

Neuroscience in the courtroom

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Materials cited:

Farahany, Nita A. "Neuroscience and behavioral genetics in US criminal law: an empirical analysis." *Journal of Law and the Biosciences* (2016): lsv059.

This study demonstrates a three-fold increase in neuroscience evidence in criminal cases between 2007 and 2012

Biddle, Joshua, and John Chamberlain. "Admission of Brain Imaging in Criminal Proceedings." *Journal of the American Academy of Psychiatry and the Law Online* 41.4 (2013): 597-599.

Discusses the exclusion of testimony by Dr. Ruben Gur in the case of United States v. Montgomery, and the subsequent affirmation of this exclusion by The Eighth Circuit Court of Appeals.

David McCord & Hon. Mark W. Bennett. "The Proposed Capital Penalty Phase Rules of Evidence." *Cardozo Law Review* [Vol. 36:417]

Proposes a coherent set of rules to be used for the admissibility of evidence in the sentencing phase of a capital murder trial.

1988 U.S. Army Anthropometry survey. <http://mreed.umtri.umich.edu/mreed/downloads.html>

A simple exercise: Download the data, and convince yourself that if you measure enough body parts, everyone has at least one body part that is unusual.

The Daubert Standard — A rule of evidence used for Federal (and most State) trials to determine the admissibility of expert scientific testimony.

Figure 1: Volumetric analysis of Mr. Chism's MRI. Volumes are expressed as z-scores (SDs from the mean) relative to healthy individuals.

