

# Mind Matters

KEEPING FREEDOM IN MIND

VOL. 1 ISSUE 2

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## SPOTLIGHT

### Civil Liberties for the Mind

At the Crossroads of Neurotechnology and the Law

*Adapted from a lecture by Richard Glen Boire, delivered at Penn State's Rock Ethics Institute on April 5, 2004.*

AMIDST THE PROLIFERATION OF TECHNOLOGIES in the late 1800s, such as telephones and cameras, prominent Boston attorney, Harvard Law School graduate and socialite Samuel Warren, became increasingly perturbed to find more and more details of his private life exposed in the pages of *The Saturday Evening Gazette*. In 1890 he convinced his law partner, Louis Brandeis, to sit down with him and pen a legal article for publication in the *Harvard Law Review*. The article, titled "The Right to Privacy,"<sup>1</sup> became one of the most influential law review articles ever written.

#### THE "RIGHT TO PRIVACY"

Before this article, the right to "privacy" was by-and-large limited to providing a remedy when someone physically interfered with your private property or physical body. A hundred years ago, the right to privacy was not much more than a right to be free from physical battery and a right to repel invaders from your land.

Brandeis (who was appointed to the US Supreme Court in 1916) and Warren recognized that advances in technology, coupled with intensified newspaper enterprise, increased the vulnerability of individuals to having their

intimate actions, words, images, and personalities communicated without their consent beyond the protected circle of family and chosen friends. The effect of such public exposures, as Samuel Warren experienced first hand, was *psychological* in nature.

#### PSYCHOLOGICAL INTEGRITY

In "The Right to Privacy," Warren and Brandeis argued that when information about a person's private life is made public against his or her will, it not only causes the public to view the person differently, it also affects the individual's personality. A person's self-image, they wrote, was distorted and damaged when private information was made public. According to Warren and Brandeis, "Instantaneous photographs and newspaper enterprises have invaded the sacred precinct of private and domestic life."

For Warren and Brandeis, the right to privacy included the right of each individual to protect his or her psychological integrity by exercising control over private or confidential information about his or her person and personality.

#### 1876 - TODAY

One aspect of the audiovisual explosion of the late 1800s was that it provided powerful, unprecedented tools by which people could

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**Mind Matters** is a quarterly letter published by the Center for Cognitive Liberty & Ethics. Our mission is to advance just and sustainable social policies that will preserve and enhance freedom of thought into the 21st century. The CCLE envisions a world where freedom of thought is a fundamental right that encompasses brain privacy, autonomy and choice.

P.O. Box 73481, Davis CA 95617-3481  
1-800-950-MIND or editor@cognitiveliberty.org  
[www.cognitiveliberty.org](http://www.cognitiveliberty.org)

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## Technology in Translation

MEDICINE AND SCIENCE CONTINUE TO EXPAND our understanding of the ways in which the brain contributes to individual experiences, and our social institutions are being called upon to keep pace. Some of our most fundamental rights have been altered, for better and for worse, by developments in technology. Information Age technologies like the Internet and digital media have challenged our conceptions of free speech, intellectual property and privacy. Much earlier, the invention of the printing press redefined freedom of speech. The right to privacy has also evolved over time in conjunction with technological developments like the camera, thermal imaging devices, and reproductive technologies. Even freedom of religion is not immune to adaptive changes brought about by advances in technology.

While consciousness may forever remain a mystery, it is undisputed that the functional neurochemistry of the brain plays a major role in how a person thinks. “Cognitive liberty” recognizes that a modern legal protection for freedom of thought *cannot* ignore the brain, nor *should* the brain simply be treated under existing legal doctrine that defines rights associated with the body.

As the CCLE continues to develop principles and working policies designed to protect freedom of thought, we are acutely aware of the complexity of the project. Freedom of thought has many dimensions. One such dimension is the right to direct one’s own thinking by using various techniques and technologies. This could be as accessible as reading a book or learning a foreign language, or as remote as using sophisticated fMRI brain imaging equipment in conjunction with psychopharmacological agents to experience and measure alternative conscious states. Cognitive liberty as a fundamental legal right must encompass the *freedom to* change your own mind.

At the same time cognitive liberty must guarantee *freedom from* – the right not to have your brain monitored or directly manipulated without your informed consent. Seventy-five years ago, U.S. Supreme Court Justice Louis Brandeis warned that scientific advances might

someday “bring means of exploring unexpressed beliefs, thoughts and emotions. (*Olmstead v. United States* (1928) 277 U.S. 438, 474).

Today we are in a historical moment where many are quick to trade individual freedom for perceived safety. As a result, advances in the neurosciences present a double-edged sword for freedom of thought. At the same time that they will give individuals more tools for self-understanding and empowerment, they will also give government more power. How would you feel if John Ashcroft were not only scanning your e-mail, but also had the power to read or write your mind? Both are unacceptable. And while groups like the Electronic Frontier Foundation are working hard to protect *online* privacy, the CCLE is the only group working to protect *brain privacy*.

Drugs and other technologies with powerful effects on thinking are here to stay, and more are coming. In our opinion, the best way for society to successfully integrate these new technologies and reap their greatest benefits is by making a renewed commitment to our civil liberties and, in particular, to freedom of thought. By recognizing and respecting brain privacy, autonomy and choice (i.e., *cognitive liberty*) as fundamental rights, developments in the neurosciences can be welcomed with the assurance that applications and regulations of these technologies will be guided by strong protections for individual freedom.

Keeping Freedom in Mind,

Richard Glen Boire

Wrye Sententia

Directors, CCLE

record and enhance their memories using external technologies. Today there are a host of new technologies, and more on the way, that will similarly have a profound and direct impact on our psychological integrity and our private mental lives. The world is currently witnessing an acceleration in our ability to monitor, manipulate and augment mental processes.

Recent films such as “Paycheck” and “Eternal Sunshine of the Spotless Mind” show that the possibility of being able to selectively erase memories is already being cogitated in the collective, cultural mind. While memory erasing of the sort depicted in the films is not possible now, and may never be to that extent, there are new drugs and other technologies already available, which foreshadow future developments.

I submit that just as Warren and Brandeis unfolded a new dimension of the right to privacy, recent developments in the field of neurotechnology call for a serious updating of how we think about some of our most cherished rights, most importantly freedom of thought.

#### MEMORY MANAGEMENT

New drugs and other technologies are about to introduce entirely new ways to manage, augment, and even attenuate memory. Propranolol, a drug commonly prescribed to treat high blood pressure and heart disease, is already used by some people to dull painful memories. Propranolol works by blocking the body’s adrenaline response. Studies have shown that if taken within six hours of a traumatic event, propranolol can significantly reduce recall of that event. In an effort to forestall post-traumatic stress disorder, some emergency rooms may soon offer a drug such as propranolol to victims of violent crimes or serious accidents. Propranolol and similar drugs may also soon be used to pre-dose emergency responders to plane crashes or other gruesome accident scenes.

Late last year, a team of neurobiologists published a paper in *Science*<sup>2</sup> suggesting that we are increasingly closer to developing drugs that could *selectively dim* disturbing memories that haunt some people for years. Whereas propranolol, when used as a memory attenuator, must be taken in very close temporal proximity to the event that one seeks to forget, the latest research points to the possibility of selectively dimming even early childhood memories.

While memory diminishing drugs are making strides, at present most of the money in the memory management field is going towards the development of memory-improvement drugs. The brokerage firm A.G. Edwards estimates that the current global market for memory medicines is already at 10 billion dollars.<sup>3</sup>

Eric Kandel, a Nobel Prize-winning memory researcher at Columbia University, believes medicines that significantly improve memory will be available within five years. Kandel heads Memory Pharmaceuticals, just one of a host of companies racing to bring memory-enhancing drugs to market. Currently, more than 40 drugs designed to improve or protect memory are in US Food and Drug Administration clinical trials. Pharmaceutical companies are spending approximately \$1.5 billion on researching and developing these memory drugs.

Already, college students are using drugs like Provigil (modafanil) and Ritalin (methylphenidate) to improve attention spans and concentration while studying for exams. The power to enhance cognition or to increase memory, focus and concentration will grow as new breeds of memory management drugs enter the market. The non-medical uses of memory and cognition-enhancing medicines will challenge many of the methods that society currently uses to control drugs.

#### BRAIN FINGERPRINTING

Brain fingerprinting is a twenty-first century polygraph test that reads a person’s brainwaves and purports to accurately determine whether or not the person has a particular memory, such as the details of a crime. A suspect is shown images of specific details peculiar to an event or relating to an organization and, by reading the P300 brain wave response, Dr. Farwell, the inventor of the device, claims he can tell whether there is “information present” or “information absent,” thereby verifying or invalidating claims made by the suspect. Results from the device have already been admitted into a court case. Dr. Farwell is working hard to position Brain fingerprinting as a law enforcement and counterterrorism tool.

#### NEUROMARKETING

Brain imaging technologies are also being employed in the small but growing

## AT A GLANCE

### Memory Management

- + Do you have a right to improve your memory?
- + Do you have a right to dim or erase your own memories?
- + If you’re the sole witness to a crime, could you be required to take a memory-improving drug or prevented from taking a memory-dimming drug until you testify in court?
- + Could your employer fire you for refusing to take memory-boosting drugs or other cognitive enhancers?
- + Could an employer state that only people who take such drugs need apply?
- + Pre-employment drug testing is currently centered on detecting illegal drugs, but could it later be used to confirm the presence of cognitive enhancers?

## AT A GLANCE

### Brain fingerprinting

- + If your company mandates brain fingerprints as pre-employment screening, will you have a right to say no?
- + If you are accused of a crime could you choose to have a brain fingerprint, or could you refuse one?

### Neuromarketing

- + What if neuromarketing is used to target children on Saturday morning television?
- + What if neuromarketing is used to market a political candidate?
- + Should there be labels on products, displays and commercials developed using neuromarketing research?

### HyperSonic Sound

- + Should HSS be regulated with on/off buttons?
- + Should its transmission distance be regulated?
- + Should notices be required when it is in use?

“neuromarketing” industry. According to BrightHouse marketing firm, this new form of market research hopes “to identify patterns of brain activity that reveal how a consumer is actually evaluating a product, object or advertisement ... to help marketers better create products and services and to redesign more effective marketing campaigns.”

The goal of neuromarketing is to develop packaging and products that stir precisely the desired emotions in a consumer, thereby making a product practically irresistible. Neuromarketing thus aims to bypass the deliberative centers of the brain. The best-known neuromarketing group, BrightHouse Institute, utilizes Emory University Hospital’s Magnetic Resonance Imaging equipment to scan brains on behalf of corporations.

#### HYPERSONIC SOUND

In 1874 Alexander Graham Bell built and experimented with the Phonograph, a machine designed to record sound using an eardrum from a cadaver. Today, 130 years later, there is a very new technology that works by utilizing the eardrums of living people within its operating system.

HyperSonic Sound is like a laser beam of sound, which is completely silent until you step into its narrow transmission path. A person standing just a foot away will not hear anything, but you will literally hear voices, or whatever is being transmitted, directly inside your head.

McDonald’s is in the process of installing HSS devices in its Florida drive-thrus so that only the driver, and not the entire neighborhood, will have to hear the attendant ask whether a customer wants fries with their order. But this technology also has the power to be tremendously invasive. For example, later this year thousands of soda machines in Tokyo will begin using HSS to beam advertisements (the sound of ice cubes in a glass and a can of soda being opened) to those passing by. US Government departments have also shown interest in HSS as an auditory weapon or policing tool.

#### LEGAL BLACK HOLE

Like any tools, these new technologies have both negative and positive potential applications.

But the complex legal and ethical questions surrounding what rights you have to use or to refuse these technologies is currently constellated around a legal black hole.

With the exception of First Amendment cases, the significant legal battles over human freedom have almost all been centered on the *physical* body. Civil rights, women’s rights, gay and lesbian rights, and reproductive freedom have all viewed the body as the major site of contestation. Of course there are mental dimensions to all of these, but new neurotechnologies are unique in that their principal focus is on cognition. In one way or another, all of these technologies make it possible to monitor, modulate, interrupt, and direct *thinking*. The body is no longer the only legal battleground.

Throughout our legal history, judges have recognized the critical importance of what has been called “Freedom of Thought.” For example, Justice Benjamin Cardozo, one of the most respected Supreme Court Justices, said that “freedom of thought ... is the matrix, the indispensable condition, of nearly every other form of freedom. With rare aberrations a pervasive recognition of that truth can be traced in our history, political and legal.”<sup>4</sup>

But today, for the first time in human history, the dimensions of freedom of thought need to be concretely determined by our legal system. What the courts do in the next few years will literally shape our minds, our thinking processes, and our conscious states.

#### REAR VIEW MIRROR

*“We look at the present through a rearview mirror; we walk backwards into the future.”*  
—*Marshall McLuhan*

Most practicing lawyers and judges are Legal Formalists, who view law a lot like basic arithmetic. A legal formalist identifies the relevant laws, looks to see what other judges did in earlier cases with similar facts, and then applies the law and the legal precedent to the facts in the case at hand. This process determines the legal ruling.

What this means in practice is that the past has a heavy hand on the present. The law,

therefore, is developed and progresses by looking in the rearview mirror – by looking backward in time to previous case decisions and relying heavily on precedent. And these previous cases, these legal precedents, exercise a huge amount of control on the present.

What happens, however, when the factual situation in a case is unlike anything ever dealt with previously by a court? In this case, a judge looks and looks, but is unable to find anything that really helps him or her decide the present case. Without Chapter and Verse to quote from or apply, judges are left adrift in their own biases and social pressures. If you have ever driven a car that is missing its rear view mirror, you know how disorienting that can be.

Nowhere is the law more disoriented than in the area of brain science, not only because the brain is so extremely complex, but also because new data and new discoveries in the field of brain science are accelerating much faster than legal theory and scholarship.

In the next few decades, judges will be asked to decide many of the questions posed in the sidebars. They will need a guiding principle, a legal doctrine, and I submit that the principle of cognitive liberty is precisely what is necessary for negotiating the rapid advances in neurotechnologies.

FREEDOM OF THOUGHT & COGNITIVE LIBERTY

Cognitive liberty is the interface between existing jurisprudence of the body (legal precedent) and the far less defined jurisprudence of “freedom of thought.”

Cognitive liberty recognizes that technologies such as those just surveyed can be applied or regulated in ways that implicate not only rights of the body, but also freedom of thought. When an application or regulation impacts combined interests of body and mind, courts should judge it under a heightened level of scrutiny, one that staunchly protects individual freedom.

Cognitive liberty is not about creating a new fundamental right, but rather about looking into our existing rights to see what is at their heart. Freedom of thought plays a dual role: it is precisely what is supposed to be protected by enumerated Constitutional rights (such as freedom

of speech, freedom of religion, the Fourth Amendment right to be free from unreasonable searches, and the Fifth Amendment guarantee not to be made a witness against oneself); and at the same time, freedom of thought is a necessary precondition *for* these same rights. The enumerated rights are merely the tip of the iceberg, while their mass, freedom of thought, is under the surface.

In the midst of neurotechnologies that make it possible to monitor, interrupt, direct, speed or slow thinking, freedom of thought has to protect brain privacy, autonomy and choice.

Cognitive liberty is not “for” or “against” drugs or technology. Instead it recognizes the importance of individual choice in matters of the mind. It recognizes that nothing is more intimate, private or central to a person’s life than his or her own thinking processes. And it provides a legal doctrine that recognizes that pro-choice, self-determination and limited government is no longer solely a question of what you or the government can or can’t do with your body. Cognitive liberty is civil rights for the mind, a legal protection for what and how you think, whether you express your thoughts or not.

In many ways, this aspect of cognitive liberty follows from what Warren and Brandeis articulated over 100 years ago: privacy includes a right to psychological integrity.

At the root of both the right to privacy and the Fourth Amendment is a protection for closed interior spaces. The content of your postal mail is private. The police can’t open a letter without a federal search warrant. The inside of your home, purse, and backpack are all private and legally protected spaces. There is nothing more interior and intimate than your thoughts and thought processes. The same principle that protects the inside of our mail and personal property surely ought to also protect the inside of our heads.

The judges who will first confront the issues surveyed here, such as memory-management drugs, brain-fingerprinting, hypersonic sound, and neuromarketing, will define what we, our children, and our grandchildren will be able to

Cognitive liberty is the interface between existing jurisprudence of the body and the far less defined jurisprudence of freedom of thought.

‘freedom of thought ... is the matrix, the indispensable condition, of nearly every other form of freedom. With rare aberrations a pervasive recognition of that truth can be traced in our history, political and legal.’

--Justice Cardozo



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do with and within our own minds in the future. Our work at the Center for Cognitive Liberty & Ethics is designed to articulate legal principles that will help judges understand the nature of what is at stake, and help them to protect the unlimited potential of the human mind. We continue to ask, without freedom of thought, what freedom remains? ▢

### Notes

- 1 Warren & Brandeis, Right to Privacy, 4 *Harvard Law Review*. 193 (1890).
- 2 Eisenberg et. al. "Stability of Retrieved Memory: Inverse Correlation with Trace Dominance," *Science* (2003) 301: 1102-1104.
- 3 ABC News, August 21, 2003. *Business Week*. September 1, 2003
- 4 *Palko v. Connecticut*, 302 U.S. 319, 326-27 (1937).

## F Y I

# Neurocognitive Enhancement

## Already A Fact of Life

"The enhancement of normal neurocognitive function by pharmacological means is already a fact of life for many people," states a recent report in [April's] *Nature Reviews Neuroscience* titled, "Neurocognitive Enhancement: what can we do and what should we do?"

As Judy Illes, one of authors, explained to ABC news, "the idea is to get the neuroscientific community to get out ahead of the potential ethical issues and establish guidelines that will facilitate ongoing research. Part of their goal is to avoid public relations blunders that could hamper progress — doing to them what fear over potential human cloning has done to geneticists."

The report highlights four primary issues that the neuroscience community must be thinking about, which are quickly summarized here:

**Safety:** The use of neurocognitive enhancers that individuals are currently using "involves intervening in a far more complex system, and we are therefore at greater risk of unanticipated problems."

**Coercion:** "What if keeping one's job or remaining in one's school depends on practicing neurocognitive enhancement?...Of course coercion need not be explicit. Merely competing against enhanced co-workers or students exerts an incentive to use..." At the

same time, "the straightforward legislative approach of outlawing or restricting the use of neurocognitive enhancement . . . is also coercive."

**Distributed Justice:** "It is likely that the distribution of neurocognitive enhancers will not be fairly distributed."

**Personhood and Intangible Values:** We run the risk of medicalizing regular human behavior. "When we improve our productivity by taking a pill, we might also be undermining the value and dignity of hard work, medicalizing human effort and pathologizing a normal attention span."

Clearly these issues are real. Today only 5-6% of the general population has been diagnosed with attention-deficit disorders, while one recent report suggests that almost 16% of high school and college students are currently using some form of "attention-focusing" pharmaceutical. And it is thoughtful reports like this one that are needed to sort out the complex issues that are emerging as new neurotechnologies emerge in the years to come.

*Published April 29, 2004 in CCLE Advisor Zack Lynch's online column, Brain Waves (www.neurosociety.net)*

MAKING CHOICES FOR CHILDREN

Update on the Child Medication Safety Act:

HR 1170 would block schools from conditioning a child's attendance on the use of Ritalin or any other psychotropic drug. The bill passed the House of Representatives last year, but as a result of lobbying by pharmaceutical companies, the bill is currently stalled in the Senate Committee on Health, Education, Labor, & Pensions (HELP). Another version of the Child Medication Safety Act is attached to HR 1350, a bill that would reauthorize the Individuals with Disabilities Act (IDEA). The CCLE supports passage of the Child Medication Safety Act as a stand-alone bill (HR 1170), but has no position with regard to the much larger IDEA bill (HR 1350). Information about contacting your representative to express support for the Child Safety Medication Act (HR 1170) is available on the "Making Choices for Children" Web site:

[www.cognitiveliberty.org/makingchoices](http://www.cognitiveliberty.org/makingchoices)

HOW YOU CAN HELP: DONATE OR VOLUNTEER

Both of these campaigns are up and running, but **we need your help** to build on the momentum! Your financial contribution will help the CCLE get vital information to legislators before the Child Medication Safety Act dies at the end of this Congressional session. We also depend on donations to fund the legal research needed to locate additional court opinions for the Judges database, a project that encourages judges to speak out about the injustices of criminal drug prohibition. Tax-deductible donations can be made securely on our website: [www.cognitiveliberty.org](http://www.cognitiveliberty.org)

**Get involved!** The CCLE also needs volunteers, especially people skilled in public relations, website design and maintenance, or legal research. If you'd like to get involved in a CCLE project, please e-mail [info@cognitiveliberty.org](mailto:info@cognitiveliberty.org)

JUDGES AGAINST THE DRUG WAR

The CCLE's Judges Against the Drug War project went live in April. This is the first extensive online database of judicial opinions critical of the government's War on Drugs. The goal of this project is to make these critiques more accessible to the public, press, and policy-makers, and to encourage more judges to express their concerns with the national policy of criminal drug prohibition. So far the database includes the observations of over fifty federal and state court judges, including judges on the US Supreme Court and state supreme courts. Visit the Web site:

[www.judgesagainstthedrugwar.org/](http://www.judgesagainstthedrugwar.org/)

**Richard Glen Boire participated in an invitation-only conference on “Law, Behavior, and the Brain” sponsored by the Gruter Institute for Law and Behavioral Research. Olympic Valley, California. May 20-23, 2004.**



Wylie, Margie. “Transhumanism takes technology to the level of faith.” *Sun Herald*, South Mississippi. May 21, 2004.

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Schmidt, Karen. “Corporal Mergers,” Sage Crossroads. May 3, 2004. [www.sagecrossroads.net/public/news/index.cfm](http://www.sagecrossroads.net/public/news/index.cfm)

Boire, Richard Glen. “Freedom of Thought: Threats and Promises.” Live interview with Jane Andrews. BBC Radio. April 28, 2004.

Boire, Richard Glen. “Freedom of Thought Today” Live interview with Alex Jones. Syndicated radio show. April 28, 2004.



**Wrye Sententia spoke before the European Citizen’s Deliberation (ECD) at an Expert & Stakeholder Workshop on “Connecting Brains and Society.” Amsterdam, Netherlands. April 22-23, 2004. Hosted by The King Baudouin Foundation and the Dutch Rathenau Instituut.**



Morris, Kelly. “New wave neurotechnology: small-scale makes big promises.” *The Lancet Neurology* (UK). Vol 3: April 2004.

Marlow, John. “Nanosecurity and the Future (if Any).” *NanoNews Now Monthly Report*. April 2004. [www.nanotech-now.com/products/nanonewsnow](http://www.nanotech-now.com/products/nanonewsnow)

**Wrye Sententia lectured on “Cognitive Technologies & Human Liberty: 21<sup>st</sup> Century Challenges and Opportunities” at the 5th Annual Silicon Rally: Using ICT to Contribute Greater Global Peace and Prosperity. San Jose, CA. April 19, 2004. Hosted by the San Jose Technology Museum and the Center for Science, Technology and Society at Santa Clara University.**





**Richard Glen Boire & Liz Else,**  
**"We Hold these Truths to be Self-Evident..."**  
*New Scientist*, April 24, 2004.  
[www.newscientist.com/opinion/](http://www.newscientist.com/opinion/)

Boire, Richard Glen. "Cognitive Liberty: What is the Future of Freedom of Thought in the Age of Neurocops, Brain Fingerprinting, Memory Management Drugs, and Hypersonic Sound?" Lecture at Penn State's Rock Ethics Institute. April 5, 2004

**Holger Breithaupt & Katrin Weigmann interviewed Wrye Sententia for, "Manipulating your mind: what will science discover about our brains, and how are we going to deal with it?" *European Molecular Biology Organization* 5:3 (2004) 230-232.**

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## European Citizen's Deliberation

### "Connecting Brains and Society" Workshop

A full report of the ECD meeting is currently being drafted by the King Baudouin Foundation.

**King Baudouin Foundation**  
www.kbs-frb.be

**Rathenau Instituut**  
www.rathenau.nl

IN APRIL, WRYE SENTENTIA FLEW TO Amsterdam, Netherlands to join in a European Citizen's Deliberation (ECD) Expert & Stakeholder Workshop on "**Connecting Brains and Society: the Present and Future of Brain Sciences.**" This event, hosted by the King Baudouin Foundation (Brussels, Belgium) and the Dutch Rathenau Instituut (The Hague, The Netherlands), aimed to map and frame issues of brain science in their social context for EU member countries.

Wrye was invited, along with a selected group of 25 European top-level scientists and stakeholders, to give her views on the developments in brain sciences from CCLE's perspective. Physicians, neuro-, psychiatric, cognitive and social scientists, philosophers, and representatives of stakeholder organizations gathered to assist members of the steering committee of the ECD in understanding the current state of brain science and evaluating some of their societal implications. Among those present were members of the pharmaceutical industry, the European Brain Council, the Eu-

ropean Federation of Neurological Associations (EFNA), the Global Alliance of Mental Illness Advocacy Networks (GAMIAN Europe), The European DANA Alliance for the Brain, and the Federation of the European Neuroscience Societies (FENS).

Wrye contributed the cognitive liberty perspective to the larger discussion of issues highlighted by the group (limits of normalcy/enhancement; responsibility and free will; personal identity; social justice; commercial and military interests; privacy and personal freedom). She presented on emerging neurotechnological advances, and encouraged the ECD to consider how freedom of thought, a basic human value, will be significantly impacted. Legal guidelines on human rights, as with the UN's Universal Declaration of Human Rights (Article 18), emphasize the importance of each person's right to "freedom of thought." Presently, however, the contours of freedom of thought have not been clearly defined.

## New Advisor & 2004 Summer Fellow

### The CCLE welcomes Paul Root Wolpe and Dale Carrico

**PAUL ROOT WOLPE**, Ph.D. is CCLE's newest Advisor. Dr. Wolpe is a professor in the Department of Psychiatry at the University of Pennsylvania, where he also holds appointments in the Department of Medical Ethics and the Department of Sociology. He is a Senior Fellow of both Penn's Center for Bioethics and the Leonard Davis Institute for Health Economics.

Dr. Wolpe is the author of numerous articles and book chapters in sociology, medicine, and bioethics. He is the author of the textbook *Sexuality and Gender in Society* and the end-of-life guide *In the Winter of Life*. He is also the Special Features Editor of the *American Journal of Bioethics* and a regular columnist on biotechnology for the *Philadelphia Inquirer*.

**DALE CARRICO** is CCLE's 2004 summer fellow. Mr. Carrico is a Ph.D. Candidate in the Department of Rhetoric at the University of California at Berkeley, writing a dissertation under the direction of Judith Butler, entitled *Pancryptics: Technological Transformations of the Subject of Privacy*. The dissertation concerns the politics of autonomy, privacy, and intellectual property as they are transforming under pressure of the convergence of digital media and biotechnologies. Mr. Carrico organized the 13th Annual Boundaries in Question Conference this year, on the topic "New Feminist Perspectives on Biotechnology and Bioethics." He also writes a regular column, "Progressive Futures," for Betterhumans.com, an online technology magazine.

For more info on our Board of Advisors, staff or summer fellows, visit [www.cognitiveliberty.org/who.html](http://www.cognitiveliberty.org/who.html)

## Pharmacotherapy: Threats to Cognitive Liberty

### CCLE Releases First Major Policy Report

OVER THE NEXT DECADE AN INCREASING number of new “pharmacotherapy” medications will become available with the potential to tremendously impact the use and abuse of illegal drugs and the overall direction of national and international drug policy. The pharmacotherapy medications described in this report are designed to block or significantly reduce the “highs” elicited by illegal drugs. Used as part of a drug treatment program, pharmacotherapy medications may provide valuable assistance for people seeking a chemical aid in limiting or eliminating problem drug use. However, the tremendously politicized nature of the “drug war” raises substantial concerns that, in addition to those who choose to use such medications, some people will be *compelled* to use them.

**The CCLE’s new report**, “Threats to Cognitive Liberty: Pharmacotherapy & the Future of the Drug War,” examines what we believe could become a significant future threat to cognitive liberty. With funding and other encouragement provided by the U.S. Federal government, pharmaceutical companies are developing a new breed of drugs specifically intended to diminish or entirely block the effects of illegal drugs. The aim of these new “pharmacotherapy” drugs is to inhibit at the biochemical level the very ability of a person to experience the psychotropic effects of certain illegal drugs.

**Section I** of the report begins with an overview of these new drugs: how they work, who is designing and marketing them, and how they may benefit those seeking a chemical aid in limiting problem drug use. In **Section II** we take a careful look at various factors that raise a reasonable concern that these pharmaceuticals will migrate from voluntary use to compulsory use within certain population segments. **Section III** identifies and discusses a number of constitutional and other legal issues that will arise should use of these drugs be mandated for some people. In **Section IV**, the final section of the report, we present CCLE’s conclusions and recommendations.



### AT A GLANCE

Our fifty-page, legally-researched and heavily footnoted professional report,

**“Pharmacotherapy and the Future of the Drug War”** is available to the **general public for \$30** and to **CCLE members at a 20% discount (\$24)**.

CCLE members at the \$200 and above level should have already received their free copy of this report.

To order a copy of this report, please contact [editor@cognitiveliberty.org](mailto:editor@cognitiveliberty.org) or visit [www.cognitiveliberty.org/issues/pharmacotherapy.html](http://www.cognitiveliberty.org/issues/pharmacotherapy.html) to order online. You may also download a free PDF.

### DONATE!

Most nonprofit organizations rely on the generosity of private donors. The CCLE is no exception; over 80% of our funding comes from individuals like you.

Please reaffirm the stand you have taken in support of cognitive liberty, and consider increasing your support this year. Four years after our inception, the CCLE remains the world’s only law and policy center devoted to defending freedom of thought and the unlimited potential of the human mind.

**Your involvement has never been more crucial!**

*Secure donations can be made online at [www.cognitiveliberty.org](http://www.cognitiveliberty.org)*

## Exploring Consciousness

**June 24-26, 2004**

Organized by Psychonaut UK, the Sophia Centre at Bath Spa University College, and the Academy for Cultural and Educational Studies, this conference will be held in Bath, England and will include presentations on a variety of topics addressing consciousness.

[www.exploringconsciousness.org.uk](http://www.exploringconsciousness.org.uk)

## The President's Council on Bioethics Meetings

**June 24-25, 2004**

Ronald Reagan Building and International Trade Center  
1300 Pennsylvania Avenue, NW  
Washington, DC 20004

Future meeting: September 9-10, 2004

[www.bioethics.gov/meetings](http://www.bioethics.gov/meetings)

## Stand Up for Freedom

**July 6-8, 2004**

The ACLU is pleased to announce their upcoming membership conference in San Francisco, CA, where ACLU members will discuss current topics, such as balancing the need for national security and the right to personal privacy.

[www.aclu.org/2004memberconf/Welcome/welcome.htm](http://www.aclu.org/2004memberconf/Welcome/welcome.htm)

## O'Reilly Open Source Convention

**July 26-30, 2004**

At this convention in Portland, OR, leaders of more than 11 critical open source technologies will provide high-quality information to help people solve their computing and programming challenges.

<http://conferences.oreilly.com/os2004/>

## Quartet: Four Variations on the Theme of Human Enhancement July 31-August 5, 2004

The Center for Literature, Medicine, and the Health Care Professions is pleased to announce their 12th annual summer seminar at Hiram College in Hiram, Ohio. Presenters will address themes on human enhancement.

<http://home.hiram.edu/www/litmed/seminar.html>

## TransVision 2004: Art and Life in the Posthuman Era

**August 5-8, 2004**

The World Transhumanist Association is pleased to announce their annual meeting at the University of Toronto, in Toronto, Canada. Presenters will address the issue of art and culture in the posthuman era.

[www.transhumanism.org/tv/2004/](http://www.transhumanism.org/tv/2004/)

## The Boom Festival

**August 26-30, 2004**

The Boom Festival is a multi-exploratory art gathering. The CCLE's director, Richard Glen Boire, will be speaking at this event, held in the forests of Portugal.

[www.boomfestival.org](http://www.boomfestival.org)

## The Right to Privacy - the Right to Dignity

**September 14-16, 2004**

The 26<sup>th</sup> International Conference, under the auspices of the President of the Republic of Poland, will be held in Wroclaw, Poland, and will discuss new problems and technologies concerning data protection and privacy.

[www.giodo.gov.pl/252/j/en](http://www.giodo.gov.pl/252/j/en)

## Mind States Oaxaca

**September 15-20, 2004**

The Mind States seminar will be held in Oaxaca City, Mexico, where presenters will discuss the latest findings in consciousness studies, with a particular focus on altered states of consciousness.

<http://mindstates.org/mindstatesoaxaca.html>

## Addictions 2004: Crossing Boundaries: Implications of Advances in Basic Sciences for the Management of Addiction

**September 24-26, 2004**

This fifth international conference on addictive behaviors will be held in Queensland, Australia. Leading scientists will discuss a wide range of topics, including new pharmacotherapy treatments.

[www.addiction-conference.elsevier.com/](http://www.addiction-conference.elsevier.com/)

## The Emerging Technologies Conference at MIT

**September 29-30, 2004**

Along with *Technology Review* Magazine, the organizers of this two day conference in Cambridge, MA are bringing together world-renowned innovators and leaders to discuss the technologies that are poised to make a dramatic impact on our world.

[www.tretc.com](http://www.tretc.com)

## The Face of the Future: Technosapiens? Phase II

**October 27-29, 2004**

This second round of discussion, sponsored by the Center for Bioethics & Culture and the Institute on Biotechnology and the Human Future, will be held in Washington, D.C. and will feature key players in the technology revolution, including CCLE director Wrye Sententia.

[www.thecbc.org/conferences.html](http://www.thecbc.org/conferences.html)

## American Society for Bioethics & Humanities Annual Meeting

**October 28-31, 2004**

The ASBH's 6th Annual Conference will be held in Philadelphia, PA and will include a two-hour keynote session by Dr. Leon Kass, Chair of the President's Council on Bioethics. Zack Lynch, of the CCLE Board of Advisors, will also be speaking at this event.

[www.asbh.org/annual\\_meeting/index.htm](http://www.asbh.org/annual_meeting/index.htm)