

Neorenaissance: Why we lost the war on drugs

By Shawn Lawrence Otto

Last month, forty years after Richard Nixon declared America's War on Drugs, the UN's Global Commission on Drug Policy declared it a failure and said that "policies need to change now." Two bizarre cases from neuroscience help explain why it hasn't worked.

In 2000, a respected middle-aged Virginia man began to collect child pornography and sexually molest his 8-year-old stepdaughter. He knew it was wrong and tried to hide it, but he felt compelled. The night before his sentencing, he had a severe migraine. He was found to have a benign tumor in the orbitofrontal area of his brain, in a region known to regulate sexual and social behavior. The tumor was removed, and he returned to normal. A few months later, however, his interest in young girls rekindled. An exam showed the tumor had grown back. It was removed, and again he returned to normal. Was he responsible for his actions?

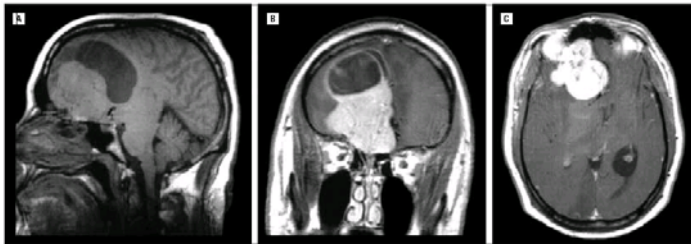


Figure 1. Magnetic resonance imaging scans at the time of initial neurologic evaluation: T1 sagittal (A), contrast-enhanced coronal (B), and contrast-enhanced axial (C) views. In A and B, the tumor mass extends superiorly from the olfactory groove, displacing the right orbitofrontal cortex and distorting the dorsolateral prefrontal cortex. The tumor is capped by a large cystic portion.

In June of 2001, Andrea Yates, a 36-year-old Houston, Texas mother and wife of a space shuttle engineer, drowned her five children in the bathtub. She was an RN, had been her class valedictorian, was captain of the swim team and an officer in the National Honor Society. She called the police after the crime, and her comments suggested she knew it was wrong. She had nevertheless felt an irresistible compulsion, even though both she and her husband had wanted to "have as many children as God would allow."



There are many other examples of what neuroscientists are now calling control disorders -- compulsions that drive behavior in which a part of the

brain is acting without conscious control.

"Yates was not insane in the traditional sense of the law," bioethicist and attorney [Linda Glenn](#) says. This is because most states still use something called The [M'Naghten Rules](#) to set the test for insanity. The M'Naghten Rules basically say you are insane if you cannot appreciate the wrongness of your actions. Both Yates and the Virginia man knew what they were doing was wrong, but they still had an uncontrollable impulse. "Most people would say Yates was clearly insane but the way the law has defined it she was not," Glenn says, which is why the prosecutor wanted the death penalty.

Neuroethicists say we need a new legal category of brain disorders that recognizes that consciousness is not a unified whole but arises from many brain systems, and sometimes one of those systems goes awry and people act out of control.

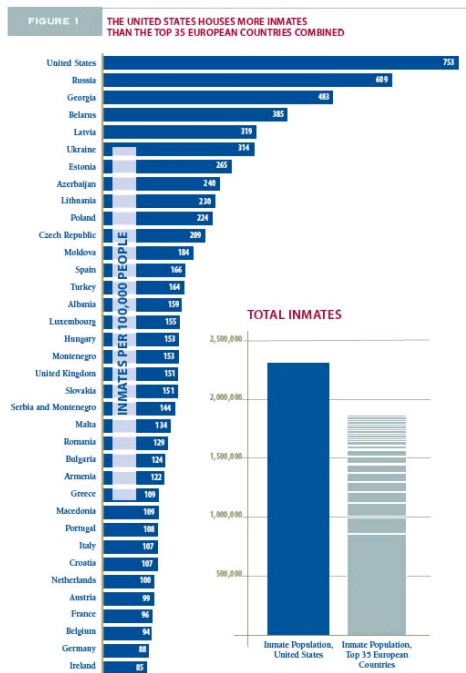


*Nancy Reagan "Just Say No" White House Rally.
Source: [Ronald Reagan Presidential Library](#)*

Addictions are prime examples of brain centers that have lost the physiological balance to be consciously controllable without some form of outside intervention, which is why they are so "crazy-making" to the afflicted and their loved ones - and why just saying "no" doesn't usually work.

According to the [Office of National Drug Control Policy](#), the federal government spent over \$15 billion in 2010 on the War on Drugs, and state and local governments spent an additional \$25 billion according to a 2010 [report](#) by the Cato Institute. "In human terms the cost is tremendous," says neurophilosopher [Pat Churchland](#). "Clearly something has to change based on our new understanding of the neurobiology of addiction. It's not a moral failing; it's a brain disorder."

As this becomes more clearly understood, the idea of jailing someone for an addiction will likely eventually be seen as barbaric and ineffective as shaking a baby to get it to stop crying. If the conscious part of the brain is not in control, the expectation is stupid and brutal.

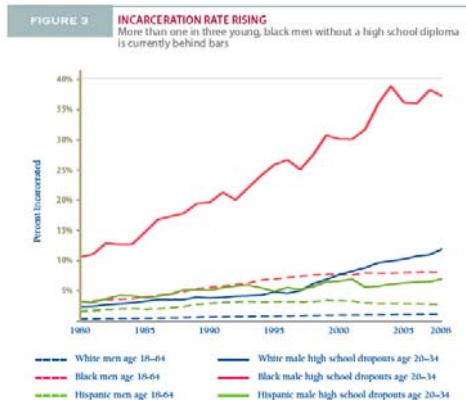


Source: *Collateral Costs: Incarceration's Effect on Economic Mobility*, The Pew Charitable Trusts

"You would probably not hear a neuroscientist use the term 'insanity,'" Glenn says. "It probably reflects the legalistic approach." Instead, neuroscientists often testify about control disorders, injuries in various brain systems, neurotransmitters and gene expression. "It's a similar situation for our understanding of addiction." This new knowledge requires refinements of morality, ethics and law - all of them bound to be challenged by those favoring "common" sense approaches informed by what feels good instead of what we can learn from science actually works.

Mexico's past two presidents, Ernesto Zedillo and Vicente Fox, once leaders with the US in the effort, recently issued a joint statement saying that the US needs to find better ways to deal with its consumption problem, and legalizing drugs may be the only way to stop the escalating cycle of violence.

In the end, the biggest driver behind ending the war may be its economic unsustainability. Since the program was implemented, US incarceration rates per 100,000 people have skyrocketed and are now first in the world. It costs more than \$25,000 annually, on average, to imprison someone in the United States - roughly the same as a college education. More than one in three young black men without a high school diploma is now behind bars, and one out of every eight whites.



Source: Collateral Costs: Incarceration's Effect on Economic Mobility, The Pew Charitable Trusts

The Pew Charitable Trusts released a [report](#) last year showing the effect this is having on employability and economic mobility. People with prison records tend to get stuck in low wage jobs and often fall back into the black market because legitimate employers are hesitant to hire them. This leads to rearrest and more jail time - at enormous and mounting cost to taxpayers in a down economy. The cycle creates a two-tiered socio-economic structure and escalating violence.

"Just because you have a brain disorder or an addiction doesn't mean you're not responsible for your actions," Churchland says. "The job of the criminal justice system is to ensure public safety." And there are some disorders, like pedophilia, which we don't yet understand enough to be able to treat people successfully enough to justify the risk - in some cases - of releasing an offender back into society.

But applying the disciplinarian, interdiction approach of the War on Drugs, or encouraging people to "just say no" to a problem that is *defined* by its lack of conscious control, is not unlike the drunk looking for his lost car keys under the street lamp because it's brighter there. It's time we apply a more sober model.

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