

MIND LIFE PROJECT

with Elise Bialylew

Interview with David Rock

Dr. David Rock is an author of *Your Brain at Work* and consultant who coined the term 'NeuroLeadership'. He is a co-founder of the NeuroLeadership Institute, as well as CEO of the NeuroLeadership Group, a global human performance firm with operations in 24 countries. David is on the advisory board and faculty of the international business school CIMBA based in Italy, and a guest lecturer at Oxford University's Saïd Business School. He consults with clients including NASA, Google, American Express, Mastercard, Microsoft and Accenture. David lives in New York City.

Dr. Elise Bialylew: Welcome, David. Thank you so much for your time today on the program.

David Rock: Thanks Elise. Good to be here with you.

Dr. Elise Bialylew: So, just before we deep dive into the questions, I'd love it if you could give the listeners just a brief summary of some of your work background and what's inspiring you most at the moment with respect to your work.

David Rock: Sure. So I'm originally Australian based in New York city. I head up the NeuroLeadership Institute. We are a global research institute that's dedicated to building a new science for leadership development, helping us develop better leaders. And we do that primarily drawing on neuroscience. We have a team of neuroscientists and staff and a big team doing a lot of research every year into understanding how to create more effective leaders across all aspects of leadership. We publish a journal. We have a big annual summit. Then we operationalize our findings with large organizations helping some of the largest companies in the world develop better leaders, grow talent faster, all those kinds of things.

Dr. Elise Bialylew: I read your book, *Your Brain at Work*, which was just a fabulous practical research based book, which certainly gave me a lot of tips in helping to manage my own brain more effectively. In that book, you talk about the concept of mental energy and its limitations. I wondered if you could just speak a little bit about that and how understanding this concept can help us be better at our work.

David Rock: Sure. It's very easy to just get in and do work and never think about how you're doing the work. It's quite cognitively taxing to think about your thinking itself. But really, if you observe the patterns of your thinking across a day, you'd notice that you move through tons of complex decisions really well, you tend to go really well for a few hours and then it starts to kind of drop off. You have lunch and you go into a stupor. You sort of come out and pick up a little bit. There's really a few hours of really productive time a day if you're lucky. We don't sort of think about the fact that we do have limited ability to make good decisions. Every decision we make requires a whole lot of processing power, and it's not an unlimited resource. We need to rest. We need to sleep. So, it's a case of thinking about your thinking patterns and your cycles and working out how to maximize those. Respecting that the brain actually has limits.

Dr. Elise Bialylew: On the topic of mental energy, you're saying that we can't really take this for granted. That it is a limited resource. Can you just touch on that beautiful metaphor that you talk about of the mind being a stage and how this relates to our mental energy.

David Rock: Yeah. Absolutely. So, I wrote *Your Brain at Work* because I wanted to know how to get the most out of my brain at work. I noticed there was a lot I couldn't do and I wanted to maximize my own productivity and thinking time. One of the things I kept running into, first of all, was this whole area of kind of the limitations of the brain. And really, it's the limitations of what you call working memory. Working memory is like holding something in mind to do something with it. It turns out this ability has a whole raft of different limitations, and you can only hold a certain amount in mind and it takes a certain amount of effort, a certain amount of energy. It just struck me the best way to get that across was with a metaphor where you could actually picture this concept. And it turns out that when you visualize a concept, you are activating working memory very robustly and with the least effort. So, working memory in other words is very visual. So, if I could create a visual metaphor that you'd see, for working memory itself, you would understand working memory better.

So, "the stage" is the space where you do your thinking. If you're driving and not thinking about anything, the stage probably doesn't have much on it, and then you start thinking about what you're going to have for dinner so you are activating the stage. If you start then also trying to think about a meeting and trying to think about where you're going, you have too many actors on the stage. And they bump in to each other and you have got too many things going on. So, the stage gives you this concept of how many things can you have on the stage. Do they jostle each other off and how much energy does it take to get them on the stage, off the stage. And it's a metaphor for building muscle for thinking about your thinking a little bit easier. Basically, the brain has a huge region at the back, the occipital lobe, which is all about seeing. It is an enormous region for seeing and the region for language and hearing are much smaller. We've also had billions of years of practice at visual and much shorter at language. So a picture tells a million words, really, not a thousand words. Because a picture has enormous amounts of data in it, in terms of, if you visualize something in your mind's eye, you've got a huge amount of data contained in that. Whereas language sort of you hold about two seconds worth of data at any time, you have to process it you move to the next idea... So, it's much more than a thousand words that a picture tells when you really break it down.

Dr. Elise Bialylew: With the concept of the mental stage, how would this perhaps relate to multitasking. Multitasking is an issue that's very prominent. We are all doing it and most of the people doing it think that its helping them be more effective. Can you speak to that and perhaps how you would link that to the stage?

David Rock: A number of things that don't require attention is fine. What happens is we can only really put our attention on one thing at time. So the enemy of multitasking is doing multiple things that actually need your attention. So if you can turn processes into things that don't need attention, then you can start to do more things. And that's kind of expertise. As you get better at using a computer, you don't have to think about where your fingers are you can think about the words. So in a sense you're multitasking. But, there are many things that just no matter how much you do them will always require attention, like making decisions. No matter how hard you try, you're probably never going to be able to multiply and add at the same time. You have to do one then the other. It's like that.

So the problem begins when we do two things at once. You basically make a lot of mistakes. A lot of people feel a little bit nauseous or exhausted. It's a real problem. What you don't notice is that it reduces your IQ. It reduces your ability to notice subtle insights and notice your mistakes and things like that. So you make a lot of mistakes. A lot perceptual errors, a lot of just raw cognitive mistakes when you multitask and you don't know it. The challenge is – and this is sort of how the problem is - multitasking is actually rewarding. In other words, it feels good to do it because you feel like you're being productive, while it makes you less intelligent. So it's this dangerous combination. A bit like alcohol I guess. It feels good while it makes you more dumb but you don't know it. It has a similar kind of challenge.

Dr. Elise Bialylew: In the book, *Your Brain at Work*, you give some very helpful tips about how to perform more effectively under pressure. Can you speak to this and give a few tips that are supported by the neuroscience?

David Rock: Yeah, that's a big area. I mean, this is one of those areas where you have the brain backwards. What I can say is that if you ask people about the topic of speaking about their emotions, people will generally say that it will make their emotions worse and it's better not to speak about them. So, the general rule of thumb is if you don't want to be emotional don't talk about your emotions. **What happens in the brain is if you have got emotions arising, like stress, anxiety, or whatever, and you're trying to suppress the feelings, the emotions tend to actually get worse. And, at the same time, if you talk a lot about them, they actually also get worse. But there is a middle ground of like summarizing your emotions that few people realize works incredibly well. And what the neuroscience says is if you summarize your emotions, what's called labelling, which is saying I'm having an 8 out of 10 overwhelming day or I'm a code orange in panic, something that makes sense to you, if you're able to really identify where you are with your emotions and sort of summarize them it activates the brain's braking system which switches down the emotions.** If you put your emotions into a few words, you switch them off. Instead we try to suppress them and that tends to make them worse. So one of the things is to be able to simplify and label our emotional experience. What that does is that it reduces the limbic system activity and simultaneously increases the prefrontal resources, which you really need for cognitive control and just working memory. So the stage requires lots of working memory, lots of prefrontal stress and threat responses and things like that reduce this capacity. Putting words on emotions increases prefrontal and reduces the limbic response.

Dr. Elise Bialylew: So, this sort of strategy or tactic is very powerful and based in the research. And you could bring that into your family life or into work life if you're working with the team. Sort of encourage people to actually even come up with that scale around where you're sitting and just be more expressive around that.

David Rock: Absolutely. If we go to an important meeting with a bunch of people and people aren't feeling like they are in a good state, and we need to do deep thinking, one of the things we'll do is just everyone summarize where you are in a word or two.. You go around the room and people just summarize, well, I'm overwhelmed, I'm excited, I'm exhausted, I'm thrilled, whatever. It helps people to sort of label and put it away and then everyone is much more able to focus and be present. Now we all know the research and we are okay doing it. Not every company is willing to do that.

Dr. Elise Bialylew: Just coming back to the book, you talk about this concept called the inner director, which you suggest has some similarities to concepts such as mindfulness, can you tell us a little bit about this concept of the inner director and how it benefits us to better understand it?

David Rock: One of the things that happened when I wrote the book that was sort of surprising is about half way through writing it, I had this big annoying insight. Which was that all this stuff about the brain was useless if you weren't able to observe what your brain was doing moment to moment. If you weren't paying attention to what your brain was doing, things like your working memory ability and things like your emotions arising so you could label them. If you weren't paying attention to that, then having this knowledge about the brain was sort of useless. So, I started to get into research on what is the neuroscience of just paying attention to what your brain is doing. We sort of ended up in the general field of mindfulness I don't love that word, sometimes we call it 'time in'. But in the book, I call it **direct experience**, and I write about this idea of a director who's sort of off the stage and can direct the action on the stage. **So the director is able to make choices about what to put on the stage and not on the stage. Should I let that actor get on now? Should I get them off now? And they are observing your thinking. So the director is this idea of being able to directly notice stimuli, all thoughts or experiences without the story about them. So being able to directly notice incoming stimuli.** And it comes from a really important and exciting series of studies done a while back now that shows there are two different brain networks through which we experience the world. **And one is like literally directing and experiencing data and the other is filtering through the lens of narrative and story and hopes and expectations and goals. So there is the direct experience network and the narrative network.** The direct experience network is literally putting your attention on to incoming data in the moment. These two networks are anti-correlated so when you're paying attention in the moment, when you're smelling the roses and actually smelling the rose, any emotions you might have tend to actually drop down because the emotional network, the limbic system, is part of the narrative network, the story, goals, and expectations. And the opposite is true when you become emotional your ability to notice incoming data reduces, right. **So the basic concept is really simple you need to have this ability to notice or pay attention to incoming stimuli really easily. If you practice that a bit, you seem to get pretty good benefits. So the director is this ability to directly notice incoming information.** And, it just turns out to be particularly helpful to notice incoming information about your brain and notice what your brain is doing and having some language for that helps. So, that's the broader story. So, I wrote a piece on that called the neuroscience of mindfulness. Just being really widely shared and you can find that online it tells the research story a little bit more deeply.

Dr. Elise Bialylew: And we'll share a link to that actually after the interview. So, with that particular example around the direct experience network versus the narrative network, I'm just thinking we could think of an anecdote or a story. For example, even, let's say personally like a parent with a child, or a parent with a teenager. If the teenager annoys you or there's a trigger and you feel kind of emotionally angry or frustrated, how could you play with this network ...Using the information that we know about these two networks, what could we do in that moment that might help us sort of find that balance?

David Rock: Yeah. One of the challenges is that this ability to notice information in the present is switched off when stress arises or when you're feeling panicked or just even mild stress, and have a mild threat response. This ability to pay attention in the present reduces strangely. So, it's good to catch this early and have this ability sort of just below the surface. That's where practicing seems to help. It's being able to remember, to be mindful, and to be able to do it quickly. So we encourage you to take initiatives to build simple practices like just a minimum of noticing incoming data. Maybe, when they are walking from their car to the office. When they are first walking into work or in the shower maybe. So, regularly practicing noticing so that in those moments where sort of the heat is on, it's easy to recall the circuitry.

But essentially, stopping and breathing. Stopping and smelling something. Stopping and tasting something. Stopping and feeling your feet. Stopping and looking at something beautiful. Stopping and doing anything. It could be any of the senses, literally any of the senses you do it with feeling, touch, taste, anything. Preferably, something positive, a little bit of positive. Any time you can stop and just take in information and notice gradations in that information like granularity. Or, if you're tasting some wine it has different effects but if you're tasting some wine, try to notice five or ten different components of that wine. Like really pay attention to the data. If you're standing there and you can't drink wine you can breath, try to notice the feeling in your body, different parts of your body, notice the sensations. So, it could be any of the senses. It's not about breathing. It's nothing particular about breathing. It's just that it's a pretty good data source. It's always there. You've got bigger problems if it's not. You don't need a glass of wine. Breathing is always there.. So, breathing is a good proxy and it's a rich data source that's pretty positive when you do it. But you can do it with anything. Feel your feet. Smell the rose. Look at a beautiful painting. Anything. So, just bringing your attention to data in the present. Notice variations in it which helps you pay attention and you'll find things subside quite a bit.

Dr. Elise Bialylew: Great. As a coach, or having worked in coaching and leading executives, have you got a favorite question that seems to stimulate new perspectives and activate change?

David Rock: The most important question always with anyone that you are coaching is just what's your goal here? I don't mean that in a glib way. I just mean what is it that you want to achieve? Until you know what someone is trying to achieve, you're just really talking about problems. And the brain that's focused on problems is just a frustrating brain. The more you talk about it, the worse the problems get because you're not just labeling, you're venting. So, the very first question is really where are we going? That activates the "toward frame" rather than the threat system. Where are we going and why? And really just begin with that positive or toward frame. **So, what's the reward we are going toward? Not what's the threat we are going away from.** And it's really important to shift the focus that way. And almost like that's the very first question you need to ask. Otherwise, you're just going to talk to people about their problems. So, I think that's certainly one of golden rules.

Dr. Elise Bialylew: Great. Just on that towards reward and moving away from threat because you talk a lot about that in your book as well. Can you just give a brief explanation about the relevance of that from a neuroscience perspective of why it's more powerful to be operating from a "moving towards" rather than and "avoiding fear" position?

David Rock: Yeah. It's a really exciting insight from neuroscience that we have these two systems. There's an approach system and an avoidance system in the brain and it's called the behavioral activation system. Which means activate neurons to do more, or behavioral inhibition system, which means inhibit neurons connecting more. So, it's do more or do less. It's also about take risks or conserve energy. It's think about the future or it's be concerned about the past and problems. So everything is in this quite dualistic framework. We call it toward or away. But, its many things. It's more of or less of. Its approach-avoid. What we find is that they have really different adaptive vales. Being in an approach state is much better for obviously having new ideas and breakthroughs and having insights. You get a ton more insights in the approach. The threat state has its value. It's good for executing things that don't require insight that you just have to focus on really tightly where you don't want outside influences coming in. You just want to focus, you know, in that context the threat is pretty good. So they have different adaptive values. It's much easier to have like breakthrough insights about your own or other people's performance if you are

in that towards state. It's a very significant difference in the number of insights you have. If you think about it this way when you are working with a team maybe and you are all stuck trying to solve a problem and no one has an answer and you are all frustrated. Someone cracks a joke and you all laugh and suddenly a solution pops up. That's the approach state changing your ability to solve problems. We've all had that experience when you look on the light side and suddenly everything becomes clear. Or, a year after a problem we look back on it and it's so obvious what the solution is, because we are not in that threat state. So, the threat state really slows down good processing and particularly divergent thinking and creative thinking. So, you really want to be in that approach state for the generation of insights, and that brings me to the closing point. If you are trying to grow and develop people, particularly if you are trying to grow smart people faster, you are really in the business of generating insight in their minds. The goal has to be helping other people to have insights. We know from our research, insights change the brain. Insights fill this robust new network that really helps people grow and learn faster and in much more deep ways.

Dr. Elise Bialylew: Thank you so much David for your time. If there was anything else that you wanted to share that we haven't covered, I just wanted to give you an opportunity for that?

David Rock: Sure. I think if you are interested in the research just stay in touch with the institute neuroleadership.com. There is a fantastic resources, you'll see new research coming out all the time. We have about a dozen major research projects at any one time. We've a fantastic annual summit this year in New York city that's really exciting. We have teams and resources across age-specific and north America and Europe as well, and really around the world. So, feel free to reach out to us and dig into the work we are doing.

Dr. Elise Bialylew: Great. Thank you very much. Thanks for your time.