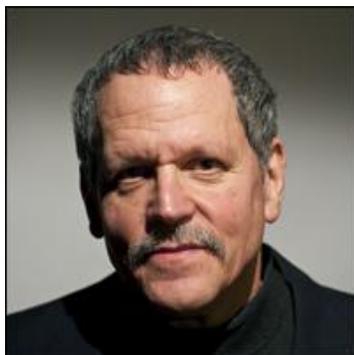


Leading projects with the brain in mind: Why You Are Not Your Brain

With Dr. Jeffrey Schwartz

Dr. Jeffrey M. Schwartz, M.D. shares insights from his latest book “You Are Not Your Brain” on how to understand, identify, and free ourselves from deceptive brain messages.

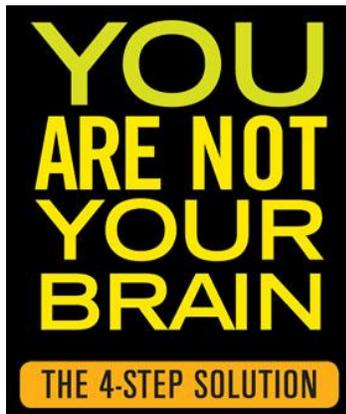
When we are faced with the constant stress of the day to day challenges of our projects, we can get overwhelmed and easily slip into self-doubt, indecision, and negative self-talk. We may respond with anxiety, depression, and unhealthy habits like micromanaging or repeatedly over-checking things like email and text messages. These negative thoughts and responses can become a vicious cycle in which habits become more engrained and automatic.



Dr. Jeffrey M. Schwartz, M.D., one of the world's leading UCLA psychiatrists, warns that deceptive brain messages – those false, negative thoughts and feelings that are not representative of who we are or what we want to accomplish in life - can get out of control and attempt to take over our lives. In his latest book “You are not Your Brain”, Dr. Schwartz explains why our brains deceive us and how to make the brain work for, rather than against, us.

I had the opportunity to ask Dr. Schwartz about how the 4-Step Method, that he originally developed to help people with obsessive-compulsive disorder (OCD), can help us harness the power of focused attention to understand, identify, and free ourselves from the deceptive brain messages that hold us back and in the process change our brain in ways that are healthy and beneficial to us.

Dr. Schwartz and his co-author, Rebecca Gladding, M.D., have spent the last few years fine-tuning the four steps to ensure that they apply to all kinds of deceptive brain messages and situations in life, not just OCD.



Jeffrey M. Schwartz, M.D. is Research Psychiatrist at UCLA School of Medicine and a seminal thinker and researcher in the field of self-directed Neuroplasticity. He is the author of over 100 scientific publications in the fields of neuroscience and psychiatry, and several popular books including [The Mind and the Brain: Neuroplasticity and the Power of Mental Force](#) (2002), and [Brain Lock: Free Yourself from Obsessive-Compulsive Behavior](#) (1997). Dr. Schwartz has been featured nationally on prominent TV shows, including Oprah, 20/20, Today Show. He was a consultant to Martin Scorsese and Leonardo DiCaprio on The Aviator.

Dr Schwartz's primary research interest over the past two decades has been brain imaging and cognitive-behavioral therapy, with a focus on the brain mechanisms and psychological treatment

of obsessive-compulsive disorder (OCD).

The interview:

*Samad: Mr. Schwartz, before we delve into your book, *You Are Not Your Brain*, I would like to know how your landmark work in self-directed neuroplasticity and breakthroughs in obsessive-compulsive disorder research influenced the ideas that you share in this book.*

Dr. Schwartz: Oh, well, it influenced it a huge amount. This new book, *You Are Not Your Brain* is really just a broadening of the application of the earlier works, so there's a complete continuity. Basically, the work on obsessive-compulsive disorder came out of the fact that in the mid-seventies, all through the eighties, actually all through the nineties, and into current decades, I was a very, very serious practitioner of the ancient, what I like to call pre-Christian form of Buddhist meditation in the Theravāda school. That is sometimes called the Southern School of Buddhism. I was a very, very serious practitioner of that for thirty years, starting in 1975. And, actually, in the Burmese tradition, and specifically a great Burmese meditation master by the name of Mahatma Simadha. Really, seriously practicing that for about ten years before we started doing the obsessive-compulsive research. I started doing that when I was a medical student and did it all the way through my psychiatry training. The whole notion of using what now has actually become a very well-known term: mindful awareness. It's actually practically merged into being pop-psychology in the last five to ten years, but back then, it wasn't. It was a very serious notion of essentially – to put it in very lay-terms – a third-person perspective, or an outside perspective on your first-person inner experience. So, you learn how to have very, very acute, calm, clear-minded self-observation and skill.

So I had been practicing that very, very seriously, and did for a long, long time. In the last couple of years, actually, I've kind of integrated it into in, and then become a serious Christian meditator and it's a whole other subject matter. They're not that different, they're actually in fairly close relationship in numbers of ways. In fact, I've written about that on the internet between this ancient Buddhist meditation and especially Christian Jesus prayer meditation. But that said, when we started doing this obsessive-compulsive disorder research, which was really in sort of the late eighties it was really getting off the ground. I mean we started in the mid-eighties studying depression, doing brain imaging at UCLA. I've spent 25 years here at UCLA and this work actually started when I was still a trainee, before I became on the faculty. So, I became really, really interested in this notion that mindful awareness or this capacity to observe your inner experience could number one: treat psychiatric illness, and number two: it actually changed how your brain works. And these were the very early days of brain imaging in humans and to a significant degree, it started here in UCLA and a handful of other places. We, pretty early on, were studying depression and then we thought well, obsessive-compulsive disorder seems like an interesting thing. And, we started to do that. Initially we had this very clear-cut finding that has held up over time that people who have obsessive-compulsive disorder have now a quite well described circuit in the brain, which is causing problems, and it's centered on the habit part of the brain.

This is all explained in my first book: *Brain Lock* and it's explained in more scientific detail in my book: *The Mind and The Brain*, especially in chapter two, it's called "Brain Lock" which is the same title as the first book, which is really a self-help book. The point is that once we had this key finding of understanding this circuit. Which is really a circuit that runs from a part of the emotional frontal brain the limbic frontal cortex, an area specifically called the orbital frontal cortex, which sits right over the eye sockets and connects into the habit center of the brain. This is part of what's called the basal ganglia, specifically part of the basal ganglia called the

caudate nucleus. Basically, it's an emotional frontal cortex into the habit center of the brain, and basically, there is a brain lock in that circuit in people who have obsessive-compulsive disorder. They get this intrusive, bothersome urge to check things and wash things. At that time, as, up until today, medication, it was really the beginning of using medication to treat that in a systematic way, but there were also psychological treatments. I really wanted to integrate this mindful awareness into those psychological treatments. That's what we did. We basically showed that. I devised these four steps, which are still basically the four steps that are in the new book, *You Are Not Your Brain*. We made small modifications to make it more generally applicable, but the key point which really does come out of this meditation tradition, is re-labeling or putting an accurate linguistic label on how you're feeling. That has now been shown in a lot of research to calm other emotional areas of the brain, specifically the amygdala, which is really the emotional fear/anxiety center of the brain to a very significant degree.

The summary really becomes that this use of mindful awareness, before a lot of this research had ever, ever been done on mindful awareness, much less my use of brain imaging to study mindful awareness, in the last ten years there's been quite a bit of that, so this is many years before that. We were fortunate in the very early nineties, we did this research in the late eighties and early nineties, and in 1992 we published a paper which really showed that this form of psychological therapy that I had used, this mindful awareness to amplify the effects of this. Not only was this effective in treating people who had obsessive-compulsive disorder, but it really did change the brain activity. Normalized, as it were, the brain activity in this circuit, this basically obsessive-compulsive disorder circuit in the brain that runs from the orbital frontal cortex to the caudate nucleus. Basically causing the habit center in the brain to lock. The lock is for genetic reasons. It turns out that obsessive-compulsive disorder has very significant genetic neurological aspects to it. Yes, you can treat that with medication, but we also are showing that just using psychological therapy enhanced by mindful awareness, you can treat it and get changes in brain activity that correlated with the functional improvement that people have. So that salvational finding has been, and the fact that we use these four steps, re-label, then we called it reattribute, now we call it refrain, refocus which is the key step that actually changes how the brain works and revalue and I'm sure we'll have a chance to go over that in more detail. So those steps really came up in that research, and the fact that it affects how the brain works was substantiated in the early and mid-nineties. We then went out and repeated the whole study again with a whole new set of subjects. By the mid-nineties when *Brain Lock* was published, all this research had basically been done to show that mindful awareness and directed attention especially could change how the brain works and that there are four steps that people can readily learn to manage their emotional responses to these deceptive brain messages.

Samad: Dr. Schwartz, you say in the book, "Nothing is more confusing or painful than when the brain takes over your thoughts, attacks your self-worth, questions your abilities, overpowers you with cravings or attempts to dictates your actions." You attribute this to the deceptive brain messages and thinking errors. Talk to us a little bit more about deceptive brain messages and how they impact our lives.

Dr. Schwartz: You know there are two broad classes of deceptive brain messages. If you're dealing with something like obsessive-compulsive disorder, to a significant degree, as I just said, there's a neurological component that's genetically inherited, actually has to do with faulty wiring in the habit center. And so the deceptive brain messages are really being generated by the brain really for reasons that have a lot to do with just a neurological malfunction that is genetically inherited. Even in those cases, you can actually change that with just trained attention by understanding what it is, not giving in to it, and focusing your attention differently.

For most people, the vast majority of people, because obsessive-compulsive disorder affects about two percent of people, the vast majority of people have deceptive brain messages that are not caused, anything like the same degree, nor do they have quite the same intensity as a neurological cause. So you can, because the focus of attention and the way people respond to what they believe really does wire the brain, then deceptive brain messages in most cases arise by basically faulty learning that has occurred earlier in life. So, you learn things about how you interface with the world. Your sense of self-worth, your sense of self-criticism, your sense of being accepted by others; lots of cognitive distortions as to how we understand what's happening to us and how we manage anxiety. Many of these things really just come in as learned responses that occurred before we really realized what was happening. They are really psychological, have a psychological basis to a very, very large degree, and yet that too causes deceptive brain messages and the reason why is just because focus of attention and repeated behavioral responses really, really does change how the brain is wired or what wires the brain to a very, very significant degree. That can be for good, or it can be for malfunction. When you learn how to use mindful awareness for one thing, to assess how you're responding and to have this what we call wise advocate perspective on your emotions and how you're responding to them. Then you can focus your attention very, very constructively, and you can really override deceptive brain messages. Prior behaviors have been done before you learn how to use the wise advocate as constructively. Lots of things get wired in that are not maximal, so it really does show the power of focused attention and behavioral response to wire the brain, and so a lot of deceptive brain messages have all the results of prior learning that was not maximal. Fortunately, it can be changed and that's the whole notion of neuroplasticity and especially self-directed neuroplasticity, a term that I coined to mean that when you make choices about how you respond you can actually wire the brain in ways that are self-directing.

Samad: And that is just absolutely amazing that we now have that understanding, because for a long time people just thought that once you have a habit or you're born with a habit, or you're born with a characteristic or something like that, that you just live with it. But, this is such a great hope.

Dr. Schwartz: Well, it goes beyond that, I mean there is that. But, I'm thinking in general people more or less know that yes, it is hard work, but all habits can more or less be changed. In our current era what really has happened is, one of the reasons that we call the book *You Are Not Your Brain* is because the opposite message has been drilled into people in our current era. There's a certain philosophy of neuroscience which I think has become, unfortunately, too predominant, which basically says you are your brain. Once they start doing the brain imaging experiments and they see the brain respond in various ways to various circumstances, now I think there is a very significant sort of built up cultural belief that if your brain is doing it, there's just not a whole lot you can do about it. I mean, that's – I really have a difference in perspective on that. That's where the real change is. Yeah, your brain can be doing it, but that doesn't mean that you're destined to do it forever with no capacity to do anything about it. In this world, biology is absolutely not destiny. The choices that you make not only effect to a very significant degree how your brain works, it also very significantly – and there's a lot of work in a new field called epigenetics – which has become – it has become increasingly recognized as being of very great importance. The choices you make about behavioral responses and how you understand your environment absolutely have very significant effects even about your genome, how your genetic heritage gets expressed. Then it looks like even that becomes inherited itself. This issue of biological determinism is a message that still has significant cultural predominance, but doesn't deserve it. I think we should be even more so into a transitional period away from this notion of material biological determinism. Materialism is incorrect in claiming that because your material brain or your material genome is coded in certain ways, that

that forms your future destiny. That is not true. It does take the effort of focused attention and behavioral change to rewire it and to change the coding. But, it is very important to get the message out that through focused attention and through changes in behavioral response that you can record it. That's where I think the major change in perspective needs to occur and is occurring.

Samad: Dr. Schwartz, let's go back to another topic that you discuss a lot in the book, you say the deceptive brain messages manifest themselves in the form of uncomfortable physical or emotional sensations and throughout the book you make sure to differentiate between true emotions versus the emotional sensations. Talk to us a little bit more about the difference between these two concepts.

Dr. Schwartz: Yeah, that's a very deep concept and it is a very core part of the book, no question. Okay, so, and this really does have significant continuity with everything that's already said before. The classic example of an emotional sensation would in fact be something like obsessive-compulsive disorder. Here we have people who because of really a genetically inherited biological essentially wiring problem. This intrusive sensation that something is wrong, something is dirty, this needs to be checked, I have to do this again. This deep, visceral repetitive intrusive feeling or sensation that has a very strong emotional content to it telling you to do things that really know don't make a whole lot of sense and are absolutely not in your best interests. But, they are so strong that they are very, very hard to resist. That is an archetypal paradigmatic example of an emotional sensation caused by the brain. Now, a true emotion is a very, very different thing. Because a true emotion is truly related to your sense of self, and there's a whole lot in the book, *You Are Not Your Brain*, about how do you connect with your true sense of self, your true self. This is where this concept of the wise advocate is so important, is the central core therapeutic aspect of the book. Because we all have within us a wise advocate. This wise advocate is very intimately related to what I've been speaking about, mindful awareness. For those who are of the Christian faith, it's very, very closely related to the Holy Spirit that all Christians believe we have within us, and it's also related to the Holy Spirit in the Jewish sense of the word, which is a Godly spirit that we can interface with. This notion of a wise advocate is a major part of at least three major religions/traditions that happen to be the three religious traditions that I by far know the most about. And I also know enough about Hinduism that as well, and I would be almost certain that there is some aspect of it that's in Islam as well. So I think this notion of a wise advocate is common to all the great religions in one way or another. This wise advocate that we all have, that all human beings have, which is in fact what makes us uniquely human, we through the connection to that can find a path to our true self. We define our true self in terms of our connection with our wise advocate within us. Therein lies the very, very important difference between an emotional sensation, which is really just a mechanical result of a neuronal process, it's machine-like, especially when it malfunctions, causes sensations, but then, with the wise advocate we all have the capacity to make interpretations about those sensations. We do not need to be mechanical slaves to the sensations that our material nervous system creates. That is our animal nature. Our animal nature to a very significant degree can be understood as our material selves interacting with the material world. Yes, the sensations can be very intense, can be profound and obviously there's a large instinctual component in it. We all have hunger, we all have thirst, we all have sexual drives, I mean obviously a lot of these things have to do with core survival aspects of the animal aspects of ourselves. We don't have to be reduced to that. We don't have to be reduced to material beings who don't act different in principle from any other animal. Human beings have the capacity not to respond to those emotional sensations in un-interpreted ways or in reflexive ways. Human beings do not need to be reflexive in their behavioral response the way that animals generally are.

The difference is, and what we mean by true emotion is through the guidance of our inner wise advocate we look for the true emotional responses that connect us to our true selves. That is where we want our focus of attention to be. That is that awareness that we want to have directing our focus of attention, because the focus of attention – and I've done a lot of work over the last fifteen years almost now with the very eminent quantum physicist Henry Stapp at University of California Berkeley. We've co-authored a major paper in the "Philosophical Transactions of the Royal Society" in 2005, along with a third author, my very esteemed colleague Mario Beauregard, a very great brain-imaging researcher at the University of Montreal. So there is now a deep scientific theory which has been elaborated a number of places, also very much in the mind and the brain which is elaborated in a much more user friendly way in the new book *You Are Not Your Brain*, that says the focus of attention actually physically changes how the brain works and we want that focus of attention to be directed by our wise advocate that we are using to connect to our true emotions, leading us on the path to realizing our true selves and our true self goals and our real self-worth and our connection with a community of people. Of course, that community of people can ideally come to encompass all people and even all living things including the Earth, etc., I mean on a level it's become a transcendent virtual experience. That's the path that we're talking about with true emotion, mediated through awareness that is directed by our wise advocate and you can see how different a thing that is than the mechanical emotional sensations which is really just our animal nature expressing itself in a material way. It's the capacity for us to discern the differences between those two and understand how our emotional sensations may be impeding or getting in the way, obstructing our capacity to achieve our higher self, our true self that really leads to the changes in focused attention that rewire the brain in the most constructive ways.

Samad: Let's now talk about the four-step method for overcoming our deceptive brain messages and thinking errors.

Dr. Schwartz: It's a very user-friendly four-step approach that has been refined and refined and refined for over twenty years now, and now has been in the new book, *You Are Not Your Brain*, designed to be applicable for all people. Certainly no longer for psychiatric issues primarily. It's really now for managing day-to-day stress and how to not be overcome by the anxieties that we all feel as part of just normal responses to the stresses of everyday life. The first one I've mentioned: re-label. That turns out to be very, very important, because putting an accurate label on what is happening turns out to be a core way of activating the mindful responses, the wise advocate understandings. It turns out that acknowledging that we're anxious or acknowledging that we're feeling stress is helpful. When we have ways of knowing how to manage that stress it gives us a signal that tells us now we have to pay more attention to how we're responding, because when anxiety and stress are basically denied or are not dealt with awareness, they tend to control us much, much more. Also, fears as well, so just putting accurate labels on what's going on, is very, very helpful. It puts us in a position where we're present-centered. We're in the here and now. Simple example: Person comes into work, they start checking their email, they get a call, there's something else they have to attend to. Many people will feel, kind of talking from personal experience here, and I'm sure that many people have had this, will feel like "Oh, I have to attend to this email; I can't do the next thing unless I do that." If that's become the habit, and if that's become the distraction, it can really diminish your productivity. Then you're at a point where you can actually make a very – a day-to-day choice – you re-label. You can say, "I'm being drawn to this email by a force of habit. I have too much attachment to getting a sense of completion about doing my email before I do anything else. Let's go on to the next thing." The way you go on to the next thing is by reframing the situation. That's the second step.

Re-label means put an accurate label, reframe means understand why this deceptive brain message is bothering you, what it is and why it's bothering you. Because now you're realizing, "Wait, I have an excessive attachment to say, checking my email, this is due to a deceptive brain message. This is due to the fact that I have repetitively spent so much time doing email, that doing email has become an automatic way that my brain responds to my early morning work situation." It's become too mechanical. Now, habits can be extremely good, and can be extremely useful. But, the whole notion of using the wise advocate and the whole notion of relabeling is to be able to begin to tell when they're not being functional. So that you don't just do them mechanically. So when you reframe, you say, "This is a deceptive brain message." And then frequently these deceptive brain messages are tied into cognitive distortions. So, there are two parts to the reframe step. One has to do with understanding that the feeling itself is caused by a deceptive brain message and that secondly that deceptive brain message is linked to a cognitive error, a cognitive error of thinking. Often, those cognitive errors are related to things like all-or-none thinking or negative prediction or fortune telling that prediction that things will not go well. So we get into patterns of thinking that basically lead us to think that "If I don't do it this way, it won't work." Or, this kind of pattern of cognitive distortions that lead us toward thinking that if we don't do things mechanically we're going to fail or that why try to do things differently because it's not going to work. Cognitive distortions really do tend to lock in patterns that are not maximal.

Reframing allows us to see that deceptive brain messages are causing us to not truly understand the cognitive truth about what's going on in the situation right now. In the book we lay out a whole set of cognitive distortions. My friend, and longtime colleague David Burns, also has done this work in terms of how to treat depression, and it's become part of what's called Cognitive Therapy, which is a very scientifically validated way of doing psychological treatments. So, we see these cognitive distortions, we correct them, and there are charts and tables in the book that help you find your cognitive distortion. Once you put these two steps together, put an accurate label, reframe so that you see the deceptive brain message, see the cognitive distortions that are basically leading these deceptive brain messages basically to become a perpetual way of thinking that is not true, correct the cognitive error and then the key next step is refocus. That's the one that's really, really important, that I was just elaborating on previously, where it can go all the way up to higher spiritual levels. It doesn't need to be there, that's for sure, it can be at a very mundane level, just focus on the next thing you need to do that is going to be helpful to you. Don't allow these feelings, don't allow these emotional sensations, don't allow these deceptive brain messages, and don't allow these cognitive distortions to cause your responses to be less than maximal. Use your wise advocate, see where your true self is, and see where your true interests are. Focus on that and do something that is going in that direction. That is what rewires the entire brain. Focus of attention is what really wires the brain and the underlying physics principle of that is related to what's called the quantum zeno effect. This is explained in a very user-friendly way in *You Are Not Your Brain*, and in some more scientific detail both in *The Mind and The Brain* and then also of course in the "Philosophical Transactions of the Royal Society" paper. So, this notion that focused attention stabilizes brain circuitry is really a well worked through aspect of standard orthodox aspects of quantum physics. The refocus step is very, very important because that's where you change the brain. That's why you want to refocus on things that are adaptive because then you wire your brain in ways that are adaptive. When you do that regularly, your brain starts to change, everything starts to become revalued, and that's the fourth step. As the brain starts to change, you come to revalue your responses to environmental stimuli and no longer have nearly as strong an urge to respond in habitual ways or respond to deceptive brain messages in the way you used to. You put a different value on those emotional sensations; you don't basically get

deceived by them anymore. The deceptive brain messages are no longer deceptive to you, you see them for what they are, you put a different value on them, and then you much more automatically focus your attention more productively. In other words, your wise advocate and your true self and the focused attention that follows from them have rewired your brain to make it much easier to recognize very quickly what deceptive brain messages are, see that they are deceptive, put a different value on them, essentially they're worthless, you don't want to go there, and the new brain circuitry that you've been wiring in through repeated refocusing starts to much more easily take over and you have a much more productive evaluation of your inner experience and your inner responses to your environment and to stress. So those are the four steps: re-label, reframe, refocus, revalue.

Samad: Dr. Schwartz, do you have any final tips for using the four-step method to overcome our daily challenges?

Jeffery Schwartz: There are relaxation exercises in the book. There are two long chapters that cover the how to reframe, how to recognize cognitive errors, so now forming good patterns of good habit patterns that bring in the whole notion of relabeling and using mindful awareness are also exercise in the book that literally can train you how to be more mindful. Being mindful is a technique and there are some quite good books, one that we refer to regularly in our book is *Mindfulness in Plain English* of course those who work in a Christian tradition, there are some very, very good books that I've been influenced on using the Jesus prayer, which is, I mean having that perspective is very conducive to having mindfulness very much with you by having this connection to the Holy Spirit. That really brings mindfulness. There are various ways to practice increasing ones mindful awareness and increasing ones sort of receptivity to the wise advocate within us. There are classic elements in that. And in the book, especially within the mindfulness technique, ways of doing it, and there are other books that are also available that can strengthen that, and that is the underlying theme that through connection to the wise advocate we with mindful awareness in whatever tradition that we are participating in enhance our capacity to re-label be clear minded, reframe, see the deceptive brain messages for what they are, correct the cognitive distortion, focus attention adaptively which will rewire the brain and increase the capacity to have value responses that are proactive and very productive and functional and then you're just on your way.

Samad: How can our audience find out more about you, Dr. Schwartz, and contact you?

Dr. Schwartz: Well, we have a few websites; I have my own website jeffreyschwartz.com. We have our book website youarenotyourbrain.com. If you put Dr. Dr. Schwartz into YouTube a fair number of videos come up now, that are relevant, and interviews that I've done, so I have a reasonably good representation on YouTube now under Dr. Dr. Schwartz , Those are easy ways to basically pursue more, get more information, and then on amazon.com, there's my author page which has an essay and other information, so not hard to pursue these things further.

Samad: Dr. Schwartz, I want to thank you so much for one, writing the book, and for this opportunity to talk to you this evening. This book has been extremely helpful to me personally, and I know that this book is going to be helpful to a lot of our community members, members of our – project managers that are out there that are experiencing high stress and anxiety and I think that – observing it myself, I started observing it after I read the book, and I've observed it in other project managers, how we respond to stress and anxiety. We repeatedly check emails and text messages. We do too much research we overthink we overanalyze; we avoid important things that are important in our work in our lives. This book really brings mindfulness to these

types of behaviors and thoughts that are not good for us, and I think it's going to be an extremely important book. And I thank you again for writing it and I thank you again for your time this evening.

Dr. Schwartz: Thank you very much. It's really an honor and a privilege to get this out to the project managers' community. That's a community that I'm very eager to reach; and it's a community of people that I think can really benefit from these techniques.