

WRITING SAMPLE

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Lone Stars on the Medical Frontier: Thought Leader Art Markman Describes How the Pandemic Is Affecting Our Brains and What We Can Do About It

By Mary Ann Roser

You may have heard Austin's University of Texas Professor Art Markman talking. He's one-half of the popular NPR podcast, *Two Guys on Your Head,* which explores the sometimes-mysterious workings of the human mind.

Since COVID-19 struck, Markman, whose doctorate is in psychology, has worked with 13 task forces at UT to prepare for virtual and in-school instruction, along with other pandemic-related changes. He also has written about what the pandemic is doing to our heads, specifically, our brains. So, if you feel anxious or stressed, you have company.

Markman leads UT's IC2 Institute, which calls itself "a think-and-do tank to explore the broad economic, technological and human factors that drive economic development in regions." IC2 focuses on innovation and entrepreneurship with an emphasis on economic development in small cities and rural areas in Texas, the United States and around the world.

The author of several books, including *Smart Thinking* and *Smart Change*, Markman spoke with *Lone Star Health News* about how the pandemic is affecting us. His comments have been condensed and lightly edited.

Time seems to be flying by. I wake up, and it's Friday already. Why does sameness appear to speed up time?

When you look back over time, what makes a time period seem long is that there are memory landmarks you can point to. The more different memories you access when thinking back over a period, the longer it seems to be. Because every day is filled with the same activities right now, there aren't a lot of those landmarks, and so time feels like it is whipping by. Because so

much of what we're doing right now feels repetitive, there also isn't a lot of mental exertion going into our days, and so there are fewer things we are going to remember about what we have done.

These are stress-filled times. We've got a pandemic, a tumultuous election and a divided country. What are these stresses doing to our brains?

I talk a lot about these two motivational systems—the approach system when you go after these wonderful, desirable, beautiful things and the avoidance system when you're trying to avoid some threat or calamity. There's a lot of research that suggests when you engage the approach-motivational system ... it makes you more sensitive to beautiful, wonderful, desirable things in general. Everything is more positive when you're pursuing a particular positive outcome.

Similarly, when there's some looming threat or catastrophe, not only are you are more focused on that, but you are more sensitive to every potential threat and catastrophe out there.

This generalized attention to wonderful things is called the promotion focus and the generalized sensitivity to negative things is called the prevention focus. We are collectively in a massive prevention focus because of all sorts of threats out there. We are framing everything in terms of a potential threat and escape from that threat, and it's not a physically pleasant place to be. The reason they invented happy hour was to help people medicate themselves from being stressed all the time. It's not really happy hour, it's more like relief hour.

So, are you saying, our brains focused on avoiding more unpleasantness and we're between a rock and a hard place on how to find comfort?

Yes, think about the way we are eating now. Comfort food is not a divine eating experience. It's something fatty, salty and calorically dense that you can thrust into your mouth.

You're making me crave a family-sized bag of Fritos.

We've eaten more vegan macaroni and cheese in the last eight months than in my entire life, and I don't regret a moment of it.

Does all of this stress and unpleasantness affect our ability to make decisions?

Yes. When you're under stress, in general, it tends to narrow what's called your working memory capacity, the amount of information you can hold in your mind at once. You tend to become laser-focused on a small amount of information rather than taking into the account the nuance of anything. And that's not particularly good for doing complicated decision-making. If you're going to do complicated decision-making, you've got to slow things way down.

But aren't we drastically slowed down by the pandemic? Or are you saying it hasn't slowed down our brains?

We are, but it's not clear we are making decisions slowly. People have asked me, "Why don't people stay indoors and social distance?" It's because, psychologically, we are trapped in the worst decision-making process, something called an avoidance-avoidance conflict, which means there are two outcomes, and they both suck. So, basically, if we social distance and don't go out or engage in a lot of economic activity, it's bad for the economy. But if we say we should go out and buy more stuff, then that increases the spread of the disease. So, there's no good outcome here. We just vacillate between these two.

Even though everything is happening slowly, there is not a lot of deep thought going on and instead there are a lot of visceral reactions people are having—either visceral fear to the pandemic or a visceral reaction to anyone who's taking precautions because they're seen as harming the economy. There isn't a lot of nuanced discussion.

I was reading about some University of Pennsylvania research that says anxiety from the pandemic can cause overblown emotions, resulting in the brain's limbic system overriding the executive functioning part of the brain. That causes us to have problems focusing and controlling impulses.

Yes.

Then I read in the paper that Austin's murder rate has reached a 20-year high. Is there a connection between being more impulsive and the murder rate—or is that a bridge too far?

That's an interesting question. Certainly, a lot of things are confounded here. You've got a whole lot of families spending a whole lot of time with each other. Early on, there were reports of increases in domestic violence. Above and beyond the ability to control yourself, there's less opportunity for people to get space if they're in a dangerous relationship. I think that says less about the brain and more about the negative side effects of the pandemic.

You've written about pandemic fatigue. We do social distancing over a couple of months and then people say, "I'm tired of this. I'm going out and having fun." Is it in our nature that we can't focus on deprivation for long periods?

I think part of pandemic fatigue is the avoidance-avoidance conflict, so it isn't just short attention spans, it's people saying, "If I can't get out, I can't work, and the economy is hurt. My favorite restaurant is going to go out of business." Some of it is cultural. We expect things to balance out in the short run. So, when we talk about work-life balance, we expect that to work out on a weekly basis, if not a daily basis. Certainly, there are many people who will mortgage some part of their lives to achieve something in the future, like professors who mortgage work-life balance to get tenure.

We expect this to balance out, and I think we have a limited amount of time (we can tolerate waiting for that). After two months, we say, "OK, I've done it. Isn't it time for me to go out and have some fun?" I don't think that's the expectation in every culture.

It might be an American thing?

Yeah.

Maybe we're spoiled.

I don't want to say spoiled. We haven't had real physical threats in our environment for a long time. Generally speaking, most people don't fear for their safety on a daily basis. It's one reason why many people who are not in the Black community have had trouble wrapping their heads around what it's like to feel danger from the police. For most Americans, we're not feeling like we live in a particularly dangerous place. Now we are living through a deadly pandemic. It can be hard to wrap your head around this, and it requires a lot more vigilance than what we're used to.

Are these brain changes permanent? Will we be scarred by the pandemic?

I would say some people are more adaptable than others. There are people who get into a horrible car accident and seem unaffected by it for the rest of their lives and other people who never want to get into a car again. There are people who are scarred deeply by being in a bad relationship and others who bounce back without any discernable negative impact. My suspicion is the same thing's going to happen when we get to the end of the pandemic. Some people are just going to roll with it and get right back into the swing of their lives. And there are going to be other people who adapt more slowly and may have anxiety in public situations or have trouble getting back on an airplane. It's going to be a range.

People are going to have to be kind to themselves and to others. If you've got a little bit of PTSD, seeking professional help is not a bad idea. Most people will roll with it, but it might affect their decisions. Some people will have more toilet paper in the house than they did before. But I think most people will end up fine.

What can we do to build resiliency and be healthier mentally?

Consider taking up a hobby. The beautiful thing about a hobby is, it's usually something kind of fun to do, which creates opportunities for happiness. It creates a forward narrative in your life and the learning curve is such that when you first learn anything, you make rapid improvements, which is always exciting. And it gives you something to show for the passage of time, which binge-watching every show on Netflix doesn't do. At the end of all that, you've just watched a bunch of shows. But if you learn to paint or play an instrument, you've got this skill you didn't have before.

The other thing is, physical activity matters a ton. We've got a Peloton, a treadmill and a rowing machine in the house now, all of which I purchased in the last nine months. My commute home is not driving from the office but hopping on one of those machines for an hour. It has all kinds of benefits. It also creates a separation between the work day (at home) and the rest of life.

What is making you hopeful?

Because of the work I've done to help plan for the pandemic at UT and the work we do at IC2 studying small communities that lean in a way that's different than Austin, it turns out there really isn't that much difference between the way most people are approaching things. Students of all stripes have come back to campus wearing masks. People all over are engaging in social distancing and wearing masks in public. I think there's a lot more commonality out there than differences.

A lot of people have worked really hard to try to make the best out of the pandemic, to teach our kids, to help the less fortunate. Generally speaking, people are good. To come full circle in this discussion, the prevention focus ... highlights all of the negatives and all of the divisions, but there's an awful lot of good out there. We have to put ourselves in the mindset of trying to see it and to give everyone around us a little grace.