Podcast: At the height of the COVID-19 epidemic in 2020, the Association for Psychological Science joined countless other organizations around the world in turning to podcasts to share findings and conversations. The result is *Under the Cortex*, now celebrating 100 episodes in which psychological scientists help us understand some of their most interesting and impactful new research. This special episode is a bit of a greatest hits compilation, featuring clips from six of our favorite episodes to date.
You’ll hear Dan McAdams providing a skeptical deep dive on the Myers-Briggs test, Mary Frances O’Connor discussing what happens in the grieving brain, APS’s Charles Blue and Ludmila Nunes debunking some common myths of psychological science, Nathan Cheek exploring unintended negative consequences of restricting freedoms, Eiko Fried making the case against the tendency to oversimplify mental health diagnoses, and Andrew Devendorf examining the bias within the research community against “me-search.”

Hear the rest of these interviews by clicking on the links above. And subscribe to all episodes of Under the Cortex by visiting your favorite podcast app or the APS podcast page at psychologicalscience.org.

Unedited transcript

[00:00:08.170] – APS Leah Thayer

In 2020, at the height of the COVID-19 epidemic, the Association for Psychological Science joined countless other organizations around the world in embracing remote work and emerging tools for virtual communications, including podcasts. The result is Under the Cortex, which today celebrates its 100th episode in which psychological scientists help us understand some of their most interesting and impactful new research. My name is Leah Thayer, and for this special episode of Under the Cortex we’re going to provide you with a sort of greatest hits compilation, clips from six of our favorite episodes to date. If you want to hear the rest of these interviews or any other episodes of the podcast, we invite you to browse the complete library on your favorite podcast app or at the APS website at psychologicalscience.org.

To kick things off, we’re going back to September of 2021 for an episode called Skeptical Deep Dive on the Myers Briggs Test. Our guest is Dan McAdams of Northwestern University. Just before this clip, McAdams had explained that the Myers Briggs, the so-called personality test, which is used widely by corporations to reveal the skills and characteristics that employees might bring to the table. Here, McAdams responds to a comment by the Under the Cortex host asking whether the test really reveals meaningful insights or instead essentially categorizes people in a way comparable to our astrological signs.

[00:01:46.930] – Dan McAdams

Well, I’m glad you brought up the horoscope, because it is a little bit like that. But let me put a caveat in here. There are well validated self-report questionnaires that measure personality traits and so forth. There’s a whole science of this going back to the 1930s and so on. Isabel and Catherine were outside of that tradition. They were not interested in the criteria for scientific inquiry in personality science. So it puts you into a type. And these particular types, there’s no really evidence that they are valid in the sense that if you are this particular type, it will predict your behavior. There’s really kind of like two big problems. The first is the idea of a type in general, the only valid dimension, really, in the Myers Briggs. It’s called extroversion introversion. It turns out that’s a real trait in personality psychology. And there are 70 years of research showing that people who are high and extroversion are indeed very different from people who are lower on extroversion, or that is more on introversion. It’s a continuum. Okay, so Catherine and Isabel, they imagined it instead as a type. There’s two kinds of people here.
There’s introverts and there’s extroverts, and they are like, categorically different. And it’s kind of like saying there are two types of people in the world. There are short people and there are tall people. And you say, well, how about we just measure them like, this guy’s six-foot two, oh, he’s a tall. This person over here is five foot nine. Oh, he’s a short. Well, it’s much more precise to say I’m six-foot three or five-foot eight or whatever, than to say, oh, I’m one of the shorts, right? So the Myers Briggs slots people into talls versus shorts. That is extroverts versus introverts. But if you look at the continuum on it, it’s just like height. Most of us are sort of in the middle of the scale. And yet to kind of slice it right down the middle and say, oh, you’re 49th percentile, therefore you’re an introvert, you’re 51st percentile, you’re an extrovert, is really like saying people who are five foot nine, they’re the shorts. And people who are five foot ten, they’re the talls. And the five-foot tens are just like the seven-foot two s. And the five-foot nine s are just like the mean.

It’s that imprecise.

That was Northwestern University’s Dan McAdams in September of 2021, providing a skeptical deep dive on the Myers Briggs test. This next clip is from early 2022. It features Mary Frances O’Connor, a neuroscientist at the University of Arizona, who discusses the findings from her research and published in her book *The Grieving Brain: The Surprising Science of How We Learn from Love and Loss*. The under the cortex host had just asked her to explain what is actually happening inside the brain as we grieve.

Well, one of the things is that grieving is very complex. So if grief is just that sort of one-off moment, that wave that knocks you off your feet, then grieving can be thought of as change over time. And we mostly have studies of grief and not of grieving. That is to say, there are very, very few studies that look at an individual who’s bereaved at more than one time point. So in the infancy, in a way of the neurobiology of grief. What we do understand about grief, the emotion, is certainly that it involves all sorts of different areas of the brain. But one area that seems important is the nucleus accumbens. And this brain region is in the basal ganglia. It’s very deep in the brain and has to do with reward processing. Our loved ones, it turns out, are extremely rewarding, right? You know this just from having loved ones. But there’s another way that we mean reward when we use it as psychologists, which is to say it is a response so that we will do whatever we did again, right? Get back in touch with them again, see them again, reach out to them.

And this nucleus accumbens region is known to be critical for bonding in animals. It’s also seen in fMRI studies when people look at a picture of their child, of their romantic partner. And what seems to be possible is that this region is working somewhat differently, perhaps in people who are not adapting
as well after the death of a loved one. I use this interpretation sometimes that grieving is a form of learning. We have to learn that this virtual reality we’re carrying around in our head where our loved one is there or is out there somewhere. We have to learn that that’s not really true anymore. And then we also have to learn how to meet our attachment needs, which are critical, critical for survival. We have to figure out how to meet those attachment needs in the absence of this person we loved so very much. So Reward is also trying to shape, I think, our learning behavior. And potentially there are people who are having more difficulty with this.

[00:07:31.170] – APS Leah Thayer

That was University of Arizona neuroscientist Mary Frances O’Connor discussing the grieving brain. The next clip is a bit lighter. Two hosts of the podcast APS’s, Charles Blue and Ludmila Nunes, who is herself a cognitive psychologist, have a little fun debunking four Common Myths of Psychological Science. This was published in early February of 2022, and at this point in the episode, they’ve just debunked the old chestnut that people only use 10% of their brains. Now they take on another myth.

[00:08:08.910] – APS Charles Blue

Here’s a myth we’ve all heard and probably every parent would assume has some truth to it.

[00:08:15.570] – APS Ludmila Nunes

Is this a sweet example?

[00:08:17.950] – APS Charles Blue

Brilliant, yes. The myth, of course, is that too much sugar makes children hyperactive. So first of all, let me start by saying that too much sugar is absolutely a bad thing. People risk a lifetime of metabolic problems such as obesity and diabetes from the overconsumption of sugar, particularly starting at a young age. But does it also fuel uncontrollable rambunctious behavior and tots? That’s tough to say. So let’s start by considering observations and correlations and causations. Now, most adults will have seen the chaos at a child’s birthday party or Halloween after a night of trick-or-treating. You’ve got children screaming, running around like maniacs. They have difficulty falling asleep until the eventual sugar crash. So with a little bit of selective memory, we put two and two together and conclude cake, ice cream and sweets. Push kids into overdrive. Or did it? What about all these times children were together and acted just the same way? They did, but kids were on a normal diet? When parents attend parties, they may also expect children to be hyperactive. So that can contribute both to children’s behavior and then parental interpretation of behavior.

[00:09:38.650] – APS Ludmila Nunes

Exactly. What you’re talking about is a classic example of people seeing causation when there is only correlation. And the danger with that is that many, many times correlations are just spurious. There’s a funny example about these spurious correlations, and it has to do with Nicolas Cage movies and pool.

[00:10:01.550] – APS Charles Blue
Uh huh. Okay, where are we going with this?

[00:10:04.130] – APS Ludmila Nunes

So the more films Nicolas Cage makes, the more people drown. And if you look at the numbers you could possibly infer that Nicolas Cage movies are making people drown. They are a causation for drowning. So on average, 54.5 people drown in a pool for every Nicholas Cage film. This is concerning.

[00:10:32.210] – APS Charles Blue

The man has to be stopped. Clearly.

[00:10:34.580] – APS Ludmila Nunes

Obviously. But this is a classic example of a spurious correlation. Because the numbers increase as one increases, the other one also does. But of course, his films are not causing people to drown.

[00:10:49.630] – APS Charles Blue

Just like having kids at an event, like a birthday party or an amusement park or Chuck E. Cheese. Sometimes it just doesn’t matter what they’re eating.

[00:11:06.310] – APS Leah Thayer

That was from Debunking Four Common Myths of Psychological Science with Charles Blue and Ludmila Nunes. Let’s shift gears again. Later in February of 2022, Nathan Cheek of Princeton University talked about a paper he had recently published in Perspectives on Psychological Science, an APS journal that suggested that restricting freedoms may have other unintended negative consequences for behavior and health. The context for this the COVID-19 pandemic and the grappling we all had to do as we tried to balance our desire to stay safe and thereby avoid getting sick or making others sick, and to experience freedom.

[00:11:52.690] – APS Nathan Cheek

Spelling out the benefits of freedom can be implemented in different ways. It’s really all about making the reasons why restricted freedom is a good thing more salient. So you can do this by invoking compelling and memorable narratives, maybe focusing on one particular person and having that be a salient example in people’s minds. You can do it by spelling out the many different groups of people who would be benefited by adhering to new restrictions, from loved ones, family and friends, to children, to older adults, to immunocompromised individuals and other people who might just be more vulnerable. You could also do it sometimes by effectively invoking threats. So really emphasizing the danger that’s posed by the pandemic or by other sources of threat. And what I would say there is that it’s important when using those kinds of fear appeals, to just make sure that people have a sense of self efficacy, that they can do something about it. Because if you just make people scared, then they become resigned and they feel panicked and trapped. But if you make them feel like there’s a clear thing they can do, like effectively social distancing or staying at home, then threat might be more effective as well.
The second principle is about attaching a moral value, and that’s about framing restrictions in terms of right and wrong. And so we know from a lot of work on moral cognition that moral framings are potentially really powerful drivers of behavior. And you’ve seen examples of this throughout history. So things like littering and drunk driving, there was a lot of activism around making those about right and wrong rather than, say, personal freedom. And that’s why I think many of us were more accepting of public policies restricting those behaviors. And I think you can see the power of moral framing in everyday actions. Like why do we return a shopping cart to sort of the shopping cart loading spot after grocery shopping?

Or we wish people did.

Yeah, or we wish people did. And that’s because we see it as a moral action. So when I do that, it’s not because I think I’m going to be punished. No one is going to do anything to me if I just leave it by where my car was parked. But I take the extra step of bringing it back just because I know it’s like the right thing to do. So moral framings can be potentially powerful. The third principle is about reframing restrictions as freedom from so many of these public policies aimed at increasing security can be thought of as ways of increasing a different kind of freedom. And so they might be limiting your freedom to do whatever you want, but they might be increasing your freedom from, you know, for example, you see this in the history of smoking bans in the United States. For a long time, smoking was thought of as an individual liberty. And so attempts to ban smoking would be seen as a real restriction on what you’re free to do. But then the conversation shifted and became more about secondhand smoke and the dangers smoking posed to other people.

And once it became a conversation about protecting others individual freedom from the threat of secondhand smoking or other kinds of security threats, then suddenly it became more defensible and more accepted to have these kinds of smoking bans. And so that kind of reframing can be really effective.

That was Nathan Creek of Princeton University on freedom versus security, can we find the right balance? For this special episode’s fifth clip, we’ll hear from Eiko Fried of Leiden University. He discusses a paper he had recently published in the APS journal *Current Directions in Psychological Science* on the advantages of seeing and classifying mental health problems as systems, not as syndromes. He’s talking to APS’s Ludmila Nunes in February of 2023.
So what you propose is that researchers, instead of creating these groups that are categorized by a given mental health problem, they look deeper at the symptoms, right. And how these can be connected.

[00:15:57.610] – Eiko Fried

Yes, exactly. I brought an example from my own life to hope to elucidate how this would work. So I had the huge honor in 2019 to visit Kenneth Kendler, a scholar I look up to very much. And I spent a few months with him, and he’s an avid cyclist and gave me his sort of secondary vintage, very old, very expensive bicycle, and said I could take good care of it, don’t break it. And I immediately broke it, unfortunately, but I could fix the bicycle. And now we get to talk about systems, because the bicycle is a very simple system. The bicycle, I move the pedal, the pedal moves the cogwheel, which moves the chain, which moves the wheel, and so forth. And in simple systems, the macro behavior of the system is fully determined by all the individual components, the micro components of the bicycle. So in simple terms, I could fix the bicycle and restore it to its functioning state at the macro level by simply going through all the components and fixing them individually. But in complex systems, this doesn’t really work very well. And an example here is lakes in the Netherlands, where I work now.

[00:17:01.610] – Eiko Fried

We have many beautiful lakes here. They’re blue and shiny and fresh, but sometimes these lakes turn into turbid lakes, into these green smelly states. And ecologists have been trying to figure out for many decades how to forecast when a lake will turn into this alternative sick attractor state. And they haven’t been able to do that by fixing all the components, like in my bicycle example, fish content, oxygen percentage pollution, sunlight exposure. They were only able to turn back these lakes into their original states once they studied these systems as systems relations between these components. And I think the lake metaphor is a much better analogy for mental health than the bicycle metaphor. I think we need to understand mental health systems as within person systems over time and really zoom in onto these processes happening in people.

[00:18:05.130] – APS Leah Thayer

That was Eiko Fried of Leiden University from the episode titled Stop Oversimplifying Mental Health Diagnoses. This brings us to the last greatest hit from this under the cortex collection. It’s about a topic that is somewhat divisive within the psychology research community: “me-search,” a term used to describe research on topics that are of personal interest to the researchers themselves. Andrew Devendorf of the University of South Florida had just published a paper about me-search in the APS journal *Clinical Psychological Science*. Here. He’s talking with APS’s Ludmila Nunes in March of 2023.

[00:18:51.450] – Andrew Devendorf

So we found that more than half of clinical psychologists and graduate students have conducted this type of self-relevant research. So the exact number is 55% of our respondents had previously or currently conduct self-relevant research. And we actually saw that graduate students were more likely to report currently conducting doing self-relevant research. Perhaps more interestingly and more for applied discussions about why this work is important, we found people from historically marginalized
backgrounds were more likely to conduct self-relevant research. So this includes people from sexual orientation, minority backgrounds, so people who are lesbian, gay or bisexual, people who are nonwhite are more likely to do self-relevant research. And people who have reported a history of mental health difficulties are more likely to do self-relevant research. And so when we consider self-relevant research in that context and that many of these researchers might use their identities and be inspired to use their experiences, it kind of raises the question of why we might be more likely to view those people as more biased or negatively for doing that self-relevant research.

[00:20:04.850] – APS Ludmila Nunes

And this takes us to your second research question. How is this type of research seen by others?

[00:20:11.760] – Speaker 9

Yes. And so after giving the participants these vignettes and asking them to respond, we found that respondents who were clinical counseling and school psychologists, they were more likely to stigmatize a self-relevant researcher who studies mental illness topics such as depression or suicide or schizophrenia. They were more likely to stigmatize those researchers compared to a researcher who studies physical illness topics like cancer. And so that kind of gives an indication that there’s some paradoxical levels of stigma toward mental illness or the pursuit of that self-relevant research in clinical psychology. And in our discussion, we kind of tackle why that’s relevant and can have negative repercussions for our field.

[00:21:06.450] – APS Leah Thayer

That was Andrew Devendorf from an episode titled lived Experiences Can Be a Strength. So why the bias against research? And that brings us to the end of this special collection of clips from some of our favorite episodes of Under the Cortex. I’m Leah Thayer with the association for Psychological Science, and I want to thank you for joining us and supporting this podcast. Remember, you can hear the rest of these interviews or any other episodes of the podcast on your favorite podcast app or on the APS website at psychologicalscience.org.