Episode 1

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Interview with Janet Crawford

Amiel Handelsman: Janet you have been coaching leaders for many years, and even after coaching leaders for a number of years you decided to incorporate neuroscience into your work. In fact, you were the first person in the leadership development field who I ever heard talk about it, and you were still years ahead of others. What made you get interested in neuroscience?

Janet Crawford: There were two reasons that got me interested. I first started incorporating neuroscience into my work in about 1998. It was pretty early on, because I started my coaching practice in leadership development in 1995. I had been a manager of scientists before I transitioned into doing leadership development. One of the things I noticed about the scientists I managed was that they believed that they did everything out of logic. And yet if you stepped back and observed them, their behavior was often anything but logical. They also pretended to be very dismissive of emotion, and yet I noticed how much emotion played into their decision-making and their effectiveness particularly in their ability to relate to other people.

I am a scientist myself, and whenever I notice a phenomenon, I get curious about it. I just happened to serendipitously also run into a few books at that time that really dealt with the logical brain and the emotional brain. Also, some of the ways that our brain is constructed around those two areas of cognition. That was what first tipped me off to this area as something that might have usefulness in terms of application to leadership development.

The other reason, frankly, is that I come from a family that is rife with neurological disorders. Synesthesia runs in my family. My father was a synesthete. There is depressive syndrome, migraine syndrome, and a whole host of things in my family that I was always curious about. As I started to learn more and more about brain science, I started to discover more and more about myself and how I could manage my environment and manage my own behavior so that

those neurological tendencies show up in their positive manifestation as opposed to their negative manifestation. It was a two-track inquiry for me.

Amiel: Thinking back to the late 1990s. I am really curious to hear about some of your early experiences bringing this body of science into your leadership development and coaching work.

Janet: I used to joke back then that when I first started using this, talking about my work was the easiest way to clear space at a cocktail party, because neuroscience was not a household word. You did not read articles in Time Magazine, The New York Times and Newsweek and popular press about neuroscience. Now you can barely pickup an addition in any of those without seeing something about how your brain works. Sometimes it is accurate. Sometimes it is not. However, neuroscience has become an enormously popular field now, both academically and also for lay people. There are entire rows of books at Barnes and Noble and in your local bookstore on neuroscience and its popular applications. My experience though was that the neuroscience that I first started bringing in was…By the way, what I first started working on was the amygdala hijack. The concept of the brain monitoring for threat and how threat plays into our ability to think clearly.

This is very popularly understood now. Usually, when I go speak about the brain, if I ask people if they know what the amygdala is or what an amygdala hijack is, half of the people raise their hand. However, back then nobody had heard of it. For me, it was quite a smooth transition, because I was trying to work with scientific and technical leaders around emotional competencies. Many of them really felt like, *Well, this is just common sense, and it is may be important if you have the time to deal with it, but we do not really. We are working way too fast here. People just have to suck it up and figure out how to deal with all the emotional stressors.*

To be able to come in and present something that was hard science, that said *That may seem like a good solution, but, in fact, you are not designed to function that way. You can't think your way out of this stuff. You have to design your way out of it.* That made sense to the science and technology people that I was working with in a way that just coming in and saying *I want to teach you about these soft skills and the importance of relationships* did not resonate for them.

Amiel: This was back, as you said, in the late '90s. Time Magazine did not have your back, so to speak.

Janet: No. [Laughs]

Amiel: But you were working in environments with many scientists and people with empirical minds where it came into play. Nowadays, you might say that the brain is sticky. You pointed out all of the places that people are talking about it and in all of the different contexts. There are even books and teachings on dating and relationships. It crosses the board. So, looking at

today, what makes the brain seems so sticky today—not just for those sorts of pioneering science leaders you were working with, but for everybody.

Janet: Well, I look at it as being the equivalent of the modern day decoder ring. I remember being a teenager and thinking that somebody did not give me the manual. That everybody else somehow understood other people better than I did. And, of course, I know that that is not true now. In fact, I also know that I am not alone in dealing with all of these neurological disorders. A great percentage of the population does. That is something that I've found out through my executive coaching. You get behind closed doors, and you talk to very high functioning leaders. They will start to tell you about a lot of their struggles that they keep really tightly shut behind closed doors. I think one of the things that is really sticky, as you said, about the brain, is that this research is starting to give us that sense of…here's the manual for understanding people. All of these things that did not seem to make sense before are making more sense now, and the information that is coming out about the brain also gives us a lot more power for managing our own lives so that we can be happier, healthier, and more productive. I think as people start to get information that is really quite useful to them in that way, it really made the subject matter very, very popular.

The downside in this, however, is that everybody is jumping on this bandwagon. I cannot help but roll my eyes a little bit when I see every week I get something that gets forwarded to me about the latest brain guru in the coaching and leadership development space. Most of them have read a few articles and figured out a model to capitalize on those articles and then declare themselves a brain expert. I am not a neuroscientist. I never claimed to be one. I am a scientist with a four-degree hardcore physics, chemistry, mathematics, biology background from UC Berkeley—a practicing scientist in Environmental Science for ten years, and I go straight to the source. I belong to the Social and Affective Neuroscience Society. I belong to the Association of Psychological Science. I get their journals. I read them. Although I am not a neuroscientist, I am going straight to the source on these studies, and I am very, very careful about how I represent the science. Unfortunately, it is not the norm of what is out there right now.

Amiel: Well, that is a really good foundation for listeners and also for my next question, which has to do with the practical implications of neuroscience for different dimensions of leadership in organizations. I am not going to ask you to detail all of the studies that you have read about all of these years. [Laughs] But now we know that they are behind you. Let us talk about some implications. First, let us talk about building emotional literacy, as you put it. What do we know about neuroscience there that maybe changes the way we might otherwise think about it?

Janet: Well, I am going to back up one-step and say something that applies across the board no matter where you apply neuroscience. I think that this is a game-changing concept for most people in our society. Ninety-nine percent plus of what you do was not produced in the conscious, logical mind. We live in a society that has a belief system that says we make all of our decisions—we are these self-sufficient pods that wander around and think about things and

volitionally decide what to do. That we are the captains of our own destiny. That we guide our ship a hundred percent of the time, and that is simply not true.

The vast majority of the time, you are running on an instinct or learned patterns that are unconscious. Yes, there is some learning that you do that conscious learning, like learning how to ride a bike. But the vast, vast majority of what you know how to do was acquired unconsciously, and you do not even know that learning exists in your head. You just start copying the way things are done and kind of blindly go about doing it that way. We start to question why we use deodorant, and people in other countries do not use deodorant. Why we can wear certain colors and other people in other parts of the country do not wear those colors. The reason is that the brain is a massive pattern- detection and copycat machine. We go around, and we figure out what are the patterns that allow us to exist in our environment, in our culture, in a particular time of human existence into which we were born. We simply build a map unconsciously, then that map guides our behavior.

Now I am going to go back to your question about emotional literacy. I think the concept that we do not make all of these decisions volitionally places into this concept also. One thing about emotional literacy that I teach people and I help them understand is how they acquire their own individual emotional patterns. Just the concept that the way you emotionally relate to the world and how I emotionally relate to the world are different. Because we acquire emotional patterns from our parents largely before the age of two. The things that you find to be interesting, threatening, or curious are going to be different from the things that trigger me, that do not trigger me, or that I find funny or not. Just understanding that, that there is no kind of an even playing field when it comes to emotions and that people often is not deciding to be jerks. They acquired a pattern of behavior at a very early age. That does not mean that we excuse ourselves, we excuse other people, and we say we have no responsibility. Absolutely not. But it gives a better sense of understanding for people about how difficult it is to shift those patterns.

It gives people, I think, a sense of forgiveness—it certainly did for me—of our own emotional foibles and the foibles of other people. When we come from that place of forgiveness and compassion, it becomes actually a lot easier to change. It gives us a lot more power. Because we do not just expect to people to behave the way, we think they ought to behave. The other piece on emotion that I think is particularly important is to understand that emotions are not these kinds of secondary citizens in the brain to logic. If we did not have emotion, we could not decide on anything, because emotions are essentially the decision-making factor in the brain.

The brain creates this elegant shortcut so that we do not have to think through everything. Because our logical capacity in the brain is actually miniscule. We do not want to call upon that all the time. We want to conserve it for the places we really need it. It is our emotions that allow us to get a sense for whether something is good or bad, whether to move toward it or move away from it. Most of the time they serve us really well. The idea that we should listen to our

emotions, that our emotions are actually valid information but that they are not always correct information. Because we may have gotten some messed up patterns early on that do not allow us to get really clear information. The more that we can learn about what our own emotional patterns are, where they lead us astray, and where they serve us well, allows us to function a lot better in the workplace. Also allows us to understand the people around us a lot better.

Amiel: Yeah. What I am hearing is a mutual understanding. Understanding of ourselves, the patterns and where they came from, and others. I wonder if you could describe how this shows up in a situation of conflict where someone gets triggered. Let us just say in a meeting where they get upset. How does emotional literacy show up there in the brain?

Janet: Well, I will give a different example because it's front of mind for me right now. I happen to be writing about this topic right now. A while back, I worked with a woman who had felt at a very early age, without going into the details, she had a very rough childhood. A lot of people around her in her family of origin who basically told her she were not worth very much both intellectually and physically. Well, nothing could be farther from the truth. This stunningly good-looking woman is extremely smart. She got a lot of misinformation from a very, very early age. She finds herself really triggered by women around her who trade on their good looks or who get a lot of male attention. She, in the workplace, will get quite upset about situations where she perceives that men are preferentially paying attention to other women in the workplace over her. I do not mean that she wants unwanted sexual attention or something like that. But in the sense that she is invisible and they are not.

That has created a whole story for her about who she is in the workplace. Standing on the outside of that story, I can see that that story is not at all true. It is true for her internally because of her particular emotional history. But from an external position there are many, many other interpretations of what is going on that are probably more accurate. So one of the things for her in understanding about where these emotional triggers come from is that she can then step back. And start to say what is the story that I have created about this situation based on the emotional patterns that I learned at a very early age? What would it be like if I had learned this pattern instead or this or this or this pattern? When you start to go down those alternate pathways, when you just imagine what would it be like if I saw the world through these eyes? The brain actually loves to hypothesize about things. When you step into a “what if” you actually live the “what if” as if the “what if” actually were happening.

Amiel: Wow.

Janet: When we do that, it starts to loosen the power of those stories over us. There is a lovely mechanism through which we can understand that we get emotional patterns that give us false readings of the here and now. Then we can construct alternate realities and then step into those realities and that as we experience those realities the brain starts to say "Hmm..., that's a really useful interpretation." It is a practice that you can have because it does not happen

overnight. Each time you start to get triggered, you step away from the situation and you play a different tape. Over time, those emotional patterns will start to shift.

Amiel: I do not think I have heard that before, that the "what if" imaginary exercise actually shifts your brain.

Janet: Yeah. The interesting thing about the brain is that the logical centers of the brain know the difference between reality and imagination until it forgets. But, you know, if you have a bad dream and then you wake up, you will probably still feel anxious, but the logical part of your brain knows it was just a dream. But we still look in our closet and under the bed because we need to convince the other parts of our brain that it did not really happen. What is at play here is that the logical brain knows the difference, but the emotional brain does not know the difference between imagination and reality. We produce a set of emotions and set of experiences in the brain as if it were happening when we imagine something. When we do that and we imagine something that feels good or is more powerful than the way we are imagining it before, it starts to burn an alternate pathway for us. We now have another option.

Amiel: Now for this particular person, what would that allow her to do if she were to do that exercise over and again? What might we see differently, say, in the workplace?

Janet: Well, she could imagine a different story about perhaps…By the way, these stories do not have to be true, and it is important to know that when you are hypothesizing a story about somebody else, that story is not true. You do not know what their truth is. But she could imagine a story about how this person was never given attention when they were smaller and that they have learned a strategy to get attention now. And that that strategy to get attention is all about their hurt and their disappointment when they were young. That starts to transition how they see the other person instead of feeling like that is a person who just hugs all the attention. They can have some compassion for them. She could also construct an alternate story that says the men do not pay attention to me in that way because they respect me or because they see me more as a peer or they see me as an equal. That is why they are giving me a different kind of attention than this other person. She can start to make others interpretation, and when that trigger starts the key is to step into that alternate personality to say, I'm a person with dignity and presence and grace in the workplace, and that's not how I want to be seen. I want to be seen in this more quiet and subtle way. As she plays that tape and steps into that person—and it's the stepping into the person part that's important—it starts to create this kind of alternate identity for her emotionally, and, in fact, an alternate story, so that she doesn't have to be triggered by these other behaviors. You can extend that to whatever situation. Usually when somebody is triggering us, the interesting thing about it is that that trigger is familiar to us because we have experienced it before, and we probably also do it. Because whatever triggers us from our young childhood is also something that we learned how to do. Our triggers are often times—and this is also very common in pop psychology as well—our triggers are very often times mirror's to what our own patterns are.

Amiel: Got it. Now, I'm curious to hear another way that neuroscience shows up in organizations—I know you work with a lot of teams, particularly executive teams—and how you've worked with that in a team situation.

Janet: Well, I will kind of continue the thread of emotions here and say that there is almost a kind of balancing act in the brain in order to call upon its higher cognitive abilities. These are the kind of abilities that we want in a workplace: strategic thinking, high quality intuition, high quality communication, the ability to relate emotionally to other people, the ability to think and process information logically, etc. These are the highest-level human cognition powers located in the part of the brain called the prefrontal cortex.

Amy Arnsten of Yale's prefrontal cortex lab calls that part of the brain the Goldilocks of the brain, because it wants everything just right. When things are not just right, it tends to kind of power down and send more of our processing down into our instinctual and habit-based cognition centers. It is important that we learn how to rather keep the prefrontal cortex online and functioning well. Well, as it turns out, what the prefrontal cortex likes is a lot of safety and just the right amount of stimulation on top of that. It does not want complete safety, because that is boring. We want safety with just enough challenge to have us be interested and engaged.

That is the sweet spot when you are leading a team that you wanted to pay attention to, and there is a lot of different things to play into that. One of them is just flat out physical health. Our prefrontal cortex does not function well when we have not enough sleep, when we have not had high quality food, when we do not have enough intimate time with our friends and family, when we do not get enough sunlight, water, etc. All those things that you just know make you feel better. In fact, those things optimize the prefrontal cortex.

I would add a couple other things in here that are interesting. Both meditation and generosity play into the prefrontal cortex. When we do pro-social acts, our prefrontal cortex works better. All of those things are something that leadership will want to pay attention to for that matter. Everybody on the team should be monitoring both themselves and the atmosphere on the team to make sure that you are staying in the zone.

I will add on top of that that there are a number of different social threats that we are born with. We do not have to learn these things. All human beings are sensitive to them. They include fairness, exclusion, the level of status that we have, the level of control that we have over our environment, the level of uncertainty that we are experiencing. So all of these things, when we experience them, when we experience being excluded or when we perceive that we are not being treated fairly or that our status has been degraded or downgraded, when these things happen, the brain goes on red alert.

When the brain goes on red alert, what it does is it warms the amygdala. The amygdala and the prefrontal cortex have a kind of a reciprocal relationship. When the amygdala warms up it shuts down the prefrontal cortex. Now the prefrontal cortex, when it's in really good shape, like

when you're getting enough sleep and you're meditating and you have really great emotional practices to keep yourself in a good emotional place etc., and you've done a lot of work on yourself, the prefrontal cortex can actually send a signal back to the amygdala by a gamma-aminobutyric acid, which some scientists called GABA Goo, [Laughs] for short.

Amiel: I prefer it actually.

Janet: Yeah…Can trigger the production of GABA Goo, which calms down the amygdala. There is this reciprocal relationship. You can understand why you might want to take processing away from the prefrontal cortex when you are under this kind of threat. Because back on the African savanna if you were being excluded from your tribe, you were low status, you were not being treated fairly, you did not have a lot of control over what was going on and people were keeping you in the dark that did not bold well for your survival. It probably meant that you were about to get kicked out of the tribe, and that means death. That is where we got these instincts, and they still reside within us today. We cannot just get over them. We cannot just think our way out of them. However, we can develop powerful practices that the prefrontal cortex is able to withstand more of that threat than it could if it is in bad shape.

But you can see how in many of our cultures right now, workplace cultures, we have this twenty four seven, workaholic, don't see your family for days on end and don't leave the building during the daylight, eat junk food all day, and shortchange of sleep, do all the things that downgrade the prefrontal cortex. Then you put people in an environment where they are excluded from meetings, where there is uncertainty twenty-four seven about whether or not there is going to be layoffs or where the strategic direction of the company is going etc. You have just created this just perfect storm for brain dysfunction. I think that is the biggest place when we are talking about teams that we need to focus. It is really creating that environment so that we have safety and healthy stimulation.

Amiel: It is such a long list of things that can take the prefrontal cortex offline that can make us less skillful. It is a huge list. I wonder if you could speak to this question of where to start. Is there a threshold of how much we need to make sure these things are present?

Janet: Well, I think the first part is to just take an inventory as a leader. Is there low hanging fruit? Are there practices in your organization that are brain killers that do not increase your productivity? For example, people misuse, and this is endemic across the business world, people misuse text and email such that our brains are overwhelmed all the time with trying to catch up. It is not necessary. Instituting some practices so that people can manage that inflow of information better. I mean, for example, I noticed on your emails, it says that you check email at ten o'clock and three o'clock, and if it is an emergency to contact you via text through the phone. That is a great practice for people. There is this fear that if we do that somehow, things will drop through the cracks, but it is actually the reverse. Therefore, that is low hanging fruit.

Another place that is low hanging fruit is when leaders fail to inform people about what is going on. I recently worked within an organization where I was not coaching them—I was actually a member of the organization—where the CEO's philosophy was we all like each other, so you should trust that if you do not have the information things are fine. Well, even if you like somebody, if you are going through tumultuous times and you do not have information, and you are not invited to a meeting, your brain is going to fill in the gap. The most survival value is to fill in the gap with the most negative possible consequence that exists. Projecting that everything is going to go well, that is all well and fine, but there is nothing to prepare for there. However, the brain says I need to prepare for the worst possible outcome here, and that is what people then project in their head. Because remember the brain loves to fast forward into the future and predict what is going to happen.

Then, as you are making that prediction, guess what happens to your emotional state? Your emotional brain does not know the difference between what you just imagined and having it happen. Then that starts to make people feel threatened. Then that threat makes their logical brain shut down right when you needed them the most. As a leader over informing, just always having that in the back of your mind, what do I need to tell people about so that they have the full picture, so that they do not have to go projecting scenarios that are not going to happen? There is a lot of low hanging fruit like that you can just think through. If I know this information, how does it play out in my organization, and where the places where I can just change just a few practices and it will alleviate some of that pressure?

Amiel: Yeah, I love that. It seems like, just to go back a moment, that the precondition for all this is really understanding that a lot of this so-called taken-for-granted, whether it's sleep or informing people that we made this count, that recognizing the almost direct impact they have on other people's brains. We cannot see that. It is something as if we see little metrics going off on their minds that show up a screen on top of their head. We do not actually see the results. However, once we understand that the impact is there, and then we can take these kinds of actions. Am I hearing you correctly?

Janet: Yes. It is fascinating to see how much of our response to the world is not cognitive. I will give you a very quick example. There was a study done at Stanford University by Claude Steele, who looked at the effect on women of feeling as they are going to be in a balanced group versus an unbalanced group. They looked at a bunch of women going into a science program and men too. They had them watch one of two videos. One was a video about the upcoming science program where the men outnumbered the women three to one. The other video was balanced, one to one. They just did a measure of galvanic skin response, which is an unconscious measure because you are not regulating your heartbeat. The chemicals in your body etc. consciously all that happens unconsciously. As it turned out, it did not matter to the men which one of the videos they watched. Both of them they felt pretty calm and happy because they are looking at a program that they are interested in.

However, for the women, if they saw the three to one, they had a negative galvanic skin response, which was indicative of a fairly sizeable amount of anxiety. And when they saw the balanced video, they were on par with the men in terms of their engagement in the galvanic skin response. Now, are we aware when we wander through the environment that the environment is affecting us in that profound of a way? No, but it is. You can extrapolate that out to virtually everything.

I think really one of the goals of leadership is to understand how to create an environment. How to create a set of behaviors and practices and physical structures etc. that manage our biology in the way it was designed. We look out for the places that might trigger our innate biology, and if we can adjust for those, so it does not get triggered, great. We can look at the places where there is actual triggering of our innate biology. There are things, for example, that trigger people's impulse for altruism. Therefore, that would be a good thing to design into an environment. We can design environments so that there are walking spaces that go outdoors. Steve Jobs did a lot of this in his design of the Apple facilities. People actually had to walk from one place to another to interact with the people that they needed to interact with. It was a pleasant and aesthetic walk on the way. I do not think he did that at that time knowing the brain science, but intuitively he knew that that was going to be helpful to people's ability to innovate and think clearly.

Amiel: I think I remember in one of your blogs that they actually put the bathrooms in a place you would walk past people so you would have informal conversations.

Janet: Yes. Innovation is the intersection of unrelated ideas. You can think about it as I have a set of neural patterns, and you have a set of neural patterns and innovation is when different neural patterns get together. That does not happen unless you have intersections of different neural patterns. What happens in organizations is that we put all the engineers in one place. All of the facility staff in one place and all the marketing people in one place. We do not get that really interesting intersection of ideas.

Amiel: I want to have you talk about something that has been explicit and implicit in our conversation, but the hopeful, the really hopeful part of neuroscience. You know, the term that is bandied around a lot today is neuroplasticity. I do not even know if that that is the biggest source of hope, but it sure was for me. I wonder if you could just talk about what is hopeful for what we know about the brain.

Janet: Yeah. Well, first, one of the things that is hopeful is we are learning a lot about brain dysfunction right now. That is not my field of expertise, but that is a tremendously promising area right now in terms of alleviating a lot of human suffering. However, just for us to kind of middle-of-the-spectrum people, who maybe have a little bit of brain dysfunction but not enough to be clinical, I think that the idea that the brain is not fixed, as you said, neuroplasticity. Neuroplasticity just refers to the brain's ability to rewire itself. We used to think that once we became adults that the brain pretty much just stopped growing, that it was

static. It was somewhat almost like our personality is our personality. We can learn new information, but we are going to learn it slower and slower as we get older and older. It is kind of, like we used to think the brain rather filled up. It had a capacity. We also used to think that memory was static, that memory was acting kind of like a tape recorder, that we went around and our brain just kind of like had this built-in video recorder and filed everything away. It was just a matter of the ability to access that information.

What we know now is that the brain is constantly changing. The brain is constantly rewiring itself. We learn new things all the time. We can unlearn, and relearn patterns until the end of our life. And that it is really important to keep our brains active, because the more active we are in using our cognition, kind of more flexible our brain remains throughout our life. Yeah, that is kind of the big discovery in the last twenty-five years in neuroscience, is the degree to which the brain is plastic and can rewire itself. Including recovering from strokes and other types of catastrophic events that beforehand we did not think there was the possibility of recovery. We are now discovering with certain types of therapy that even some of the more severe cases have the capacity to recover functions.

Amiel: One of the practices that you mentioned that is good for the prefrontal cortex is meditation. I give a lot of the leaders that I coach practices, meditation practices, and for those listening I would love for you to now back me up with the rationale for why that is actually effective. [LAUGHS]

Janet: Well, the flat out rationale is that it has been studied via looking at brain scans of long-term meditators versus just regular old folks. There is a measurable difference in the connectivity of the prefrontal cortex in those that are long-term meditators. That evidence is pretty clear. But there is also much lower level of reactivity. Some of these people and these are really people that are pretty far on the spectrum in terms of the amount of practice that they do and the number of years that they practice. But there are people who barely startle at the sound of the gun going off, because their system has become so able to withstand external threats and external perturbations in the system that they can remain calm in the face of things that would really severely rattle most of us.

The evidence there is really clear. They've also, by the way, also taken people with not these extreme practices, but put them on kind of moderate meditation regimes for three or six months and tested them before, during, after, and seen a measurable difference in their reactivity, in their ability to withstand things that would be perceived as a threat. Now, it does not mean that you are not able to run away from something that is threatening. It is not like you lose your ability to react to threat. But what it is is that the brain does not just automatically go there. The brain has a little checkpoint of, do I really need to be threatened by this. Would it be better for me to stay in my cognitive calm self than to start running away? The brain, it is like those who have this long-term meditation are at choice for much longer than the rest of us. But I think that part of what meditation does is that as we are meditating one of the

practices is just being able to observe what comes up, to observe those stories, to observe how it is that we are feeling.

One of the things that is true of our culture because we have dismissed emotion for so long. We live in a highly emotionally illiterate culture. People are not able to identify how they are feeling. If you cannot identify how you are feeling you lose some of your ability to be choiceful about how you use that emotional information. So I think that meditation in part is just this practice of slowing down and being able to become an observer of what is going on. When you become an observer of what is going on, one of the things that you realize is that these uncomfortable emotions do not kill you… And that if you do not act on them right away, nothing untoward happens to you. It rather cultivates this ability over time to be able to withstand those emotions and still act at choice, as opposed to being at the beck and call of the emotion.

Amiel: Lovely. Now since you are continuing to research, I wonder what is one cool or surprising thing about neuroscience you have learned recently that would be relevant to leaders and teams.

Janet: Well, there is so much. There is not a week that goes by that I do not see because I read all of these journals. I do not see something coming out neuroscience that I think it just amazingly cool. One of the things I am doing a lot of work on currently is gender equity issues but gender equity from the standpoint of unconscious bias. How does unconscious bias happen in the brain? How does it play out, and how do we catch it when it is happening? For those who are unfamiliar with this, it has been proven—this is one of the largest data set out there in social science—that what we consciously think we value is not necessarily, what we act on. We will often time act on unconscious biases. Those biases are simply the biases that we pick up from living in a culture. One of the things for women is that we see a dramatic under representation of women in the media in certain types of roles and we see a representation of women that is not necessarily accurate in terms of how women are and how they feel.

There is a perception often times that people have of how women are supposed to behave. It, in fact, it is really out of synch with how women feel and how they do behave. In fact, out of sync with maybe cognitively how we think that we should behave. We set up this kind of dichotomy between the unconscious world and the conscious world, and that plays out in just tremendous amounts of unconscious bias. That one place is really interesting.

But, in the course of doing all this gender work, one of the things that I see over and over again is that all of these studies show a demonstrable difference between men and women in certain types of activities. For example, men score better at risk taking. Women score better at taking the perspective of the other. Women score better at reading emotional expressions. Men score better in markers of confidence and the ability to do spatial rotations. Therefore, there is a whole lot of different ways. Study after study kind of shows that men are better here and women are better here. There's a neuroscientist out of UC Berkeley that recently took that

research and said…what's interesting—and, this is, by the way, really relevant to leaders—what's interesting is that in the research of power what we find is that the more power somebody gets, the less sensitive to other people they become emotionally and the worst they score in all of these measures of perspective taking and facial reading. This is quite relevant to leaders, because leaders often times get profoundly out of touch with what's going on in their organization. And to understand that is a natural outgrowth of the power that one has, as a leader is an important revelation.

But Adam Galinski took it one-step further and said, "Huh, women have lower power in our society than men. So is it possible that some of these differences that we've assumed are just innate differences between men and women are actually just artifacts of difference in power?" He has researched thirty-one different areas where men and women have been believed to be demonstrably different. What he found in every single case is that when you artificially adjust for power, and there is many ways that you can do that in an experiment, the delta or difference between men and women decreases and in some cases goes away all together. My most current fascination is there is a fairly large body of work developing in neuroscience on the effect of power. I think that one that is very relevant not only to leaders, but also to the times that we live in.

Amiel: Wow. I want to close with one question that is something I always like to ask people. As you know, the title of my first book is *Practice Greatness*. A large part of my curiosity is how people get really good at what they do by deliberately practicing or how they do become happier by deliberately practicing something over and over again. I am curious, to close here, what is one thing that you are personally practicing in your life to develop yourself?

Janet: Well, first, I will say that in nearly twenty years that I have been following the brain research, I have developed dozens and dozens of practices for myself. Some of them have gone in the background. I have done so long that they do not feel practices anymore. They are just who I am.

Amiel: Give me one of those.

Janet: Breathing. When I feel myself being triggered, my first response to that is to lengthen my spine and take a breath into my diaphragm. Something that we did not touch on is the link between the brain and the body, but the brain and the body are one congruent system. When we start to be triggered and we start to go into that threat mode, the body constricts in a particular fashion. One of the ways to pull yourself out of your story and pull yourself out of the trigger is to lengthen your spine, place your feet on the floor, and take a deep breath into your diaphragm, to relax your shoulders, to relax the muscles around your eyes. That is an automatic for me now.

Another thing that is automatic for me is…This is going to sound a little woo woo, but there is that brain science that I gave around your ability to project yourself into a story is behind it.

That is that when I start to be triggered, I have an automatic response now that says, “What would X do if they saw me doing this?” Or “How would I feel if X were sitting here?” There is a particular person in my life who I think who is very, very, very wise woman. You know her. We process things differently. We have a different story for what is going on when we are engaged in a social interaction than when we are alone. I have a practice that just says when I'm starting to feel triggered and I recognize that feeling of being small, of acting from a small place, there's an automatic that says, "What would I do if so and so were sitting next to me right now?" That automatically shifts the story that I am engaged with.

Right now, one of the things I am working on is sleep. Because I drifted out of good sleep habits. One of the things I think it is important to recognize is that our culture has a gravitational pole toward bad habits. Our television and our viewing devices, computers etc. disrupt our brain processes so that we do not sleep as well. A lot of our business practice disrupts our schedules so that we do not get on a good sleep rhythm, etc. I think one good thing to recognize is to not get upset with yourself when you think, oh, I thought I had this habit down, and now I've slid back to where I was. And just realize that some of these things you are going to have to be in a practice for the rest of your life, of just noticing and kind of bringing yourself back to a more balanced place. The current thing for me is noticing that I had rather started to slide in the direction of not good sleep habits. So I am using a Fitbit in tracking my sleep and doing some things to reinforce better sleep habits.

Amiel: Janet Crawford. Thank you.