

Our American States | An NCSL Podcast



The Our American States podcast—produced by the National Conference of State Legislatures—is where you hear compelling conversations that tell the story of America’s state legislatures, the people in them, the politics that compel them, and the important work of democracy.

You can subscribe through iTunes or Google Play.

Brain Science for Legislators and Staff | OAS Episode 12 | June 22, 2017

Welcome to “Our American States,” a podcast of meaningful conversations that tell the story of America’s state legislatures, the people in them, the politics that compel them, and the important work of democracy. For the National Conference of State Legislatures, I’m your host Gene Rose.

Today on “Our American States” we’re going to talk about brain science. Our guest is going to explain how recent research can help all of us, particularly those who work in legislative chambers, committee rooms and capitol buildings. We’ll find out how to change the dynamics of a job that often requires a lot of sitting and listening to one that engages the brain and body to generate more satisfying results.

Stacy Householder is a program principal with the National Conference of State Legislatures and she’ll walk us through the scientific research and give some advice on how to be more productive. Welcome to the program, Stacy.

Stacy: Thanks for having me.

Gene: First, Stacy, tell us about your work and how you’ve come to take brain research and apply it to the legislative arena.

Stacy: My work mainly centers on working with legislative leaders in developing training for legislators. The more I read and learned about brain science, the more I saw its relevance in the legislative arena. It’s how we learn, how we persuade, and other applications. So we decided to take brain science and turn it into a participatory session for legislators, and are here now sharing it for a broader audience.

Gene: So why should brain science matter to legislators?

Stacy: Scientists have learned more about the brain in the last 20 years than they have known for the previous five centuries, which is a pretty staggering statistic. Our systems and institutions like legislatures are based on tradition and don't necessarily take into account this new research.

The question to ask is: How might legislators be better problem solvers, better decision makers or create stronger teams if they can maximize how their brain works?

Gene: So I personally worked for legislatures for about 15 years. One thing I noticed is that there's a lot of work that occurs behind your desk, whether it's reading legislation, working on a computer, there are long hours, committee meetings and floor activity that starts early in the morning and ends late at night. But now the science says that physical activity and sleep actually help the brain function. Now is that something that's important for those who work in the legislature to take into consideration?

Stacy: Absolutely. It's more than just your doctor telling you to get up and move, which we've all heard. Now there is research and evidence that exercise and sleep create and increase mental alertness. Our ancestors didn't have cars and they had to walk everywhere. Their brains developed while they were walking 12 miles a day and we don't do that anymore. We've lost some of that.

Scientists conducted an experiment and it was a 12-week exercise among 27-year-olds. Their brain activity spiked and it was linked to a 93% increase in brain performance compared to when they were sedentary during the day.

At NCSL we actually coined the phrase based on this research called "lap the cap" or "lap the capitol." So if you're at an impasse with a colleague, we literally advise you to go for a walk around the capitol. Your executive function, your cognition will all increase.

Gene: So are we going to see a lot more Fitbits in legislative arenas do you think?

Stacy: You never know. Some people might really take this information to heart and they might put their Fitbit on and start lapping the cap as we advised them. If that's what gets you moving up and out of your office throughout the day, then go for it.

Gene: So how much activity do you recommend, Stacy?

Stacy: As little as two 30-minute per week brisk walks can do the trick and you'll see an increase in brain function. But ideally, you really want 150 minutes a week and that breaks down to about 30 minutes for five days a week.

Gene: During the day when legislatures are meeting from early in the morning to late at night, is there a better time to do this?

Stacy: There's no specific time that shows better increase in brain function than another time. It's just taking time during the day, 30 minutes a day if you can, and doing something brisk.

Gene: We talked about exercise. Now what about sleep?

Stacy: Another way to tackle your problems is by sleeping on them, and we've all said that – we've all said: let me sleep on that before we make a big decision. Twelve hours of sleep can boost your learning and idea-making to solve problems.

You sleep for a third of your life for a reason. Your brain needs time to process everything that happens in your day. It uses this time to create, retain or drop memories altogether. Experiments have been performed where sleep loss directly correlates with mind loss.

Gene: Again, I think some legislators would hear 12 hours; that's a long time; I don't have that time. How do you adjust for the schedule that they have?

Stacy: And you don't necessarily need 12 hours every night. That's just the measure that brain scientists have used that shows a difference. Everyone is different when it comes to sleep. Some people will need more and some people will need less, so it is a very individual process. But we do know that you need some consistent sleep every night for your brain to function at its peak performance.

Gene: One thing I've noticed... I'm sure that you have as well... that some people are morning people and some people like to stay up late at night. How do they work that out?

Stacy: Oh yes. The early-birds or the "larks" as the literature calls them and the "night owls." Early-birds or larks are about 10% of the population, one in ten people, and are most alert around noon and most productive in the morning hours. If you're one of these people, you always like to know who the famous people are that you align with. So some famous larks are Ben Franklin, Napoleon and Ernest Hemingway – he always wrote in the morning.

Night owls are a little bit more, about 20% of the population, and they're most alert at 6:00 p.m. and most productive during the evening hours. Those people who are night owls are actually at a disadvantage because our world is not created for them, and they actually accrue a massive sleep debt because they like to stay up late, but our work and our legislatures for the most part and our lives function on an 8 to 5, 9 to 5 basis, and that's not necessarily how their brains work. Some famous night owls include Winston Churchill and Elvis Presley, if you're in that camp.

Honestly, to reiterate, we don't know how much sleep we all need because everyone is different. It also changes as you age. As you age you tend to need less sleep than when you were younger. We do know and what is clear is that when those legislative sessions do run until 1:00, 2:00 or 3:00 a.m., it may not be the best time for brain function.

Gene: We're talking with Stacy Householder with the National Conference of State Legislatures about brain science. We'll ask her about persuasion and multitasking right after this break.

BREAK

Gene: We're back with Stacy Householder, Program Principal with the National Conference of State Legislatures. Okay, Stacy, you've studied a lot about brain science and have been applying it to help give advice to state legislators who are often working under some pretty stressful situations. If the legislator is arguing in support of legislation, what does brain science say about how they argue or try to persuade others to come around to their point-of-view?

Stacy: One thing is very clear, and that is people don't pay attention to boring things, and you don't need a brain scientist to tell you that. That's pretty obvious. So, on the Floor you'd better not be giving a monotone speech. You'd better be telling a story to get people to feel an emotion. Our brains remember emotions more than exact details.

An example that most people can relate to is if you've ever been in any type of minor car accident... maybe you rear-ended someone... you probably remember that incident much more clearly than what you ate for lunch yesterday because it caused you to have an emotional reaction.

Legislators can use emotions to push for legislation and many times they do have a personal tie or connection to something that they're supporting, or opposing for that matter.

Gene: So whether a legislative body meets for only a few months or an entire year, my experience, again, is that legislators are juggling not only their legislative responsibilities, but often their careers and families who typically are not close to the capitol, so most legislators consequently may consider themselves excellent multitaskers. What does science say about that?

Stacy: Most people in the world consider themselves excellent multitaskers. But, if you actually want to stand out, I would recommend taking multitasking off your resume because only 2.5% of the people in the world are true multitaskers. The rest of us actually do something called switch-tasking, which in your brain is when you spend 20 seconds on one topic or issue or email, and then you spend 20 seconds on another one. You're not truly multitasking because your brain is switching from one function to the other. It actually takes you longer to complete both tasks when you do that.

A person that is interrupted, either by someone else or by themselves, trying to do two things at once, takes 50% longer to accomplish a task and makes 50% more errors.

Gene: Now that legislators know they need more sleep and that they can't multitask, they might be feeling some stress just listening to this.

Stacy: Stress is a big area of research right now and there is a lot we don't know. Some types of stress are actually good for the brain. For example, stress that produces adrenaline and allows someone to lift a car to save a child is a great example of good stress. But long-term stress is bad and your brain is not designed to handle stress that lasts for years, which is the situation many Americans are in.

You have one brain and the same brain that you have at home is the same brain that you take to work. The stress you're experiencing at home will affect your performance at work and vice versa.

Chronic stress is the real issue and productivity takes a big hit when you have chronic stress. It leads to decreased problem-solving abilities, decreased memory formation, and an erosion of creativity and innovation, which is not what we need in the world. It all comes down to control and if you feel like you don't have it, it causes stress, which can lead to chronic stress.

Gene: Stacy, the general perception is that someone who runs for a legislative position has to be a pretty good communicator and has to give pretty good speeches. But the science, I understand, is revealing some interesting data on effective communication. Is that right?

Stacy: Absolutely. We rely on our vision, on our eyes 60% of the time. No matter what you're doing, you're relying on your eyes 60%. The rest of our senses make up the remaining 40%.

There's a great story out there and it comes from the University of Bordeaux in France about brain scientists and wine professionals. The scientists actually dropped red food coloring into white wine. Seeing the wine, all 50 wine professionals started using words that described red wine, and I am not a wine professional, but we all have heard those words before, when in fact, they were actually drinking white wine. So the lesson is that the nose smells what the eyes see.

Gene: So why does vision dominate other senses?

Stacy: We pay attention to color, to size, and especially to things that move. Our threats used to be lions, tigers and bears and our vision kept us out of danger. Today this translates into the fact that pictures are much more effective than oral and written communication alone. But when pictures and oral communication are combined, retention soars.

For example, when you read a novel, you form an image in your head of the characters, of the setting, and info graphics are actually on the rise because of this recent brain science. It combines visuals as well as information in an easily readable format.

If you have ever had a great testimony in the legislature in a committee, visuals may have been used. You also may have heard someone tell a compelling story or a moving story that evoked some emotion in you. If you still remember that testimony, it's a pretty good sign that it worked.

Gene: I know that now watching C-Span occasionally, you see a lot of people bringing out visual aids to help their cause, and even though there may not be anybody else in the room, they know that there's a television audience there.

Stacy: Absolutely, especially when you have to convey data and figures where you might see people glaze over in an audience. So by providing some visual help for them, the brain is much more likely to retain that information.

Gene: So it seems that legislators are naturally curious. They're willing to learn about new topics and some that they have never imagined. How does that play into the research that we have now?

Stacy: Well, the fact is that humans are built to explore, and you need to look no further than a baby to know that this is true. Just look at how babies learn: they touch, they watch, they listen, they put everything in their mouths.

We push boundaries to see how people react, and legislators do this all the time. They do this in their caucus, they do this with the other chamber, they do it with the executive branch – they are actually the best at this “brain rule” as we call them. They are the best at curiosity... because they are naturally lifelong learners and their brain is constantly developing by learning these new topics that they have to research and pass legislation on each year.

Gene: So if legislators want to learn more about what you've been talking about, Stacy, what kind of resources can they turn to?

Stacy: Absolutely. I would highly recommend a book called "Brain Rules" by Dr. John Medina. He is a neuroscientist that NCSL has worked with in the past and his information is very easily digestible and readable, and I encourage you to check out the book "Brain Rules."

There are a number of other people you can look at too. David Rock is a neuroscientist who does some fascinating work on this front. And all you have to do is google brain science or brain research and you will have a never-ending list of things to check out.

Gene: So as we wrap up here, Stacy, what are the main takeaways that you really want state legislators and staff to remember?

Stacy: Well, we've talked about six different brain rules today, you might call them: #1) Your brain thrives with exercise and sleep, and we tend to ignore those, so make sure to put those back into your daily agenda. #2) Your brain's strongest stimulant is emotion, so if you want to persuade someone, make sure you're telling a compelling story. #3) We cannot multitask. If you think you are part of the 2.5 percent that can multitask, I challenge you to find a partner and with one hand do a thumb war with them, and at the same time, on the other hand play rock/paper/scissors. If you can do it, I want to hear from you.

#4) Your brain is affected by stress and chronic stress is the worst. #5) Your brain over-relies on vision, so be aware of that and recognize that the rest of your senses make up 40%. And #6) Your brain develops based on curiosity and legislators have this one down cold.

Gene: Stacy, we appreciate your time and your expertise on this subject.

Stacy: Great, thank you.

Gene: And that concludes this edition of "Our American States." We invite you to subscribe to this podcast on iTunes and Google Play. Until our next episode, this is Gene Rose for the National Conference of State Legislatures. Thanks for listening.