent? To what degree, you can decide. You're going to have disagreements. How are you going to approach that disagreement? Are you going to have thoughtful disagreement and work yourself through that in some way? Who's going to make the decisions? What doesn't work for me is temper tantrums. I personally, I'm just answering personally, my personally is I only ask two things from people really. Can they be reasonable with me? That means able to reason. And I will be reasonable with them, and I'll give a lot of reasonableness with listening and working that through, and then consideration. I want a high degree of consideration, and I'll give a very high degree of consideration.

That applies to my family members, and that applies to other people. What happens is it builds trust. Trust is a very powerful thing, 'cause all the stuff that's going on behind the system. But trust in a family relationship, trust in a work relationship, I think that when you're behind the scenes and you're not radically truthful with each other and can back that up with radical transparency, that there's all the politics and all of that other things. So yes, I do it with the family, and our experience is that after people get use to it, they have a problem going back to the other way, 'cause when they go into an organization, it's very behind the scenes. They don't really know what anybody's thinking, and there's all the office politics that exists, so there's a confusion of even finding out what's true, but behind that there's an absence of trust.

Forget Bridgewater, I think you have to define how are you going to have a relationship? What are the terms? Nobody has to follow my principles on this, but I do think you have to be clear on your principles.

Gary Pinkus: I want to throw it open to the audience and questions. I'll start here and I'll work my way around. Sir? And we've got mics coming around, too.

Speaker 4: Francis [Najafy 00:34:15], thank you so much for this wonderful conversation. If I may take that transparency concept to a national level, I'd love to get your reaction. Look, American democracy has been one of the most transparent democracy in the world, both from a economic standpoint, corporate standpoint, as well as political standpoint. Unfortunately, Citizens United really

provided an opportunity where that political transparency has been totally undermined, and since we are talking about transparency, I would love to get your reaction to what this really has done to our political process. Would you make some comment?

Gary Pinkus: I'm going to extend that question a bit, too, if I think even about your grid and this believability index, is there something in that that we could do that you could create for media writ large and we could get rid of this notion of fake news, 'cause we could have some sort of common standard of believability?

Ray: Well, there are a couple questions-

Gary Pinkus: In that.

Ray: ... and it's all embedded in the whole issue of ... I don't live in a political environment, and I don't want to be arrogant in responding to the question because it's entirely possible that you have such a dysfunctional system in terms of that, that transparency is manipulated and all sorts of things happen, so I can't say really exactly how it could be.

I do think the following is true. I don't think people are clear with their principles. I don't think we have a good idea meritocratic decision making. I do think that anybody in their group can be radically truthful and radically transparent. The question is how far that goes. Even in a big company, maybe if the organization isn't that way, your group of people can be that way. I think it's a power, because if you knew what people would do in their circumstances, 'cause they make their principles crystal clear, and they're really walking the talk and you understand that, that builds trust. It also helps to resolve the disagreements.

I think in a political environment and then also where the media can distort so many things in so many different ways, everybody's got a biased angle on it all, and you get all of that chitchat that you're watching on TV, and it's all so much garbage, and you don't know what's true. I don't know how that would work exactly to do that, but I do believe it's a problem that it doesn't exist, that what I would say I don't think there's good principle level decision making or thoughtful disagreement.

I think that there are things that could be done. I was talking about setting up a television show with, anyway, somebody, in which you would bring in the most controversial subjects, and then have the key people have a civil conversation about the pros and cons of those subjects to exercise the art of thoughtful disagreement, so that there's taking in and back, and people then could listen to that, I think that would help them get it at truth. I think there's a lot of things that theoretically could be done, but politics, that's a real challenge.

Gary Pinkus: Please, ma'am.

Speaker 5:

Ray, that was terrific. Obviously you've designed a system that allows you to tone down impulsive behavior and rate tribalism, which are the two drivers of human behavior that gets us into trouble, but also create our defenses. In your grid, how does the bonus system, how do you compensate people, how do you create a system of incentives works to get them to rank higher in believability? Do people know how believable they are? Is there aim then, how do you correct behavior is by having them driving them to be more believable?

Ray:

First of all, what we want to do is really encourage them to speak ... reward them for speaking up, being critical, and expressing their thoughts like those, that 24-year-old who felt free to be able to give critical thoughts. I think that's a key thing. Then what we do is have objective ways of measuring believability, not arbitrary ways of measuring that believability. That's a lot through the collection of the data and then agreeing on the algorithms that are going to assess their believability in various domains. So we bring it to the surface and then we have those criteria being clear and those people believe that those criteria are fair.

Now you are getting feedback, and by the way, the computer doing it with our criteria, means that there's much more confidence that it's not just somebody that doesn't like you, maybe if you're weak at something. By doing that, it has that effect.

I want to say that we're all making believability weighted choices, we're just not transparent about that. If you're in a group of people and you want, I'll use a simple example, you have an illness and you go to doctors. You may have two doctors who are giving you, two or three doctors. Imagine that if you took those three doctors, let's say, and you had the art of thoughtful disagreement, so they were all in a room. If they all are good doctors, and they all say the same thing, you're probably good, but you would want to bring out that disagreement so that you could find that part of it that might be key, and you've had the notion of thoughtful disagreement, you bring that to the surface, okay, now we should examine those things we disagree on, find out if they're right, and then if you move onto the next step and say, now I have to make a decision what I'm going to do with my life. Then you make that decision by, you will make it weighing what you think the believability of those people are. Then when you do that, the only difference in our place is that they would have scores of believability for various reason, ways so that you could push a button.

Now I think this isn't probably relevant to you all because you're not going to go there, you're not going to do that thing, but I think that the notion of thoughtful disagreement, bringing disagreement to the surface, and then being able to believability weigh the decision, because I know you've run a company, I've run a company, and you do it. The key to being successful is knowing that you're not always right. How do you pull out the best in order to do that? That's what it works on.

Gary Pinkus: But go to the second part of that question, which is let's just say Jen continues to be unbelievable. She's on your red flag for believability across multiple topics over multiple periods of time. What happens to Jen? I can guess.

Ray: I think you're jumping too quick to the guess. Anybody when they have a weakness, there are two things you could do. You could either try to develop it into a strength, and that's one of the toughest things to do, or you can work with somebody who is strong where you're weak. By being able to say, this happens all the time, "Jen, you are terrible at that thing. I just can't put you in the position." Let's imagine around a baseball team. "I'm sorry, I can't put you in shortstop 'cause you can't do that job. You don't have the arm to do that." At the same time, if I can get you to work with this person. Literally when I'm describing that person's very creative, but disorganized, and somebody else is very organized and not creative. You put those people together, then they can be successful where they otherwise can't be successful, so it's very productive.

Now if there's no use for Jen, if you get into the situation where, "I'm sorry, you just can't be on the team, I'm sorry, but please find out what your strengths and weaknesses are," because once everybody realizes that their weaknesses don't have to stand in the way of their successes, if they find the right input from others, they can be successful, right? You only have to know what you need to do, you don't have to come up with it yourself necessarily.

Gary Pinkus: Very clear. Take one in the back. Sir? All the way back, yeah.

Speaker 6: Do you value privacy?

Gary Pinkus: Take the mic and maybe just say again.

Ray: Do I value privacy is the question.

Speaker 6: Yeah, do you value privacy, and if so, how?

Ray: Yes, but it depends on what it is. Anything that has to do with something that's personal and touching in a sensitive way, a personal family thing or anything along those lines should be totally treated in a totally private way. When there's a gray area along those lines, we would say, "Let's keep that to ourselves." There are time where they say, "I'm sorry, I feel I can't have this conversation unless it is kept private." Then we say, "Okay, are you sure, or whatever, 'cause it's better if we could just be open about it, but if that's a big thing for you, we will make that exception."

Any good principle at the end of the day has got to work. If you take something with no exceptions, if you don't have exceptions to your rules, you're not going to be successful. It has to work in a practical way. There's bending, how far do you bend, but keeping it by and large the rule, and then dealing with the exceptions that seem to make sense.

Gary Pinkus: Actually there's something implicit in that I wanted to touch on. Ray mentioned the video taping, with the exception it sounds like when somebody says please, everything is taped, right?

Ray: Yeah, not everything, but by and large most everything is taped so that everybody at the company can listen to.

Gary Pinkus: At any time.

Ray: At any time. Again, it sounds very extreme, right? Okay, let me tell, I've done this and it works. It's great because you might think that's a difficult moment, but everybody's seeing everybody go through difficult moments, and you know what truth is. So many bad things go on in the dark, so when you shine light on it and whatever, and you have a meritocracy, it's been great.

I think when we're talking about my extreme version of this, I think we might get off the four questions that I really left people with, which is what is right for you? Bridgewater might be a curiosity and this whole thing might be a curiosity, and it has worked fabulously, but I really do think that those four questions are the questions for you. I almost wish I had my Dot Collector so I could turn to the audience.

Gary Pinkus: We'd have to believability rate everybody, too, though. I saw a hand in the middle. Please, sir? That's the problem with being in the middle. It's hard to get the mic.

Speaker 7: How reliant are you on the results of the algorithms? In other words, if there is some decision that's spit out by the algorithm that you, with every fiber of your soul, believe is wrong, what do you do?

Ray: Well, you just have to understand, so let me just describe it. The algorithms, the way we do it, is only the means that expresses your own criteria. These are not machine-learned algorithms you put things on and you come up with computers that way. I'm saying that I think you could take almost all of your decision making, and if you write it down clearly enough, it could be made into an algorithm and they're your criteria. Now when they are your criteria, then you're looking at that.

The way it operates for us, literally, is it's like a GPS. This criteria is running in parallel with your own criteria running in a computer way, in parallel with your own decision making. When they're at odds, like you were saying, that doesn't make any sense, then there has to be a reconciliation of those things. Totally okay, like the GPS, to say, "Listen, I'm not going to follow the GPS 'cause that doesn't make any sense." It's a supplemental decision making.

I was speaking to Gary Kasparov about playing chess. He enjoys now playing chess with a computer next to him. He'll make his moves and the computer will

make the other, and when they're at odds, he will reconcile that and both the computer and him will be better as a result of that. I believe that that's really good algorithmic decision making. If you had your criteria next to you organized that way, and then you were operating in parallel, you both together will make better decisions. That's what it's like.

Gary Pinkus: I promised one over here, sir.

Speaker 8: I guess my-

Gary Pinkus: We'll do this and then you, sir.

Speaker 9: Thank you.

Speaker 8: My fundamental and non-offensive question to you, I'm not going to challenge you-

Ray: No, no, do the offensive one. [crosstalk 00:48:31] I really do like the offensive one.

Speaker 8: Fine, I'd like to do the offensive one.

Ray: Okay, good.

Speaker 8: I've worked with a lot of people that have been at Bridgewater. Many of them describe it as a cult. Now I kind of understand why. Hearing you talk about algorithms, I'd like to know why can't we just replace you with an algorithm? Can we take your thoughts and can we encode them and can we just have a shell script?

Ray: Let me take the first thing. People at Bridgewater, the cult thing, okay, I think a cult represents a following of a particular type of doctrine, and that this is the opposite of a cult. In other words, it appreciates this thoughtful disagreement. I don't believe that cults do that. I think that sometimes people find it very uncomfortable. It's not a place for everybody. I'd say like one out of ... somewhere between, I don't know, 30%, 40% of the population it's not for because for a lot of reasons.

On the other hand, they break up into two groups. Those who would not want to work anywhere else because of it, and those who can't stand it. Somebody might leave Bridgewater and say it's a cult. Well, you have to decide does that look like a cult or does that look like a lot of thoughtful disagreement? Yes, we have to have rules of how we're going to be with each other, and so that rule being, yeah, we're going to have thoughtful disagreement, but that's anyway the opposite of a cult.

The second part of your question, remind me again.

Gary Pinkus: Was around could you be replaced with an algorithm?

Speaker 8: You've talked a lot about-

Ray: I think if you understand algorithmic decision making to a large extent, I think that it is the issue of the parallel, that the power comes in the parallel. In other words, I could say that in our investment decision making right now, 98% of the decision making is operating like that GPS, that what happens is I could have it on automatic pilot, and we do and it always makes all the decisions from start to finish, but in a way that's like a glass box. You look in there and you watch it, and then it's operating in parallel with us. It's because it brings things that the mind doesn't bring. It can process a vast amount of information. It could do that very quickly. It could do it very accurately. It could do it unemotionally, so it brings benefits. But it doesn't have the imagination. It doesn't have that filter. I believe you can never get into a situation where it's a substitute for deep understanding.

Operating in parallel is I think key. I think as we move into a world of artificial intelligence, there is a danger of not having deep understanding and not operating in parallel. Don't categorize me in terms of the issue of, can you totally rely on that? I will say, let's say if you take algorithms, and I think it's an important issue. I see we're out of time, so I'll just be quick on that.

The question is where you get the algorithm. If you have that and you have deep understanding and you're expressing it and you use it as a tool and you use it in parallel, that's helpful. If the future is different from the past, and you don't have deep understanding, which will be the case in a lot of cases, I think that you're going to have a disaster from algorithmic decision making.

Gary Pinkus: I think it's fair to say there's no possibility that Ray's presentation and Ray will be replaced by an algorithm anytime soon. I apologize both to you, sir, and to you, ma'am, and the multiple people that have other questions, we are out of time. I promised the institute we would finish right on time. I'm hoping maybe you'll stay around. People may want to talk to you a bit afterwards.

Ray: Yeah, I'll be happy to.

Gary Pinkus: Thank you very much.

Ray: Where should I do that?