

Transcript: James F. Leckman, Professor of Child Psychiatry, Psychology and Pediatrics at Yale University

Summary:

Dr. James Leckman is the Director of Research for the Yale Child Study Center. He highlighted the potential detrimental impacts of stress on brain development, which occurs most rapidly in utero and in the first few years of life. Particularly he highlighted how children can experience negative consequences because of the parental distress. While not discounting individual resiliency, Dr. Leckman highlighted the work of colleagues such as Dr. Catherine Panter-Brick investigating how environmental factors influence epigenetics and differential gene expression. He also mentioned the relationship between our stress response circuits and our bonding and affiliative circuits in the brain: under stressful situations, or even when incited with fear by the media, the brain prompts us to see “the other” as dangerous and less than human. Such responses are particularly evident in response to the refugee crisis. Dr. Leckman reminded the audience of the trans-generational impact of development under stress, and how victims of such stress are more likely to become perpetrators of violence in the future. Thus addressing the refugee crisis is not just important for us today, but also for our children and grandchildren.

Dr. Leckman mentioned various programmatic approaches of his colleagues to address early childhood development in stressful situations. He highlighted successful parenting interventions run by Dr. Ghassan as well as the Turkish NGO AçeV to build parenting capacity and social support networks. He stressed the need to engage fathers, not just mothers, in such initiatives. He also encouraged youth engagement and participation in these programs to sustain family interactions, pointing to the work of his colleagues Dr. Angie Ponguta and Siobhan Fitzpatrick in Pakistan and Ireland, respectively. Ultimately, Dr. Leckman concluded, we must empower women, children, and families to make a difference.

Moderator: “Thank you very much. Professor Leckman, when you hear what Mr. Rugi and Dr. Issa are saying, what comes to mind? You are a psychiatrist, you are a psychologist, you understand the neurodevelopmental processes which take place in a child’s brain and within a caretaker’s brain, and what happens when they experience distress, safety, violence. What do you think, what worries you, and what are your concerns?”

Leckman: Thank you ... for the question, and thank you all for coming today. It is a great honor and privilege. When we look at the world today, we all know that we need to take action. We need to find a way of making a real difference. One of the things that Dr. Ghassan did not say is that he has been actively involved in parenting programs that have been in place for decades. He’s developing new ones and

working very closely with our Turkish colleagues to try and make a real difference in terms of how families are able to cope with the stresses they encounter.

There's no question that when you encounter the kinds of stressors that these families are facing across the world – I mean we focus partly on Syria but the reality is across the globe these are major, major issues – there is no question that it potentially has a very detrimental impact on the development of the brain. I don't want to step back and say resilience doesn't happen. It does, and Catherine Panter-Brick is one of the world's experts on resilience and sitting here in the front row. But what I have been focused on partly is the close interaction between the parent and the child. What's fascinating is that even from a very early age, the child knows when the parent is distressed. There is no question that the level of stress the parent is experiencing, in part because of what the negative consequences might be for their child, that that does not have a detrimental impact on the child. Now we have an example of resilience sitting right here, in terms of an example of someone who went through something like that as an infant. But the reality is, if you look at what happens with regard to stress early in life, it turns out that the brain is developing at its most rapid pace in utero, during the first years of life.

And the environment, and here I have to point Catherine again she's doing some work in Jordan where basically they are looking at some of the epigenetic mechanisms that may underlie some of the difficulties that have been the result of this kind of stress experience, and what's interesting is that we used to think that the genes were the story that we needed to be thoughtful about – what is our sequence for the human genome? But now we know what we used to call junk DNA is actually critically important, and it is the regulatory elements that sort of tell which genes to turn on where and when in the brain, and it's very, very, very sensitive to the environment. And when we talk about the environment we're talking not only about what's happening in utero but also what's happening in terms of the emotional life of the mother, how much stress she may be experiencing. I was just having a conversation with one of my colleagues about how their baby in utero was responding to listening to Donald Trump speaking, and the baby was kicking really hard. This may say something more about the mother than Donald Trump, but I don't think so.

So, these whole epigenetic mechanisms...What's interesting, and here I don't want to dwell on this too much because it's a little more ..., but I'm so aware in terms of our evolutionary history, how interconnected our stress response circuits are to our bonding and affiliative circuits. I always tell the story of 9/11. My daughter was at a PhD program at Columbia here in New York, and I had to talk to her, I had to talk to her. But I also had to talk to my son out at Berkeley, even though he was as far away from going on in New York as he could possibly be. The other thing that happens though, is that when you have this need to bond closely to the people you care the most about, there is also a built-in tendency in your brain to see the other, the

potential threat, as something less than human. If I had a slide to show you I would show you something from the United States during the Second World War, when there is this G.I. with a boot lifted up and he's about to smash down on two snakes. And of course one of them has the Nazi insignia and the other has the Japanese insignia. They're not human! And I think our tendency, and the other thing I think we need to really remind ourselves about, is that whatever else is true about our media, is that they are very, very good at frightening us. It turns out that our brain is actually a little more responsive to fearful stimuli than to positive stimuli, even if you listen to National Public Radio here in the United States and you keep track of how many stories make you feel confident and good versus how many make you feel fearful and afraid, it's actually a ratio that is more like 60% at least that make you worried or frightened.

One of the big problems that we have today with the immigrant crisis is the stereotyping that's going on with regard to seeing the other as a source of danger – we don't want to have them come into our country because if we do, they're going to do this, they're going to do that, they're going to do all sorts of other dreadful things. Rather than seeing them as real people who have desperate needs who we need to have compassion and express love and kindness for. Anyway, I'm going on a little too long but I really do feel that if you look at the brain sciences what you see – I guess I'll come back to the one point I wanted to make which was that those who have been stressed, in our brain we know when we look at the long term, although resilience is certainly an important feature, they are actually at greater risk to be injured again in the future – to be victims, and then victims some more. But the other reality is that if you've been exposed to that kind of violence in your home, in your community, you're also at greater risk of becoming someone who is violent and who can become a perpetrator. This is talking about trans-generational, so let's put this in perspective if we are talking about the refugee crisis, let's be in a clear mind about this. We need to do our best not only for ourselves and for our families, but for our children and our grandchildren. This is a cycle that can be repeated across generations and we must be sensitive to that if we are going to try and make a difference.

I am convinced that programs like the ones that Dr. Ghassan is running in Lebanon is exactly the kind of thing that needs to happen and he has the video that is showing part of the time that is showing some of the mothers being interviewed about their participation in the program. I'll close with this, which is just to say that they don't want it to stop. The community cohesion that has been a part of the program, where they come together for 25 sessions and talk to one another and become friends, is something that has been a real source of social support for them. Believe me, they don't want to have that stop. Although, they continue whether or not the program continues because they are connected in social media.

Moderator: Perhaps one short follow up question. So when

(Break in audio)

Leckman: ... that when you have a history of not paying that much attention to your child, if you're fairly harsh in how you punish that child, then the child may be sort of off like that. But if you actually begin to interact with the child in a positive way, it can be transformative not only for the child and their social and emotional development, but also for the mom. Frankly, the other big thing we've been focusing on is the fathers. It turns out for the most part, many of these programs have not really focused on fathers. Actually, how I got started on this is because of the Açeş initiative that was being carried out in Turkey because they have been working with these groups of mothers for years, and they had longitudinal data that showed very positive outcomes, but they finally got around to asking the mothers how could we make the program better. Believe it or not, they said, "well, maybe you should involve the fathers." So that's something else we need to move ahead with. Of course things are constantly changing in this world, and dads, at least in some culture, are becoming more involved. Dr. Ghassan, as well as the group in Turkey and all across the world, we are doing a similar project outside of São Paulo in Brazil, is involving the fathers because that is another key ingredient. If you can engage them, then it's similar, and I guess another point I would make – and again this is something that Dr. Ghassan and Angie Ponguta who works with me are actively involved in is how can we involve the youth? Are there programs that we can develop where the youth actually play an active, participating role with regard to sustaining the development and interaction within the families that's going on. That's actually happening, actually, in Ireland. I was just talking to Siobhan Fitzpatrick earlier today about some of the interventions they're doing, interventions in Pakistan that Angie Ponguta is involved in. Let's engage the youth because they are the ones that are going to be the change in the world and we need to empower women, we need to empower the families, and we need to make a difference. Thank you.