



Justice Talking Listening Guide

Neurolaw: The New Frontier

1/14/08

Some lawyers are using brain scans showing defects to argue that their clients aren't responsible for criminal behavior. In recent years, this neuroscientific evidence has been increasingly used in our courtrooms. But some scientists argue that the imaging is still new and unreliable, while others question whether juries should be ruling on what counts as a "defective" brain. As neurolaw grows in influence, it could potentially revolutionize our notions of guilt and punishment as criminals say "my brain made me do it." Might we be, one day, just a brain scan away from a form of lie detection and prediction of criminal behavior?



Dr. Larry Farwell

- Part 1: Neurologist **Dr. Larry Farwell**, inventor of brain fingerprinting technology, and Iowa attorney **Mary Kennedy** discuss the case of Terry Harrington, a Nebraska man who introduced "brain fingerprinting" evidence in his bid to be freed from prison after 25 years.



Carter Snead

- Part 2: Margot speaks with Notre Dame law professor **Carter Snead** on the speed at which brain science information is being adopted by the courts.



Joshua Greene

- Part 3: Margot speaks with neuroscientist **Joshua Greene** and **Stephen Morse**, an expert in criminal and mental health law, on what impact brain imaging could have on the legal system.



Stephen Morse

- Part 4: Reporter **Reid Frazier** speaks with neuroscientists on whether brain imaging technology could replace the polygraph lie detector.



Paul Root Wolpe

- Part 5: Margot speaks with University of Pennsylvania professor **Paul Root Wolpe** about how lie detection technology in the future could infringe on our mental privacy.



Dr. Daniel Amen

- Part 6: Margot speaks with psychiatrist **Dr. Daniel Amen** on private practice and brain imaging.



Helen Mayberg

- Part 7: Margot speaks with Emory professor **Helen S. Mayberg** about her use of brain scans in helping to detect and treat depression.



Comparing Mars and Venus in Neuroscience

Citing the differences between male and female brains is tricky scientific work. However, neuropsychiatrist Louann Brizendine says there are major differences between the sexes, and that for women, it's often a good thing.

Listen here:
<http://www.npr.org/templates/story/story.php?storyId=6636362>



Host Margot Adler

Margot Adler is a National Public Radio correspondent based in NPR's New York bureau. Adler has 40 years of experience as a radio host and reporter and is the author of several books.

DEFINITION OF TERMS

Neuroscience:

Neuroscience is a branch of the life sciences that deals with the anatomy, physiology, biochemistry, or molecular biology of nerves and nervous tissue and especially with their relation to behavior and learning.

-Encyclopedia Britannica, www.britannica.com

Polygraph or Lie Detector

A polygraph is an instrument for recording physiological phenomena (including blood pressure, pulse rate, and respiration) of a human subject as he or she answers questions asked by an operator. These data (recorded as graphs) are used as the basis for judging whether the subject is lying. The phenomena usually chosen for recording are those not easily controlled voluntarily. The types of questions asked, their wording, and the mode of presentation have a tremendous effect on the results and their reliability. Used in police interrogation and investigation since 1924, the lie detector is still controversial among psychologists and not always accepted as evidence in courts.

-Encyclopedia Britannica, www.britannica.com

From "amicus curiae" to "zoning," find definitions for legal terms in Justice Learning's Democracy Glossary at <http://services.justicetalking.org/dg/>.

DISCUSSION QUESTIONS

1. Do you think that the courts should consider damage to the brain when determining sentences or should they only look at the behavior of the accused? Explain.
2. The courts have determined that personal diaries or journals do not constitute testimony and are therefore not protected under the Fifth amendment and can be used against a defendant during trial. Do you agree with this decision? Why or why not?

The New York Times
LearningNetwork

When a Brain Forgets Where Memory Is: Dissociative fugue is a real condition where individuals temporarily lose their memory and unexpectedly leave their physical surroundings. The condition can last from a few hours up to several months. During the state, individuals completely lose their identity, do not know their real names and do not recognize friends and family.

Read this New York Times Learning Network article here:

http://www.nytimes.com/learning/teachers/featured_articles/20070417tuesday.html