



The Brain Matters. Science Matters. Justice Matters.

Year in Review
2012-2013

CLBB In Brief

Remarkable advances in neuroscience over the past forty years are transforming as well as challenging the current legal system. As with many scientific advances, discoveries in neuroscience have quickly found their way into the courtroom, as judges and juries are asked to draw conclusions about individual decision-making capacity or personal responsibility using this new data. However, the emergence of these concepts into the courtroom is at times haphazard, as there are few reliable and scientifically accepted conclusions that have provided the legal profession the ability to measure the reliability and accuracy of these technologies. The Massachusetts General Hospital Center for Law, Brain and Behavior seeks to provide responsible, ethical and scientifically sound translation of neuroscience concepts into the legal arena. These questions require thoughtful interdisciplinary discourse to avoid arbitrary or premature interpretation of the science. Drawing on the established research and clinical expertise of MGH as well as the broad expertise of distinguished advisors from the medical, legal, government, entertainment, business and investment communities, the Center is coordinating an interdisciplinary research and training program to identify and implement appropriate applications of neuroscience in the courtroom.

Featured Initiatives

There are many instances when neuroscience and neuroimaging have made positive contributions to a legal outcome. There are, however, egregious examples when poor translation of neuroscientific findings have undermined the pursuit of justice. A jury in a first-degree murder case used largely irrelevant population genetics to mitigate the offense and its punishment. A court in India convicted a young woman of murdering her ex-fiancé based on scientifically unsound brain wave tests. A judge ruled that a defendant could present evidence of a brain lesion to the jury without evidence that this brain scan finding had any impact on the defendant's behavior. These errors were not the fault of the dedicated jurists who pursue the truth, but the inaccessibility of neuroscience to the law. CLBB's principal goal is to cure this inaccessibility by offering immediate and useful translations of neuroscience in the legal arena.

Self Control and the Brain

CLBB is entering into a research initiative conceived of and directed by principal investigator Professor Joshua Buckholz, Director of the Systems Neuropathology Laboratory at Harvard University. The aim of Dr. Buckholz's study (using MR-PET and excitatory transdirect current (brain) stimulation (etDCS)) is to identify the functional neurologic circuits responsible for impulsivity. In its simplest terms, it seeks to clarify the balance of various dopamine circuits in impulsive decision-making. This has obvious and immediate implications for psychiatric illness, addictive behaviors and impulsive aggression. To quote Dr. Buckholz, "Humans are constantly faced with the opportunity to pursue immediate rewards at the cost of larger long-term rewards. Many social and health benefits accrue to people who can forgo immediate gratification to maximize long-term gains. By contrast, highly impulsive people are unable to delay gratification, leading them to make poor decisions that can have serious negative health consequences. Impulsive traits and behaviors predict significant psychiatric and physical morbidity and mortality and are highly difficult to treat." CLBB's goal in entering into this project is to help identify the neural circuits that tip the balance of behavior in favor of impulsive decisions, and develop ways to intervene in that circuitry. As impulsivity is at play in most acts of aggression, advances in this area would have immediate implications for understanding and deterring spontaneous violence.

Decision Making and Undue Influence

CLBB is also starting a decision-making initiative that explores the problem of undue influence. Older Americans are vulnerable to various degrees of cognitive impairment and the psychiatric and neuropsychological manifestations of these impairments can undermine medical and financial decision-making. Although psychometric testing can help clarify and quantify degrees of cognitive impairment, there are few measures of vulnerability to coercion. We have all seen - whether in the news or in our own families - instances when impaired adults fall victim to the influence or pressure of opportunists who seek to control their decisions for financial or other gain. Unscrupulous individuals cleverly exploit common symptoms associated with diminished cognition, including fearfulness, confusion, and a sense of dependency and vulnerability. When disputes arise - such as guardianship proceedings, testamentary capacity, informed consent - it becomes an unscientific "he said vs. she said" with interested parties staking out claims. CLBB's long-term goal is to devise a psychometric instrument to measure susceptibility to undue influence. The development of this tool will make an immediate contribution to the protection of adults with mild to severe intellectual impairments. CLBB has developed a fellowship and has hired its first fellow, Dr. Ekaterina Pivovarova, a talented forensic psychologist with experience in designing psychometric instruments, to begin work on this important project.

Year in Review

2012-2013

FEATURED EVENTS

April 12, 2012

Neuroscience and the Criminal Mind

In this second event in our series “Conversations on Law and Neuroscience”, panelists explored the roots of psychopathy, addiction, and notions of self control and free will.

<http://clbb.mgh.harvard.edu/upcoming-empathy-insights-from-neurophysiology-neurology-and-psychiatry/>

January 17, 2013

Empathy: The Development & Disintegration of Human Connection

In this third event in our series “Conversations on Law and Neuroscience”, panelists explored what we know about how and when empathy develops, how and why it fails, and whether these failures -- which can have consequences ranging from therapeutic breaches to episodes of violence -- can be rehabilitated.

<http://clbb.mgh.harvard.edu/upcoming-empathy-insights-from-neurophysiology-neurology-and-psychiatry/>

January 31, 2013

Memory in the Courtroom: Fixed, Fallible or Fleeting?

In this fourth event in our series “Conversations on Law and Neuroscience”, experts in the neuroscience of memory distortion, post-traumatic stress, and the laws of evidence discussed the complicated use of memory in the courtroom, and how it's changing.

<http://clbb.mgh.harvard.edu/upcoming-memory-in-the-courtroom-fixed-fallible-or-fleeting/>

February 7, 2013

Three Myths of the Brain: Insights from the Science of Emotion

The talk by Lisa Feldman Barrett was the first CLBB-sponsored MGH Psychiatry Grand Rounds.

<http://clbb.mgh.harvard.edu/watch-lisa-feldman-barrett-discusses-the-science-of-emotion/>

April 25, 2013

Models of the Mind: How Neuroscience, Psychology and the Law Collide

CLBB joined forces with the Affective Science Institute to host a conversation among experts in neuroscience, psychology, and the law about three distinct and sometimes conflicting views on the causes of human behavior.

<http://clbb.mgh.harvard.edu/event-models-of-the-mind/>

April 27, 2013

The Future of Law and Neuroscience

The one-day conference in Chicago included a panel on "Neuroscience in the Courtroom," featuring Dr. Nita Farahany and Hank Greely, moderated by CLBB Co-Director Judith Edersheim.

<http://clbb.mgh.harvard.edu/conference-the-future-of-law-and-neuroscience/>

Year in Review 2012-2013

FEATURED POPULAR PRESS ARTICLES

CLBB | Commentary
September 3, 2013

Friendly Fraud

Recently, Massachusetts Attorney General Martha Coakley took the unusual step of warning the Massachusetts elderly about a widespread telephone scam.

<http://clbb.mgh.harvard.edu/friendly-fraud/>

PBS | Nova
October 18, 2012

Neuroprediction and Crime

In this blog post for the new PBS series NOVA ScienceNow, CLBB faculty member Josh Buckholtz discusses the costs of violence and the limits of neuroprediction.

<http://www.pbs.org/wgbh/nova/body/neuroprediction-crime.html>

Wall Street Journal
October 22, 2012

'Your Honor, My Genes Made Me Do It'

The WSJ featured an Op-Ed from Drs. Edersheim, Price, and Smoller, in which the CLBB co-directors and faculty member challenged the use of behavioral genetics in the courtroom.

<http://online.wsj.com/article/SB10000872396390444592404578030652157630958.html>

Huffington Post
December 14, 2012

Can Neuroscience Predict Human Behavior?

Drs. Edersheim, Price, and Baker weigh in on the national dialogue on the role of "neuroprediction" in the courtroom with a timely op-ed in the Huffington Post on why genetics and brain imaging cannot yet (and may never) predict the violent behavior of single individuals.

http://www.huffingtonpost.com/judith-g-edersheim-jd-md/traumatic-brain-injury_b_2296203.html

CLBB | Commentary
March 20, 2013

Should Aurora Shooter James Holmes Be Subjected to Truth Serum?

CLBB Co-Director Judith Edersheim weighs in on this unconventional technique in evaluating an insanity defense.

<http://clbb.mgh.harvard.edu/should-aurora-shooter-james-holmes-be-subjected-to-truth-serum/>

CLBB | Commentary
May 5, 2013

Scientific Research – and Caution – Are Needed in the Courts: Dispatch from APLS 2013

Judge Martha Walters of the Oregon Supreme Court gave the opening plenary session for the American Psychology Law Society.

<http://clbb.mgh.harvard.edu/scientific-research-and-caution-are-needed-in-the-courts-dispatch-from-apls-2013/>

Year in Review
2012-2013

FEATURED SCIENTIFIC PUBLICATIONS

The Journal of Neuropsychiatry and Clinical Neurosciences
June 1, 2012

The Functional Neuroanatomy of Decision-Making

Decision-making is a complex executive function that draws on past experience, present goals, and anticipation of outcome, and which is influenced by prevailing and predicted emotional tone and cultural context. CLBB Co-Director Bruce Price is a co-author on this peer-reviewed article.

<http://clbb.mgh.harvard.edu/the-functional-neuroanatomy-of-decision-making/>

Nature | Neuroscience Reviews
January 28, 2013

Memory and Law: What Can Cognitive Neuroscience Contribute?

CLBB's Daniel Schacter and Liz Loftus weigh in on a recent decision by the New Jersey Supreme Court that led to improved jury instructions that memory does not operate like a video recording and other pearls from the last few decades of psychological research.

<http://www.nature.com/neuro/journal/v16/n2/full/nn.3294.html>

Lancet
February 28, 2013

Identification of risk loci with shared effects on five major psychiatric disorders: a genome-wide analysis

CLBB faculty member Jordan Smoller was senior author on this landmark study showing that five of the major psychiatric disorders carry common genetic risk. Covered in NY Times, CBS News, and most major news outlets.

<http://clbb.mgh.harvard.edu/5-disorders-share-genetic-risk-factors-jordan-smoller-in-the-nyt/>

American Journal of Geriatric Psychiatry
April 2013

Evaluation of the Capacity to Appoint a Healthcare Proxy

In some situations, when a patient has not previously appointed a surrogate decision maker through an advance directive, a healthcare team may ask whether the patient, although lacking the capacity to make a healthcare decision, might still have the capacity to appoint a healthcare proxy. CLBB Director of Law and Ethics, Dr. Rebecca Brendel, was the senior author on this paper.

<http://clbb.mgh.harvard.edu/evaluation-of-the-capacity-to-appoint-a-healthcare-proxy/>

Year in Review

2012-2013

FEATURED CLBB PRESS | FACULTY IN THE NEWS

December 21, 2012

Steven Pinker and Joshua Buckholtz discuss the neuroscience of violence on PBS special "After Newtown"

As the American public struggles to make sense of the December's mass shooting in Newtown, Connecticut, the scientific community has been called upon to discuss what we know about the neuroscience of violence and its relationship to such disturbing acts.

<http://clbb.mgh.harvard.edu/after-newtown/>

January 28, 2013

Lisa Feldman Barrett Elected to The Royal Society of Canada

The Society consists of elected Canadian citizens or residents who have made outstanding contributions to the arts, humanities, sciences, and Canadian public life, and is the highest Canadian honor that a scholar in the aforementioned fields can receive.

<http://clbb.mgh.harvard.edu/clbb-faculty-lisa-feldman-barrett-elected-to-the-royal-society-of-canada/>

March 8, 2013

Joshua Buckholtz Awarded Sloan Research Fellowship

Buckholtz will use the fellowship to study impulsive decision-making and to develop circuit-based treatments for impulsive symptoms in psychiatric and neurological disorders.

<http://clbb.mgh.harvard.edu/joshua-buckholtz-awarded-sloan-research-fellowship/>

April 8, 2013

CLBB Directors Report on "Notes from the Field" for *Law and Neuroscience* Course

The Vanderbilt Law School course is led by Jeffrey Schall and Owen Jones, director of the MacArthur Research Network on Law and Neuroscience.

April 23, 2013

Nancy Gertner Discusses Dzhokhar Tsarnaev's Prosecution—And Defense

As Boston recovers from the bombing of the Boston Marathon, the dramatic pursuit of suspects Tamerlan and Dzhokhar Tsarnaev, and the ultimate capture of the younger brother, Dzhokhar, the next chapter of the story — its legal handling — is only beginning.

<http://radioboston.wbur.org/2013/04/23/the-legal-case>

April 25, 2013

Steve Hyman Speaks at the AAAS Conference on "Neuroscience and the Law"

The CLBB faculty member and Director of the Stanley Center for Psychiatric Research at the Broad Institute of Harvard and MIT suggested that neuroscience will not transform the legal system any time soon.

http://www.aaas.org/news/releases/2013/0507_neuroscience.shtml

April 30, 2013

Daniel Schacter Elected to National Academy of Sciences

A widely accepted mark of excellence in science, membership is considered one of the highest honors a scientist can receive.

<http://clbb.mgh.harvard.edu/daniel-schacter-elected-to-national-academy-of-sciences/>

CLBB Directors, Faculty, and Advisors

2012-2013

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Judith G. Edersheim, JD, MD

Co-Director, CLBB

Senior Consultant, Law And Psychiatry Service Massachusetts General Hospital
Assistant Clinical Professor In Psychiatry, Harvard Medical School



Bruce H. Price, MD

Co-Director, CLBB

Chief, Department Of Neurology, Mclean Hospital
Associate In Neurology, Massachusetts General Hospital
Associate Professor Of Neurology Harvard Medical School



Justin T. Baker, MD, Ph.D.

Director of Scientific Programs, CLBB

Staff Psychiatrist At McLean Hospital
Instructor In Psychiatry At Harvard Medical School
Research Fellow At The Harvard University Center For Brain Science



Rebecca Weintraub Brendel, MD, JD

Director of Law and Ethics, CLBB

Psychiatrist, Law & Psychiatry Service And Consultation Psychiatry Service,
Massachusetts General Hospital
Associate Director, Forensic Psychiatry Fellowship, Massachusetts General Hospital
Instructor In Psychiatry, Harvard Medical School

CORE STAFF / FELLOW



Jessica Patrick

Chief Operating Officer, CLBB



Ekaterina Pivovarova, Ph.D.

Forensic Psychology Fellow, CLBB

Dr. Pivovarova will start a one-year fellowship with CLBB in September 2013

CLBB Directors, Faculty, and Advisors

2012-2013

CORE FACULTY



Lisa Feldman Barrett, Ph.D.

Distinguished Professor of Psychology, Northeastern University; Research Scientist, Department of Psychiatry, Research Neuroscientist, Department of Radiology, Massachusetts General Hospital



Joshua W. Buckholz, Ph.D.

Assistant Professor of Psychology, Harvard University;
Director, Systems Neuroscience of Psychopathology laboratory (SNPlab)



Randy L. Buckner, Ph.D.

Professor of Psychology, Harvard University; Affiliate, Center for Brain Science, Harvard University; Faculty, Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital/Harvard Medical School



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Psychiatrist-in-Chief, Emeritus, McLean Hospital



Judge Nancy Gertner

Professor of Practice, Harvard Law School;
Former Federal Judge, U.S. District of Massachusetts



Edward Hundert, MD

Senior Lecturer in Medical Ethics and Co-Director of "Medical Ethics and Professionalism" course, Harvard Medical School; Director, Washington Advisory Group



Steven E. Hyman, MD

Distinguished Service Professor, Harvard University; Director, Broad Institute of Harvard and MIT



Jeffrey Rosen, Esq.

Professor of Law, George Washington University; Legal Affairs Correspondent, The New Republic; Senior Fellow, The Brookings Institution, Project on Technology and the Constitution



Jerrold F. Rosenbaum, MD

Psychiatrist-in-Chief, Massachusetts General Hospital; Stanley Cobb Professor of Psychiatry, Harvard Medical School



Daniel L. Schacter, Ph.D

William R. Kenan Jr. Professor of Psychology, Harvard University; Best Selling Author: The Seven Sins of Memory and Searching for Memory: The Brain, The Mind, The Past



Larry J. Seidman, Ph.D

Professor of Psychology, Harvard Medical School; Research Associate in Psychiatry, Massachusetts General Hospital; Director, Commonwealth Research Center; Affiliated Faculty, Athinoula A. Martinos Center for Biomedical Imaging



Jordan W. Smoller, M.D., Sc.D.

Professor of Psychiatry, Harvard Medical School; Associate Professor of Epidemiology, Harvard School of Public Health; Assistant Vice Chair, MGH Department of Psychiatry; Co-Director of the Genetics and Genomics Unit, MGH Clinical Research Program

CLBB Directors, Faculty, and Advisors
2012-2013

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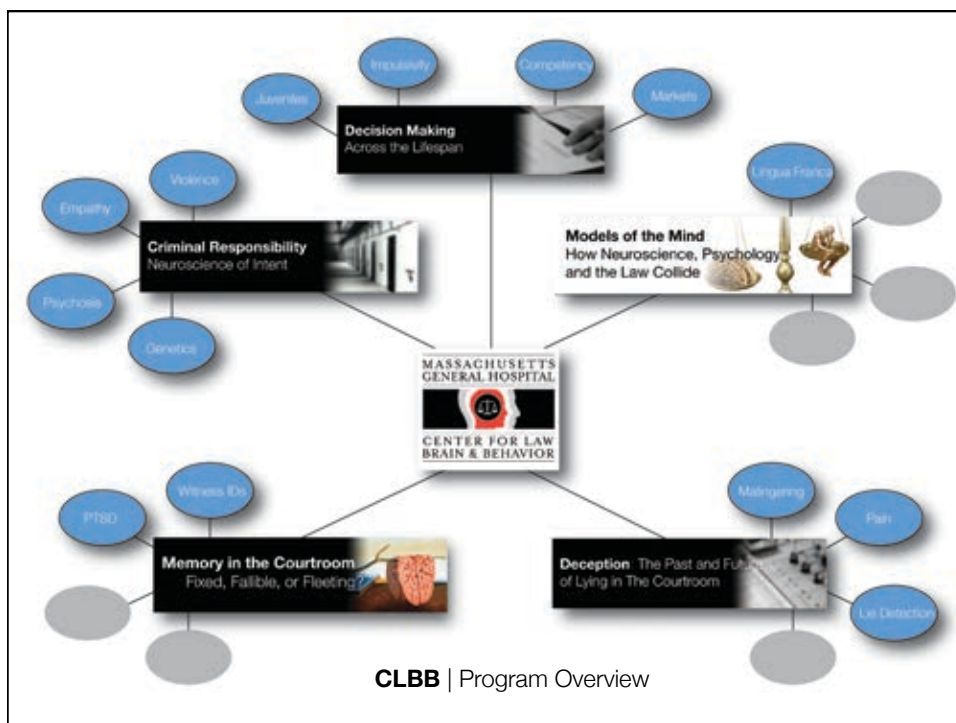


Silda Wall Spitzer
Principal, NewWorld Capital Advisors; Founding Chair of Children for Children, now called generationOn, the youth service arm of the Points of Light Institute



The Center for Law, Brain and Behavior

Year in Review
2012 - 2013



Decision Making
Across the Lifespan

Deception The Past and Future
of Lying in The Courtroom

Memory in the Courtroom
Fixed, Fallible, or Fleeting?

Models of the Mind
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and the Law Collide

Criminal Responsibility
Neuroscience of Intent

April 16, 2013
Naples, Florida

Preserving Brain Health & Protecting Your Legacy



Experts on neurology, psychiatry, and the law discuss the **changing science of memory** and how to **protect your health and your money.**



Bruce H. Price, MD
Chief of Neurology,
McLean Hospital;
Associate in Neurology,
MGH; Co-Director
of CLBB



Judith Edersheim, JD
Senior Consultant to the
Law and Psychiatry
Service at MGH;
Co-Director of CLBB

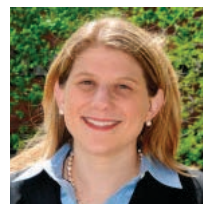
Evaluation of the Capacity to Appoint a Healthcare Proxy

Jennifer Moys, Ph.D., Charles P. Sabatino, J.D., Rebecca Weinstraub Brendel, M.D., J.D.

The appointment of a healthcare proxy is the most common way through which patients appoint a surrogate decision maker in anticipation of a future time in which they may lack the ability to make medical decisions themselves. In some situations, when a patient has not previously appointed a surrogate decision maker through an advance directive, the healthcare team may ask whether the patient, although lacking the capacity to make a healthcare decision, might still have the capacity to appoint a healthcare proxy. In this article the authors summarize the existing, albeit limited, legal and empirical basis for this capacity and propose a model for assessing capacity to appoint a healthcare proxy that incorporates clinical factors in the context of the risks and benefits specific to surrogate appointment under the law. In particular, it is important to weigh patients' understanding and choice within the context of the risks and benefits of the medical and interpersonal factors. Questions to guide capacity assessment are provided for clinical use and refinement through future research. (Am J Geriatr Psychiatry 2013; 21:326-336)

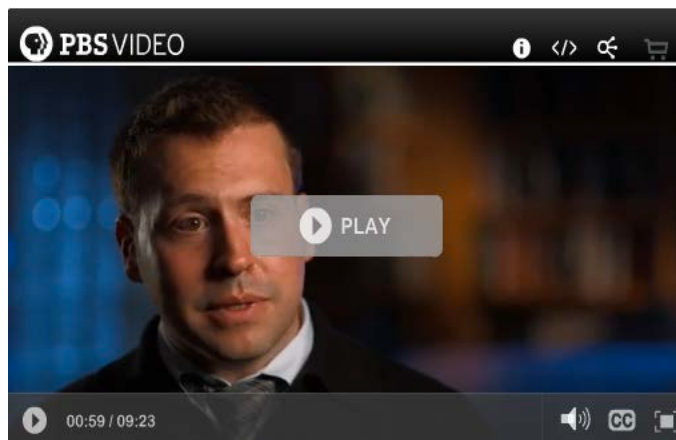
Key Words: Advance directives, capacity, competency, healthcare power of attorney, healthcare proxy, informed consent

Am J Geriatr Psychiatry 21:4, April 2013



R. Brendel

Neuroscience of Violence & Self Control



J. Buckholtz

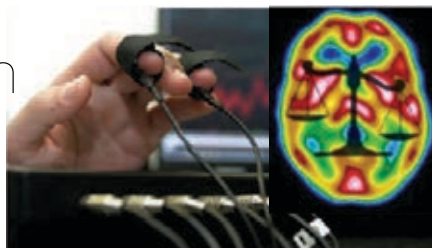


January 21, 2010
Harvard Medical School

Part of “**Conversations in Law and Neuroscience**” series

A Measure of Truth and Deception

The Past and Future of Lie Detection



Bruce H. Price, MD
Co-Director, CLBB; Chief
of Neurology, McLean
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Senior Consultant to the Law
and Psychiatry
Service at MGH,
Co-Director of CLBB



Joshua Greene, PhD
John and Ruth Hazel
Associate Professor of the
Social Sciences,
Department of Psychology
Harvard University



F. Lee Bailey, Esq.
Trial Lawyer and
Legal Expert

<http://www.clbb.org>

The screenshot shows the homepage of the Center for Law, Brain and Behavior. At the top, there is a navigation bar with links for "About Us", "Programs", "News & Events", and "How to Help". Below this is a "Mission" section with a blue background featuring a neural network graphic. The mission statement discusses the intersection of technology, neuroscience, and the legal system. To the left of the mission is a "News and Commentary Archive" section. Below the mission is an "RSS Feed" section with a "Subscribe to our feed" button. To the right of the RSS feed is a featured article titled "Should Aurora Shooter James Holmes Be Subjected to 'Truth Serum'?" with a small image of a vial of Amytal Sodium. Below the article is a "Categories" section with links for "Commentary", "Events", "News", "Press", "Publications", and "Resources". At the bottom left is an "Archives" section.

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January 31, 2013
Harvard Medical School

Part of "Conversations in Law and Neuroscience" series

Memory in the Courtroom: Fixed, Fallible, or Fleeting?



Daniel Schacter, PhD
Professor of Psychology at Harvard University; best-selling author of *The Seven Sins of Memory*



Judge Nancy Gertner
Professor of Practice at Harvard Law School; Retired US District Judge



Roger K. Pitman, MD
Professor of Psychiatry at Harvard Medical School; Internationally recognized expert on post-traumatic stress disorder



Dick Lehr
Award-winning journalist, author, and investigative reporter; Professor of Journalism, Boston University

FOCUS ON MEMORY
COMMENTARY

Memory and law: what can cognitive neuroscience contribute?

Daniel L. Schacter & Elizabeth F. Loftus

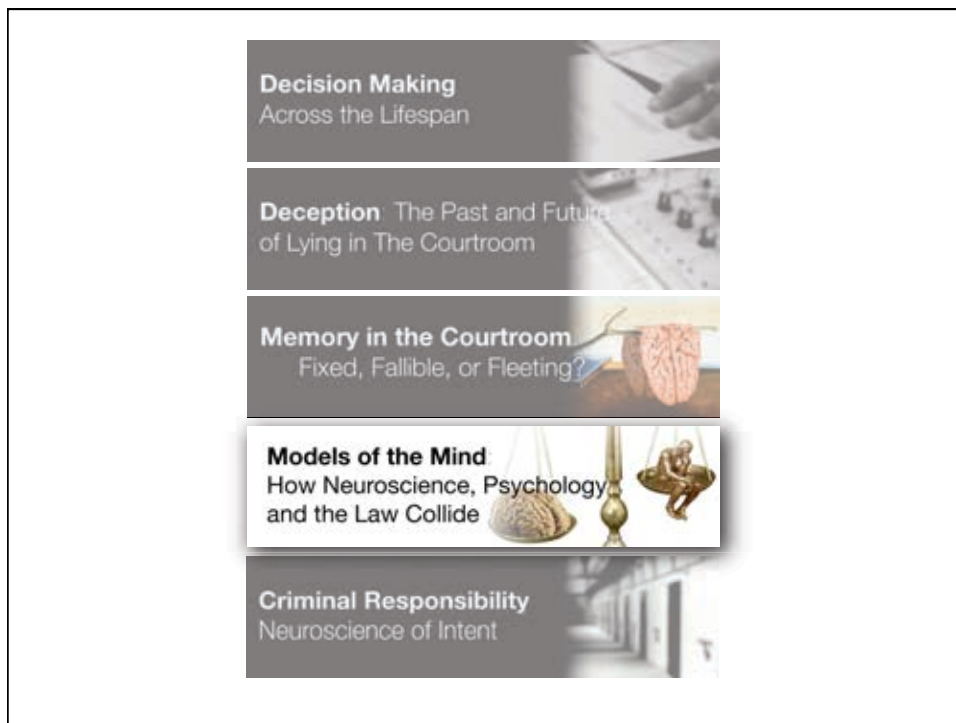
A recent decision in the United States by the New Jersey Supreme Court has led to improved jury instructions that incorporate psychological research showing that memory does not operate like a video recording. Here we consider how cognitive neuroscience could contribute to addressing memory in the courtroom. We discuss conditions in which neuroimaging can distinguish true and false memories in the laboratory and note reasons to be skeptical about its use in courtroom cases. We also discuss neuroscience research concerning false and imagined memories, misinformation effects and reconsolidation phenomena that may enhance understanding of why memory does not operate like a video recording.

In November 2010, Larry Henderson was accused of holding a gun on James Wamble while another man shot Rodney Harper to death in a Camden, New Jersey apartment on New Year's Day of that year. Almost 2 weeks after the murder, Wamble identified Henderson from a photo array. Wamble again identified Henderson at trial, and Henderson was easily convicted of reckless manslaughter and aggravated assault, among other charges. An open and shut case? Turns out not so. There were problems with Wamble's seemingly convincing evidence. For instance, Wamble failed to identify Henderson at the initial photo array until the investigating officers intervened and exerted "pressure" or "leading" and Wamble had ingested crack cocaine and copious amounts of wine and champagne on the day of the murder.

defendant inappropriate conduct by law enforcement and will help jurors to better evaluate evidence based on eyewitness memory. As a result of the Henderson case, defendants who can show some evidence of suggestive influences are entitled to a hearing in which all factors that might have a bearing on the eyewitness evidence are explored and weighed. If, after weighing the evidence presented at the hearing, the judge decides to admit the eyewitness evidence into trial, then the judge will provide appropriate, tailored jury instructions that will guide jurors on how to evaluate the eyewitness evidence. The new framework was created to serve the aim of not only protecting the government's interest in being able to present crucial evidence at trial but also the defendant's interest in being able to have the

memory is not foolproof. Research has shown that human memory is not at all like a video recording that a witness need only replay to remember what happened. Human memory is far more complex." Later on, the instructions urge jurors to consider various factors that could affect the eyewitness testimony, and provide explicit information on how to think about those factors. For example, in cases involving the identification of a stranger of a different race, the instructions state: "You should consider that in ordinary human experience, people may have greater difficulty in accurately identifying members of a different race." As another example, in cases involving a great deal of stress or flight on the part of an eyewitness, the instructions state: "Even under the best viewing conditions, high levels

NATURE NEUROSCIENCE VOLUME 16 | NUMBER 2 | FEBRUARY 2013



April 25, 2013
Harvard Medical School

Part of “**Conversations in Law and Neuroscience**” series

Models of the Mind: How Neuroscience, Psychology, and the Law Collide



Randy Buckner, PhD
Professor of Psychology and Neuroscience at Harvard University; Director of Psychiatric Neuroimaging at MGH



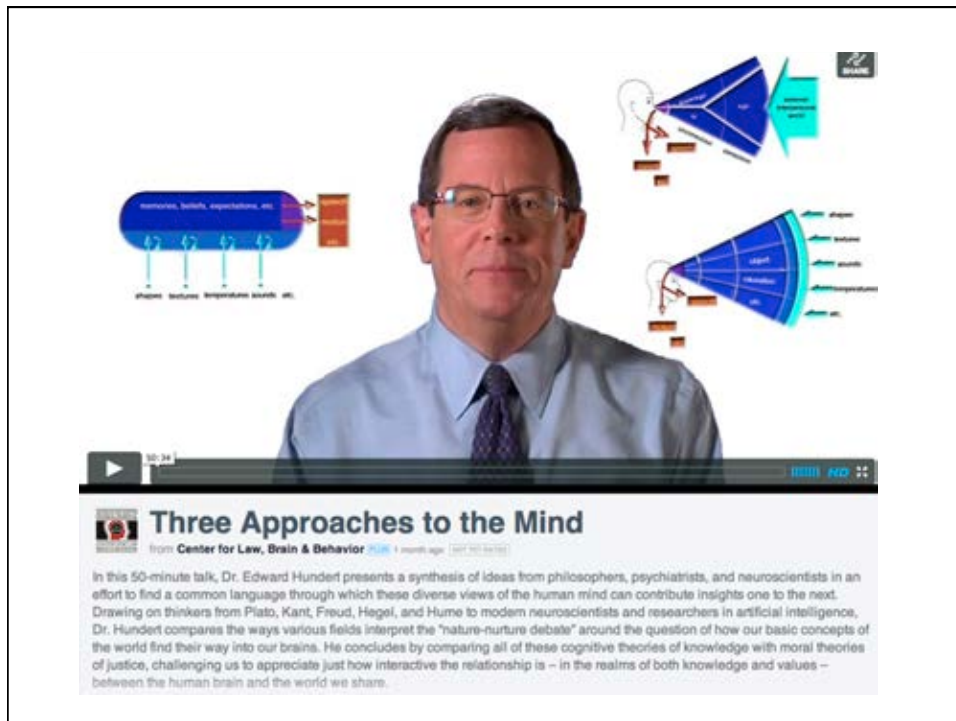
Lisa Feldman Barrett, PhD
Distinguished Professor of Psychology at Northeastern University; Research Scientist in the Depts. of Psychiatry and Radiology at MGH



Amanda Pustilnik, JD
Associate Professor of Law at the University of Maryland School of Law where she teaches Law & Neuroscience



Ed Hundert, MD
Senior Lecturer in Medical Ethics, Harvard Medical School



Three Approaches to the Mind
from Center for Law, Brain & Behavior 2013 1 month ago [SEE ALL SERIES]

In this 50-minute talk, Dr. Edward Huffer presents a synthesis of ideas from philosophers, psychiatrists, and neuroscientists in an effort to find a common language through which these diverse views of the human mind can contribute insights one to the next. Drawing on thinkers from Plato, Kant, Freud, Hegel, and Hume to modern neuroscientists and researchers in artificial intelligence, Dr. Huffer compares the ways various fields interpret the "nature-nurture debate" around the question of how our basic concepts of the world find their way into our brains. He concludes by comparing all of these cognitive theories of knowledge with moral theories of justice, challenging us to appreciate just how interactive the relationship is – in the realms of both knowledge and values – between the human brain and the world we share.





- Decision Making**
Across the Lifespan
- Deception** The Past and Future
of Lying in The Courtroom
- Memory in the Courtroom**
Fixed, Fallible, or Fleeting?
- Models of the Mind**
How Neuroscience, Psychology,
and the Law Collide
- Criminal Responsibility**
Neuroscience of Intent


April 12, 2012

Part of **"Conversations in Law and Neuroscience"** series


Neuroscience and the Criminal Mind




Kent A. Kiehl, PhD
Associate Professor of Psychology at the University of New Mexico



Helen Mayberg, MD
Professor of Psychiatry, Behavioral Sciences and Neurology at Emory University



Steven E. Hyman, MD
Director, Stanley Center for Psychiatric Research, Broad Institute of MIT and Harvard






Lee Bailey, Esq.
Trial Lawyer and Legal Expert


January 17, 2013
Harvard Medical School

Part of **"Conversations in Law and Neuroscience"** series


Empathy: The Development and Disintegration of Human Connection




Helen Riess, MD
Associate Clinical Professor of Psychiatry and Director of the Empathy and Relational Science Program at MGH



Carl Marci, MD
Director of Social Neuroscience, Psychotherapy Research Program at MGH



Alice Flaherty, MD PhD
Associate Professor of Neurology and Psychiatry at MGH, Author

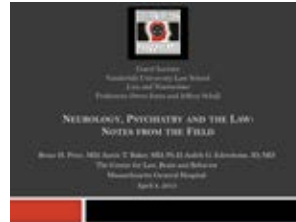


Judith Edersheim, JD MD
Senior Consultant to the Law and Psychiatry Service at MGH, Co-Director of CLBB

April 8, 2013
Vanderbilt Law School

Neurology, Psychiatry, and the Law: Notes from the Field

An Invited Lecture and Panel Discussion
for the Course "Law and Neuroscience"



Bruce H. Price, MD
Co-Director, CLBB; Chief of Neurology, McLean Hospital; Associate Professor of Neurology, Harvard Medical School



Judith Edersheim, JD MD
Senior Consultant to the Law and Psychiatry Service at MGH, Co-Director of CLBB



Justin T. Baker, MD PhD
Director of Research, CLBB; Instructor of Psychiatry, Harvard Medical School



Owen Jones, JD
Professor of Law and Biology, Vanderbilt University; Director, MacArthur Foundation Research Network on Law and Neuroscience

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Can Neuroscience Predict Human Behavior?

Posted: 12/14/2012 10:55 am

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Written with [Justin T. Baker, M.D., Ph.D.](#), and [Bruce H. Price, M.D.](#)

Turn to the crime section of any major news outlet and you can't miss the case of Army Staff Sgt. Robert Bales, accused of committing the violent massacre of 16 Afghan civilians.

While the case is on hold, awaiting the outcome of his Article 32 hearing (to determine whether the prosecution has enough evidence to proceed to court-martial), statements from his defense team have alluded to possible trial strategies. Perhaps Sgt. Bales sustained a significant traumatic brain injury (TBI) on a previous tour of duty in Iraq? Perhaps he suffers from post-traumatic stress disorder (PTSD)? Perhaps there will be evidence, neuroscientific evidence, at his trial if his defense is one of "diminished capacity"?

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Judith Edersheim, Bruce H. Price, Jordan Smoller

10 Neuroimaging, Diminished Capacity and Mitigation

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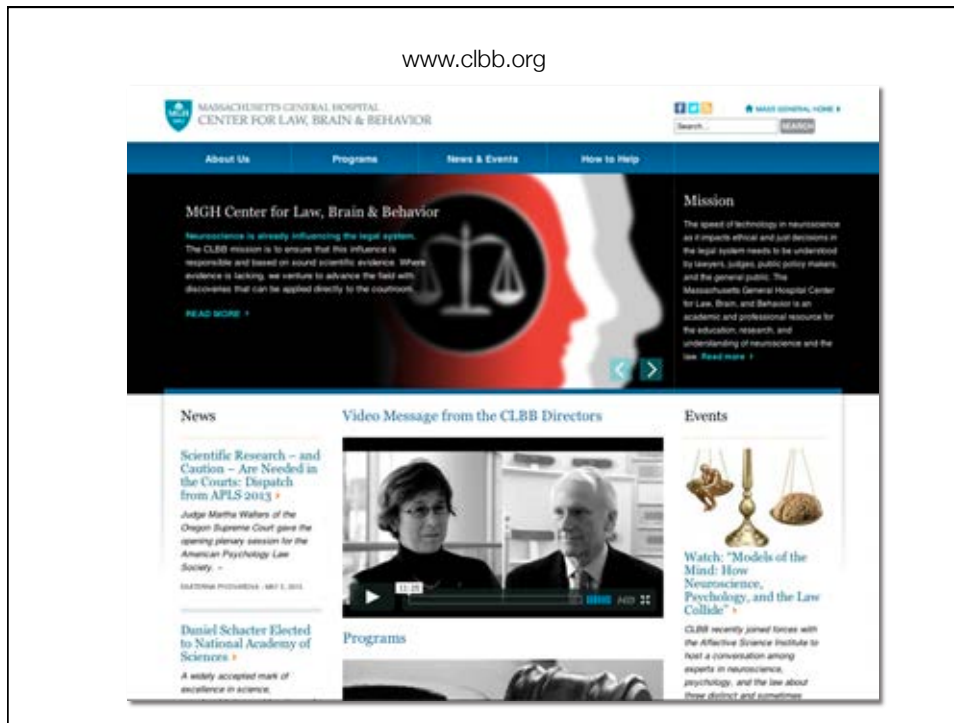
Introduction

The U.S. Supreme Court's recent decision in *Roper v. Simmons* [1] and the amicus briefs submitted in support of abolishing the death penalty for juveniles suggests that neuroscientific evidence will play an increasingly important role in shaping legal concepts of culpability [2]. As we saw in Chapter 9, neuroscience is already beginning to play an important role in insanity defense proceedings. In addition, when mental conditions do not meet the stringent standards required for exculpation on insanity grounds, they might still be relevant to culpability, either because they influenced the defendant's mental state at the time of the offense (diminished capacity) or because they reduce the blameworthiness of the defendant for sentencing purposes (mitigation).

Neuroimaging in these contexts may shed light on the mental state of the accused at the time of the offense in order to help juries and judges determine the defendant's quality of thought or level of culpability. In these instances, neuroimaging evidence is relevant to the 'mens rea' element of the criminal offense, as explained below.

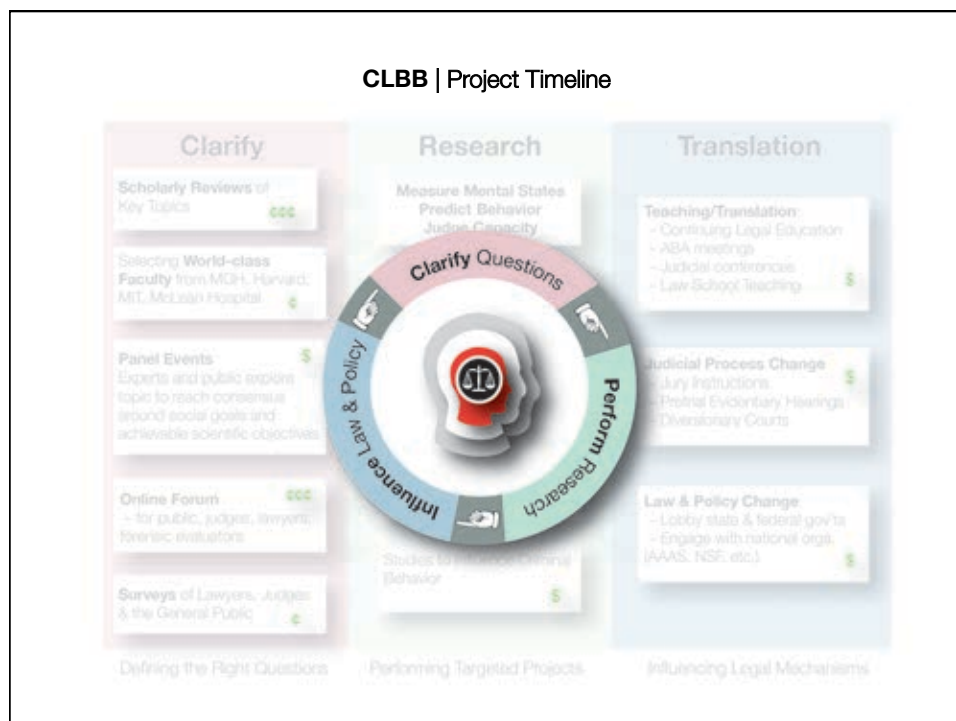
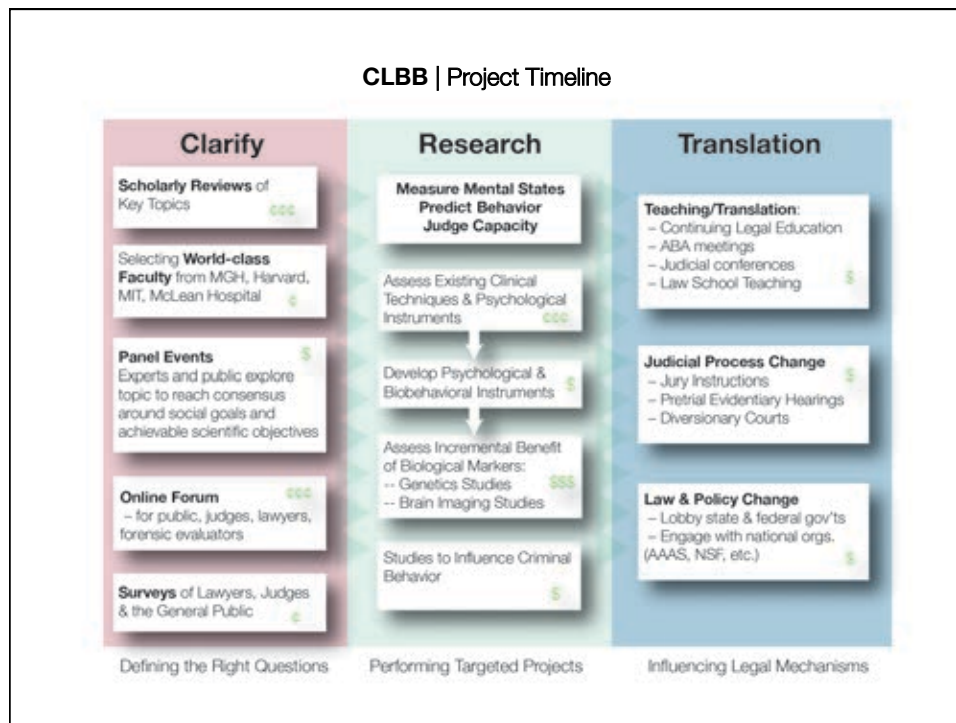
Neuroimaging in Forensic Psychiatry: From the Clinic to the Courtroom, First Edition. Edited by Joseph R. Simpson.

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“Too often we fail to recognize and pay tribute to the creative spirit. It is the spirit that creates our jobs.... There has to be this pioneer. The individual who has the courage, the ambition to overcome the obstacles that always develop when one tries to do something worthwhile, especially when it is new and different.”

~Alfred P. Sloan Jr., 1941

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