

## Shrink Rap Radio #410, July 3, 2014, A Research-Based View of Mindfulness & Health

**David Van Nuys, PhD, aka “Dr. Dave” interviews Ellen Langer, PhD**  
(transcribed from [www.ShrinkRapRadio.com](http://www.ShrinkRapRadio.com) by Nick Munson)

**Introduction:** My guest today is Dr. Ellen Langer, Harvard professor and author of 11 books and 200 research articles. We’ll be discussing her latest book, *Counterclockwise: Mindful Health and the Power of Possibility*. For more information about Dr. Langer please check our show notes at *ShrinkRapRadio.com*. Now, here’s the interview:

**Dr. Dave:** Dr. Ellen Langer, welcome to *Shrink Rap Radio*.

**Dr. Langer:** Hi, David. Thank you for having me on.

**Dr. Dave:** Well I’m very pleased to have you on the show. One of my listeners called my attention to your work and I’m so glad that they did. First of all, I have to say I was shocked to read in your bio that you’re the first woman to have been awarded tenure at Harvard.

**Dr. Langer:** In the Psychology Department.

**Dr. Dave:** Well even so, I don’t know your age but it seems to me that, regardless, Harvard was very late in the game in that respect.

**Dr. Langer:** Yes. [Slight laugh]

**Dr. Dave:** At the same time that must have been very gratifying to you to be the one to break through that particular glass ceiling.

**Dr. Langer:** It was an exciting time. [*Dr. Dave laughs*] But that was in 1981, so a lot’s happened since then.

**Dr. Dave:** Oh yes, so much so. You’ve been researching mindfulness for around 35 years now. How did you first become interested in that topic?

**Dr. Langer:** Actually, I started by studying the other side: mindlessness. Several things led to this. The first was that people were always saying to me, “Are you always thinking?” Which made me think, *Well, what are they doing?* [*Dr. Dave laughs*] Then I would notice myself saying, “Excuse me,” if I walked into a mannequin. [*He laughs again*] Then probably the biggest influence was when I left New York and came to be an associate professor at Harvard. And, you know, you have a sense of Cambridge, full of all of these academics, that there’s just lots of IQ points all over the place. So I went into a bank and there were several tellers—and that’s the days when we didn’t have cash

machines—and people were lining up to go to two of the tellers. Then there was another teller where there were only two people, and another teller where there was nobody. This would never happen in New York; people would immediately find the fastest way to make the exchange and leave. So then I start to think that this mindlessness is probably very different from intelligence and I started doing research.

The first experiment was not on mindlessness or mindfulness per se, but later I came to see it as an early study in mindlessness. We had somebody ask for a favor and they spoke the same words in each case. They just changed the order of the phrases. And we got very big differences. So if people take in information they take in very little.

Then there was another study—a very early study on all of this framing work that's out there—where we videotaped an interview between Bob Abelson—who was at Yale at the time, and I was a graduate student at Yale—and he and I had an interview where he was later labeled in the exact same video tape as either a patient or a job applicant. Then we showed the video tape to people who were behavioral therapists or Freudian types, and what we found was that for the people who had been trained in looking at behavior, there was no difference regardless of what we called this person. However, for the Freudians what happened is that when we called him a patient the therapists saw him as having “hidden this” and “latent that” and he was a mess, whereas when we called the same person a job applicant he was seen as well-adjusted.

**Dr. Dave:** Ouch.

**Dr. Langer:** Again it was clear that people were not fully present. The first study that I did where I actually called it mindlessness was a “Xerox study” where we had people go over to somebody at a Xerox machine—these are a series of studies—and ask if they can use the Xerox machine because they wanted to make copies. So they gave an excuse that meant nothing—Right? What else are you going to do with a Xerox machine if not make copies?—or they didn't give a reason. And what happened was when they said, “Because I want to make copies,”—an empty reason—they were more likely to have their request met.

We sent a memo to people that said: “Please return this to room 238.” That's all the memo said. And again, we reasoned that if people were thinking about it they would say, “If the person who sent it wanted it, why did they send it?”, and that would lead them either to not send it back or to send it back with a little note or something. They didn't; people returned it. I had gotten a letter from somebody shortly after that paper came out telling me that a friend of his put an ad in the paper that said: “Send \$1 to...” and then gave his address. He made \$20,000. [*Dr. Dave laughs*] So, he wasn't offering anything but people are so used to... “Oh a dollar? That's nothing”. It was clear that mindlessness was pervasive, and it wasn't going to take that much for me to look at the other side. And when I came to the other side of the coin—mindfulness—for me, and from the beginning until the present, it's still mindfulness without meditation.

**Dr. Dave:** Yes, let me jump in on that because mindfulness has become a particularly hot topic of late, and mostly from a Buddhist perspective. I gather you're not coming from that perspective.

**Dr. Langer:** No. I did some research on meditation back in the '80s, and I think that having written over 100 articles and four books on the topic that I might have contributed to the frequency of the use of the word. So I don't think that everybody out there is using it in the clinical sense, but yes, lots of people do see it as Buddhist. For me—and the two aren't mutually exclusive by the way; one can do both—but there are some people, I find—at least maybe just friends of mine—who have trouble sitting still for ten minutes once a day, so to sit still for twenty minutes twice a day to meditate was just not going to happen. And then there are people for whom some of this Eastern stuff feels too “out there”, so they're not going to benefit from it. On the other hand you probably have people who believe that their lives are so full of trouble that they have to do something extreme, and mindfulness—which I'll describe for you more in a moment—as I study it is very, very simple. So if you think you're not going to get better unless you do something difficult, you're more likely then to meditate and be helped.

Mindfulness is the very, very simple process of noticing things. As you notice things, that puts you in the present. You have lots of pop psychology saying, “Be in the moment.” And that's fine, except that nobody is intentionally *not* in the moment, and when you're not there, you're not there to know you're not there. So how do you get there? And the way you get there is this “noticing”. We've all been taught to try to know as much as we can with certainty, and certainty breeds mindlessness. Everything is always changing. Everything looks different from different perspectives. But, as soon as we think we “know it” we freeze our understanding and we miss all of what's going on, we can't take advantage of opportunities, we can't avert the danger not yet arisen. Basically, the state of mindlessness, which I've studied now for closer to 40 years, tells me that it is pervasive. Virtually all of us almost all the time are “not there”.

If you went on a trip—this is summertime, lots of people take vacations—very often these vacations are expensive. So they're going to go to some new place, often, and they have the expectation that they're going to see all sorts of new things. Now, there are new things at home which they've not noticed for years, so they go on vacation noticing new things and they have a good time. The essence of this mindfulness is that this active noticing not only is literally—and I mean that literally—literally and figuratively enlivening, it's the essence of feeling good. When you're mindful you're in the moment, you're aware, life is grand. So again, all you need to do is notice new things.

One of the things I'm fond of saying is you have lots of people who are in relationships for a long time. You're in a 20-year relationship and ho-hum, the person bores you. And then you have people who are in jobs for the same 20 years and they're bored to death. It's as if doing something for 20 years—10 years, 15 years—has to result in a certain

kind of boredom. I reflected on this and thought, *Well I've never heard any of my friends say about their 20-year-old children, "God, you bore me to death."* [Both laugh] And I think the reason for that is that with our children we expect them to change. And because we expect them to change we're looking for subtle changes, and as a result they stay interesting to us. Anything can be interesting, but as soon as we have this illusion of "knowing" we hold things still and we give up the present and let the past dictate our behavior.

**Dr. Dave:** Now, the title of your latest book is *Counterclockwise: Mindful Health and the Power of Possibility*. And the title *Counterclockwise* comes from a seminal research study that you conducted early in your career. Perhaps you can take us through that one.

**Dr. Langer:** Sure. There was a theory that I developed that I've been working on ever since that study which we designed and conducted in '79 and first wrote about in 1981. The theory, essentially, is that mind and body are just words. And if we put the mind and body back together then wherever you're putting the mind you're necessarily putting the body.

Let me interrupt myself for a second. The mind-body problem—many people have heard of this—the mind-body problem is: how do you get from this fuzzy thing called a thought to something real, something material: the body. When you put the two back together the problem goes away. It can explain spontaneous remissions, placebos, and a host of other things.

With that in mind, what we wanted to do was to take people who were old—these were men in their 80s, and that was when 80 was 80, not "the new 60". I mean they were really old—and we were going to have them live in a retreat for a week that had been retrofitted to be like 20 years earlier. They were going to talk about events from the past, but everything would be in the present tense. For all intents and purposes it was, for them, that 20-year-earlier time.

**Dr. Dave:** You took them back to 1959.

**Dr. Langer:** Right. And people don't realize when they read the study now how difficult it was to set this up because this was before Google. Right now if you want to see what was going on in 1959 you type it in and it takes three seconds, but we didn't have that luxury. At any rate, we had a comparison group that was also going to spend a week at the same retreat with the same props doing the same things, except for them they were going to be reminiscing for the week. So, it was always the case that they were talking about the past.

Because this was something novel for them—so it was mindful—even the comparison group, this reminiscing group, improved. But, they didn't improve as much as the

experimental group. With the experimental group their vision improved, their hearing improved, their strength, their memory. We took photos of them before the study and then at the end, and had people who knew nothing about the study evaluate them and they were seen as looking younger as a function of the week being their younger selves. I helped the BBC put together a production [to reproduce this study] with British celebrities and it worked for them; then it was conducted a little more recently in South Korea, and it worked there; and most recently in the Netherlands where it also, I'm told, worked very well. So it was [reproduced within] very different cultures.

**Dr. Dave:** I shared this story with my wife and she immediately went to, "Well, how come nobody has commercialized this? This sounds like it would be a commercial opportunity of 'camp for old people.'"

**Dr. Langer:** Yes. Some people have contacted me, but right now I'm so glad you mentioned that. If your listeners type into "Mr. Google" "LangerMindfulnessInstitute.com" you'll see that we're running these retreats all over the world.

**Dr. Dave:** Ah, interesting.

**Dr. Langer:** We've done more work since that—not just dealing with age, making people younger and more vital. We did a study that was very dramatic, I think, with chambermaids. Chambermaids, as you know, are exercising all day long. Well they don't see themselves as exercising and that's probably because they see exercise as what the Surgeon General talks about as exercise for people who sit behind a desk all day long. It's what you do after work or before work. So we have these women exercising all day long not seeing themselves as exercising, and we show half of them that their work is exercise. You say making a bed is like working on this and that machine at the gym and so on. So at the end of this we had one group who now changed their mindset: they see work as exercise.

**Dr. Dave:** Fascinating.

We take all sorts of measures. We come back—I think it was three months later, I'm not absolutely sure—and we ask questions like, "Were you working harder?" We ask other people, "Was she working harder?" "Did you eat differently?", all of these things. There were no differences between the two groups, but we found that those people who now saw their work as exercise lost weight, there was a decrease in body mass index, waist to hip ratio, and their blood pressure came down all from simply changing their mindset.

**Dr. Dave:** Oh my goodness! That is startling. That's a startling finding, I think.

**Dr. Langer:** Yes, and everybody knows that placebos—well maybe they don't know. They should know, though, that placebos are very strong medicine. And because placebos have been tested by people who have interest in medicine—putting it out on

the market—when they run a study and the placebo does as well as the medicine that’s bad news for them. But that’s actually wonderful news for us.

**Dr. Dave:** Exactly.

**Dr. Langer:** Right? And so this mind-body unity explanation, it can explain these placebos. When you truly put yourself in a healthy place, that’s where all of you is going to be: your mind, your body, your fingertips, your elbows, and so on.

**Dr. Dave:** You also conducted another study with nursing home patients to see if they could be made more engaged and have a better sense of well-being if they were given the responsibility of caring for a plant. I think I actually remember reading about that in my local paper.

**Dr. Langer:** I published that study in 1974, and that really helped usher in all of this mind-body research that the medical world now takes as a given. But, at that time it was extreme. What we did was we taught people to make decisions. People had given up all their decision-making once they entered the nursing home. We gave them plants to take care of so they had something to be responsible for. We gave them a pep-talk: you know, “You should be making all these decisions,” and so on. And we had a “tender loving care” control group, and we gave lots of measures. That was sort of the coin of the realm at the time: questionnaires, and so on. What was interesting is we went back 18 months later and we found that twice as many people in the comparison group had died as in the experimental group. Or, to put it more positively, half as many who were given this treatment had died. So that was fueling the fires for me of all the possibilities that exist for us to which we’re generally blind.

**Dr. Dave:** Am I right that, academically, you’re a social psychologist?

**Dr. Langer:** Yes.

**Dr. Dave:** What is it about you folks that you come up with these diabolically clever research designs.

**Dr. Langer:** I couldn’t tell you. [*Both laugh*]

**Dr. Dave:** It seems to me to characterize the field.

**Dr. Langer:** Yes. Well, I think the reason for that may be in part that most of us were trained to think in terms of 2x2s. If people imagine a tic-tac-toe example where you have two different things... You have the presence or the absence of something on one dimension and the presence or absence of something on the other dimension. The point that I’m trying to make—but not making well—is that most people think in terms of “you do this, you get that,” and “you do more of this, you get more of that.” Because of this

design that most of us have been taught to employ we look, often times, for interactions. That means you do this, you get that, but not always. And so being trained like that I think people pay a lot of attention to the “not always” cells. I don’t know if I’ve elucidated with any of that, but so be it. [*Both laugh*]

**Dr. Dave:** You’re also looking very much at the social context and how that affects things, right?

**Dr. Langer:** Right. Yes.

**Dr. Dave:** Do you know if that plant study that you described has had an impact on nursing homes and what they do?

**Dr. Langer:** Since it’s so much a part of the culture now it would be hard to imagine that it didn’t have an impact, but it’s very hard to be sure of influence, you know? If right after that I got lots of calls all over the country from different nursing homes that said, “Can you put the program in place here?”, then I’d be able to say to you, “Yes, that’s what we did,” but it’s become part of the culture. We have a group of people now—baby boomers, for instance—who just won’t accept traditional notions of age, and part of that is because they see they’re not going to give up control as they get older. In my moments of grandiosity I probably think all of my work has had enormous influence. Most of the time I’m happy to say I hope that I’ve helped bring about some change.

**Dr. Dave:** Sure. Now the subtitle of your book refers to “mindful health”. So talk to us about mindful health and what you’re getting at there.

**Dr. Langer:** Well, we’ve already touched on it. In lots of these early studies right from the beginning we teach people to be mindful—and that’s mindfulness, again, without meditation, where you just notice new things—and we find they live longer, they’re happier, they’re healthier, and so I’ve been doing that work since the ‘70s. One of the things that I write about now and that’s in the *Counterclockwise* book that I didn’t do earlier on was to recognize... As I’m writing this book I’m going to write part of it about chronic illness and I can’t find a definition of chronic illness. You know, do you have to have the symptoms 24/7? What if you have it three times a week at two hours at a time? There’s no definition, and that lead me to think, *What’s happening the times you don’t have the symptoms? Do you still have the disease?* And that leads to a very nice way for us to control our symptoms, which is, if you’re paying attention to when you have them, when you don’t, and then you ask the simple question, “Why?”—or not even not have them but they’re less or greater, “Why now?”, in trying to answer that question for yourself you’re being mindful, and that will be good for your health, but you very well may have an answer.

So let’s say somebody has asthma and they just assume... They’re told by the medical world, “You’re always going to have asthma.” It’s all very implicit and they don’t think

about it. They just assume that's their lot in life. But if instead they became mindful in the way we teach—where they're noticing the variability in their symptoms—and they said, “You know, when I'm talking to Dave at *Shrink Rap* I need my inhaler. When I'm talking to Ellen Langer I don't need my inhaler...” Well, if they discovered that then the solution is easy: I'm sorry, David, they'd have to stop talking to you [*Dr. Dave laughs*] or make the conversation with you more similar to the way they interact with me.

So you see, the point is that when you notice that the symptoms are not always there, several things happen. The first: you feel better already. Take something like depression. Although it's true with chronic pain, we've done this with lots of diseases, but depression. You think, *People who are depressed think they're depressed all the time*. No one is depressed all the time, and not to equal measure even the moments they are depressed. So you start noticing when you are, when you aren't depressed, and gee: I'm not depressed all the time. Then again you ask the question, “Well why now am I experiencing this and not before?”, and so on. You do the search. Again, the search is good for you and you may come up with solutions. That's part of what the new work is about. We have some of this mind-body unity work now with the common cold, with diabetes, with sleep. We have the attention to variability with multiple sclerosis, ALS, arthritis—a host of diseases—and the data's starting to look very nice.

The other thing that we did that I wrote about in the *Counterclockwise* book—and I spend a lot of time thinking about language, to which many people seem to be oblivious—was with my friend Eva. Eva had just come back from Mass General. She had a very bad case of cancer, and I said, “So how are you?” The doctors told her that the tests were great and that her cancer was in remission. At that moment I thought, *Well wait a second. If I had the exact same tests they would tell me I don't have cancer. Why is it that I don't have it, but she has it in remission?* Now, remission is a tricky notion. For people who have cancer and the cancer goes away, if they're told the cancer's in remission they worry.

**Dr. Dave:** In essence they're being told it's going to come back, right?

**Dr. Langer:** Exactly. And remember that if we believe it, it's likely to happen. It's also the case that if you believe it's going to come back you're going to be stressed. Stress is anathema to health. And so what we did was a study where we took people whose cancer was cured and we asked whether they saw it as in remission or cured. Then we came back a year and a half later to these people and those who saw their cancer as cured were happier and healthier on virtually all of the measures we took.

A word to those who are listening who know somebody: if the cancer is in remission, you correct them and tell them it's cured. We do that with colds. You get a cold and the cold goes away, you don't say your cold is in remission. [*Dr. Dave laughs*] You see yourself as cured. Every time you get a cold—just as with the cancer—there are ways that it's similar, which is why we can call them all colds. But just as certainly each cold

that you get, each cancer that you get, is in some ways different. If you attend only to the similarities then you're likely to see yourself as in remission. If you notice the differences you can reasonably call it cured.

**Dr. Dave:** Now, you're not exactly critical of the medical establishment, but you definitely--

**Dr. Langer:** Oh yes I am! [*Both laugh*]

**Dr. Dave:** Oh, got it. It's stronger than I was going to say.

**Dr. Langer:** But I try to do it nicely.

**Dr. Dave:** Yes, you do it nicely in your book. [*Both laugh*]

**Dr. Langer:** I think that doctors know all that they don't know, and I think that if they would be more upfront with people then people would take better care—at least, start to become co-carers for their own health. You know, the medical world can only use normative data. And the studies are such where we're saying that most of the time, or much of the time, when we do this this happens for most people. But they can't predict what's going to happen for any individual. We're the keepers of that individual knowledge and we need to get more engaged in our healthcare.

**Dr. Dave:** Yes. I like the way you say it in the book too, because we do tend to see doctors as all-knowing gods. But, you underscore that there's so much variability that they're operating in nearly as much uncertainty or in the dark as we are.

**Dr. Langer:** Yes. In fact when I choose a doctor it's typically based on their willingness to admit they don't know.

**Dr. Dave:** [*Laughs*] I have to ask if you've had any opportunities to apply these ideas about health in your own life.

**Dr. Langer:** Oh, sure. Most of my ideas come from my own life. You know, s-- [*unintelligible*] that the early studies in the nursing home were a result of when I was young interacting with my grandmother. She was in a nursing home. She spoke of a snake in her head without realizing the trouble she was getting herself into. She was just lazy; she was saying, "My head hurts as if there's a snake in it." Because of that they thought she was senile, and treated her as such. And it was interesting to me because when I interacted with her she was perfectly fine. And [*unintelligible*] that time I didn't have this notion of the variability of symptoms, but that let me question how these stereotypes lead to lots of our diagnoses, misdiagnoses, and so on.

My mother in 1977 or so had a very bad case of breast cancer and the cancer had metastasized to her pancreas. Anybody who's gone through this knows that once it gets to the pancreas the game is over. Now, in the medical world because they assume she's going to be dead very soon they didn't exercise her limbs. You know, it would seem like a waste of energy. Then magically the cancer was totally gone. Spontaneous remission: how do you explain it? That's what I've been working on since: explaining it.

**Dr. Dave:** At one point you say we need to become "health learners." Maybe you can expand on that a little bit.

**Dr. Langer:** What we need to do is to be aware of our bodies. I think the analogy I might use in the book is a car. So a lot of us: I get in, I turn the key, I'm not listening, feeling anything, I just drive. Then all of a sudden there's this terrible screech: the brake pad is completely worn down. But if I had been in the car and been attuned to it I would have noticed this very early on, and then could have repaired the car without it costing as much money. So it is with our bodies that there are signs we have that we're just oblivious to. It's like gaining weight. People often times don't notice it until their clothes don't fit. Well, you don't gain 20 pounds overnight. If you're aware... Without a scale you can be aware, but otherwise use a scale. It doesn't matter. It's very easy to lose a pound; it's much harder to lose the 20 pounds. So if we tuned into our bodies, were more attuned to our bodies, we'd be able to avert the danger not yet arisen.

**Dr. Dave:** Yes. There are places where I am reminded of the movie *What About Bob?* and "Baby steps... Baby steps..." You made the point that if you're overwhelmed by the idea of losing 20 pounds, could you lose an ounce?

**Dr. Langer:** Yes, right. I talk about "Langer's Reverse Zeno's Paradox." Zeno was a philosopher who noted 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. So let's start with an inch. You're an inch away, then you're a half an inch away, then you're a quarter of an inch away, then you're an eighth of an inch away. You're never... and I thought, *Zeno must be a cynic*. My positive version of this is there's always a step from where you are to where you want to be that you can take. So if you have a tendency to eat ten cookies, eat five cookies. If you can't not eat five cookies eat two and a half, and you keep going down. Everybody can give up a few crumbs, and then you build yourself back up, and it feels good being successful.

**Dr. Dave:** Yes, yes. Now, while not being a Buddhist you are really Zen-like in urging us to constantly...

**Dr. Langer:** My students call me a closet-Buddhist. [*Both laugh*]

**Dr. Dave:** ... in urging us to constantly look at the world with fresh eyes, to break through the automatic categories of perceptions that our brains have constructed, and I

got some quotes from you too. You say, “We apply convenient labels to most everything we encounter, blinding ourselves to alternative ways of understanding that would have made just as much sense and can turn out to be far more useful.”

**Dr. Langer:** Right. As soon as we call something and we think we know it we don't pay any attention. When I give lectures around the world on lots of this stuff I often start by showing people how mindless they are. If I just said mindlessness is pervasive everybody would think yeah, their wives, their friends... [*Dr. Dave laughs*] Everybody else is mindless, but they're fully present. Because again, when you're not there you don't know that you're not there. And then I ask a simple question: I ask them, “How much is one and one?” I can feel them rolling their eyes saying, “Oh God, this is going to be a long hour,” and then they dutifully say two. I inform them that one and one isn't always two. In fact, if you're using a base-two rather than a base-ten number system, one and one is written as ten. But beyond that an easier one to understand is if you take one wad of chewing gum and you add it to one wad of chewing gum, one plus one is one. So you take the things that people think they know and show them that even those change depending on context. People like to hold things still thinking that then they're going to have more control over their worlds, but holding things still costs them. They have less control rather than more control since everything is changing. Everything looks different from different perspectives. If you're holding it still you're just fooling yourself. It's an illusion of stability.

**Dr. Dave:** But isn't that, in fact, the reason why our brains have evolved that way? That there's some adaptive value to this automatization?

**Dr. Langer:** I don't think so. I think that it's virtually always costly. I don't have any data on this so I'm stepping out on a limb, but why are we taught to want certainties? I think that what happens is this tends to maintain the status quo. If we said, “Well, who made the decision on what criteria the people who are teaching at Harvard should be teaching at Harvard? Who chose those criteria? What if we used different criteria?”, and so on. Then what could happen if we did a sensible analysis is we'd say, “Yes, sure: lots of these other people could be filling those positions.”

It's good for the people who have the power to lead other people to believe that everything is just as it should be. They should be on top and you should be someplace underneath. But I think that in all of my work we find that across the board making people more mindful makes them healthier, happier, more effective, more charismatic, their relationships improve, accidents become a thing of the past or very infrequent, burnout makes no sense, there's no place for boredom, stress, and so on, that it's hard for me to think that there's an advantage to this mindlessness.

Now people sometimes believe that when I pay attention to this I can't pay attention to that, so I want to learn the first thing so well that I can do it without paying attention to it, and then what you're doing is freezing your performance. So we do this with drivers—

it's very funny—where they have people learn how to drive in an absolute way. Before they have any experience with driving they lock themselves in. Playing musical instruments or athletics, everything that we do we try to learn before we've had experience. Everything we think we need to know, then we think we know. We don't pay any attention to the subtleties, to the context.

You're taught "hold the tennis racket this way." Well, you should hold the tennis racket this way depending on the size of your hand, the size of the tennis racket, whether you've got a bruise on your hand, how you slept, whether your shoulder causes a little pain, and all of these very present-moment things should dictate how you should hold the racket, but we're taught absolutes: one and one is two. And so then we're not there, and accidents happen and possibilities for wonderful things are not met, and an inordinate number of people are on antidepressants. See, when you're mindful you're engaged, and when you're engaged you're happy. So no, I feel strongly that it's not an advantage.

**Dr. Dave:** You know, a lot of what you've been saying has implications for medicine and for psychotherapy, and I wonder is any of the extensive training and workshops and so on that you're doing directed towards those audiences of doctors and therapists?

**Dr. Langer:** Yes, for sure. We have, at this point, workshops for everybody. For the therapists what you have is a person goes into a therapist's office. Well as soon as they do, that's the label the therapist is going to use to understand your behavior. Right? That was the patient/job applicant study. Now the therapist... In other words, you can be perfectly fine and all the therapist would have to say is, "Gee, you're perfectly fine. Ignore your husband and whoever is telling you you're not perfectly fine." But now you get into the whole thing. You tell the therapist some problem that you see in one way and the therapist—if it's a good therapist, but not a great therapist—gives you an alternative way of looking at it. And because the therapist is the one in power people tend to take that as the real one. So the simplest addition for mindful therapy would be for the therapist to explore with the patient multiple understandings. When you have one understanding it seems this is going to happen, this is the way this is, there's nothing to think about and you just suffer with it. If you have multiple explanations you come to see: "*Yay, I just don't know.*"

Let me give you an example of this in a whole different realm. I say to my students in this decision-making seminar I teach that, "For the last 40 years I've taught a version of this course and I've never missed a class. What is the likelihood that I'm going to show up next week?" So, these are Harvard students. They know they're not supposed to say 100%, so they say silly things—98%, 97—as if there's some calculation that they're doing. So people believe you can predict, which you can't. Then we go around the room. I ask them each to give me a good reason why I might not be here next week. They have no trouble doing this. The first person almost always says I've always been there, it's time for me to take the day off. Somebody else says that somebody needed me to

take them to the hospital. My dog needed to go to the vet. They come up with very nice reasons.

It's like fifteen people in the class, and then I say to them, "Ok, what is the likelihood that I'm going to be here next week?" Now this close to 100% drops to 50%. So, we tend to understand the world by looking back. In looking back everything makes sense, and it's easy to predict because we're just postdicting. It's already happened. We try to see how it should have been that way, could have been no other way. Going forward is a whole different matter. There are a multitude of things that could happen, and if we had more confidence in ourselves so we could have a better appreciation of how unpredictable things are, then life would turn out to be more interesting.

**Dr. Dave:** I would love to see you design some research on psychotherapy to test out what you're saying, to have a group of therapists who are trained with this mindset. Do you think anything like that might ever happen?

**Dr. Langer:** Sure. You know, I can't predict [*Both laugh*]. It takes such a long time to do these studies. Right now we're doing so many studies I can't say that I'll turn to it right away. But sure, I hope somebody does it. I think it's almost a gedankenexperiment. You know what that is? A thought experiment.

**Dr. Dave:** Oh yes.

**Dr. Langer:** That if you think of four things that could happen, how would you not believe that each one is less likely than if you only think of one thing? Right?

**Dr. Dave:** Right.

**Dr. Langer:** At any rate, if somebody wants to do the experiment I'm happy to help them.

**Dr. Dave:** Ok. We do have a number of graduate students and undergraduate students that listen to this series, so somebody might get a good--

**Dr. Langer:** Well it wasn't an empty offer.

**Dr. Dave:** [*Laughs*] Ok. You have a running critique of science and psychological research throughout your narrative, as well. Let's pause here to explore that a bit. You're a lifelong researcher. What are your observations about the strengths and weaknesses, the benefits and the limits of psychological research?

**Dr. Langer:** As you said before, many social psychologists point out the non-obvious to people, and in doing so then they're making the public more mindful. So, I think that it serves that purpose. It's the language people use to talk to one another. But, you do an

experiment and what the experiment yields is a probability. When that is discussed it's usually discussed as an absolute fact, and when you know something absolutely you don't pay any attention to it. So in that respect I am potentially a little critical.

I wrote something in the book that I don't remember fully, but I remember the word "googliasauras" that I came up with. I said, "So, imagine that you're putting together a dinosaur, a googliasauras," and God knows where that came from. You have this whole theory worked out and then you look under a table after years of putting this together a-[unintelligible] find a big bone that you didn't know was there. Wha-[unintelligible] dismantle this and reconstruct it using this bone... [unintelligible, possibly ending in "we tend"] to get tied to our theories and even as researchers to overlook alternatives. Myself...

[Dr. Langer is informed of the declining reception quality]

Many people in the field are really trying to describe "what is" and then they write the theories as if "what is" has to be. For the "psychology of possibility" I start off with things that people don't think can be and see if I can make them happen. With that early study we talked about to improve vision and hearing, when is the last time you heard anybody's hearing improve without medical intervention? An important part of that psychology of possibility is an appreciation for the difference between uncontrollable and indeterminate. There is no research, there's no science—not physics, not psychology—that can prove that something can't be. All it can prove is that the way we've tried to study it was unsuccessful.

So to make it simpler, if you believe that your keys that you can't find can't be in the basement, you're simply not going to look in the basement. When you think you can't do something you don't try to do it. When you recognize that you really can't know whether or not you can do it—maybe the keys are in the basement—then you're going to try out whatever the behavior is. So we have people doing things that they're not supposed to be able to do, and they learn to do them, and then it becomes second nature. Eventually the culture changes, and that becomes the new limit that people adopt. Which shouldn't be, right? Because perhaps they can go beyond whatever that finding is.

**Dr. Dave:** Yes, we see that played out over and over again in the history of sports and achievements that people make, and the Olympics, and so on. There was another study I found fascinating where you and your students looked into the impact on our lifespan of marrying someone much younger or much older than most adults [*Both laugh*] Take us through that.

**Dr. Langer:** Ok. Again, this is part of the mind-body unity idea. And this was archival data so we didn't do any study; we just looked up lots of work that many, many other people had done and put it together in a novel way. It turns out that if you have a spouse that's much older than you are you are brought into that older person's life. You

come to see yourself as older. For the older spouse they have the reverse reaction: they see themselves as younger. And it doesn't matter what gender you are that if your spouse is younger than you are you tend to live longer.

Another part of that paper was about uniforms. I had realized that clothing is a great cue to aging. That if I'm in a store and I buy a miniskirt at 67 years old they're not going to let me out of the store, hopefully. So then I thought, *Well, people who wear uniforms are missing that age-related cue.* So we looked up over 100—it might even have been 1,000, but at least 100—different professions—those that wear uniforms and those that don't, controlling for education and income, and all sorts of factors like that—and those who wear uniforms fare much better because they're missing that age-related cue. Now you don't need to wear a uniform, not wear a uniform, you don't need to worry about marrying somebody younger than you are, and so on. What you need to realize is the power your mind has over all these different aspects of your health and well-being.

**Dr. Dave:** Yes, in fact you cite research showing that our attitudes about aging have a bigger impact on our health than exercise, maintaining proper weight, and not smoking, and I go, "Really?" [*Both laugh*]

**Dr. Langer:** Yes, it's a way to justify being a couch potato. I actually, and especially during the summer, play a lot of tennis.

**Dr. Dave:** I mean, that's a very dramatic finding.

**Dr. Langer:** Yes. I believe that we've barely touched the surface of what we're capable of with respect to our health and well-being, of producing ourselves. And the joy, for me at least, is that to engage the principles that I describe there are no negative side effects. Have you ever seen these commercials on television? For this medication, whatever the medication is supposed to relieve it tells you side effects may include a heart attack, your hair falls out, you know.

**Dr. Dave:** [*Laughingly*] Death...

**Dr. Langer:** So it's nice that the mindfulness cure, as we can call it, doesn't have these side effects.

**Dr. Dave:** Yes. Now, it also really supports a lot of sort of New Age thinking in a way, and even far-out things like *The Secret*.

**Dr. Langer:** Yes.

**Dr. Dave:** How do you... [*Laughs*] What are your thoughts about that?

**Dr. Langer:** Back when I did the first nursing home study, or the plant study as it's affectionately called, that was cited by all the New Age people. That was very early on for the New Age. Now that new age is old age. You know, I think that anything that is logically typed or research-based should have some influence. I think that one should learn this information and then go try it out and then mindfully decide whether it's useful or not. So as far as *The Secret*, I was asked about that when the book first came out. I was very happy that I hadn't read it so I didn't have to really answer the questions—which I still haven't read it—but I think if the secret is some version of "if you think it will be so" I think there's great truth to that. I don't think that it's the case that if I think that when I walk out the door there's going to be big bars of gold waiting for me that there will be big bars of gold, but if I think that I'm entitled to being successful and wealthy then what will happen is I'll be open to all sorts of opportunities that I otherwise might miss.

My father, when I was young we would be driving around New York City looking for a parking space and I would point one out and he'd say, "No, it's not going to be a space." And then I would say, "Why are we driving looking for a space if you prejudge it and assume none of them can be spaces?" But that aside, if you imagine now people, you know... and I have this belief—which is probably silly, but effective for the reason I'm going to tell you—that I always find a parking space. I talk about I have good parking karma, whatever that means. In the simplest way what it means is that by expecting that I'm going to find a parking space I notice things that my father, when he was driving around, was not likely to notice. So you have somebody carrying heavy bags walking towards cars; well the person's not likely to go miles with those bags. You see just a slight thing: there's somebody in the car that you wouldn't have even noticed, or the car moves, the engine starts. You'd be surprised at how much we don't see when we don't think there's anything to be seen. So the reverse of that is when we have the expectation that we will see something, we're primed to notice it.

**Dr. Dave:** I'm thinking of my little 18-month-old granddaughter and how much she sees that we don't see. Like if there's a tiny little bug or an airplane in the sky that nobody else is noticing she locks right into that.

**Dr. Langer:** Yes. People don't realize that the more we know, the less we know. The more certain we are, the more we think we can see everything, the less we really look, or hear, or taste. And so there was a dramatic study that a colleague of mine did, and it's really a test of mindlessness. I did something myself on the same topic many years earlier, but not nearly as dramatic. So the wonderful study: he had people watching a video tape of a basketball game, and in the middle of the basketball game somebody dressed in a gorilla suit came on the court. Well, the interesting thing was that under certain conditions, even though this gorilla is larger than life, people don't see it. It's just not part of your mindset about what exists on a basketball court. And you need to have examples of that. When I find myself looking for something and I can't find it and later it's right where I looked, I pay attention to those instances so that I can learn how to be

more mindful. But if we don't pay attention to it, again, then we're missing... I've said in the past that I think most people are sealed in unlived lives, and it's probably time to break the seal.

**Dr. Dave:** That would be a good closing quote, but--

**Dr. Langer:** That's why I gave it to you, David. [*Both laugh*]

**Dr. Dave:** ...but I wanted to ask you a couple other things. We're right near the end. Where do you see your research going in the future? For example, if a government grant for millions of dollars, if you received that to spend however you like on research, what would you do?

**Dr. Langer:** Well, we're doing so much now on different diseases. We have a cancer study that I'm hoping that we'll get some funding for that's another one of these mind-body entity studies, and... breast cancer, and we have one going on in India on prostate cancer. Actually it's kind of fun because we have now a Langer Mindfulness Research Institute in China, a Langer Mindfulness Research Institute in India, so I like that because I'll be able to find other ways of getting some of this done since people are not throwing money at me. If your listeners would like to, please know that I'm open to it. [*Dr. Dave laughs*]

As far as what I would do with it, I have so many ideas that I'm not worried about running out of them, and so I can't predict. I just know that having these ideas, testing them is great fun for me. I've done so much work now in areas where it really seems to matter that I can't imagine that I wouldn't continue with those. We have work in business, in education, and of course health, and just everyday-relating, so there's not a topic that's not touched by this. Once you realize that when you're doing anything you're doing it mindfully or mindlessly—and so all of this 40 years-worth of research says—if you do it mindfully the advantages are enormous. Not only that, you're healthier, you're more excited, you're happier, people find you more appealing because we wear our mindfulness. We do studies where we have people being mindful or mindless and we see who is found attractive, and trustworthy, and so on. We have research where we find that being mindful seems to leave its imprint in the work that you produce, and people prefer that work to those that are produced in the more typical, mindless fashion whether its a symphony, a work of art, an essay, and so on. So I can't predict what I'll be doing. I can predict that whatever I'll be doing will be exciting for me.

**Dr. Dave:** Well there's another good close.

**Dr. Langer:** I'm going to keep giving them to you. [*Both laugh*]

**Dr. Dave:** So, I think with that I will say, Dr. Ellen Langer...

**Dr. Langer:** Oh no! Don't leave me, David. [*Both laugh*]

**Dr. Dave:** This could go on for quite a while. I'd love to talk to you again. But I'll thank you for being my guest today on *Shrink Rap Radio*.

**Dr. Langer:** My great pleasure.