

BOOKS AND IDEAS PODCAST

With Ginger Campbell, MD

[Episode #43](#)¹

Interview with Carol Tavris, PhD, Co-author of *Mistakes Were Made (But Not by Me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts*

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INTRODUCTION

This is [Episode 43](#) of *Books and Ideas*, and I'm your host, Dr. Ginger Campbell. Today's episode is one I hope you will share with others, which is why I am also putting it into the [Brain Science Podcast](#) feed. My guest today is [Dr. Carol Tavris](#), co-author of [Mistakes Were Made \(But Not by Me\): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts](#). I was fortunate to meet Dr. Tavris last year at [The Amazing Meeting](#) in Las Vegas, and I'm glad that we finally got together to record this interview.

In the first part of the interview Dr. Tavris tells us a little bit about the field of [social psychology](#), and we talk about the relationship between psychology and neuroscience. Then we get into the meat of the interview, which is about [cognitive dissonance](#). If you aren't familiar with cognitive dissonance, I think you will be surprised to learn how it applies to almost every aspect of human endeavor.

¹ [Click here for audio.](#)

After the interview I will be back to review a few of the key ideas, and to tell you about how you can learn more. As always, you can find detailed show notes, including links to references, and a free episode transcript at booksandideas.com.

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INTERVIEW

Dr. Campbell: Carol, I want to welcome you to the podcast and thank you for taking the time to talk with me today.

Dr. Tavis: It's my pleasure, Ginger.

Dr. Campbell: It's great to talk to you again; although probably not as much fun as talking in person. But Skype is wonderful!

Could you start out by just telling us a little bit about yourself and your background?

Dr. Tavis: I would be happy to. I grew up in what turned out to be a quite unusual circumstance. It didn't feel unusual at the time; but my parents were not religious, they were secular Jews who believed in free thinking, and in science, and in asking questions, and in being critical. And so, I think I came to my interest in critical thinking and scientific thinking at a very young age, encouraged by both parents to think this way.

My career has been a very idiosyncratic and eclectic one. I found myself in graduate school in [social psychology](#); a field that I loved. And at that time I began working for a then-brand-new magazine called [Psychology Today](#), which was meant to be, when it began, the *Scientific American* of psychology. In those days,

people assumed that ‘psychological science’ was an oxymoron—there was no such thing, please; it was all psychobabble, and silly psychology, and where was the science, and so forth.

In the years of my career, psychology has made enormous inroads in doing really good scientific research. And that really became my goal: to write about psychological science, to explain what critical and scientific thinking is, and particularly as it applies in psychology, where we have so much pop psych nonsense that is pervasive in our land.

Dr. Campbell: It was about a year ago today—well, I’m maybe off by a couple of days; we’re almost at the anniversary of [Dragon*Con](#), which I didn’t go to this year—but last year at Dragon*Con, I [interviewed Scott Lilienfeld](#) about his book that he was the co-author of, myths of pop psychology—[50 Great Myths of Popular Psychology](#), I think it was. And we talked a little bit about some of the issues we are going to talk about today?

I guess one question I have for you is what exactly is social psychology?

Dr. Tavis: Thank you for asking this, Ginger! I’m always amazed that nobody knows what social psychology is. I mean I used to joke in Los Angeles, people think it means you’re a therapist who goes to a lot of parties. You know? I mean what else could it possibly be?

The reason for your question is really the problem; and it stems from the fact that most people associate psychology with therapy. That is the common popular view of psychology. I can explain till I’m blue in the face that I have a PhD in a research branch of psychology, and people will still say, ‘And where do you practice?’ You know? ‘Where’s your therapy?’ So, what people don’t understand is, there’s the common popular face of psychology, which is therapy—which is an

² For Dr. Lilienfeld’s interview go to [Brain Science Podcast #70](#).

unregulated word; anybody can call themselves a psychotherapist. But in the more serious vein, we have people with advanced degrees in [clinical psychology](#), and they are trained to do therapy and research on clinical issues. That's one branch of psychological science.

The rest don't really have a public face. These are the people in specialties such as [developmental psychology](#), which studies human development, from conception to death; or the people who study sensation and perception—taste, and hearing, and so forth. There are people in the fields of industrial organizational psychology, who study motivation and work behavior. There are people who study cognitive processes such as memory, and perception, and how we think, and what the consequences of our thinking are. So, these are all research branches of psychology. And you could go to graduate school and get a PhD in any one of those specialties; there are many.

Social psychology represents the intersection of psychology and [sociology](#) in the sense that it is the study of the individual in a social context. Now, to those of us in social psychology, that's just about everything. Because you can be sitting by yourself in your living room and you are influenced by social processes: the people who raised you; the people you're thinking about; the people you're remembering; the experiences you've had.

So, social psychologists study all the many ways in which our environments influence us. We study love, and war, and prejudice, and hatred, and altruism, and dissent, and protest, and sex, and, name it—if there's another person involved, we study it. That's what the field of social psychology consists of.

Dr. Campbell: Is it fair to say that social psychology comes down as being part of that scientific research branch of psychology that you alluded to earlier?

Dr. Tavis: Yes. Let's separate two things: one would be the methods of doing research, and the second is the content of what you choose to study. The scientific branches of psychology—the areas we call 'psychological science'—are all areas of investigation into human behavior: genetics, physiology, perception, social, and so forth. But all of them are based on empirical methods, the scientific method, to set up hypotheses, and to do experiments, or field experiments, or field research—there are a variety of methods that we use—to test the validity of these hypotheses. So, the science part crosses all of these different domains of psychology; the content varies by what your particular research interest is.

Dr. Campbell: OK.

And one of the things I have noticed, since I've been doing my podcast I actually have interviewed quite a few psychologists who fit many of the different descriptions that you just gave—learning, and memory; and perception, in particular, I think, is probably the one that I've had the most exposure to. And I have been very impressed that these kinds of psychologists are strongly based in science. And yet we have this idea—because, I guess, the therapists are not necessarily based in science, it gives the experimental psychologists a bad name. And I've had feedback from one listener who actually seems to think that neuroscience will replace psychology. Would you like to challenge that idea?

Dr. Tavis: You betcha! Well, you've got two different issues in here that I'd like to address first; because in medicine, as in psychology, you guys have just what we have, which is what we call the 'scientist-practitioner gap.'

Dr. Campbell: Absolutely!

Dr. Tavis: Absolutely; you know this, too. Many doctors are trained as clinicians; what they learned in school is how they practice medicine. They're not

especially trained to do science, or really to understand science, or to be able even to assess the validity of an article they read in [*JAMA*](#) or [*The New England Journal of Medicine*](#): Was this well done? Is this empirically valid? So, that divide between people who are in practice of one kind or another, and the people who do the science and the research exists in almost any field in which you have this dichotomy.

So, in psychology there's a big gap between the practitioners—the people who do therapy—and the people who do the research. The people who do therapy often say, 'What do I need to know research for? I'm dealing with a suffering human being here in my office, who is depressed or anxious, and has these problems, and science cannot help me help them. And the psychological scientists have done a lot of research on what kind of therapy is most effective for what kind of problem; so, that is certainly one answer.

But one important thing for all clinicians to understand—in medicine, too—is that science may not tell us how to be a better therapist or a better doctor, but it can sure as Hell keep us from being a bad one; from fostering outdated ideas, ideas that have been discredited, practices that we should really give up now and move on to the next thing. The radical mastectomy lasted far longer than it needed to, in spite of the research showing that lumpectomies were as effective. You know? So, that kind of discrepancy is crucial to understand in medicine, as in psychology.

Now, on the neuroscience one: Well, well, well; we are living in a world of neuroscience. You can't go anywhere without somebody waving a brain at you, and telling you that that's science. And it is true that we are learning many exciting things from behavioral genetics and from an understanding of the brain. But... The 'but' is that it is very easy, given the excitement about this research, and about all the money that is going to fund this research, to lose sight of the factors that are just as strong an influence on our behavior as anything that is

going on in the brain: namely, our culture, our situations, our social environments, and what other people are saying and doing to and with us at any moment in time.

Brain scientists have always understood that the relationship between the brain and behavior is a two-way street. It's not that our brains are whirring around in there and then cause us to behave in a certain way. How we behave—the whole history of how we live and what we do—is constantly affecting and changing the brain. Psychology is not going to be replaced by neuroscience. It will be influenced by neuroscience, it will be expanded because of neuroscience; but neuroscience needs to learn a thing or two from the social, and cultural, and developmental branches of its own field.

Dr. Campbell: I think the perfect example of this is the use and misuse of [imaging](#). If you image—you do say, [fMRI](#) studies—and you don't have a well-designed experiment, the results are not particularly reliable or meaningful. I mean it seems like the experimental psychologists are the ones that are trained in how to design a good experiment.

Dr. Tavis: Exactly. Having the technology does not compensate for not having a good idea. A lot of people wave around the technology as if that's science. But you can do bad science with good technology, and you can do good science with no technology. But you need to know what you're doing. You need to have a hypothesis that you are testing; and you can't just run around thinking that you know what something means.

There are some wonderfully interesting studies—one was published in the journal called [Cognition](#)—showing that if you merely add a [PET](#) scan or an fMRI to your lecture on whatever topic it is, people will think you're doing science. You can give the same lecture without the PET scan, and people will think, *Oh, not a*

scientific study at all. And this is how we've all gotten schnerdled by the power of this technology. It does not replace good skeptical critical thinking.

I'll give you an example, if I may. We see this a lot in notions, for example that men's' and women's' brains are different. So, how do we know this? Well, we have men and women come into the lab, we have them do some task—they read something, they do a math test, a spatial test—and we see what's going on in their brains while they're doing this. Now, everybody gets all excited about this. 'Look! Women's brains are doing this and the men's brains are doing that, and isn't this amazing,' and, oh my God. OK?

And what no one stops to notice in these studies is that the actual behavior of the men and women in these studies does not differ. So, if the thing you're trying to explain because of brain differences doesn't differ, what do the brain differences you observed mean? They certainly don't apply to all men and women in these studies. So, you see, it's very easy to oversimplify brain research, to draw extravagant conclusions that are not warranted, to reduce the complexities of our behavior to what is going on in the brain, and not consider what else is happening in people's lives.

Dr. Campbell: Well said! I agree with you that psychology is not going to be replaced by neuroscience—for the reasons that you have mentioned, but also because, from my point of view, it's all about trying to understand how our brains make us human—or, what makes us human; which includes our brains, and as you mentioned, the world around us—and that requires that we look at the picture from a lot of different levels of analysis. And I sort of think we need the psychologists—the good psychologists—to take a bigger view.

Dr. Tavis: Well, we do. As we are fond of saying, the answers you get to any question depend on the questions you ask. So, for example, if we say women are more empathic than men, this is a typical way people go about thinking of sex

differences, or gender differences: women are this and men are that. In social psychology we would say, ‘Oh, yeah? Under what conditions; in what situations?’ And when you ask the question that way, what you find is that there’s no generic thing that women are more empathic than men, in some general way. People are empathic in some situations, and not in others. Men and women do not differ in how empathic they feel toward an enemy, or toward a stranger. So, in this way the science of social psychology helps us ask better questions than by reducing things to our brains.

Americans are a very individualistic culture. It comes easy for us to look at the individual as the level of explanation. But, as you know in medicine, how people respond to a doctor’s touch on a shoulder, a reassuring touch; my God, your blood pressure will drop with a kind gesture and a kind act from another human being. That is social psychology at its most fundamental and biologically-necessary. We need other people from the moment we’re hatched. And to forget that is to miss the most powerful influence on our behavior, and our physiology.

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Dr. Campbell: Carol, the way I became aware of your work was by reading your wonderful book, [*Mistakes Were Made \(But Not by Me\)*](#). And ever since I read it I’ve wanted to do an interview with you, because I think the ideas in it are important for everyone to know. So, I’m just going to jump in and ask you tell us what is [cognitive dissonance](#)?

Dr. Tavis: Well, cognitive dissonance is a great story; it’s a great scientific story, and it’s a great research finding story. So, what it is in its essence is really something that’s quite simple. It is the mental discomfort we feel when two ideas are in conflict with each other, not in harmony. Cognitive dissonance is the opposite of cognitive consonance. So, it is dissonant if you believe the world is flat and someone gives you evidence that actually, no, it’s a cube—OK?—some

evidence that is discrepant with something that you believe. You will feel a state of dissonance. It's very uncomfortable, and we are motivated to reduce it.

The classic example of dissonance is the smoker who knows that smoking is bad for your health. The smoker will be motivated to reduce that dissonance by quitting smoking, or minimizing the risks to him or her of continuing to smoke.

Now, how do we know about dissonance? How do we know how it works, how it operates, and why it is so powerful? The theory, itself, was developed by [Leon Festinger](#) in the late 1950s. He called it the Theory of Cognitive Dissonance³. And the thing that was so compelling and interesting about it is that the experimental predictions that it made were not obvious ones. And that's what makes dissonance so interesting.

People are forever saying, 'What is the matter with that person? We've provided them completely clear evidence that they're wrong on this point. Why aren't they saying, "Gee, thank you so much for this information that's going to make my life better, that's going to make me a better doctor or psychotherapist, that's going to make me a better district attorney or defense attorney, that's going to make me a better human being in my relationship. Thank you so much for this wonderful new information"?' Well, you know what people are more likely to say, don't you. They're going to tell you to go and get lost, and take your stupid study with you.

That's the heart of cognitive dissonance, and why it is so important for scientists to understand how it works; because we now have more than 3,000 studies on aspects of dissonance—cognitive, social, and emotional; and, yes, neurological, as well—that show us how uncomfortable it is for the brain to be confronted with

³ Leon Festinger (1957) *A Theory of Cognitive Dissonance*. Stanford University Press. I think this is out of print but [Extending Psychological Frontiers: Selected Works of Leon Festinger](#) edited by Stanley Schachter (1989) is available from Amazon.com

dissonant information. It will, as [Drew Westen](#) put it, “spin the cognitive kaleidoscope” until it gets the pieces back together the way it wants them to be.⁴

Many books that have been published recently about human irrational information processing are really another rendering of Dissonance Theory as Festinger originally proposed it. But it was his graduate student, and my good friend and co-author, [Elliot Aronson](#), who advanced Dissonance Theory into a theory of self-justification: meaning, you will feel dissonance if you and your best friend disagree about Woody Allen movies. You will try to persuade your friend that your view of Woody Allen’s movies is the right one, and the smart one. But it’s trivial, it’s not major; you can live happily with that friend and have different points of view about movies.

But when the dissonance is about something that deeply affects our self concept—our view of ourself as a competent professional, a good human being, a kind person, an ethical person—and now I’m confronted with information that I did something unethical, or foolish, or stupid: I, a skeptic, a scientist, I did something stupid? Oh, get lost. OK? What Elliot showed was that when the dissonance is information that challenges that central belief about ourselves, we will be much more likely to justify our mistake, our foolish action, our act of cruelty, than we will be to accept the information that we did something so wrong, foolish, or cruel. That is what is not obvious about Dissonance Theory, and why it is so important for us to understand how it works.

Here’s an example of one of the experiments that Elliot did: a little beauty, because at the time he did this study, people were pretty much governed by notions of learning theory. If something is painful to you, you give it up; if it’s not rewarding, you don’t continue with it, you continue with things that reward you,

⁴ Drew Westen, Clint Kilts, Pavel Blagov, et. Al. (2006) “The Neural Basis of Motivated Reasoning: An fMRI Study of Emotional Constraints on Political Judgment During the U. S. Presidential Election of 2004,” *Journal of Cognitive Neuroscience*, **18**, pp.1947-1958. ([Abstract](#)) This somewhat controversial study is discussed in great detail in Weston’s [The Political Brain: The Role of Emotion in Deciding the Fate of the Nation](#).

activities that reward you. In Elliot's experiment—this was called [‘the severity of initiation on liking for the group’](#)⁵—they set up this beautiful little simple notion, where students had to go through either a mild or a severe initiation to get into a group that they were led to believe was going to be a terrifically interesting group (they were going to be talking about sex, and in the late ‘50s this was a really hot group you’d want to be part of).

So, which group of people—the ones who had the severe initiation or the mild initiation—would be more likely to like the group, even when they get into it and they discover that there could be no group more boring and trivial than the one they had just striven to join. It turned out they weren’t really talking about human sex, but about bird plumage, and Lord knows what else. It was a completely uninteresting group.

Now, of course, what everybody predicted is, well, if you’ve gone through a severe initiation, you’re going to be really pissed off—‘I went through all of that embarrassment and humiliation to join this group that turns out to be stupid?’ But instead what he found was the people who went through the severe initiation had to reduce the dissonance between, ‘I am a smart person of good judgment, and this group is not worth belonging to.’ And what they did was, they didn’t want to reevaluate their view of themselves, they reevaluated their opinion of the group; making the group more desirable than the people who had had the mild initiation.

So, he’s at pains to say that if a flower pot falls on your head on your way to a meeting, you’re not going to like the people at that meeting more than if you don’t have a flower pot fall on your head. But if you put time, and money, and effort into something that turns out to be useless, or harmful, even, or just plain boring, now you have to reduce the dissonance between, ‘I, a good, smart person just put

⁵ Eliot Aronson and Judson Mills (1959) “The Severity of Initiation on Liking for a Group,” *Journal of Abnormal and Social Psychology*, **59**, pp. 177-181.

a whole lot of time, money, and effort into something that isn't worth it.' And so, what you do is you decide it was worth it. And that is the secret behind hazing in fraternities, and about tough internships for physicians, and our whole history of hazing and initiation rites that many organizations have fostered over the years.

Dissonance Theory is full of many, many such examples. I'll give you another quick one from smoking, because I think this is so cute. Who do you think would feel more dissonance; a smoker who tries to quit and fails, or a smoker who isn't even going to try?

Dr. Campbell: The one who tries to quit?

Dr. Tavis: The one who tries to quit and fails; because they have put more time and effort trying to quit, they don't succeed, and so they will now be more motivated to say, 'Smoking isn't really so harmful to me, after all.'

So, in the decades since Leon Festinger's first Theory of Dissonance and Elliot Aronson's advancing it into a theory of self-justification, we have now found that the cognitive and emotional underpinnings of this process are important and universal. The content of what we experience as dissonance will vary across cultures and between individuals, but all of us are subject to that awful sinking feeling of, I, a good, kind person, just did something that was bad, foolish, or hurtful.

Dr. Campbell: Do you think that the reason that this is not truly common knowledge relates to the environment in which this theory was first developed—the environment of [behaviorism](#)?

Dr. Tavis: Well, the predictions of Dissonance Theory stood in stark contrast to behaviorism, and behaviorism was beginning to fade at that time, anyway, with the rise of what came to be called 'the cognitive revolution.' Behaviorism looked at the external stimulus and the resulting behavior, and was not interested in the

black box of the mind. And, as psychological scientists became better able to study that mind and its internal processes, we began to see that there was a lot going on in terms of how the person perceived the stimulus and then decided how to respond. So, it's not that behaviorism was completely wrong, but that the rise of our understanding of cognition began to widen our understanding of human behavior.

It's such an interesting thing for those of us interested in skepticism and science, because the scientific method is designed to create dissonance—in a way, we could say this. This is one of the reasons science is so unpopular—I should say is so difficult—because scientists are humans, and scientists don't like it when their predictions are disconfirmed. But, you see, as we now understand, the mind is designed for consistency, for consonance; it's designed to notice, and remember, and confirm evidence that supports our beliefs, and to forget and ignore information that is dissonant with our beliefs.

Well, what does science ask of us? It asks that we put our beliefs up to the test of disconfirmation. Well, how annoying it that! You know? *You want me to test my beloved belief; that I just know this to be true, and now you want me to test it, and, oh my God, consider it might be wrong?* That's exactly what science asks of us. And it's why our greatest scientists understand this at a deep level.

I just found a quote from [Lawrence Krauss](#) from many years ago, where he said, "I wish for every student that something they deeply hold to be true is shown to be wrong." Because once you've had that experience, then you get it; then you get what science is about.

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podcast are available from Audible, including Dr. Tavis's book, [*Mistakes Were Made \(But Not by Me\)*](#). New members can get a free audiobook download by going to audiblepodcast.com/booksandideas.

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Dr. Campbell: Carol, in your book you refer to Cognitive Dissonance Theory as being a theory of blind spots. And I guess that's kind of what you're referring to here, because things like [confirmation bias](#)—which we're all prone to—that is the way we're made, and we really have to overcome that. The scientific method is sort of a way of overcoming a way of how we think naturally.

Dr. Tavis: Exactly!

Dr. Campbell: You also had another thing you said in there, that I'd like you to talk about, related to this: the little quote you had in there that "Believing is seeing"—because that's backwards from what we usually hear.

Dr. Tavis: Well, that's part of confirmation bias. "Believing is seeing" literally guides how we are. Once we have a belief, we see the information that will confirm that belief, and we stop seeing what we don't want to see, don't expect to see, have no wish to see. That's the blind spot in how we perceive what other people say and do, how we evaluate our own behavior. We just have that blind spot. We want to see the evidence that confirms our beliefs, and we want to minimize, we want to forget anything that is dissonant or discrepant. So, that's just how it is.

This is one of the issues we talk about as being a problem in psychotherapy, because very often in that little therapeutic exchange between a therapist and a client there's nothing to help either one of them break out of a belief loop—which is why you get so many goofy fads in psychotherapy. A therapist goes to some workshop, comes out with some popular notion about the cause of people's

problems—some past life glitch, perhaps—and then everything the client does in therapy confirms to the therapist the rightness of that view. There’s nothing to shake the therapist out of that certainty. That’s the danger of “seeing is believing.”

In the psychological world it’s led to some disastrous fads, such as [recovered memory therapy](#), the rise of the notion of [multiple personality disorder](#), [hysteria](#). You know there are a lot of these fads that come and kind of sweep the country; everybody seems to be suffering from the same thing; and then it goes away again. It’s because the therapists see what they believe and expect to see in their clients, diagnose and label them as having that problem, and then use that as confirmation that they were right in their perceptions. So, that’s the danger of that self-fulfilling prophecy.

Dr. Campbell: And in terms of the issue of self-justification—which I think you mentioned was part of what goes on—does that process even apply to choices that we make unconsciously?

Dr. Tavis: Excellent point! Excellent point, because, as Elliot would hasten to say, what we need to understand about cognitive dissonance reduction is that pretty much it does happen unconsciously. It works like this: Before we make any decision—the usual example is buying a car; should you buy an SUV or should you buy a hybrid—so, before you buy the car you will be at your most open-minded; that is, you will look for information to support both decisions—this car is better than that one on this, and the other one is better than this one on that—and you go through all the stuff, you read all the reviews, you go online, etc. Then you make a decision.

Now, the minute you make a decision, the unconscious process of dissonance reduction will kick in to help you, in essence, sleep at night. Now, of course, we all know people who will kick themselves for a year-and-a-half that they bought

the wrong car. But mostly what happens is that most people suddenly start looking for everything that was right about the car they bought; they will stop looking at ads for the car they didn't buy, or they will only notice bad stuff about the car they didn't buy; all of which serves to justify the rightness of their decision. This is an unconscious process. There have been many, many experiments on what's called 'post-decision dissonance.'

But it even applies to very young children, and to rhesus monkeys. I mean it's the cutest study in the world: You give rhesus monkeys a choice of M&Ms in a red box or a blue box. It's an arbitrary decision, but if they choose the red box, then ever after they're going to think red boxes are really the cool box to choose. It's really very interesting. It may be that there's some inner evolutionary purpose for once we've made a decision—a decision that was effective—we might as well have a [win-stay strategy](#) until we need to change it.

So, the need to reduce dissonance after a decision is very powerful, and it pretty much happens unconsciously. One way we know this is from the discomfort we feel when we can't reduce dissonance—when we have those sleepless nights, when we beat ourselves up with regret for the road not taken, and so forth. Mostly, most of us, though, are pretty good at justifying the decision we make, the choice we made, and getting a good night's sleep.

Dr. Campbell: So, you've really brought out sort of the flip side of this, which we've kind of been thinking of cognitive dissonance as being something that causes bad things, but you just demonstrated why our tendency to reduce it as soon as possible is an important coping skill. Because, I don't know about you, but people who beat themselves up about their decisions like that are impossible to live with.

Dr. Tavis: That's true. It's a very good question, Ginger, because if you have a mental mechanism that is as universal as this one, then you have to say, 'Well,

what's it accomplishing for us; what's its function; why would the mind have evolved this way,' instead of saying, 'Oh, thank you for this interesting new information. I will immediately stop doing the thing that I've been doing that was so stupid and useless, and move to the new one.' Which, you'd think that would be adaptive, too. But, in fact, apparently in our evolutionary history it has proven more adaptive, more beneficial to, first of all, come up with a set of beliefs that guide our behavior, that are beliefs to live by, beliefs that bind us to a community (you see social psychology is sneaking in here again), and that we don't have to stop and question, six times a day, is this the right thing to believe.

So, in effect, coming up with a belief system—political, or religious, or even scientific—once we have that belief system, the belief system does our thinking for us. It simplifies information processing. I don't have to stop and think for every new thing I read, do I want to accept this or not, and what are the data, or not. If it confirms what I believe, that's the efficient way to go. We all do this, in a sense. We have a friend who we regard as the expert on something or other, and we use that friend's judgment, rather than do all the research ourselves. So, there are benefits to having a belief system, and to justifying our actions after we've done certain things, that allows us to continue thinking of ourselves as good, competent, worthy people—smart people, who know what we're doing.

But as we at pains to say in our book, sometimes some sleepless nights are warranted. Sometimes it is really important that we stop and consider the wisdom of a particular course of action we're on, or a war that we're having with members of our family, or a professional decision that we made—whatever it might be. Sometimes reassessment is ethically and humanly the better response.

Dr. Campbell: I'm wondering if this whole cognitive dissonance reduction tendency that we seem hardwired with relates to the fact that we, even now, live in a world where there's always uncertainty. Our brain makes decisions, like what it's looking at, and resolves ambiguity in favor of something. Like when

you're looking at one of those pictures that can look like two different things, it never looks like both at the same time. It seems like it's probably a related mechanism⁶.

Dr. Tavis: I think that's right. Well, it is especially the case today, where people are drowning in information. There's much too much information. We wallow in a sea of information and misinformation. And I think under those circumstances the default is 'stick with what I know.' I mean actually there's very nice research on this that you may have encountered, by [Barry Schwartz](#) and others, which basically finds that we like having choices up to about three. If you start giving people too many choices, they'll go back to the original thing they were doing.

A very cute experiment: You're in a supermarket and you're going to buy your favorite strawberry jam, and here's somebody offering you two other different kinds of jams—"Try these two others. Do you like these? Wouldn't you like this one?" 'Oh, hey, this new jam is really nice.' But if I offer you 20 different jams, you'll stay with the one you came in for. It's too much; it's simply too much. You can't process all those choices.

So, this means we have to be pretty selective in how we come to our conclusions, how we want to live by them, and so forth. Any of us in professions that require us to be open to information that there's a better way of doing what we do, that's one guideline for it. But, you know all of us have to make those decisions; which are the important ones, and which are not.

[music]

Dr. Campbell: I want to cover one other important idea that was in your book,

⁶ [Click here for an example.](#)

that I think explains what happens after you make that first decision: the ‘pyramid of choice.’ Would you talk a little bit about that?

Dr. Tavis: Oh, yes, I love this. For me, it’s really been a very compelling metaphor. The ‘pyramid of choice’ is just a dopey little metaphor that looks like this: Just imagine a pyramid with two people at the very top—that little pinpoint at the very top. They’re very close in some attitude, some belief, some choice. I mean our example is cheating, because that was based on a real experiment⁷; so we say cheating. They don’t think it’s a bad thing, they don’t think it’s a great thing. You know, it’s not good to cheat, but it’s not the worst thing in the world.

Now they’re each given an opportunity to cheat—at work, in school, a little pilfering, something more serious, whatever the decision might be. One cheats, the other doesn’t cheat. Now imagine that each of them has taken a step off that pinnacle of the pyramid; each one is going down a different side, beginning a slide down the side of the pyramid. The minute they make a decision—cheat or don’t cheat, blow the whistle at my office or don’t blow the whistle, go along with some bad practice or speak up against it—whatever the choice is, they will now justify their action by changing their attitude to conform to the decision they made.

So, the cheater will say, ‘Cheating is really not such a bad thing; everybody cheats.’ The person who resisted cheating will say, ‘Cheating is a serious crime; everybody is affected by it; it’s far worse than I ever thought it was.’ Because each of them is motivated to find a consonance between their action and their belief about the legitimacy of that action. By the time each person has finished justifying what they did, they will have rolled to the bottom of the pyramid. And if you imagine a pyramid, they are now at the bottom, at the base, quite far apart from each other, even though they were originally standing side by side.

⁷ Judson Mills (1958), “Changes in Moral Attitudes Following Temptation,” *Journal of Personality*, **26**, pp. 517-571.

What this means is that a decision we make that might be a small step, almost a trivial one—let's take cheating—now it becomes easier to cheat again, because, after all, you've already done it. And if you question now the fact that you did it once, you're going to feel some dissonance about the fact that you cheated. So, now the next time you have this opportunity, it will be easier for you to cheat. And in this way we might find ourselves moving along a path of action that will take us very far from our original ethical or professional standards.

This is, for example, how many physicians and scientists have slowly been co-opted and corrupted by industry funding for their research; seeing themselves as people of integrity, but ever so slowly turning their research and their findings toward the wishes of their funders. It's slow step by slow step, with self-justification greasing the path.

Dr. Campbell: I'm going to encourage my listeners to read your book for some wonderful examples, such as the one you referred to about the repressed memory problem, and also the issues in law enforcement, and various other ones. But, since we don't have that much more time—unless you think we need another example—I want to ask you how do we use this understanding of cognitive dissonance in our daily lives?

Dr. Tavis: Well, one of the reasons I think this theory is so interesting and useful is exactly because it's something we can take with us into our everyday lives. You mentioned blind spots before, and the [optical illusion](#)—the figure-ground illusion. We can't do anything about an optical illusion. That's how our brains are built. But we can do something about cognitive illusions, because when we understand how dissonance works, you see it all around you—you see it in yourself, you see it in your loved ones, you see it in the people you work with—and it gives us better skills at being able to, first of all, predict when we're going to feel it. You're going to know after you make a decision that you're going to want to justify that decision. And that's fine. That's fine, just so long as you don't do

so much justifying that you keep yourself from being able to change your mind later if you need to.

It helps us understand why, in arguing with somebody, either professionally or personally in the family, that we don't put them into a state of dissonance, making them feel stupid for something that they did or said. If you make somebody feel stupid for a belief they hold, or for an action they took, guaranteed they're not going to listen to your wonderful words of wisdom. They're going to cling even more tightly to their justifications for what they did. Because what's the alternative: admitting that they did something foolish or stupid. No one wants to admit that.

Again, by understanding this mechanism, it helps us frame the problem differently to our friends, and kids, and loved ones; to our fellow professionals. You don't talk to them in an accusing way; you don't make people feel stupid. And you do the same for yourself. We can learn to say of our self, 'When I, a good, competent person, do something that wasn't good, and that was incompetent, or foolish, or wrong, I remain a good person, but the thing I did was wrong.'

You separate yourself concept from the specific action. 'When I, a good, compassionate, smart doctor learn about a new kind of surgery that is less invasive and more successful than this other thing that I've been doing,' you don't feel the need to say, 'If I accept this new method, what am I saying about all of the patients I treated in the past, that I didn't give this new method to?' You say, 'Thank God for this new information. Going forward I can be a better doctor.' So, these are all skills that we can learn. People can really learn how to deal with dissonance, and to do it in a more efficient and effective way. Elliot's still teaching me.

Dr. Campbell: Do you have any advice about how we can become more aware of when it's going on? Are there any hints you could give us, based on your experience?

Dr. Tavis: Well, hey, you have to read the book—about something, I think. There are one or two things left there in this book that might be worth reading.

Dr. Campbell: Fair enough. I did like the fact that you pointed out that in our critical systems we really need external safeguards, because everybody has these blind spots and is vulnerable. And I would like to finish up by talking about how the scientific method comes in valuable here.

Dr. Tavis: Well, I think we've spoke of this before. The scientific method, if we really take it seriously, is what gives us an ability to test our notions of how right or wrong we are. In science education, and people who love science, one of the things that we can teach students—general public—is they're unhappy if they believe that science is taking things away: *science is taking away a belief that I hold dear—science and critical thinking is all about debunking, and being skeptical, and taking away something that I believe.*

But I think our job as science educators is to show people the joy of the discovery. It's not taking away a belief only—to replace it with a better belief, a more useful belief, a more exciting and helpful belief. To understand what isn't so, can be as exciting, and important, and useful as to understand what is so. And I think that's the attitude that we might want to work on conveying—those of us in the skeptical and scientific world—which is that science is about moving us forward toward better ideas.

And one of the best examples of this, and the saddest, has been the way that the people involved in the vaccines-cause-autism movement have responded. You would think they would want to say, 'Isn't it a terrific relief to learn that the

vaccines I gave my child were not responsible for my child's autism. Now we can spend all of our time, and effort, and energy funding research on what the causes might be.' But to cling to the discredited notion that vaccines cause autism is just such a tragic waste of time, and money, and effort, and emotion, and so forth.

Here's an example where science, although it debunks a belief—that vaccines cause autism—what an important debunking that is. How grateful everybody should be for that kind of scientific evidence! It's not that I think science always gives us the answer, or the right answer, but it can give us better answers for now, which we can hold onto until we will have better answers, still, in the future.

Dr. Campbell: Right. So, Carol, what is your focus now? Are you spending most of your time trying to get the word out about cognitive dissonance, or are you working on something new?

Dr. Tavis: Well, we've had an extremely gratifying experience writing this book. It has been one of the most exhilarating experiences of my life, really. The first book I wrote, which was on anger, had much of the same response. I came to realize how people read a book. They take it seriously, they apply it, they think about it.

The letters and responses that Elliot and I have had about our book have just been enormously gratifying. There's one very cute one on Amazon; a guy who says, 'When you start this book, you realize, hey, this applies to most people in the world.' And then he says, 'Halfway through, you realize, hey, this applies to about half the people that I know personally.' And by the end, he says, 'Hey, this applies to me.' It was such a sweet comment.

So, I do feel very pleased, and gratified, and quite passionate about our book, and I still try to do lots of lecturing and talking about it, and so forth. But that's one of the various topics that I'm interested in. I have lots of other things that I've

been writing about. And I do an introductory psychology textbook with two colleagues, and I love doing that because it allows me to learn more about the psychological science that I love, Ginger—‘science,’ you see; ‘psychological science’—my general campaign of explaining to people that that’s a legitimate term, and why it is. So, that’s what I’ve been doing.

Dr. Campbell: I think I could have turned out to be a psychologist if my only exposure in college hadn’t been to pure behaviorism, which totally turned me off to psychology for about 30 years.

Dr. Tavis: I’ll send you a textbook⁸, Ginger! You’ll see what psychology is like now.

Dr. Campbell: Well, I’ve had some exposure to it in doing the [Brain Science Podcast](#).

So, that leads me to my traditional question that I like to ask my guests, which is advice for students. Do you think that social psychology is still a good field to enter?

Dr. Tavis: Social psychology is the best field to enter! What do you think I’m going to say! I love social psychology, and I think more people need to understand why it is such a terrific field. Basically it’s just a vacuum cleaner field. There’s no aspect of human behavior that you don’t get to study in social psychology; from culture to the brain.

Dr. Campbell: Yes. What’s a good way to get started, if somebody was interested in learning more about social psychology?

⁸ Tavis is the co-author (with Carole Wade) of two introductory psychology textbooks: [Invitation to Psychology](#) (5th Edition) and [Psychology](#) (10th Edition).

Dr. Tavis: Apart from taking a course, I assume you mean. If you're a student you could go trot off and sign up for a social psych course; you could read Elliot Aronson's book, *The Social Animal*⁹—one of the classic social psych textbooks in the business. There are so many good and interesting books on social psychology. *The Social Animal* would be a great introduction to some—not all—of the topics in social psychology. A course would be, or course, the best way, because you could see the great array of topics that social psych covers; from aggression and hatred and war, to love and intimacy, affection, living together—only the basic principles that govern our lives, as you see.

Dr. Campbell: Are there people working in social psychology whose original training was in other areas?

Dr. Tavis: Of course. Social psychology is an academic discipline, so if you have a PhD in cognitive psychology, say, and you become interested in social psychological topics, such as culture, a lot of the field people are crossing borders, increasingly. In social psych, for example, there's a whole area called 'social cognitive neuroscience.' There you are—a big mouthful. But, indeed, it's people doing neuroscientific bases of social psychological processes, such as love, and attraction, and attachment, and so forth.

So, there's a lot of blurring of borders in psychological science. It's a great time to go into this field. I generally advise students to avoid clinical psychology; only because it's not clear where the work will be in that area in much of the future. But if you like science, if you love science, if you love research, then any of the graduate programs in psychological science are exploding. It's a very exciting time to be a psychological scientist.

Dr. Campbell: Well, it certainly is an exciting time to be covering the field. There are just so many interesting scientists working in both psychology and in

⁹ [*The Social Animal*](#) by Elliot Aronson.

neuroscience, that I'm overwhelmed just by the potential guests; let alone what I can actually do on my small level.

But I really appreciate you taking the time to talk with me today. And I hope that I will get to see you again in person, soon.

Dr. Tavis: We will do that, I'm sure, Ginger. Many thanks to you for this chance to talk with you about so many good subjects.

[music]

I want to thank Dr. Carol Tavis for taking the time to talk with me. I think she did a wonderful job of introducing us to social psychology and the important theory of cognitive dissonance. This theory describes the consequences of something we all experience, which is the discomfort we feel when faced with conflicting beliefs. We aren't like the Red Queen in *Alice in Wonderland*, who said she could believe six impossible things before breakfast. Instead, as human beings, our brains automatically strive to eliminate cognitive dissonance.

But since this process goes on outside of our conscious awareness, we tend to be unaware of the consequences. The reason Cognitive Dissonance Theory is important is that it makes predictions that are often opposite from common sense and intuition; and, most importantly, these predictions have been confirmed in numerous experiments.

As Dr. Tavis explained in her interview, our innate ability, or tendency, to reduce cognitive dissonance has several consequences. First, once we make a choice, even if it's about something minor, we automatically begin to see evidence supporting our choice, and we tend to ignore evidence that we chose incorrectly. "Believing is seeing." This is a memorable way to describe what is also called 'confirmation bias.' Another key consequence is illustrated by the metaphor of

the decision pyramid, which shows that even small choices can cause people to end up far apart in terms of how they see the world.

In [*Mistakes Were Made \(But Not by Me\)*](#), Dr. Tavis and Dr. Aronson discuss the experimental evidence that supports Cognitive Dissonance Theory; but more importantly, they provide detailed examples of how it affects people in real life. This includes how our memories are distorted by self-justification, and examples of the problem of the therapeutic loop. The repressed memory debacle is discussed in some detail. They also talk about how it affects the justice system, and how cognitive dissonance contributes to problems in marriage, and family turmoil.

When I started the [*Brain Science Podcast*](#) almost five years ago, I began with the basic conviction that understanding how our brains work can enrich our lives. *Mistakes Were Made (But Not by Me)* contains the kind of practical, down-to-earth information that we can all use. It literally contains information that can change your life; which is why I encourage you to read it and share it with others. Just remember when you get ready to share it to follow the principles Dr. Tavis introduces. That's where the real challenge comes in.

Now, before I close I need to make a few brief announcements. First, don't forget that detailed show notes, including references and episode transcripts, are available at booksandideas.com. Since *Books and Ideas* comes out somewhat irregularly, you might want to sign up for my [newsletter](#). You can do that at the website. That way, you will automatically get the show notes for every new episode, and you won't miss any episodes.

If you'd like to discuss this episode, the best place to do so is really in the *Brain Science Podcast* [discussion forum](#), which is now located at goodreads.com. Or you can post something on the [Books and Ideas Fan page](#) on Facebook. You can

also post reviews on iTunes, or wherever you happen to get your podcast downloads.

The next episode of *Books and Ideas* is going to be something a little different. It will be an interview with science fiction author, [Karen Traviss](#). Meanwhile, I hope you will be sure to subscribe to both [Books and Ideas](#) and the [Brain Science Podcast](#). And don't forget, you can send me feedback docartemis@gmail.com.

Thanks again for listening. I look forward to talking with you again very soon.

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