

BOOKS AND IDEAS PODCAST

with

Ginger Campbell, MD

[Episode #55](#)

Interview with John Ratey, MD, Author of *Go Wild: Free Your Body and Mind from the Afflictions of Civilization*

Aired 06/23/2014

[music]

INTRODUCTION

This is [Episode 55](#) of [Books and Ideas](#), and I'm your host Dr. Ginger Campbell. This episode is also appearing in the feed for the [Brain Science Podcast](#) because it is an interview with [Dr. John Ratey](#), who appeared on that show a couple of times back in 2008.

Many of you may be familiar with Dr. Ratey's last book, [Spark: The Revolutionary New Science of Exercise and the Brain](#). But today we will be talking about his brand new book, [Go Wild: Free Your Body and Mind from the Afflictions of Civilization](#). One thing that sets *Go Wild* apart from similar-sounding titles is its focus on scientific evidence. So, I encourage you to give this interview an open-minded listen.

You will find the complete show notes and a free episode transcript of today's podcast at booksandideas.com. Feel free to send me feedback at docartemis@gmail.com.

I will be back after the interview to review the key ideas and to share a few announcements.

[music]

INTERVIEW

Dr. Campbell: John, It's so great to talk to you again and have you on my *Books and Ideas* podcast. How are you today?

Dr. Ratey: I'm fine. It's been a wonderful few days of talking to people and promoting our new book, and I'm looking forward to getting the message out there to get people to re-wild their lives and go wild.

Dr. Campbell: Well, before we talk about that, I want to tell you some news that I have, which is that starting in July I'm going to be doing a fellowship in [palliative care](#). So, that means I'm starting a fellowship exactly thirty years from when I graduated from medical school.

Dr. Ratey: Going to 'return of the repressed,' we call it; you know, going back to the beginning. Congratulations! That's pretty exciting to start something new.

Dr. Campbell: Yes. And it sort of comes from all this work with brain science, and realizing that staying active and doing new things is the best thing I could possibly do. I'm getting to that age where I want to get out of the ER. And I was thinking about quitting medicine completely, and I decided to do this instead.

Dr. Ratey: Well, that's big news. That's good. Where are you going to be doing that?

Dr. Campbell: I'm going to be doing it actually at the same place I went to medical school—the [University of Alabama](#) at Birmingham. In fact, the place I'm

going for orientation, I think the last time I was in this auditorium was at my honors convocation—which is kind of ironic.

But anyway, I actually wanted to put that at the beginning because it's something my listeners also need to know about, and I know some people aren't real good about listening to announcements at the end of the show. So, I'm not sure exactly how it's going to affect my podcasting. I think it's going to probably cut it back for a while.

Dr. Ratey: I was telling my wife about your life (or how I imagine your life): About getting to read all these books, meet all these people, going to neuroscience conferences, and staying on the cutting edge. And then interviewing these amazing people. And what a pleasure that is.

I just thought it was great. So, I hope you continue it in some form.

Dr. Campbell: I hope I can find a way to make that work. And I've already got some interest where I'm going about trying to start maybe some kind of podcast about palliative care medicine—which might be something worth looking into.

So, before we do talk about your new book, John, would you—because there are going to be a lot of new listeners who didn't hear either one of your [interviews](#) that we did way back in 2008¹...

Well, first just go ahead and tell us a little bit about your new book.

Dr. Ratey: Oh, well no, I can go back. I mean that might be better to start there, because it sort of evolved from my previous books and my previous life.

¹ Dr. Ratey was interviewed for [BSP 33](#) and [BSP 45](#).

I spent most of my career as a [psychiatrist](#) treating aggression—learning about that, and using [psychopharmacology](#) and other forms of treatment—and then that merged into a twenty-five year history of work with [attention deficit disorder](#) which always had a strong component of recommending exercise as a treatment, or a co-treatment for ADD, both in adults and children.

And then in 2008 came the book, [Spark](#), which really has changed my life quite considerably. It's a book about how exercise works the brain, basically helping to regulate emotions and optimize cognition. But this put me on the road all over the world (one of the fortunate outcomes), and traveling, at times fairly constantly, to lecture and work with different groups—the schools mainly.

Working with industry, working with legislatures and other groups to help change the direction of where we're going in not moving in the world. And working with countries; since I did my last podcast, I've been in Taiwan quite a bit, and have been friendly with the president of Taiwan, who is an extra athlete, so very familiar and interested in what *Spark* offered. And also in Japan quite a bit, and South Korea; and now on to mainland China in the next three years or so.

I've been fortunate to be supported by [Johnson and Johnson](#) for a while, and then [Reebok](#), and now a company in China, as well, to help spread the gospel, if you will, that moving and living correctly is the best thing you can do for, not only healthcare, but to improve well-being in general, and specifically to increase test scores—which is the push from every corner, in every country, in kids and young adults.

So, that's been my life. And out of that grew my current book, [Go Wild](#). Because the exercising the brain book, and knowledge, and the burgeoning information that's coming out about that all relates back to our evolutionary history of how our brains developed to go from a moving brain to a thinking brain—they're actually the same.

And this is so important, and led me to look at other aspects of sort of the [hunter-gatherer](#) period. Because we were hunter-gatherers for half a million years and only have been settled for ten thousand—or in some places five thousand—years, where we’ve been farming. And looking at our basic genetic prescription, that obviously gets changed quite a bit through the environment, but we still have the same hunter-gatherer genes. We’re prepared to act, and eat, and sleep, and commune, and be in nature, and move like hunter-gatherers. And we’re not doing that.

I put together a book with [Richard Manning](#), who is a journalist who has been following the story of our food industry for many years, as well as what we’re doing to the land. And we put together the book, *Go Wild*, which really tries to highlight what we’ve done to ourselves by not living wildly—by not paying attention to the need to move, the kinds of foods we should be eating; not sleeping; not being mindful of who and where we’re at, and who we are, as well as the need to connect.

In our digital world, we’re so prone to feel that we’re connected all the time everywhere. And many have great lists of people on their Facebook page, but often they’re not connected physically and emotionally enough to people. This is a huge problem that’s worldwide and growing.

We talk about the benefits to the brain and the body with being connected, in our book, and look at the benefit of being connected to a small tribe. Because when you get really too big, you lose that sense of connectedness, and you lose some of the powers that being connected bring to us.

Dr. Campbell: That’s one of the motivations I have for going into palliative care, is because I want to have more real connections in my life. Podcasting is rewarding, but it’s not, most of the time, that true person-to-person kind of connecting.

John, one of the key themes that you have seems to be that [evolution](#) has given us this body that has an innate ability to be healthy if we can learn more how to live like our ancestors in certain key ways. And you don't pretend that you invented that idea. But you do suggest that much of our popular understanding of evolution is, as you say in the book, more or less wrong. What do you mean by that?

Dr. Ratey: Well, I think that most of us think of evolution as we jumped in to being human; but we really did evolve over half a million years, and became human. It took us a long time. It wasn't an easy course. And we developed all these great innate tools in our genes, then in our bodies and in our brains, to help us advance, and manage new environments, new challenges, new situations—to adapt.

We are adaptable. Our brain is adaptable. Our bodies are adaptable. And I think that's the major tenet that we have in the book—that we need to pay attention to that, and foster that ability to adapt.

Like your changing careers thirty years into your career because you're seeing *well, I need more of an intimate connection than the ER patient coming in and going*—which can be obviously very intimate for a while, but the follow-up is with somebody else. In evolution, we were very connected to people for all our lives.

And the small tribes and the groups that we evolved with were expecting that. It has only been in the past fifty years, really—starting here in the United States, and elsewhere now—that we're moving away. We're still obviously very connected with Skype, and with the Internet, and all that, but we're still not living in the same locus like we used to.

We're separated from our parents, and moving away. And our kids move away to other places. That's very different than the way we've evolved. And it's

something that we need to create our own small tribe, so that we can feel connected and improve our sense of well-being.

Dr. Campbell: Sort of the flip side of this adaptability, one of the things I got from your book was the point that actually, genetically, current humans are pretty homogeneous. We really haven't had much [genetic variation](#) in the last fifty thousand years. You pointed out that things like light skin, and malaria resistance, and lactose tolerance, those are things that we oftentimes hear of as examples of the fact that we're still evolving, but those are actually relatively unusual.

Dr. Ratey: Right; it is. We have a basic script. And yes, it can be altered. And you have all these people, now, in books coming out about how, in fact, we have this [epigenetic](#) possibility of changing and then passing on the change genetically.

But they're very tiny, very small changes in the [genetic code](#); so that we are much more homogeneous than would appear. And so, we have to pay attention to that. And so, there are basic human scripts that we need to follow and we need to be aware of. And we tried to show the science behind that in each of our chapters.

Dr. Campbell: So, why don't you give us an overview of what those core features that we still share with our ancient ancestors are?

Dr. Ratey: Well, the first—that obviously I was most interested in and have been following—is our need to move. Chris MacDougal wrote a great book called, *Born to Run*. In our book, we talk about that. And we certainly are the best runners—long distance runners; 'endurance predators,' we're called, because we can run for a long period of time, rest, and continue running, to run down antelopes.

So, we have that capacity. But we also have all kinds of other movement possibilities. No other animal, or mammal, can have, in the same species, line

backers on football teams and ballet dancers. They're very, very different, and using extremely different sets of muscles and training up their skills. So that, as Dick Manning pointed out, we're not just born to run, we're born to be like a [Swiss Army knife](#), with all kinds of different parts to use.

And we evolved that way. Because we just weren't runners and foragers, we were climbers, we were swimmers, we were lifters, we had to negotiate all kinds of situations as we were moving. So, it's not just about moving in a straight line or running on a treadmill.

And this puts us into another chapter, which was the "Nature" chapter, where we look at how we evolved, obviously, in nature. We were outside all the time. We used shelter until we exhausted that area's game, and vegetables, and fruits, and whatever else we could eat, and then we'd move along. But we were out in nature.

And we're not doing that as much. You have your dogs that you run in the morning and move with, and they sort of lead you into nature by necessity. And we need to do a lot like that, because we get so many benefits from being in nature.

Richard Love wrote a bunch of books, starting with the *Nature Deficit Disorder*, about how, without having the exposure to nature, we cheapen our lives—we have a lesser state of well-being. We talk about this in our book. And around the world this is becoming a more and more important activity, to get people out into the forest, into the mountains, into the green spaces, paying attention to our need for what [E.O. Wilson](#) dubbed [biophilia](#).

We need to have ourselves encased in nature. And so, the best place to exercise, of course, is in nature. The benefit to the body and the brain with exercising in

nature, as opposed to in a gym, is what we call “benefit squared”—“exercise squared.”

[music]

Dr. Ratey: Also the food issue—our diet. We know what’s happened; we see what’s happened. We’re aware of the incredible obesity crisis that we’re in the midst of worldwide.

There was just a study out two weeks ago saying that no country has changed for the positive or stopped the increase in the percent of obese people in their country—none. They’re all growing; we’re all going toward being overweight and obese.

And a big part of that has been really looking at carbohydrates and grains. Now we’re seeing studies coming out in the medical literature talking about the benefits of [saturated fats](#)—not [trans fats](#), but saturated fats.

Now, we know for a while now about the benefits of the good fats, like the [Omega 3s](#). But more importantly, we evolved as eaters of fats—of all parts of the animal, or the fish—which was an important anchor point for us in our evolution, and helped us actually trump the [Neanderthals](#).

Because we could fish and they couldn’t. According to many [paleontologists](#), that’s why we outlived them. Even though they were bigger, smarter, and more skilled at dealing with the bigger animals, we could fish and had a ready source of protein and fat.

So, we became fat phobic. And as we got less and less engaged in having fat in our diet, we substituted [carbohydrates](#). And in fact, we haven’t evolved to deal with the high levels of [glucose](#) that we have all lived with—and still do.

Everywhere, 80% of the shelves—maybe more—but 80% of the shelves in any grocery store is carbohydrates; and processed carbohydrates, to boot. Which is really a problem, if you think about our inability to deal with high levels of glucose over a long period of time. And this leads to glucose being too high. And what the body does, it says, *Okay, we could use this later, so we'll store it.* And we store it right away in our [fat cells](#). And this is the cause of the obesity crisis.

There was a great bunch of studies—papers—looking at our drop in the use of fats in our diet. We dissed eggs for the longest time, and saturated fats in every which way. And as we decreased that in our diets and increased carbohydrates, there is a direct increase in our amount of obesity. It's a correlation, but it really is quite shocking. You put that together with our sedentary lifestyles and you have real trouble—which we do.

We have to stem that tide, and change the way we look at our diets. We talk about that quite a bit in our book, and give some examples that are pretty profound, that by changing the diet to a more, certainly plant-based, in a way—vegetable based—as well as meat, and nuts, and dairy, and fruits, and fish, this is the way we evolved and is probably the healthiest diet we can have.

Most of us in medicine have been low-carb in our thinking for a while, as we sort of knew that this was a problem; but not nearly as low-carb as we're getting, with *Wheat Belly*, with the *Omnivores Dilemma*, with all these best-selling books that have come out and said, *Hey, this is the cause of our trouble and our problem; this leads to too much glucose, overloaded, going to our fat stores, making us the obese people that we are.*

Also in our book, a big emphasis is on sleep. Think about the hunter-gatherers without electric lights. There was a lot of dark; a lot of time to sleep. They probably slept actually more than eight-and-a-half hours throughout the day and night.

But there would be periods of time when they would be awake, as well. And then, they would catch up. And when somebody had to be on guard, or man the fires—keep the fires going to keep the predators away—be aware of impending problems, everyone else could sleep. They would switch off in sort of a natural rhythm.

And we have our lights to keep us awake all the time, if we choose, and we have our incredible digital toys that keep us connected, entertained, and amusing ourselves to death. Because that's what really has happened. As one of our great science researchers said when we said *what's the health consequence of not getting enough sleep?* he said, *we just make people fat, lazy, and stupid.*

Because if you are sleeping correctly and enough, you will *per force* lose weight. Your cravings for carbohydrates will be lessened. Your mood will be better, for sure. Your motivation will be better. And your cognition capacities will be much improved.

So, those are the high points of the book. We also include a chapter on [mindfulness](#). We talk a bit about [meditation](#) and the benefits of mediation. But more importantly, about what the practice of meditation can do for a person; and that is to make them more mindful of their present when they're in their lives. That's what's so important.

One of my heroes in academia was [Ellen Langer](#), who in the late '70s wrote the book, [Mindfulness](#).² That was the first time I think the word really got out there. The [Beatles](#), and certainly meditation, and [Yoga](#), and [Zen meditation](#) was around. In medical school, I lived with a Zen monk for a month—no, it wasn't in medical school, it was in college, so it was back in the late '60s.

² Langer's more recent book [Counterclockwise: Mindful Health and the Power of Possibility](#) is available in a wide variety of formats including Kindle and audio.

So, I knew and we knew about meditation. But it was very different when Ellen Langer talked about it, calling it being mindful of where, and who, and what we're doing while we're doing it. Think about the hunter-gatherers; they had to be mindful all the time, or else they were cat food. Or they would stumble and fall and it would be the end. That's why they didn't live so long, was usually because of injury of some sort—or infections, of course.

But they really had to pay attention all the time. They were foraging for food, and hunting for animals or fish, and they had to be in the present moment a lot of the time. They spent time feeling the oneness with the universe, because they were. With native peoples, they feel much more connected to the earth, to the world, than we do.

We live in our heads far too much. And being mindful and being aware of what we're doing while we're doing it, and participating as an agent rather than just responding to what the environment is giving us, makes a big, big difference—in all the studies that have come out showing how much better you're liked, what a better salesperson you are, what a better leader you are if you're not just following a script, but having to come up with things and be present in the moment.

[music]

Books and Ideas is sponsored by [Audible.com](https://www.audible.com), the world's leading provider of downloadable audio content, including over 100,000 books in many different genres.

All of Dr. Ramey's books are available, including [*Go Wild*](#). But if you haven't read it yet, I highly recommend [*Spark: The Revolutionary New Science of Exercise and the Brain*](#).

And don't forget, if you aren't already a member you can get a free audiobook download by going to audiblepodcast.com/booksandideas.

[music]

Dr. Campbell: I want to talk some more about the diet issue, because obviously that's a big one. But first, we talked about moving when we talked about your book, [Spark](#). And I've gotten a lot of emails from people who were inspired to become more active because of that [interview](#).

So, what I was really interested in talking a little bit about today was some of how your ideas about this have changed and grown, especially with regard to the importance of getting out of the gym.

Dr. Rately: Right. And I think that we try to capture that in [Go Wild](#) in the chapter on exercise. Because when you're outside, you have to be much more mindful. You shouldn't be listening to your iPad, or your iPhone, and your music list if you're outside moving—running. And hopefully you're not just out for the run, you're out for the experience of the trails.

My partner, Dick Manning, is a mountain runner in Montana. And so, he really has to be aware. As we were writing this book, I spent a week or so with him in his mountains. And we would work in the morning on the book and then go for a three- to four-hour hike or run in the mountains—which was wonderful and glorious. And we actually felt we did more work during that time that we were running or hiking—better work; let's put it that way—because more ideas would come to us as we were moving through nature.

I just was on [NPR](#) talking about the benefits of walking outside. Because there was a study out of Stanford showing that if you were walking outside—or even inside—you were more creative; you had more ability to come up with uses for an object, more abilities to use words in different ways—all kinds of different tests

they've done. But you were better while you were walking for ten minutes, or just afterwards, than you were if you were just sitting. And it was better outside than inside.

Dr. Campbell: Yes, I recently [interviewed Michael Merzenich](#). Do you know him?

Dr. Ratey: Oh, I do.

Dr. Campbell: He finally wrote a [book](#). It's actually very good; I don't know if you've had a chance to read it yet. But he talks about how we get into these ruts; like we're always walking on these flat, smooth surfaces, and so our brains lose that adaptability to uneven ground, and that sort of thing. So, that's just another reason.

And I was thinking about that when I was reading that description of mountain running, and thinking that's a very extreme example of the principle that he was advocating. He strongly says *go walk outside; don't walk on the treadmill*. Even if you're walking on a relatively smooth surface like I do in my neighborhood, it's still better than the treadmill.

Dr. Ratey: Right. And I think he's right, because one of the powerful changes... I mean you asked a good question: *what changes have I seen since Spark?* And the emphasis is on balance—is on just that; especially as we age. We know that, and we include that in *Spark*.

But even more so, how important balance is. And you do get that challenge when you're outside, running or walking on uneven surfaces, and hitting roots and tripping over them, or catching yourself, or paying attention to it. Because we need to keep our brain in shape around balance—around keeping our coordination going.

I think that's key and crucial. One of the places I'm working now is a group of [autistic](#) adolescents, doing some research with a whole group of researchers and looking at the benefits of exercise in their lives. It's called [The Center for Discovery](#).

They have disruptive adolescent autistic kids, and it's up in the Catskills. It's a thousand-acre farm. And it's outside. So, they're getting movement, the diet. A lot of it is grown right there, so they're getting non-processed food. They're paying strict attention to sleep—the amount of time sleeping.

And, of course, they are emphasizing the connection as much as they can. And this then can lead to them being much more present. And they have many, many examples of huge interventions that have made a huge difference in a lot of their patients' lives.

But looking not just at exercise *per se*, but we're beginning to train many of them up for their balance. These are adolescent kids, and one of the things about autistic kids and adults is that they have, as a group, pretty horrible balance. Their cerebellums are different, often—some of them are not, but a lot of them are.

What we know is that you can train your [cerebellum](#) very nicely. There is a third of our total one hundred billion nerve cells in our cerebellum. And they're always clicking, and clacking, and growing, and changing, and supporting us; and always at work. It's a very plastic area of the brain; ready to grow and ready to change.

By exercising the balance, by challenging the balance—on the [BOSU](#), or on [balance boards](#), or doing Yoga, or doing [Zumba](#), all of which require paying attention to coordination, and balance, and rhythm, and all the things that this function really captures—it improves their ability to maintain themselves. And it works in our brains in so many different ways.

But one of the big caveats, I think, is in hopes that we're going to be able to show that it will definitely improve their social skills—their ability to be in rhythm with others and be in balance with others. And I think that's one of the key things that I've come to emphasize more, and see more, and hear more.

Dr. Campbell: Another thing that stuck out for me in reading this book was about the importance of variety.

Dr. Ratey: Yes. And that goes from exercise, to food, in a big, big way. The more different kinds of exercise, it leads us in managing our Swiss Army knife bodies and brains—exercising different facets of our abilities to keep them sharp. But the variety, you're right; the big difference between our diets and the diets of our hunter-gatherers is really the variety of things that they had. They had a lot.

There was one fellow that they uncovered in ice. They looked at the contents of his stomach, and there were forty-three different kinds of vegetables that he had consumed in the past two days before he was sucked up into whatever he was sucked up into and preserved for tens of thousands of years.

And that is an example. There is so much that we need; and we have three or four main food stuffs—corn, wheat, rice—that feed the world. And the variety is really the spice of life. We are having fewer and fewer variants. Although now, they're coming back in the stores; in the [Whole Foods](#) kind of stores...

Dr. Campbell: But not for poor people.

Dr. Ratey: Not at all, not at all; it's much more corn, wheat, and maybe rice for the poor people—people that don't have the means to experience this. And we suffer because of it. That leads to problems. And that's why it's so important to vary our diets as much as possible, and to explore, and to try things.

You go to different countries and you see what a wide variety of things people eat that they can't even name—some of them. It's pretty amazing. When I was in Japan, a woman who was traveling with us—sort of our guide—had like a computerized dictionary almost, and it was all devoted to the different kinds of food, and to be able to translate what they were and what was in it.

It was quite remarkable. Stalls selling fried scorpion; I mean, who would ever think of that? But we were used to doing that. We did that. And we need to be aware of that.

One of the things I think, too, that we begin to talk about in the book, but is really a launch for a whole new field of science and of medical discovery, is the new watchword that we kept running into when we were talking about diet: the [microbiome](#); our own unique collection of bacteria and worms that exist in our stomachs—in each individual's stomach—that are there, that are partners with us. They change a bit; but we take that with us. And we know that there are more bacteria, numbers-wise, in our guts than there are cells in our body.

Dr. Campbell: And they can help make us fat if we have the wrong ones.

Dr. Ratey: Exactly; make us fat, make us depressed, make us upset. The new big fad in the food industry is [gluten free](#). When your microbiome changes, you are gluten sensitive—or some people are. Or maybe they're not. It's really almost grain-as-a-whole sensitive, but gluten gets its own particular part of the problem.

And so, you see the changes. When people have had too many antibiotics, they change their microbiome. And they might develop, in their adult life, [Crohn's](#) kinds of symptoms, because their microbiome is different, and they can no longer tolerate the kinds of foods that they could tolerate before. So, we're beginning to understand that and pay attention to that. And we need to.

Dr. Campbell: In talking about the reason why we need to have a low-carb diet, you actually, in the book, described glucose as toxic. You say glucose is a poison. And, of course, we know that glucose is also a fuel—the primary fuel of our brain. So, how do we harmonize those sort of contradictory ideas?

Dr. Ratey: Well yes, it is primary fuel for all of our cells. I mean we can use [ketones](#), but it's a little tougher. It really means being away from glucose for a while—completely away. But yes, we use what we need of glucose. And we get, certainly, adequate supplies of glucose. In anything that we eat, there is always some glucose attached; certainly in vegetables and fruits, and even some of our animal products.

So, we get plenty of glucose if we eat, at all. But we don't need that power-packed amount of glucose. That's why we call it toxic. And the history and the story is that as soon as we get a load of glucose in our system, immediately we get [insulin](#) to take it out of our system and put it in our cells. And if it's too much, we put it into fat. And that leads to the troubles that we are identifying.

So, it's kept in very firm check. We do need it. We can use ketones in our brains and in our bodies, but most of us would rather use glucose. The ketotic diet is useful for some; and my co-author, Dick Manning, really is a big one for being ketotic when he is running. He says then he doesn't really need to have anything—any food supply while he's running a marathon—if he has weaned himself off of pretty much all glucose in the previous week or so.

Dr. Campbell: But for most of us, that's going to be a little too extreme. Do you have some practical suggestions for those of who aren't in Montana killing wild game?

Dr. Ratey: That's right. I think the practical solution is, one, to avoid processed food. That's the best. Two would be to eat as much as you can at home—cook for

yourself and use your own ingredients, and not go to the restaurants all the time. But to avoid the starches; the breads, the pasta, the rice even—anything white. I've been telling patients for years. They say, 'What's the best diet?' I say, 'Avoid most things white.' Cauliflower is okay, but anything else, you have to avoid. And it's hard, because we're so addicted, and it's so appealing to take in.

And think about why it's addicting. We are attracted to fat and foods that contain high amounts of glucose—both big fuels for our body. We are attracted to that. So, when we smell that bread cooking, oh my God, we want to go for it. All of us love that pizza break, or the pasta that we get so into.

And so, you can, over a short period of time—as did I; I completely changed my diet and became almost ridiculously low-carb about two years ago now. For snacks and stuff during the day, I substituted anything that I used to have with nuts and with berries. And it went painlessly, and I ate what I wanted to eat in terms of meat, and fish, and fruit, and vegetables.

And I have stuck with that pretty much. My wife sometimes says, 'You're getting too skinny.' And then, I say, 'Okay, it's time for a pizza;' or, 'It's time to break the habit.' And it becomes a habit. I mean I no longer desire (I never did much desire) deserts. But the attraction to breads has sort of gone. And it's not even a problem for me in a restaurant.

We make our own granola. Because granola in the store is full of glucose; full of the whole grains. Nutritionists even are paying attention to this—that six ounces of granola has as much in it as a twelve ounces of Coke. And you're just like, *What? Could that possibly be?* Yes, it can be.

So, we make our own granola out of nuts, out of coconut shavings, out of seeds, and a little bit of honey. And bake it. And my God, it is a treat to have. So, there

are ways around using the grain-infused, and certainly all the processed foods—and then you're talking about high fructose corn syrup.

Dr. Campbell: And then, one of the points you make in the book is the first one; you say, 'Number one, avoid sugar water.'

Dr. Ratey: Yes, of course. That's why you see these athletes gain weight, is they're drinking Gatorade, which is full of sugar; and the Monster drinks.

It always strikes me as being so paradoxical when people talk about, 'Oh, we have to get kids off of their ADD medicine.' And this is obviously an area that I've spent a lot of time doing. But what do they do? What are they substituting? Red Bull, Monster drinks; full of sugar, full of caffeine, and sometimes dangerously so. You [rob Peter to pay Paul](#); and you have to pay attention to that kind of thinking.

Dr. Campbell: And then you see the moms giving the kids fruit juice, thinking that that's better.

Dr. Ratey: Oh my God. I've said this for years now, that I think that in America the reason that we had this incredible increase in obesity quickly was because of apple juice—for kids, for babies. And my kids had it, as well. It's just appealing. It sounds like it's really healthy. But it's full of sugar. And if you don't dilute it, it's almost child abuse. Because your kids will get addicted to it.

I've thought for years now that this may be a very big contributor to our obesity crisis—without knowing it; it's all good intentions. This is healthy stuff. But again, like you said, it's full of high-density calories.

Dr. Campbell: And it doesn't matter if it has no added sugar, it's still got a lot of natural sugar. And we've already concentrated it, just by turning it into juice.

Dr. Ratey: Right. So, it's all those things that we think are just great. So, if you're going to have orange juice, eat an orange, because you get all that fiber with it. They have the pulp in the juices that they sell, but it's not complete; it's not all the stuff you get when you have an orange for breakfast, as opposed to a small glass of orange juice.

Dr. Campbell: Well John, we're kind of running out of time, as usual, and we've just barely touched some of the key ideas. Is there anything you think we've left out that you really want to touch on before we close?

Dr. Ratey: I think the big thing that often people miss is that we evolved a lot of different skills and a lot of different tendencies, but the big one that we have is [empathy](#); is feeling for one another; is connection; is being in that small group. Being a psychiatrist, this has been my business for so long, and my life—being involved with others.

You know in all of the literature, the way to stay young is to continue your involvement—to join groups. What you're doing is going back to be connected; and then remain connected. In successful aging, that's what you see in general, is that these people remain very connected; whether it's to their family, ideally, as well as to their neighbors, or to their church groups, or to their community groups that they're involved with.

That leads to better health and well-being. And that should start young. We see the benefits of that in every source of human endeavor; that the more we're working together in a team, the better things are.

Dr. Campbell: So, what's next for you?

Dr. Ratey: That's a good question; I never quite know. But I'm putting together a book called *Spark in Action*. It's looking at people that have—and I get so much email from people when over the years about how exercise has really affected

their lives; to look at it in terms of psychiatric issues, and neurologic problems, medical problems, and how exercise really has dramatically changed their lives.

So, I've been collecting stories. It will be a bit of an update on the brain, but also more on how they did it, how they continue, how they continue the motivation. That's what's important—to give people a picture.

Dr. Campbell: You talked a little bit in the book about your involvement with Reebok and [CrossFit](#). And I was really curious about this, because I haven't ever tried CrossFit myself, but my impression of the way it's practiced in my local community is it's people that are totally crazy and just injured themselves. So, I'm not sure whether that's just a local phenomenon, or I've just gotten bad information. Because that's not the way you described it in the book.

Dr. Rately: No; but we do talk about it—that it keeps the orthopedic surgeons in business, and the physical therapists in business.

Because people tend to go beyond what they can do—beyond what they should be doing—because of that small group affiliation that is so important; that stickiness. Not only will they stick to the program, but they compete. And they're cheered on to compete with themselves, and not with others—to be the best that they can be. And a little bit too much.

Now, I have been involved at different times with CrossFit, and I've experienced the injury by challenging myself too much. You have to take it slow. So, you're right. I think it's a problem; and one that has to be recognized.

But, on the other hand, the benefit to most people, the reason why they get addicted, isn't just because they're buff now and they're looking better—which is one part of it—but there's the feeling of connectedness to the other members of the group, and to themselves. They're much more aware.

Being involved in something like that (like now there's [SoulCycle](#), and [spinning](#) groups, and all kinds of different groups that have evolved), it keeps people together. It keeps people doing things. And I think CrossFit has that capacity to do that. One needs to have a very good staff to make sure that they're not pressing people too quickly, too fast.

Dr. Campbell: Yes, I've been taking my rescue German Shepherd to an obedience school for over five years. And I think the reason I do that is because I'm now part of this little group of people who do the same thing. It doesn't really so much matter what the thing you do is if you can find the group. It's, like you say in the book, one of our inheritances. Our universal tribalism is a strength and a weakness, depending on how we nurture it.

Dr. Ratey: Exactly.

Dr. Campbell: Well, John, I have really enjoyed talking to you. Maybe we won't wait so long next time before we talk again. Just be sure to let me know when your next book comes out.

Dr. Ratey: I sure will.

Dr. Campbell: Even if I don't continue to put the show out quite as often, I've got some interviews planned with people that I've already interviewed, for when they come out with their new books.

And I wanted to mention to you also to thank you for telling me about [Jaak Panksepp's](#) work. You've become the second person besides Jaak who has been on both of my podcasts. And you're only the third person who has been interviewed more than once; the other person was [Patricia Churchland](#).

And also you introduced me to [Stuart Brown's](#) work, and that was another one of my popular episodes. That overlaps your work and Jaak's work.

Dr. Ratey: Yes, they're very good people. And you should interview [Sue Carter](#). I don't know that she has a book. She's sort of the mother of [oxytocin](#).

Dr. Campbell: Yes, I've read about her work, both in your book and in Patricia Churchland's recent work, and a lot of other people. There was somebody else... oh, that person who wrote the book, [Your Brain on Nature](#).

Dr. Ratey: Oh yes, that's [Eva Selhub](#). She's up here in Boston. And she would make a great interview, because she's fascinating.

Dr. Campbell: I'll have to get the book. I never like to interview anybody without actually reading their book first. I guess it's not so bad on NPR, but I bet you do a lot of media appearances where the people don't actually read your book.

Dr. Ratey: Oh yes, absolutely.

Dr. Campbell: I'm going to let you go.

Dr. Ratey: Well, it's great talking to you, and good luck in your new career. And I think you're right to look for longer-lasting connection to your patients. I think that's fantastic. And good luck with your training of your dogs, too.

Dr. Campbell: Okay, bye.

Dr. Ratey: Bye now.

[music]

It was great to finally get to talk to Dr. John Ratey again, since he was one of my favorite early guests. I will be the first to admit that [Go Wild](#) is a book I probably

would not have read if I weren't already a fan of his previous work. But it really is an accessible, thought-provoking book.

We could only skim the highlights during our interview, so I want to go back over a few key ideas. First, I want to address the question of why we should care about our hunter-gatherer ancestors and how they lived. After all, we are usually told that they had very short lives; which was true.

And although few deny that they didn't suffer from the so-called 'chronic diseases of civilization,' we're usually told that these diseases are an inevitable consequence of getting to live longer. Obviously, *Go Wild* challenges that assumption.

But in terms of evolution, I want to emphasize a key idea which I think Dr. Ramey mentioned, and that is that humans lived as hunter-gatherers for a long time before civilization emerged—at least a half a million years, compared to the five to ten thousand years of civilization, which is marked by the [creation of agriculture](#).

Not only does that mean that genetically we are still very much like those ancestors, but it is also not unreasonable to think that that genetic inheritance is a good thing. I mention this because there is a tendency to take the opposite viewpoint that we have modern minds stuck in [Stone Age](#) bodies.

So, given the fact that hunter-gatherers were actually quite healthy, what can we learn and incorporate into our own lifestyles to improve our health and reduce the incidence of the so-called 'diseases of civilization?' Ramey and his co-author, Richard Manning, identified several key areas.

The most obvious are diet and exercise. But they also examine the importance of getting enough sleep, the role of mindfulness practices like meditation, and finally, the importance of our connections both to nature and each other. Now, in

terms of diet, it's not surprising that this looms large in the discussion; especially if we're going to define agriculture as the beginning of civilization.

The bottom line is that the thing that really sets our diet apart from that of our hunter-gatherer ancestors is that with the invention of agriculture, the human diet became largely dominated by carbohydrates. But because this is a relatively new phenomenon, our metabolism is actually not set up to deal with the large amounts of glucose that this releases into our bloodstream.

Insulin is the hormone our body releases to prevent glucose from reaching dangerously high levels. But when insulin is secreted, it also turns off our ability to burn fat as fuel while simultaneously telling our bodies to store the excess glucose as fat. This creates a vicious cycle where we get fatter and fatter, even as we try to consume the high-carb, low-fat diets that have been officially promoted for the last thirty years.

The science behind eating a low-carb diet is really overwhelming. But embracing it requires overcoming several current dietary dogmas. In *Go Wild*, Dr. Ratey recommends the excellent book, [*Good Calories, Bad Calories: Fats, Carbs, and the Controversial Science of Diet and Health*](#), by Gary Taubes. But I suggest you start with Taubes' more recent book which is shorter and more concise. It's called, [*Why We Get Fat and What We Can Do about It*](#). Both of these books are available as audio from Audible.com.

I have to admit that I've had *Good Calories, Bad Calories* on my shelf for some time. But after reading *Go Wild*, and talking with Dr. Ratey, not only was I motivated to finally read it, but my husband and I have actually been following a low-carb diet for several weeks. I will give you an update about this in a future episode.

Another important topic in *Go Wild* is the importance of being physically active. I highly recommend you read Dr. Ratey's first book, [Spark](#), if you haven't already done so. But the key idea to remember from today is that variety is very important.

This relates to another essential characteristic that we have inherited from our ancestors: we thrive on novelty. Usually you hear about how adaptability was an important element in the success of humans, but the flip side is that our brains are tuned to look for change. Getting in a rut is bad for your brain, and probably bad for your overall health. Now, that doesn't mean playing a new videogame every week; it also means getting out of your comfort zone, whatever that happens to be.

Which brings me to two interrelated topics: mindfulness and nature. Spending time in nature is one of the easiest ways to introduce unpredictability into your life. One thing that was mentioned in the book that Dr. Ratey didn't have time to talk about was that most of the research on the benefits of nature is being done in Asia—especially Japan.

One interesting thing they have discovered is that people consistently underestimate the beneficial effects of spending time in nature. Another interesting tidbit was the fact that when they did [brain scans](#) on people who had spent time in nature, the part of the brain that lit up was actually an area that releases natural [opioids](#).

Go Wild emphasizes a concept that Michael Merzenich also emphasized in his book, [Soft-Wired](#); and that is that sameness kills. We thrive on variety, novelty, and challenge.

We also only touched briefly on the importance of sleep, but I was struck by a comment Dr. Ratey made in the book when he actually wrote, “You can’t really get too much sleep.”

The last subject I want to mention is the importance of being connected with others. There was a wonderful quote in the book from the anthropologist, [Sarah Blaffer Hrdy](#): “Brains require care more than caring requires brains.” This comment was made in the context of understanding why cooperation was so important to the survival of early humans, but it also captures why being part of a community is consistently associated with better health.

The message of [*Go Wild: Free Your Body and Mind from the Afflictions of Civilization*](#) is essentially a positive one. It is intended to readers of all ages and backgrounds and provides an excellent tool for helping you create a healthier lifestyle.

Before I close with a few announcements, I want to remind you that you can get the detailed show notes and free transcript of today’s episode at [booksandideas.com](#). *Books and Ideas* has its own Fan page on [Facebook](#), and [Google+](#), but you can also leave feedback inside the Brain Science Podcast Discussion Forum at Goodreads.com. Just go to [brainscienceforum.com](#). *Books and Ideas* also has its own [mobile app](#) for IOS, Android, and Windows.

If you are listening to *Books and Ideas* for the first time, I hope you will subscribe via [iTunes](#) or your favorite podcasting program. And please don’t forget to post a review in iTunes. You can also send me feedback at docartemis@gmail.com.

If you’re attending [The Amazing Meeting](#) next month in Las Vegas, please drop me an email so that we can get together.

The next episode of the [Brain Science Podcast](#) will be released in late July. It is an interview with Frank Amthor, author of [Neuroscience for Dummies](#). We're going to be talking about his new book, [Neurobiology for Dummies](#).

As I mentioned to Dr. Ratey, in July I am starting my fellowship in palliative care medicine, so I'm not sure when I will put out the next episode of [Books and Ideas](#). My priority is going to be to get the *Brain Science Podcast* out at least every other month.

I am planning an episode of *Books and Ideas* devoted to [palliative care](#) since I'm sure many of you are wondering what it is and why I am making such a drastic career change. I have a special guest in mind for that.

Meanwhile, I hope I will see some of you at The Amazing Meeting in July and at the [Podcast Movement](#) in August.

Thanks again for listening. I hope to talk with you again very soon.

[music]

Books and Ideas is copyright 2014, Virginia Campbell, MD. You may copy this podcast to share it with others, but for any other uses or derivatives please contact me at docartemis@gmail.com.

The music for this episode is "The Open Door," by Beatnik Turtle. Please visit their website at beatnikturtle.com.

[music]

Transcribed by [Lori Wolfson](#)

All errors or omissions responsibility of the transcriber.