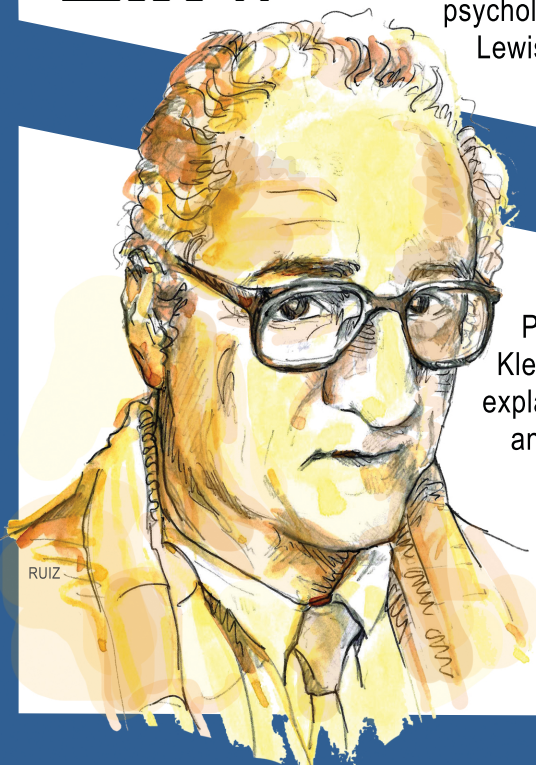
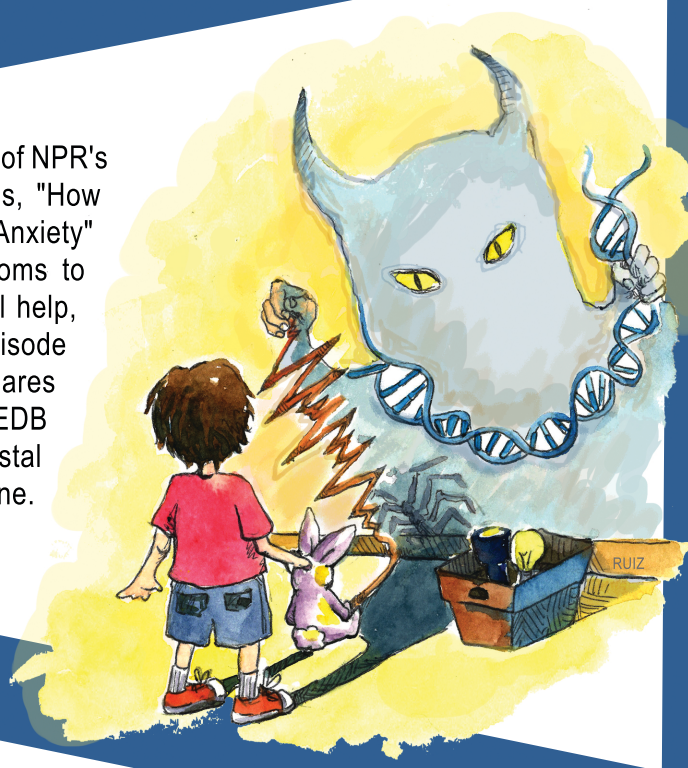


A recent article in *Newsweek* highlights the difficulties in bridging research and treatment. It calls for treatment to address how and why worries develop, in addition to brain mechanisms of fear studied in the lab. Tailoring treatment according to a variety of measures, beyond singular diagnoses (from genetics, neuroimaging, and behavioral tasks, for example) could help. Our research spans these areas.



As part of NPR's "Life Kit" podcast series, "How To Help A Child Struggling With Anxiety" explains what exactly anxiety is, symptoms to look out for, when to ask for professional help, and steps to help your child. This episode features journalist Cory Turner, who shares his personal story of anxiety, EDB psychologist and researcher Krystal Lewis, and co-chief Daniel Pine.



Psychiatrist Donald Klein's obituary in the *New York Times* explains his research on psychopharmacology and anxiety disorders. Dr. Klein's background in biochemistry influenced his interest in studying the biological basis of psychiatric disorders. Careful assessment of patients' response to medication helped inform diagnoses while providing information about the underlying mechanisms of different disorders. Dr. Klein's approach remains important today.







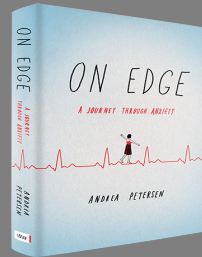
SECTION ON  
DEVELOPMENT AND  
AFFECTIVE  
NEUROSCIENCE

<https://www.nlm.nih.gov/labs-at-nimh/research-areas/clinics-and-labs/edh/sdan/index.shtml>



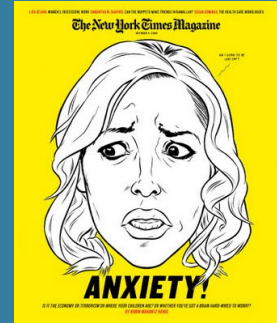
We spend considerable time at the NIH trying to figure out the best ways for parents to help their children with anxiety. A recent article in the *Wall Street Journal* summarized some of the things we are learning. Though many parents want to shield their children from distress, we are concerned that this may make children lose opportunities to develop skills and build confidence. As a result, we have worked with collaborators to develop programs where parents of anxious children are taught to change their behavior by learning how to identify and limit accommodations for their child's anxiety, convey support to their child, and be confident that their child can cope with fear inducing situations. We are now teaching parents these techniques.

<https://www.wsj.com/articles/the-right-way-for-parents-to-help-anxious-children-1512755970>



Andrea Petersen's recent memoir, *On Edge: A Journey Through Anxiety*, recounts her personal experience with panic disorder and other forms of anxiety. Andrea spent considerable time talking with NIH scientists, so that the stories she tells weave in many of the things we are learning about anxiety. Andrea describes in her book the history of anxiety research, need for new treatments, and research that could create them. By sharing her story, Andrea hopes to reduce the stigma associated with mental disorders and educate her readers about anxiety research.

<https://www.nytimes.com/2017/05/21/books/tell-us-5-things-about-your-book-andrea-petersen-on-living-with-and-studying-anxiety.html>



Most problems with anxiety do not arise out of the blue. They emerge slowly as children mature. We think that we can understand how this happens by seeing how children's anxiety changes as they mature. We and others have conducted longitudinal studies that examine these issues. This work begins by studying very young children, even when they are babies, and examining how changes in the brain relate to changes in anxiety. *The New York Times* did a cover story a few years ago that captures some important aspects of this work. We encourage you to have a look!

<https://www.nytimes.com/2009/10/04/magazine/04anxiety-t.html>

Thank you  
for your  
participation!



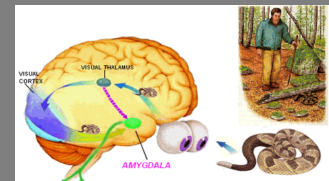
One of our recent studies was published in a well-regarded medical journal. This study looked at the possible benefits of attention bias modification training (ABMT), a treatment that shows promise in anxiety. We found that combining ABMT with an already established treatment, cognitive behavioral therapy (CBT), added some benefits. Moreover, we also found that patterns of brain function predicted which children were most likely to respond to this treatment. This led us to initiate another, similar study, where we are trying to achieve even better clinical responses for our patients and nail down the best way to identify children most likely to respond. Computer-based treatments like ABMT may be useful in the future if such results continue to accrue.

<https://psychcentral.com/news/2012/06/12/computer-program-may-help-kids-anxiety/39999.html>



Attention bias modification training (ABMT) is one of the new treatments being studied at the NIH. This treatment was administered in 2014 to Israeli soldiers before they were exposed to combat, and we found that the treatment may have some potential to prevent post-traumatic stress disorder (PTSD). In this study, ABMT was used to increase vigilance toward minor threats; we think that this might protect soldiers from developing PTSD. Based on the results of the study, the Israeli Defense Force (IDF) now offers a version of this therapy to their soldiers before combat.

<https://www.jpost.com/Business-and-Innovation/Health-and-Science/Israeli-US-researchers-develop-PTSD-treatment-for-soldiers-using-computer-program-410390>



At the NIH, we are particularly interested in using neuroscience to improve treatment. We work closely with neuroscientists to achieve this goal and published a highly-cited article last year that discusses some of these ideas. This article suggests that two systems exist in the brain that help people respond to danger. One of these systems involves the cerebral cortex in the brain, which is thought to generate conscious feelings of fear. The other system involves evolutionarily older part of the brain, subcortical areas. This second system is thought to generate physiological and behavioral responses to danger that are expressed similarly in people and other mammals. We hope that an understanding of how these systems work will generate new ideas about how treatments work and how they can be improved.

<http://www.cns.nyu.edu/ledoux/pdf/LeDoux%20Pine%20TWO%20Systems.pdf>