MoS Episode Transcript – Ray Dalio

STEVE HORGAN: I was assigned to a match between India and Pakistan. This game was being televised. I'll guarantee you I didn't sleep the night before on this one.

REID HOFFMAN: That's Steve Horgan, legendary field hockey umpire for the Olympics, World Cup, and the NCAA. And he's telling us about one of the most memorable games from his decades in the sport. But before we hear about that, you might be trying to remember... which one is field hockey again?

HORGAN: You might want to take ice hockey, mix it with soccer, add a little bit of lacrosse.

HOFFMAN: That's right. It's the one that's like soccer, but with sticks. See? I know about sports. In any athletic competition, the umpire is keeper and enforcer of the rules. But they also play a less visible role: conflict mediator. And even field hockey has its share of conflict.

HORGAN: It's not technically a contact sport, but there is physical contact when people challenge for the ball. Sometimes there'll be a little bit of extra pushing or shoving. I don't want to say fights erupt because that's very rare in our game, but people do get a little... annoyed.

HOFFMAN: Players got annoyed during Steve's most memorable game as a field hockey umpire. It was the final day of a six-nation tournament leading up to the '96 Summer Olympics. These players were about to represent their country in front of the world, so emotions were running high.

HORGAN: Both of these teams, India and Pakistan, when they play hockey, either it can be very difficult to manage and be very conflicting, or they play beautiful hockey and it's just a sight to behold.

HOFFMAN: Steve knew that his mission in this game was to manage the conflict, so fans across the world could witness the elegance of a beautiful game of field hockey. Steve blew the whistle. The game was underway.

HORGAN: And about 30 seconds into the match one of the Pakistani guys went to hit the ball and when he followed through he hit one of the Indian guys, and he actually developed a cut underneath the shin guards. That's how hard he got hit.

I recognize that as a little bit over-aggressive, so gave a green card warning to the Pakistani player. About 30 seconds later, one of the Indian gentlemen ran over one of the Pakistani players, kind of pushed him down. So it was like, "You hit our guy, we're hitting your guy," right? We gave a green card to the India player as well.

For some reason, I have still to this day – I don't know why I did it – I stopped the time and called for the two captains to come meet us.

I said, "Gentlemen, we haven't started this game very well. You two know that you're responsible for your teams."

And they both go, "Yes sir, we understand."

And I said, "We can not have this go on any further." I said, "It's my understanding that 50 million people back home woke up at four o'clock in the morning to watch you boys play hockey. They don't want the game messed up and neither do we. Do you understand?"

They said, "Yes sir, we understand."

And I said, "Now, would you like a minute to go talk to your teams? And please understand that we are going to hold you responsible for your teams for the rest of the match."

They went back. They had a little huddle with their teams. We played 69 minutes of absolutely brilliant hockey. The game ended in a 2-2 draw. Both teams came up when the match was over, they were so appreciative of the way we handled the match.

It was a sight to see when you can take something like that – that you're really afraid is going to explode – and bring it down to a comfort level that the players trusted us, we trusted them, and 69 minutes of hockey was just brilliant.

HOFFMAN: Steve Horgan took a disaster-in-the-making and transformed it into one of the greatest games of field hockey he ever witnessed. This game stuck in Steve's mind – and throat – because the simmering conflict, which threatened to boil over, was resolved in a way that inspired every athlete to play at the top of their game. The same is true in business. I believe disagreement is the wellspring of great ideas and great companies – but only if you harness that conflict constructively.

[THEME MUSIC]

HOFFMAN: I'm Reid Hoffman, co-founder of LinkedIn, partner at Greylock, and your host. And I believe disagreement is the wellspring of great ideas and great companies – but only if you harness that conflict constructively.

Think for a moment about the last time you had an argument. Not a passive-aggressive email exchange but a direct, forthright disagreement about something fundamental. How long ago was it? How unusual was it?

We all have our own personal threshold of comfort around conflict. Some people thrive on lively debate; others find it deeply stressful. And that discomfort can extend to organizations as well. If the boss can't be challenged safely, then no one can.

But I actually think it's your job as a leader to invite good criticism. The advice I always give founders is: Don't ask people what they think about your idea, ask them what's wrong with your idea. Invite them to poke holes in it, because you want to find those holes before you bring your idea into the world. And by constructively harnessing disagreements on your team, you improve ideas and fuel great focused work.

I wanted to talk to Ray Dalio about this because for more than 40 years, he's made this kind of constructive disagreement a bedrock of his company, the legendary hedge fund Bridgewater Associates. As founder, Ray shepherded Bridgewater from a one-man operation working out of his apartment, to the largest hedge fund in the world, managing some $160 billion dollars for about 350 institutional clients globally.

But it wasn't a straight path. And to start the story, I need to take you back to October 1982. We're in the halls of the United States Congress. A smart-looking young man in a dark suit and striped tie is testifying.

> **RECORDING:** Mr. Chairman, Mr. Mitchell, it's a great pleasure and a great honor to be able to appear before you in examination of what is going wrong with our economy.

HOFFMAN: You can tell it's 1982 because as the young man speaks, one of the lawmakers up on the dais lights up a cigarette. You can also tell because of what the young man is saying.

> **RECORDING:** The economy is now flat, teetering on the brink of failure.

HOFFMAN: That young man is of course Ray Dalio. And he's there before Congress providing expert testimony. Mexico just defaulted on its foreign debts, and Ray sees a debt crisis coming – a rolling recession, even total economic collapse.

Mind you, Ray isn't the only one calling the future this way. A book called *The Coming Currency Collapse* soars up the book charts. Internal White House memos advise President Ronald Reagan on how to manage permanent economic decline. So Ray isn't the only voice. But he's loud and he's confident. He's bet his own investment portfolio on the decline of the economy. And he's there to warn us. And...

> **RAY DALIO:** I couldn't have been more wrong.

HOFFMAN: That's Ray Dalio today.

> **DALIO:** It was the exact bottom in the stock market and we had begun a bull market after that. I lost money for me, my clients. And I only had a small company then, but I had to let everybody in my company go and I was down to me, and I had to borrow $4,000 from my dad to pay for my family expenses.

HOFFMAN: It was a devastating, humbling loss for Ray and his company. The sort of loss you might want to put in a vault and never think about again. But that's the opposite of what Ray has done. Ray tells this story in public. A lot. In speeches, in the press. If you follow his work, you can probably recite the lines along with him. Being laid low by his own hubris taught him something foundational:

> **DALIO:** Pain is a great teacher. It gave me the humility I needed, it made me think, "How do I know I'm right?" And that changed my approach.

HOFFMAN: What Ray had been missing before giving that testimony was someone who could challenge his theories. The picture had seemed so clear to him, he saw no need for a second opinion. And it almost ruined him.

Ray wanted to make sure he would never again derail his company and his life with an unchecked belief. But how do you do that? By surrounding yourself with people who aren't afraid to check you.

> **DALIO:** How do I find the smartest people I know who disagree with me – and are willing to disagree with each other but who really care about your outcome? You learn a tremendous amount and that raises one's probability of being right.

HOFFMAN: I couldn't agree more. Whether you're starting a new venture or just going about your life, we tend to seek out agreement so we can feel secure and supported. But agreement on its own can lead to confirmation bias. This is why I believe in actively encouraging disagreement.

I should clarify, though, that "disagreement" can take many forms, from gentle note sessions to vigorous debates over coffee to what the folks at Bridgewater call "probing sessions." Personally, I tend not to enjoy a debate that feels too much like arm-wrestling, and I certainly wouldn't encourage ad-hominem attacks. You don't even need to raise your voice. I prefer discourse that's a little more… Socratic.

> **SOCRATES:** The unexamined life is not worth living!

HOFFMAN: The ancient Greek philosopher Socrates believed in cooperative argumentative dialogue to stimulate critical thinking.

> **SOCRATES:** One thing only I know, and that is that I know nothing.

HOFFMAN: The Socratic method was based on one person asking questions, and the other answering, and together they would eliminate hypotheses until only one was left. The discussion could get lively, but both parties understood that their challenging of each other was in service of a greater truth.

It's probably worth mentioning that Socrates was put to death for his beliefs – and spreading those beliefs too widely to the youth of Athens.

So it's safe to say that challenging established thinking doesn't sit equally well with every person. But I would argue it is not only a good idea to harness constructive conflict, it's critical to the decision-making process.

Ray Dalio made his epic mistake calling the markets in 1982 and in retrospect, it's easy to see how he made this mistake: he had seen a pattern emerging, and he thought he had the whole picture. But he had missed something. He failed to predict that the Fed would loosen monetary policy, which jump-started the markets and led to the '80s boom.

His mistake was understandable – but it was also avoidable. Had he consulted anyone but himself, had he built a system for testing his theories before betting big, he might have been able to hedge his bets and reduce the company's exposure. What he needed was more opportunity for people to tell him he was wrong.

> **DALIO:** I've got a principle that it's ok to make mistakes but it's not ok to not learn from them.

HOFFMAN: Ray clawed his way back from the disaster of 1982, and Bridgewater eventually recovered and started to expand. But he was determined not to make the same mistakes again. So he re-envisioned the way his team interacted with him, and with each other.

> **DALIO:** I think every organization, or every relationship, requires people to decide how they're going to be with each other. I'm going to be radically truthful with you and radically transparent and I would expect you to be radically truthful and transparent with me. And so that's really how it started.

HOFFMAN: Allow me to draw your attention to that phrase you just heard: "radically truthful and transparent." It's more than just a bracing way to describe total honesty. "Radical Transparency" is an organizing principle of Bridgewater, and for Ray personally: a rigorous, formalized method

of truth-telling that puts the highest premium on speaking uncompromising truths. The idea behind this formalized radical candor is simple: May the best ideas win.

> **DALIO:** I want to have an idea meritocracy. I want to have a company in which the best ideas win out wherever they come from, and that I want to be challenged, and I want others to be challenged.
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> And then it put me in the position of thinking, "How do I actually create a real idea meritocracy?" Not like the way people throw the term around, but a real way where everybody puts their honest opinions on the table.

HOFFMAN: A word about meritocracy. Ray is right: people do throw this term around a lot, and I believe that meritocracy is an important ideal – and a dangerous religion.

It's important, as founders, as disruptors, and as people, to evaluate our ideas with as little ego as possible. If an idea is good, it's good no matter who gets the credit. If it's bad, you should say it's bad, even if it's yours.

But. Beware looking at meritocracy as the sole arbiter of success. There are also factors of circumstance at play – like luck, where you were born, what means you had access to, what obstacles you faced – these circumstantial factors impact success as well. To ignore that fact is to use meritocracy as a cudgel instead of as a goal.

OK, back to Ray.

> **DALIO:** How do I actually create a real idea meritocracy? Not like the way people throw the term around, but a real way where everybody puts their honest opinions on the table and works themselves through, so that we could have these independent thinkers challenging each other to raise their probabilities of being right and then also have great relationships.

HOFFMAN: That last part is key. A company practicing "Radical Transparency" needs to allow anyone in the organization to be completely honest about their position as well as their disagreement with yours. They also need to encourage those same people to get along at the end of the day. That's easier to do when your company is still small, lean, and scrappy. As the company grows, so does the need for formalized structures that let you maintain this type of rapport.

> **DALIO:** When the company started getting larger I needed – or wanted – to keep that way of operating together. So whenever – and this is a big thing and I would recommend it to anybody and I wish that you would do this – and that is that when you're in a position of making an important decision, if you maybe just after you do it, you take pause and you reflect and you write down your criteria or your principles for doing it. You

write it down, in your own mind it creates a clarity because everything happens over and over again, so that thing's going to happen again.

And then it allows one to communicate that to other people that they're working with or they're living with. So you get a book of your principles, where it's like a book of your recipes. I'd love to have a book of Reid's Recipes, right?

HOFFMAN: Yep.

DALIO: What I would do is I would show the people this and the tapes, the videos, "Ok, here's the reality happening. Nothing hidden." And then the principles that I'm using to deal with that situation, so they can consider, "Do those make sense? Or would you do something differently?" And then we can have discussions like, "Are those sensible principles or not sensible principles?"

HOFFMAN: Ray believed so strongly in recording these principles that they became first an internal memo, then eventually a downloadable compendium, aptly named "Principles".

We'll hear all about that after the break.

[AD BREAK]

DALIO: I had this compendium that we did, I put a PDF online and it was downloaded about three million times, and a lot of people asked me about it and so on. So I felt a little bit more comfortable and I saw that it was helping a lot of people.

And then when I decided that I'm in my transition out of the second phase in one's life to the third phase in one's life, I decided that I would put it all together and put it out as a book to pass it along.

HOFFMAN: The book became a *New York Times* bestseller, then animated videos, and then an iPhone app. The Principles Instagram account has nearly 300,000 followers, who receive daily doses of wisdom like:

NARRATOR: Be extremely open.

Own your outcomes.

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

HOFFMAN: And here's one that jumped out at me especially:

NARRATOR: Make sure people don't confuse the right to complain, give advice, and openly debate with the right to make decisions.

HOFFMAN: You may have noticed that the last one has a bit of an edge to it. All of Ray Dalio's "Principles" are meant to be constructive, but not all are warm and fuzzy. And I wanted to talk about this principle in particular because it helps add a little structure and clarity to the idea of inviting disagreement. Let's hear it again:

HOFFMAN: A common reason some organizations, and some people, resist inviting open debate is because we don't want it to result in chaos or total lack of boundaries. Imagine a group of friends trying to decide where to go out to dinner.

FRIENDS: "Alright, who wants pizza?"

"Seriously? We did pizza last week!"

HOFFMAN: In this example, there is presumably no hierarchy between the friends; each hungry person has equal say. So who's to say when the debate ends or a winner selected? This is what I would call an unstructured disagreement; and it's only resolved when someone takes on an additional mantle of responsibility, to be the self-appointed leader, or facilitator, in the situation.

REASONABLE FRIEND: "Guys, guys. Why don't we just choose the place that's closest to us with the highest ratings?"

HOFFMAN: In a work environment, you're more likely to encounter a more structured configuration. Organizations tend to work on at least some kind of hierarchical system: there are employers and employees, managers and team members, bosses and staff. You might be saying to yourself: "I want to make sure my company is constantly challenging our own assumptions, but we don't want anarchy. We want to make sure that at the end of the day, the leaders whose job it is to make hard decisions can actually make them."

In other words, if you want to have disagreement to lead to action instead of more disagreement, it helps to have an agreed-upon structure in place first. That doesn't prevent someone in the mail room from challenging an idea from the C-Suite, it just means it's up to the C-Suite to listen.

Another distinction between constructive and destructive conflict is that in constructive conflict, each party's end goals are shared, or at least compatible. That goal can be as sweeping as Google's old, "Don't be evil," or as narrow as, "Let's figure out how to cut back on manufacturing waste by 2 percent." If the goal is shared, each person can trust that they're working toward the

same end. It's not a zero-sum struggle with one winner and one loser. It could be two winners enjoying a better outcome.

> **DALIO:** Really the key to success is you don't have to do everything yourself. You don't have to say, "I'm the guy who came up with the idea," and be possessive about that. You just want the best idea wherever it comes from. And you want to know that, "Oh, I've got these weaknesses so I can work with these people who have this strength."

HOFFMAN: This is true outside of the business framework as well. A constructive disagreement could lead to better understanding in a friendship or a marriage. Or simply, "Find a good place to eat." Instead of a struggle in which you try to be right and try to prove me wrong, it's a situation in which we're trying to learn together. Lose sight of that shared goal, and you can find your constructive conflict slipping away.

Destructive conflict can occur for a lot of reasons. One is not having a mutually advantageous goal in mind. It's argument for argument's sake, a way to exercise frustrations or air grievances. Another is if the parties don't all have a stake in the outcome.

> **DALIO:** Find two or three people who disagree with you and are willing to disagree with each other but who really care about that output, your outcome.

HOFFMAN: Is it possible for a constructive disagreement to turn destructive? Absolutely. I'd even argue this makes up the majority of disagreements. And it has to do with a little thing called:

> **SINGER:** Feelings…

HOFFMAN: People have feelings about confrontation. They have feelings about challenge. It goes all the way down to our DNA. Ray found himself hitting a wall of feelings at Bridgewater. And it took him a little off-guard.

> **DALIO:** I remember having a dinner – well, not a dinner. We have this 360 review and different people reviewed me. And the people I worked with said to me that some of this radical transparency and this radical truthfulness is hurting morale, people are feeling bummed out about it and all of that. These good friends, who also I'm working with, took me out to dinner and then we talked about that.
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> And so I was kind of caught in this dilemma, like should I not let them know what I really think? Should we behave differently? And that to me looked like slipping back into that other way of being. That sticks in my mind as a very difficult moment.

HOFFMAN: In an ironic way, the fact that Ray's colleagues were able to tell him this hard truth – and that he listened – makes a good argument for a system of radical candor and constructive

disagreement. Rather than him blowing off a criticism of his "Radical Transparency" system, their words genuinely gave him pause. The system worked.

Ray knew he didn't want to go back to the old way, in which employees kept their opinions to themselves even when they saw problems lurking. But neither did he want "Radical Transparency" to make everyone miserable. He wanted to fix the problem.

But to fix it, he had to understand why it was happening. People aren't robots, of course. We care deeply when we're told we're doing something wrong. And Ray found himself looking at the way most of us learn about right and wrong answers: in school.

> **DALIO:** I think the problem of our whole educational system is that it teaches you to be right and you have a possessiveness to be right. And now it's embarrassing when you're wrong, it's embarrassing when you have a weakness. No, everybody's wrong at times. Everybody's got weaknesses. It's by understanding that and knowing how to deal with it well, individually as well as collectively, that one can be successful.

 HOFFMAN: Ray and I couldn't resist taking a tangent into the educational system.

> **DALIO:** In other words, when a mistake is made then they get the grade. That's when the learning begins, not "that's the grade and it ends because you got that grade." So now take that moment and say, ok, this is how life is. You learn it's ok to have mistakes, it's ok to have weaknesses, everybody's got those. Just figure out what they are and how you work well with others in order to achieve your goal knowing those things. And I think that could be done from a very early age.

> **HOFFMAN:** Yeah. The way I look at that is the speed of the learning curve and if you're actually not making mistakes that you're learning from, you're not learning fast enough.

> **DALIO:** That's right. In anything.

> **HOFFMAN:** Yes, exactly

HOFFMAN: Ray took those ideas back to his colleagues at that dinner, the ones who'd alerted him to the morale problem within the company.

> **DALIO:** I said to the people, "Ok, let's have a meeting. Look, I don't want to do this. I don't want to make you feel bad. So what should we do about it? And do you not want me to tell you what I really think? Do you want to be inhibited from telling me what you really think? How should we do that?"

> And that allowed us to go really more into our cerebral minds and away from our emotional minds, because they would say, "No, no, no, no, no. It's a real benefit that

you're telling me what you really think and it's a good thing that we're having that. But it's emotionally difficult."

And then we shifted to, "How do you handle the emotional difficulties?" rather than "Stop being radically truthful and transparent."

HOFFMAN: How do you handle the emotional difficulties of criticism, of disagreement? Well, it helps to know just how conflict is experienced in the brain. I asked neuroscientist Daniel Amen, founder of Amen Clinics, what leaders need to know.

> **DANIEL AMEN:** We have seen, over the years, thousands of couples who are in trouble because of conflict. People who get fired from their jobs because they seek conflict. Kids who've had problems at school with conflict, either bullying or they are excitement-seeking, almost conflict driven

HOFFMAN: For many people, "conflict" becomes synonymous with "trouble."

> **AMEN:** I think the reason the brain hates conflict is because we become worried we're going to end up being shunned by the group or the other person, and that's an evolutionary survival instinct.

HOFFMAN: So to keep our relationships – and our place in the community – intact, we might learn to avoid conflict. But this depends on who you are. Through brain imaging techniques, Daniel has found that there are three kinds of people: those who hate conflict, those who seek it, and those who are just… really rigid. Personally, I'm probably conflict-hating, having been taught the value of conflict, and become, by teaching, conflict-seeking. But whatever your leanings, neuroscience shows that self-knowledge and trust are your two best tools for harnessing constructive conflict.

> **AMEN:** So for example, if you're a CEO and you can't fire people, what you do is you end up with a team that is not as competent as they could be. On the other side, if you're sort of an ass because you can't filter the impulsive, stupid thoughts you have in your head, well, you're not going to have a great executive team because people don't like to be abused.
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> So it's really having a balanced brain and then working on trust. Because if I trust you, I'll let you say hard things to me. If I don't trust you, I'm probably not going to let you do that. So I think of trust as the number one currency of being able to have healthy conflict.

HOFFMAN: As Dr. Daniel Amen just shared: underlying trust is essential for harnessing constructive conflict. But as Ray is quick to tell you, you're also going to need some process.

DALIO: Well, I have another principle which is, "Whenever you're having a disagreement with somebody or some difficult time with somebody, pause it, and then go above it and agree how should you be with each other. What are your protocols? What are the rules?" And then once you can agree on that, then you can go back down into your disagreement and navigate it in the agreed upon way.

HOFFMAN: At Bridgewater, there are protocols in place to help navigate constructive conflict and harness its benefits.

DALIO: We have a two minute rule, we have mediators, we do certain things to have the protocols to be able to have that disagreement and then to go beyond that disagreement. And also to show that failure or being wrong is not any way bad. Well, you want to learn from it.

HOFFMAN: And Ray also has some good general advice on how to approach disagreement in a constructive mindset.

DALIO: Relish the conflict, to have curiosity be a motivator. Like if you're seeing something different than I'm seeing, one of us is wrong and I don't know who that might be. Maybe it's me.

HOFFMAN: Another way to find grace in conflict? Find ways to let go of ego and trade it for a more centered mindset. Some people can do this with just a few cleansing breaths. For others, it's a lifelong struggle. Some, like Ray, turn to deep-focusing practices like meditation, which he has been committed to for years.

HOFFMAN: I know how deeply into transcendental meditation you are.

DALIO: I learned how to meditate in my freshman or sophomore year. Freshman year in college, I think. Whatever success I've had in life has been more due to meditation I think than anything else. Maybe my curiosity. Because it gives one an equanimity and a creativity that's really, really great.

HOFFMAN: Whether it's meditation or any other focusing practice, anything that helps you achieve a focused, egoless state will serve you well. The goal is to find a balance that lets you lay any ulterior motives to rest. What's left is a desire to find the best answers, for the good of a shared goal.

Before we close out this episode, I can't resist sharing one more jewel from my interview with Ray. As many of you know, we end our long-form interviews with a Lightning Round of questions. I'm going to share a couple of Ray's answers with you, as one of them stood out amongst nearly all the other answers I've ever gotten to this question. What follows is some

honest-to-goodness disagreement. Was it constructive? Free of ego? Did it serve our coexisting end goals? You be the judge.

HOFFMAN: Lightning Round?

DALIO: Lightning Round.

HOFFMAN: What's something that's in your pocket besides your phone?

DALIO: Well, my money. Let's see, my money. It's just, I think, my money and then a pad that I, whenever spontaneous ideas occur to me, that I scribble those ideas down so that I don't lose them.

HOFFMAN: Yup. I actually always carry a pad with me too, for the exact same reasons. Best movie ever?

DALIO: Oh, "The Big Lebowski."

HOFFMAN: Yeah, that's an excellent one. Mine is "Hudsucker Proxy," which is another Cohen Brothers.

DALIO: Oh, great one.

HOFFMAN: Artificial intelligence fills you with hope or dread? Pick one.

DALIO: Dread.

HOFFMAN: Your fave–

DALIO: Can I explain?

HOFFMAN: Yes, yes, absolutely.

DALIO: I'm a guy who has found that making algorithms has been so fabulous in my decision making and I really believe it's totally great, right? But I have a belief, a principle, that if you have decision rules in your app or however, that you don't have deep understanding about and the world is different in the future than in the past, you're going to crash.

And I think in the desire to move along very quickly, the speed of, "I'm going to use algorithms to make quick bets on these things" will probably, at some time, make very important decisions be very major mistakes. And since we're all connected, that scares me.

HOFFMAN: So by the way, in radical transparency, I actually have hope. And unfortunately just because of time, because I do want to get through the Lightning Round questions, to our next conversation we'll go into the AI stuff a little bit more.

DALIO: But let me ask you the question: Do you agree with the principle I just said? In other words if... Lets just chat a minute, because this is invaluable because I'd love your opinion, ok?

I'm saying if you apply AI and, A, it doesn't give you understanding and the future is different from the past, do you agree that's dangerous?

HOFFMAN: Well, the question is: Is it more dangerous than the norm of human behavior? So take for example a subset of it. I actually think that within 10 years we will strongly want a world in which it's only autonomous vehicles on the road and not human beings.

DALIO: Yeah, sure.

HOFFMAN: Right? So that would be an instance of within a domain and that doesn't mean that everything on the road is all known.

DALIO: But I think what you're doing is you're failing to reply to my principle. So I'm with you at the car, ok? Now the question is if something important that you don't have understanding and you're going to rely on the algorithm, you're going to be in trouble, right?

HOFFMAN: Well, except for what I'm saying is that there's a set of domains…

DALIO: I agree on the set of domains. But I think what I'm saying, when you're looking at that set, isn't that set what I've just described? Meaning when it has happened in the past –

HOFFMAN: No, not necessarily.

DALIO: Ok, go ahead.

HOFFMAN: Well, but that was the reason I was using AV as symbol thing, is there will be driving situations that will happen in the future that have not happened in the past. Some combination of electrical storm, a certain way that an animal or a kid is crossing a highway, etc., and there will be some kinds of sets of consequences from that. But the comparison set is not "Will an AI system in that situation be perfect?" The comparison

set was "Will the AI device, decision making, etc., be comparable to human performance that would be confronted in a similar situation?"

DALIO: Absolutely. And I'm saying I think in that particular case that the AI would perform significantly worse than the human.

HOFFMAN: So I don't think that's necessarily the case. I think there's a…

DALIO: Get rid of the "necessarily."

HOFFMAN: Well, because it's domains. So for example if you said, "Would I want to take AI technology today and put them in charge of a military, put them in charge of government?" Absolutely not. The AI systems are not there. And that's the reason why I say selective domains. The question is where are the domains? And I think that the reason I would say an answer of hope is I think the number of domains that we can rely upon an AI system to give us human level or better competence and refining it is increasing.

DALIO: But your last statement, which I totally agree with, doesn't get to the other statement of why the domain in the Army. And I agree with your prior principle, your prior principle was, what is it in comparison to the alternative?

But then if you have a domain like that and you think you're going to do Army, you're going to commit and do that command and you're going to get to the right answer versus the human, that's a very dangerous thing to do. And so I'm saying it's the understanding relative to the human understanding. Can we agree on that?

HOFFMAN: Well, so it depends on where the AI systems go in terms of ultimately creating understanding.

DALIO: Yeah, but I'm creating a universal law. You're responding to me in a way that basically says "it depends", which I agree with you it depends, but what is the universal law, so if you don't have understanding and you have human thinking, let's call that, ok, that will define the domains. So we could take those other domains that where there's better human understanding, that would mean that we're seeing the same thing, I think.

HOFFMAN: I think we are with maybe the caveat of we're finding it surprising the number of things we can apply a classifier AI system, which generally thinking if you don't have an understanding it just does classification. But it can encompass a lot more domains than we would've previously thought 10 years ago.

DALIO: Yes, but I think that what you're not doing that should be done, is to try to say, "Which are the ones that it can do? What's the universal truth of the ones that it is and didn't ..." You want the AI to raise your kids?

HOFFMAN: No, not yet.

DALIO: Ok, do you want, and I can start to –

HOFFMAN: Do I want an AI as a tutor? Maybe.

DALIO: Ok, right. But I'm saying, now let's list all of those. I think the common element that you will have is whether the human intelligence is going to be able to be better than the machine intelligence, the AI intelligence? And I'm calling that understanding, ok?

HOFFMAN: So the one thing I would say is I don't think any AI system today has anything approaching understanding whatsoever.

DALIO: But I'm saying I think what I'm calling about understanding is what the human has, just to keep it in our terms, that the computer doesn't have. That's when the human is superior.

HOFFMAN: Yeah. So we'll come back to this.

HOFFMAN: To be clear: Our shared goal in this discussion wasn't to determine the morality of AI, or even to "win" the debate. Our shared goal was to exchange ideas in a way that might give us both new perspectives. If you actively find opportunities for this kind of positive conflict, you'll constantly open new avenues for growth.

I'm Reid Hoffman. Thank you for listening.