

Alan Hu Foundation Mental Health Lecture Series

The Mindful Body: Thinking Our Way to Chronic Health Webinar by Ellen Langer, PhD

Professor of the Psychology Department at Harvard University

December 6, 2023

[00:00:00]

CHIH-CHING HU: Hello everyone, welcome to Alan Hu Foundation Mental Health Lecture Series. I am Chih-Ching Hu, Co-Founder of Alan Hu Foundation and host for your webinar. Today, Dr. Ellen Langer will present The Mindful Body: Thinking Our Way to Chronic Health.

[00:00:19]

First, I'd like to thank the Mental Health Association for Chinese Communities for providing simultaneous Chinese interpretation and thank you to Ida Shaw for Chinese interpretation.

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Alan Hu Foundation's mission is to promote mental health, raise awareness and remove stigma surrounding psychiatric disorders, and support fundamental research for cures. Please consider making a gift to Alan Hu Foundation by using the donation link in the chat box. Thank you for supporting our programs.

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Today, it is our great honor and privilege to introduce Dr. Ellen Langer. Dr. Langer is a social psychologist, professor, artist, and author. She's widely known as the mother of mindfulness and mother of positive psychology. She has authored hundreds of research articles and 13 books. She's the recipient of numerous awards and honors, including a Guggenheim Fellowship, 3 Distinguished Scientist Awards, the Staats Award for Unifying Psychology, and the Liberty Science Genius Award. She is a member of the Psychology Department at Harvard University. In addition, her paintings have been exhibited in galleries.

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Dr. Langer's talk will be based upon her latest book: The Mindful Body: Thinking Our Way to Chronic Health, where she shows that the mind and body are a single system, and if we embrace the idea of Mind-Body Unity, new possibilities for controlling our health become available to us.

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After the presentation, there will be a Q&A session. Please use the Zoom Q&A function to submit your questions. The presentation is for educational purposes only and is not intended for medical diagnosis. If you have any persistent symptoms, please seek professional help.

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With that, I'm turning the program to Dr. Langer. Welcome, Dr. Langer.

[00:02:32]

DR. LANGER: Thank you so much. That was a lovely introduction.

[00:02:37]

It occurs to me, I should say something about the painting that you see in front of you, which is about 20 feet long, almost all of the people in it have no ears, and their eyes are closed. And the name of the painting is 'Awake,' which most people are not, which is why I illustrate by their eyes being closed. And hopefully, by the

end of the lecture today, many more of us will be awake once we see all the advantages to being so.

[00:03:08]

Okay. My, I'm not able to advance the slides. I knew this would happen, uh, what should we do? Oh, there we go.

[00:03:17]

CHIH-CHING HU: Oh, yes, it's already—

[00:03:19]

DR. LANGER: Alright. So, what I want to do is play for a while, so you get a feeling for what we're going to be talking about, and then you're going to see, presumably, the enormous cost this mindlessness takes on us and how pervasive it is. In fact, 45 years of research has made clear to me that virtually all of us are mindless almost all the time.

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Now, the problem is that when you're mindless, you're not there to know you're not there. So, it's not quite as easy as people think to turn it around. Many times people say, 'Be in the moment,' and that's very sweet as an instruction, but it's really empty because, again, if you're not there, you can't take advantage of being in the moment. So, we're going to talk about how to make sure you're there, and what are all the advantages once you show up.

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But first, let me show you this slide, and tell me we can all yell out: 'What is this?' Now, I can't hear you, and I don't know if anybody is saying anything, and chances are you're not, because you have no idea. And this is the way we learn most things: We start off, we have no idea what it is. Then, somebody tells us.

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So, now people might tell us it's a cow. Now, the problem is that once we mindlessly accept that it's a cow, we become trapped by that information. So I want to meet with everybody here, let's make a date for 20 years from today, and what will happen is when you see this slide again, you will not be able to not see the cow, right? So the point is, when you buy into something, somebody tells you, 'This is what it is,' and you learn, either memorize it, or you can learn it on a single exposure, now you think you know, then you're trapped, and you can't see it in other ways, and that's the way we learn almost everything, right?

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In school, we learn absolute facts, and I'm going to tell you at some point today that all of those absolute facts are probably wrong in some context. But let's wait for that. First, let's see if you can add.

[00:05:35]

All right, you're largely an Asian audience. Asians are supposed to be very good in math, so you won't have any problem with this. So I'm going to present a number, and I want you to yell out the number, then I'm going to give you another number, and I want you to add it to it and say it out loud, and we'll keep going, okay?

[00:05:54]

So now, 1,000... 1,040... 2,040... 2,070... 3,070... 3,090... 4,090... plus 10. Now, I can't hear you. Uh, can you hear people?

[00:06:21]

CHIH-CHING HU: I cannot hear people.

[00:06:23]

DR. LANGER: Oh, so we don't know. Well, what typically happens at this point is, we go: 1,040, 2,040... 2,070... 3,070... 3,090... 4,090 plus 10, and people say 5,000.

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CHIH-CHING HU: 5,000.

[00:06:37]

DR. LANGER: All right, and then they're shocked, because if you add 4,090 plus 10, you don't get 5,000, you get 4,100. And, most of the time, people are totally oblivious to the fact that they've made a mistake, which is typically the case. Again, we're mindless almost all the time, and we're oblivious to it.

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Here's a simple one: how much is one plus one? Somebody answer.

[00:07:07]

CHIH-CHING HU: Two.

[00:07:07]

DR. LANGER: Okay, so we just heard the answer is two, but turns out, it's not always two. Now, this is the thing across the globe that we're the most certain of: one plus one is two. But if you add one cloud plus one cloud, one plus one is one. You add one wad of chewing gum plus one wad of chewing gum, one plus one is—you add one pile of laundry plus one pile of laundry, one plus one is one. So, in the real world, it probably doesn't equal two as often as it does.

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So now, just imagine you've just heard me teach you this, and now you go outside and somebody—unlikely—but somebody says to you, 'How much is one plus one?' You're not going to mindlessly say two. You're going to pay attention to the context, and then you're going to give a more mindful answer. You're going to say, 'It's often two, it may be two, it could be two,' but not that it is, right? And so that is the way we need to respond to all of the things we think we know.

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One last game. Okay, so this is David Copperfield. He's a famous magician. Now, for this to work, you have to pick a card, and you have to think very hard about the one card that you've picked, okay? Because he's going to know which card you've chosen. Okay, so everybody pick a card. Now, this is silly, but it only works if you look right into his eyes, and you think about that card. He doesn't know you, but still, he knows the card you've chosen. Look, your card is gone. Amazing, isn't it? And for everybody, your card is indeed gone. How could that be? How could he know? Because every single card there is a different card, right? And the point of this is that not only, we don't see what's in front of us, we don't see what's to the right, to the left, and all the while we're oblivious to how much we're missing.

[00:09:11]

I guess you're in California, so maybe I won't spend time with this, but oh well, quickly. You know that you're in a car and the car starts to skid, and people have been taught in the past that what you do to gain control of the car is you gently pump on the brakes, okay? Well, that was good before they developed new brakes and with the brakes that we have now, the anti-lock brakes, what you're supposed to do is, in a hard way, press firmly down on that brake to stop the car.

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Okay, so what am I saying here? At time one, you learn something, and it's even for safety sake, right? You lock yourself into it like it's a cow, one plus one is two, and then you're forever doing that, even when the circumstances change. So now, it's a whole new brake system, and now the very thing you're doing is more likely to cause accidents, even though you initially learned it to be safe.

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It also illustrates that mindlessness is not stupidity. Everything that we're doing that's mindless made sense when we first learned it. The problem is, once we think we know it, we no longer pay any attention. And so, as the circumstances change, what was correct initially becomes problematic eventually.

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I, as an academic, I find it more comfortable when I'm making big statements to say 'most of our suffering,' for example, but just between us and the other 20 million people I've spoken to, I really mean all. That's a very big statement. I'm arguing that all of our suffering, whether it's personal, interpersonal, professional, or global, is the direct or indirect effect of mindlessness. Now, that means if you can figure out, which is what we're going to try to do today, how to be more mindful, you're going to be able to turn around suffering, whether it's personal, interpersonal, or professional.

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And I've been doing this for over 40 years. In study after study, we increase people's mindfulness, and we find measurable benefits to competence, productivity, psychological health, well-being. In fact, in several of these studies, we made elderly people more mindful, we taught them how to be more mindful, and they live longer, right? So, the effects can be quite astounding.

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So, when I'm talking about mindfulness, I think what you need to understand, as many people, when they think of mindfulness, they think of meditation. And, I'm not talking about meditation. We can say this is mindfulness without meditation. Meditation is a practice that you engage in to result in post-meditative mindfulness, all right? So, meditation itself isn't mindful, and meditation is fine. This is different. This is not a practice; this is an entire way of being, that all day long, you should be in this state, not 20 minutes twice a day, all right?

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So, what is it that we're doing when we're being mindful? It's so easy, it defies belief, and the next slide is—you saw a peek of it—we'll show you some of the amazing findings that result from this simple change of mind. So, what you need to do is just notice. Now, you tend not now to notice things because you think you know them, and you thought, you know, you know which card was yours. There was no way he was going to be able to figure out your card. You were oblivious to everything else around it. If you were mindful, you would have taken in more information.

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So, the simplest way to be mindful is actively notice new things about the things you think you know, and then you'll come to see you don't know them at all, or not as well as you thought, and your attention will naturally go to them. A better way, but it's really hard, is to accept that we don't know anything. Now, every time we've been taught something, you know, we know these things, he knows those. You know, we're very sure that we know, and because we think we know, then we don't sit up and pay attention. If you knew what I was going to say next, why bother listening to me, all right? You can't know because everything is always changing, everything looks different from different perspectives. So, if you—so, you don't have to feel bad about knowing-nobody knows.

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Now, if you know you don't know, then you naturally pay attention. So before I started to paint, if you had asked me what color are leaves, and if it wasn't in the fall where leaves change colors, I'd say green. Then I start painting and you go to the paint store, see 50 different kinds of greens, and you can mix them together and add a little white, and now you have hundreds of different color greens. And so this thing for me was—a green leaf now becomes a much more interesting thing to pay attention to, and so it is with everything.

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So when you become more mindful—now, all you're doing is actively noticing—the research has shown us that you'll get an increase in innovation, people will see you as charismatic, you become better leaders, your relationships improve, and hopefully, I'll be able to explain some of these, not all of these to you. You get an improvement in memory, attention, learning, your self-esteem increases, your vision, your hearing, your health in general, weight loss, the list just goes on and on. And, when you're more mindful, you are less likely to experience burnout, stress, pain, have accidents, and so on and so forth. Just think about it. It seems to me almost remarkable these very big things follow from the very simple process of noticing.

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Okay, so when we're talking about mindlessness, it's like being a robot. It's an inactive state of mind where you're relying on distinctions and categories that you drew in the past, so the past overdetermines the present. You're trapped in a rigid perspective, but you're oblivious to that, right? You're insensitive to context, you think one and one is always two, for example. You follow rules and routines mindlessly, meaning you're governed by them. If you set up a routine, you do it from hell or high water, and over and over again what happens is we become oblivious and unaware of the fact that we're oblivious.

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Mindfulness, as I just said, is so easy. You actively notice; that puts you in the present. You know, everybody says, 'Be in the present.' You can't be in the present just by saying, 'I want to be in the present,' because we've all learned how not to be there, okay? But this act of noticing puts you in the present. You become aware of how information changes depending on context and perspective. You can have rules and routines and goals, but these should guide what you're doing; they shouldn't determine what you're doing. So, when they no longer make sense, we should put them aside, follow new—set up new routines for ourselves, which people rarely do. It leads us to be flexible, and probably most important in some sense is that when we're mindful, we're experiencing the world by being engaged. And when you're engaged, the neurons are firing, you're happy. And as you'll see in a few moments, that's the best thing for our health.

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Okay, so what do we have so far? Mindlessness is pervasive; most of us are mindless most of the time. We think we know, but we don't. A simple way of understanding that, a cute way of remembering what mindlessness is, is that we're frequently in error but we're rarely in doubt.

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Okay, now it's not just that our mindfulness improves our performance and our health; it's actually visible to other people.

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So we did a study quite a while ago where we had magazine salesmen selling magazines, and they were in two different groups: being mindful or mindless. When they were mindless, we had them learn the script, make sure you know it by heart, and then just go from client to client to client repeating it. When they were mindful, they learned the script, but now they were told to make it new in very subtle ways that only you would know. They go sell; after they sell or don't sell, somebody comes up to the client and asks them to evaluate the salesperson.

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And what we find is that when the person was mindful, simply by making it new, they were seen as charismatic, and they made many more sales. So, it seems to be attractive to people, and I believe it's the essence of charisma—why you're drawn to some people and not others—because they're there. All right? It's even visible in the products we produce.

[00:19:15]

Okay, so we did an orchestra study, a study with different orchestras where they were going to be mindful or mindless, and they're playing the same pieces of music, but they're going to be playing it under one of two instructions. When they're mindless, they're told: 'remember a time you played this where you liked your performance, and just replicate that, right? Do it the way you did before,' versus 'make it new in very subtle ways that only you would know.' Now, they're playing classical music, not jazz, so the novelty has to be very, very subtle, or else, you know, the sound would be awful.

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After, we tape the performances, and we're going to play them for audiences who know nothing about the study, and we also question the musicians. 89.5%, almost everybody, heard the difference between the two kinds of recordings, and people overwhelmingly preferred the mindfully played piece, and the musicians all preferred playing it this way. You know, you can't enjoy being mindless; you're not there to enjoy it. And so, one of the bottom lines is that if you're going to do it, show up for it. Whether you're brushing your teeth, it doesn't matter what you're doing, no matter how trivial it might seem to you; be there and notice, and you'll reap the benefits.

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But it was interesting to me; I didn't realize this until I started to write up the orchestra study, which was that, here we have everyone doing their own thing in the mindful group, right? They're all making it new in subtle ways. Nevertheless, you had a superior coordinated group experience. And that led me to think that maybe what our leaders should be doing is to encourage us to be mindful, and that's the best they can do. And then we take it from there. You know, if we're all in the same situation and we're all mindful, we're reading our cues from the same situation.

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Um, at any rate, the mindful experience, mindfully doing, in this case, playing music, we have it with written things, creating physical objects. No matter what we do, when people are there, the product is more highly rated.

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So, now, how do you appreciate other people so you can increase their mindfulness? You know that I'm going to be able to persuade you, even if you're not—you may be persuaded already. I mean, you counted to 5,000, you couldn't figure out how he understood which card you had chosen, you added one and one is two, you know, so you see yourself making these kinds of mistakes, say, 'Well gee, maybe I'm mindful.' How can we play it forward?

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And I think a very important thing that we need to do for ourselves and for other people is to recognize that behavior makes sense from the actor's perspective, or else he or she wouldn't have done it. This means that every time we're being evaluative, judging somebody or ourselves negatively, we're being mindless. Nobody wakes up in the morning and says, 'You know, today I'm going to be arrogant, bigoted, and clumsy.' So, when people are behaving in— what's going on, what is their intention, right?

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Well, it turns out that for every single negative judgment we have for ourselves or anybody else, there's an equally potent but oppositely valenced alternative. For every negative, there's a positive, and the person is doing it for that positive reason. So, you might not like me because I'm so gullible, which I am, and I could even try to change and stop being so gullible. I'm not going to succeed. Why is that? Because from my perspective, I'm being trusting. And as long as I'm trusting, I'm going to be gullible, so if you want me to change, you have to get me to stop valuing being trusting.

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But once you see why I actually am doing what I'm doing what I've been doing, chances are, you're not going to be so quick to want to change me. You may see me as impulsive; that's because I'm being spontaneous. I can see you as boring, but from your perspective, you're being stable.

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Okay, you know, no matter what the negative is, there's an equally strong positive alternative. So now, you can see how our relationships improve by being mindful. See, when you're mindless, once you call somebody, 'Oh, you know, you're so inconsistent, like, I'm having trouble standing you,' then you're only going to see that in one way. The more mindful you are, the more perspectives you're going to take. And as soon as you take the other person's perspective, then the behavior makes sense, and you'll probably no longer want to change their behavior, or change your own behavior, or not change it in the way we proceed to do so now.

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One of the reasons we don't become mindful is because we're very afraid of making mistakes. And mistakes, I think, need to be understood differently from the way we typically understand them. A mistake in one context may be a success in another. So, you know, these people, they made this defogger, and it was supposed to save the crops in Florida; they spray, and what happened? It produced an icy snowy substance that actually killed the crops. Terrible failure, right? What a mistake! But somebody else took that very same defogger and made it a snowblower, so that in ski resorts, when mother nature doesn't provide the snow, there you have it, we have a snowblower, and now everybody is happy.

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All right, people created a glue. Imagine all the ego that went into it, all the money to create a glue, and it turned out the glue failed to adhere. Oh God, what a mistake, what a failure! But somebody else thought, 'What can you do with the glue that fails to adhere?' You may not know the answer to that, but what if you say, 'What could you do with a substance that sticks just for a short amount of time?' And people at 3M realized and made a Post-It note, and my guess is they made a lot more money with this failed glue as a Post-It note as they would have if in fact it was a good glue.

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When you recognize that a mistake could have been an opportunity, that's going to result in a reduction in stress. And I think stress is a major problem for us, but stress is mindless. Stress requires two things: it's a belief that something's going to happen and that when it does, it's going to be awful. But we can't predict, and that's something that I spend a lot of time in my new book discussing. I hope you read it, so you'll be more persuaded because almost everything you do is based on your belief that you can predict.

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So, I said to my class—this is a decision-making class, graduate students at Harvard—and I said, 'Okay, look, I have been teaching a version of this class for 40 years. I've never missed a class. What is the likelihood that I'm going to be here next week?' So, I go around the room, and these are smart Harvard kids, so they know they shouldn't say 100%. So, they say silly things: 97%, as if there's some calculation they've done, 98, 99, 96. Essentially, everybody in the small seminar, all 12, 15 people, say I'm going to be there. Because—Now, I switch

it around and I say, 'Okay, I want everybody here to give me a good reason why I won't be here next week.' Invariably, the first person says, 'You've always been here; you deserve the time off.' The next person says, 'Your dog has to go to the vet.' The next person says, 'You got a flat tire.' Now we get 12, 15 good reasons. Now I say, 'Okay, what is the likelihood I'm going to be here next week?' And that 100% drops to 50%.

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Looking back, as Kierkegaard said, we live our lives going forward, but we analyze it looking back. Looking back, we can make everything make sense; going forward, we don't know what's going to happen, alright? Now, that could be scary, until we recognize that outcomes are in our heads; they're not in events. Events are not good, they're not bad. So, if you say, 'Once you realize that this thing may or may not happen, right, the thing you're stressed about: it may or may not happen,' you'll feel a little better than believing it will happen. And when it does happen, there are going to be good things about it and bad things, depends on how you want to understand it. The things themselves are neither good nor bad.

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Right, so if you are stressed with something and you simply say to yourself, 'What are three reasons that it might not happen?' You'll immediately feel less stressed. Then, assume it does happen. How might that actually be an advantage? And when you live this way long enough, whatever happens, happens, and you're able to be present and not worrying about the future.

But I also have a one-liner that people tell me they find helpful, which is when you're stressed about something, ask yourself, 'Is it a tragedy or an inconvenience?' Almost always, it's just an inconvenience, right? So, it gives you a chance to breathe and say, 'Yeah, I missed the bus, I didn't turn in the project on time, I screwed this or that up, the world's not going to end.' This stress is very important.

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My own belief—I don't have data for this—is that stress is the major killer. I believe that if we took people who are just diagnosed with some terrible cancers, let's say, and nobody's going to be happy with such a diagnosis, and so, we wait three weeks and then we start measuring how stressed they are. I think that degree of stress over and above—it's a big statement I'm making without any data, remember that—but over and above genetics, over and above treatment, nutrition; that degree of stress will predict the course of the disease.

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Okay, now, it used to be the case that the medical world believed that thoughts were basically irrelevant to our health. I'm sure they always thought that it's nice to be happy, and it's nice not to be stressed, right? But, in order to become ill, you needed the introduction of an antigen. Now, we have people recognizing the importance of the mind, and now, many people talk about a mind-body connection.

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What you heard in my introduction is I'm going much further than that. It's not that they're connected; they're one thing. And so, in a moment, we're going to turn to that, and I'm going to try to persuade you. But first, I think that when I've told you one plus one doesn't always equal two, I want you to deeply realize that all of our facts may be suspect.

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Years ago, I was at a horse event; this man asked me, could I watch his horse, because he wanted to get his horse a hot dog. I'm Harvard all the way through. I know, as well as I know one and one is two; I know horses don't eat meat. He came back with the hot dog, gave it to the horse, and the horse ate it. My mind was blown. I realized then that everything I thought I knew could be wrong. Now, I'm strange because that actually pleased me, because that meant that all the things that I learned can't be—maybe they can be.

[00:32:31]

What you have to understand is that our facts—mostly our science facts—but all of our facts, are deduced through experiments, and experiments only give us probabilities. Experiments say that if we were to do the same thing again, exactly the same thing, which we can never do, but let's assume we could, we're likely to get these findings. So, most horses, of the horses we've tested, don't eat meat. That becomes more general, and it becomes an 'always' statement.

And when you know something for sure, you don't stop and pay any attention to it.

[00:33:11]

All right, so, once we recognize that these facts are probabilities—they are from particular perspectives, they're based on limited information—then we need to question many of the facts we take for granted.

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So, to start with some of them: Why can't we improve vision beyond 20/20? Why can't we just think ourselves thick, thin, cute? Why can't we think ourselves thin, reverse virtually all brain damage? Why can't we do any of the things that most of you think we can't do? And I'm saying that we need to free ourselves from these constricting mindsets, our mindlessness, and the limits it places on us. And maybe we can do many of those things.

[00:34:07]

In the book, I talk about a lot of the studies we've done on fatigue. People think for sure fatigue is a physical thing; our minds have nothing to do with it. So first, let me tell you about an interesting study that was done in the '50s by Frank Beach. He took a little boy rat and he introduced a little girl rat, and they'd copulate, and then the little boy rat is exhausted, right? He needs a refractory period.

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Okay, and this, every little boy rat introduced to a little—then, he did something different. Once the little boy rat was exhausted, fatigued, spent, whatever way you want to understand it, he immediately introduced a new little girl rat, and he was ready to go all over again. Renewed energy just by changing the context.

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Okay, so we have lots of studies. The simplest one is if we ask people to do a hundred jumping jacks and tell us when you get tired, they get tired at about 70. Then, we ask other people to do 200 jumping jacks and tell me when you get tired, and they get tired around 140. All that's changed there is our mental construct.

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Now, if I asked you, and I do my students, I say, 'How far is humanly possible to run physically before you just break down?' And they're smart again, so they know a marathon is 26 miles. So, what they do is—it becomes like an auction: one says 28, then 30, 35, eventually someone says 50; everybody groans, like 50, right?

[00:35:52]

Then, I turn on a video of the Tarahumara, which is a tribe in Copper Canyon, Mexico, and they can run over 200 miles without stopping. The difference between 26, and I myself couldn't run a marathon, I don't think I could, right? What I'm saying is I'm mistaken in thinking that I can't. But right now, I'm not able to run even five miles.

[00:36:19]

26 miles, the difference between 26 miles and 200 is the difference between what you think you're able to do and what I think you're capable of doing, that all of us are capable of doing. And, most of us can't do what we can't do because we presume we can't do it, right? And we need to open that up, and we'll be amazed at what we'll see.

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And along with this, I began looking at a new view of mind and body. So, I said, the medical world saw them as totally separate, then people think they're related, but it's not clear how. And I'm saying it's one thing. As this one thing, wherever you put the mind, you're necessarily putting the body. So, I'm going to tell you about some studies where we put the mind in strange places and took the measurements from the body.

[00:37:18]

But this, the book 'The Mindful Body,' started as a memoir, so I have lots of personal stories in there. And one that speaks—this is probably my first understanding of Mind-Body Unity—but I was too young; I didn't call it that at the time. But so, I was secretly married when I was very young, don't tell anybody. And then, at 18 or 19, we went to Paris on our honeymoon. And now, you know, I'm 18 going on 30, I'm very grown up because, after all, you know, I'm married now.

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And we go into a restaurant in Paris, and I order a mixed grill, and on the plate is a pancreas. And so I say to my then-husband, 'Which of these is the pancreas?' He points to something. Okay, I eat everything else. Now comes the moment of truth. I feel now I'm supposed to be sophisticated, I'm a married woman, even though I'm still a child, right? And I must eat the pancreas. I start eating it and I literally get sick.

[00:38:26]

He then starts laughing. I say, 'Why are you laughing?' He said, 'Because that's chicken. You ate the pancreas a while ago.' Alright, so my telling myself that this was something it wasn't was enough to make me sick.

[00:38:43]

Now, let me tell you another pancreas story that also plays a large role in all the Mind-Body Unity work. My mother had breast cancer, and it had metastasized to her pancreas. That's the endgame. Then magically, it was totally gone, and the medical world couldn't explain it, and the Mind-Body Unity can. And I believe spontaneous remissions are probably far more common than most people realize.

[00:39:20]

I mean, just think of it for a moment. You know you're about to die, you go home to be with your family. If you get better, you don't think, 'First thing, I must call the doctor and tell them they were wrong.' Okay, so these things can all be explained by our putting mind and body back together.

[00:39:40]

So, the first study we did on this is now called the Counterclockwise study. I can call it a famous study because if you turn on The Simpsons, go to Havana, they actually talk about the study. They don't get it quite right, but it's fun that they deal with it, right?

[00:40:01]

So, it's a simple study, again. What we did was to retrofit a retreat to make it seem that it was 20 years earlier, like a Hollywood set, but not so fancy because we didn't have the funds, and we were going to have old men live there as if they were their younger selves. So, they were going to be talking about events of the past in the present tense, as if they were just unfolding. All of the artwork, the books, everything around them was of 20 years earlier, alright? And we had a comparison group that was going to reminisce for this amount of time.

[00:40:41]

Alright, what happened? So, these are old men who really seemed like they couldn't even make it through the week. That's how weak they looked the other week. And before we started—and we take lots of measures—and as soon as they got to the retreat, you could almost feel the change in them. But by the end of this short week,

what we found was that their vision improved, their hearing improved, their memory, their strength, and they looked noticeably younger. Now, all of this is without medical intervention.

[00:41:22]

So, people in their late 70s, 80s, you know, this was back many years, this was back in 1979, you know, when 80 was a lot older than it is today. But when have you ever heard of even people in their 60s, without any intervention, their vision and their hearing improve—but their minds made it possible.

[00:41:45]

Then we went to the next study many years later, and we did this study with chambermaids. Now, as you know, chambermaids are working, doing exercise all day long, cleaning the rooms, making beds, and so on. So, the first thing we asked them was, 'How much exercise do you get?' And oddly, they thought they didn't get any exercise because they thought exercise is what you do after work, because that's what the Surgeon General says it is. If you sit at a desk all day, you're not going to get any exercise until you go to the gym or whatever.

[00:42:20]

So now, we take these chambermaids and we divide them, again in two groups. Very simple, and we're going to teach one group that their work actually is exercise, that making a bed is like working at this machine at the gym, you know, mopping is like working in this other machine, and so on. So, we persuade them that their work is exercise. So, at this point, the only difference between the two groups is their mindset. One group now knows their work is exercise.

[00:42:51]

Now, prior to this, we take lots of measures—weight, health, and so on. At the end of the study, we take these measures again, and the first thing we want to check is the group that now sees their work as exercise—are they eating any differently? No. Are they working any harder? No. Nevertheless, by changing their mindset, they lost weight, there was a change in waist to hip ratio, body mass index, and their blood pressure came down.

[00:43:30]

So, to make sure you understand what I'm saying, is that this woman, who is on the bicycle at the gym, if she doesn't see herself as getting exercise, she's not going to reap the benefit of getting exercise. And possibly, this woman who's not doing anything but sees herself as having spent the day at the gym very well may benefit from being at the gym.

[00:44:00]

Okay, we do the next study with people who have type two diabetes. They come in, we take lots of measures, and then we're going to have them sit down at the computer and play computer games. The reason will be clear in a moment. Next to the computer is a clock. Unbeknownst to them, the clock is rigged. For a third of the people, the clock is going twice as fast as real time. For a third of the people, the clock is going half as fast as real time. And for a third of the people, it's real time.

[00:44:39]

Now, we have them play computer games, and we tell them, 'Change the game you're playing about every 15 minutes or so.' That's to ensure that they'll look at the rigged clock. The question we're asking is, does their blood sugar level follow real or perceived time? And the answer is perceived time. Their blood sugar is moving with the clock, regardless of the fact that the clock is rigged, suggesting we have more control over our diabetes than we think.

[00:45:17]

In a much more recent study—lots of these are clock studies, I've become obsessed with clocks—but we inflict

a wound. Now it's not a big wound, we're not sadistic, but it's a wound nonetheless. And people are in front of a clock that is going twice as fast as real time, half as fast as real time, or real time. And the question we're asking is, does that wound heal based on real time or clock time—perceived time? And again, the answer is perceived time.

[00:45:55]

We have people in a sleep lab. They wake up, and we've again played with the clock, and they think they got two hours more sleep than they got, two hours fewer, or the amount of sleep they got. And we find biological and cognitive functioning again is following perceived sleep.

You all know about placebos, right? I think that placebos are our strongest, most important medicine. Now, just think about it. You take this thing that's nothing, and then you get better—if a doctor gives it to you—and that seems very strange. Why do you have to—if you're doing all the work, you have to be the one doing the work because the pill is by definition inert. So, my goal had been, how to make it so we can do this for ourselves? All of this work is aimed at giving us the control over our health—that placebos make clear—that we actually have. I think it's at least a third of the people with virtually all diseases can heal with placebos.

[00:47:01]

Okay, so here's what we did. Since you can't give yourself a placebo, we created what I call this 'Attention to Symptom Variability.' Now, it's a mouthful. It really means just mindfulness, right? Symptom variability—you're noticing the way symptoms change. When you're given a terrible diagnosis, one of the big ones, most of us—any chronic disorder—we expect our symptoms to stay the same or get worse.

[00:47:34]

Nothing stays the same. Sometimes it's a little better, sometimes it's a little worse, but it doesn't go in a straight line. If we can notice when it gets better and ask, 'Why, why now is it better than before?' Three things happen.

[00:47:52]

The first: as soon as you see that it's changing, you feel better because you thought it was stable, awful, and now you know chronic pain is not so bad sometimes. Second, when you ask yourself why is it better or worse now, you're engaging in a mindful search. That mindful search is itself good for your health. Remember, I started this by saying, with people of all ages—but the most dramatic was with elderly people—we make them more mindful and they live longer. So, you're looking for why, even if you don't find it, you're doing good things for yourself. As you're noticing, the neurons are firing, and that's literally and figuratively enlivening. And, I believe that if you're looking for a solution, you're much more likely to find one.

[00:48:47]

Okay, so the work we've done so far with this attention to variability—we find improvement in stress, depression, multiple sclerosis, Parkinson's, chronic pain, arthritis, stroke, and hopefully more to come. Those are pretty big things that we're able to essentially heal ourselves. But you might be saying to yourself, 'Well, you were supposed to show us how we can do this for ourselves, and instead of the doctor giving us this little white sugar pill, now we have to have somebody calling us,' but no, we don't need that at all.

[00:49:29]

Almost all of us have smartphones. Set your smartphone to ring in two hours. When it does, ask yourself, 'How am I feeling now? And is it better or worse than before and why?' Then set it again—three hours, an hour and a half, it doesn't matter. Do this many times in the course of the day, over the course of a week. And what we found [inaudible]

[00:50:08]

—Essentially, once we're mindful, once we open up, we become aware of all sorts of opportunities to which we

were otherwise blind. Everything is changing, and rather than hold on to this stability, which is an illusion, we need to embrace uncertainty and exploit the power in uncertainty.

[00:50:33]

So, we need to challenge the idea that whatever limits we believe have to be—don't have to be. There are some—

[00:50:50]

CHIH-CHING HU: Oh, I think we lost Dr. Langer. Hi Dr. Langer, you're on mute.

[00:51:00]

DR. LANGER: Okay, so now let me see, I think...

[00:51:04]

CHIH-CHING HU: You need to share it—

[00:51:05]

DR. LANGER: Okay, but did I lose... Okay, what do I have to share screen? We're just at the end, it's a shame, but let's see. Okay, so jump to the... Let me get this up. Okay, everybody be patient with me. Okay, it doesn't matter.

[00:51:28]

CHIH-CHING HU: Yes, I can see your screen. You just need to back to the...

[00:51:32]

DR. LANGER: Yeah, okay, let's get... I can't... If I can move this here, there we go, then I can put this here... I think I've got it! Yes, there we go. Okay, let's go back. Okay, good.

[00:51:50]

So, let me say before we end that we need to challenge these limits. There's no way of knowing that we can't. There's not an experiment that can be done that shows we can't. All we can ever show with research is that what we've tried and the way we've tried it didn't work. That doesn't mean other things can't work.

[00:52:16]

And whether we are trying—not just big things, but for ourselves—whether I could run that marathon, whether you could pass that big exam, whatever the case, you can't know that you can't, and trying, doing it, is so much more rewarding. So, at least it's my belief that with only subtle shifts in our thinking and expectations, we can begin to change the ingrained behaviors that sap our health, confidence, optimism, and vitality from our lives.

[00:52:55]

And when we do this, we come to realize that all we need to do is increase our mindfulness to increase our effectiveness, our health, and our well-being. And it's so simple. What we need to do is show up. If we show up, we'll enjoy what we're doing. When we're happily enjoying what we're doing, we're being mindful, the neurons are firing, and it's good for our health. There's no downside to this. So let's just go back over one little thing here.

[00:53:28]

I'm telling you that when you actively notice, you're engaged, you're alive, people like you more, you're making yourself healthier. When you bring this alertness, this mindfulness to whatever you're doing, it leaves its imprint in what you're doing. So, in some sense, I can't find a reason for us not to want to put this—to be this way virtually all the time. And so, let me wish you a life of being more mindful, and I'm happy to take questions now.

[00:54:06]

CHIH-CHING HU: Thank you so much, Dr. Langer, for the wonderful presentation and sharing your concept with us. So now, we open up to Q&A.

[00:54:19]

Is this painting also done by you?

[00:54:22]

DR. LANGER: Yes.

[00:54:23]

CHIH-CHING HU: Oh, nice. Thank you.

[00:54:26]

All right, so we have our audience asking a question: 'What are the ways to promote mindfulness in the Asian American community?'

[00:54:38]

DR. LANGER: I think this is something that we can do around the globe. There's nothing special about making—encouraging Asians to be more mindful than Africans, Americans, or what have you. All we need to do is recognize we don't know. And when we don't know, then we're there to find out, and life becomes much more exciting. So, I don't know what the particulars are in an Asian culture to teach this certainty, but that's what we have to counteract. So, we have, in fact, I was... I'm in touch with people about putting a new kind of school in China where we're going to encourage mindful learning.

[00:55:25]

So, what would mindful learning be? It would be learning conditionally—One in one could be two. Horses, you know, mostly don't eat meat—rather than those absolute facts, because again, when you know something absolutely, you no longer pay any attention.

[00:55:43]

CHIH-CHING HU: Right. Let me mix some questions with an earlier question: 'How to utilize mindfulness to stay positive after diagnosis of stage four cancer?'

[00:55:58]

DR. LANGER: Yeah, you know, so, I mean, that's a big one, right? Now, as I said before, nobody is going to get a diagnosis like that and, you know, I don't care how mindful you are, and just feel fine. You're going to be stressed. But once you start dealing with it, you have to recognize that we don't know for sure what ha—we don't even know for sure that you have stage four cancer. We don't know what stage four cancer is. These are all probabilities.

It's very important because people, you know, doctors all over the world, on occasion, mistakenly will say to somebody, 'You have six months to live.' They cannot know that, and they should never say that. So, you start off and you say, 'Well, you know, who knows how bad this actually is?'

[00:56:48]

I told you that my mother's cancer went into complete remission, right? So, pancreatic cancer, in the worst stage of pancreatic cancer, and then magically it was gone. So, there's a possibility that that will happen to, you know, to anybody here who's got that diagnosis as well. But then I think you also want to say to yourself, 'Let's assume—none of us know how long we're going to live.'

[00:57:16]

And most people, I think, spend too much time worrying about adding more years to their lives when in fact I think we should be adding more life to our years. In other words, you know, if somebody told me I had two weeks to live, I can't imagine that I would spend the time being depressed, you know, I'd want to live fully, right?

[00:57:44]

And the good thing about all that I'm saying here is that very way of being, making yourself feel good, going out, and you know, being with other people, and engaging everything around you is good medicine. So, it's again a win-win.

[00:58:06]

CHIH-CHING HU: Next question: 'When dealing with chronic pain, specifically nerve issues, how would you recommend using ATV and mindfulness to increase nerve activation but not limit it?'

[00:58:17]

DR. LANGER: Yeah, sure, yeah. You know, some of these will take longer than others, but, you know, we're doing some work with infertility, with migraines, with everything. Everything varies, and, you know, if I ask a doctor, you know, that you have some disease, whatever it is, and if right now you don't have any of the symptoms, do you still have the disease? Okay, so just put that on the back burner to think about that. What we need to do is to—with anything, whether it's nerve pain, damage, is notice the change.

[00:58:58]

And by noticing the change, we see, gee, sometimes it's better. If you can figure out when it's better, then you can work with it. In one of my other books, I talk about Langer's reverse of... My head is not working now... Um, There's a belief that if you always go half the distance from where you are to where you want to be, you're never going to get there. You know, you're a mile away, you're an inch away, a half an inch, a quarter... Okay, and then I reverse all of that and say there's always a step you can take from where you are to where you want to be.

[00:59:45]

You know, you want to stop eating the box of cookies? Okay, eat a half of a box. You can't not eat a half of a box, eat a quarter. If everybody could eat a crumb less, and then you build yourself up, you know, step by step. You know, so you figure out how to handle a tiny bit of that pain from the nerves, but you sit this way rather than this way, and then you work your body slowly. You know, all you need to do is recognize we don't know what will cure it. We don't know what will feel better.

[01:00:18]

All the information we're ever given from the medical world, by necessity, is about norms, about what's true for most people. And in some very real way, none of us is 'us'. We all differ from whatever that norm is, and you have to find, you know, by testing things, the way you're different. And again, as you do this, you'll end up feeling better independent of any of the nerve damage because the act of being mindful itself is engaging and energy-begetting, and it's what you do when you're at play.

[01:01:00]

CHIH-CHING HU: Okay, we are actually at 5:30 already. Maybe one or two more questions.

[01:01:10]

DR. LANGER: I'm happy to stay for a while.

[01:01:11]

CHIH-CHING HU: So many questions that come in and we don't have enough time. Let me see, 'How to help a middle school student who suffers from depression to be mindful?'

[01:01:24]

DR. LANGER: Yeah, I think that it's—by building up small, you know, in a small way, that if you're depressed—it doesn't matter how old you are, and someone says, 'You want to come out and come to a party,' you probably don't want to go. So, what you need to do is start doing small little things because when you're doing things, whatever little things you're doing, at those moments, you're no longer depressed. And then you draw attention to the fact that you're okay. See, depression, you can use the attention to symptom variability the same way as with chronic pain. People think when they're depressed that they're always depressed. Nobody, even the most depressed people, are equally maximally depressed all day long. So, if you attend to when you're a little better, when you're a little worse, and you see, 'Gee, you know, when I'm giving a lecture to the Alan Hu Foundation, I feel better.' Well, if that's the case, then I should give more lectures to your friends. You see what I'm saying? You know, so what you need to do is have the person start to notice and in the noticing, they'll feel better. And then you ask, 'Did you feel better just then?' They can see that they feel better.

[01:02:53]

Yeah, so again, I think this attention to variability is probably the way to handle most things because we tend mindlessly to hold things still. And if we let them vary, you know—it's the same thing with dementia, you know, in pre-dementia, where you have people who are, you know... You start to forget things, and then everybody worries, 'Oh my goodness, you know, your memory is going.' But if we attend to which things they're not remembering and which things they are remembering, and then why, you know, and then, I think that we'd find that we can reverse a lot of that memory problem as well. But these things are not always easy, not always quick, but the doing of them itself feels good.

[01:03:46]

CHIH-CHING HU: Right. How about the last question: 'What is the difference between mindfulness and mental control?'

[01:03:56]

DR. LANGER: I don't know what you mean by mental control, but I think the difference between mindfulness and most other things that sound similar is that when you're mindful, it's a soft openness, and, you know, it's a flexibility, an awareness that things can be understood in multiple ways at any moment, and—which is what helps keep you grounded.

[01:04:26]

Now, mental control... Tell me, you know, have the person tell me what do they mean by mental control.

[01:04:34]

CHIH-CHING HU: Yeah, probably not well very well defined, maybe just thought about, you know, some, I, I, I don't know exactly what the—

[01:04:46]

DR. LANGER: Okay, because, you know, that if we're talking about controlling things, and even if we're talking about rationality, a lot of being rational is mindless. To be mindful, you have to be noticing something new. And so, if when you're exercising this mental control, you're doing it the same way you've always done it; it sounds like it could be quite mindless. You know, if you're multiplying 532 by 23, it can be hard, but it's mindless. It's not mindful because there's no, there's no novelty there, right?

[01:05:26]

And so, I think another thing that people need to understand is almost fully the way you feel is a function of the way you frame the situation around you: That situations are not stressful, situations are not boring, it's the way we approach them. So, if you're ever bored, look and see how the things you're doing and the things around you are brand new. If you're stressed, think of how all the things you're doing are, in fact, same old, same old, to calm yourself down. But the important thing is that our emotions are largely choices, and they're choices that can only be made if you're mindful.

[01:06:12]

I—it's too hard, you know, these are very big questions. I appreciate the questions, and you know, there's not time to give the time to answer that the questions deserve. I deal with a lot of that, actually, in the book. You know, the book isn't just about the health part of life; a lot of it is about the happiness part. And let me just throw these things out to tease people a little, which is... Because I spend a lot of time thinking about language, and I discovered there are things where people think they're doing good. You know, they tell somebody—You tell your child 'Try,' or you say to yourself, 'I'm going to try.' And trying something is, of course, better than giving up, than not trying at all, but trying has built into it an expectation for failure. You wouldn't try to eat an ice cream cone; sounds strange 'try to eat the ice cream,' right? And so, if we have an expectation for failure, we're never going to be able to run 200 miles without stopping, metaphorically.

[01:07:25]

Another one of these—this one I like the best. Many, many years ago, I was asked to give a sermon at one of the Harvard churches. I'm not religious, and I'm Jewish. If I were to be religious, so being in a church was, you know, a strange thing, but I said yes, because I say yes to most things. So, I started thinking about what could I lecture on, what could the sermon be about? Okay, I know something about forgiveness, maybe I'll think about forgiveness and that can pass as religious. I came up with something that was actually sacrilegious—almost. If you ask 10 people, 'Is forgiveness good or bad?' They're going to tell you forgiveness is good. If you ask 10 people, 'Is blame good or bad?' They're going to tell you blame is bad. Well, interesting, because you have to blame in order to forgive. So, our forgivers are our blamers. Now, it gets even worse. Do you blame people for good things or bad things? Will you only blame people for bad things? But things in and of themselves are neither good nor bad. So what do we have? We have people who see the world negatively, who blame, and then forgive, which is hardly divine. So, we can go back to something I said a little while ago, that if we understand why a person did what they did, then there's no need to blame, and if you don't blame, then there's no need to forgive. So, you can see again how relationships improve dramatically when we're more mindful. Anyway...

[01:09:12]

CHIH-CHING HU: Thank you so much, Dr. Langer, for the wonderful talk and the wisdom. It's a great concept to us. Thank you so much.

[01:09:21]

DR. LANGER: Thank you for the opportunity to talk to all of you. Yeah—

[01:09:24]

CHIH-CHING HU: And thank you to everyone for joining our webinar today, and we hope to see you again in the next webinar. Please take a moment to fill out a short survey. I will leave the donation QR code for a few more minutes, and thank you for donating to support our programs. With that, I'm closing the webinar. Thanks, everyone. Thank you, Dr. Langer, and have a nice holiday season.

[01:09:51]

DR. LANGER: Stay well.