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A CONVERSATION WITH LAURENCE STEINBERG

Developmental Psychologist Says Teenagers Are Different

By [CLAUDIA DREIFUS](#)

Laurence Steinberg, a developmental psychologist at Temple University in Philadelphia, is one of the leading experts in the United States on adolescent behavior and adolescent brain biology. Dr. Steinberg, 57, has won the \$1 million Klaus J. Jacobs Research Prize, which will be awarded to him at a ceremony in early December in Switzerland. Here is an edited version of two conversations with Dr. Steinberg last month:

Q. YOU HEAR PARENTS SOMETIMES SAY, “I’M LIVING WITH AN INSANE PERSON. MY CHILD IS A TEENAGER.” ARE THEY BEING HYPERBOLIC?

A. I’m not one of those people who labels [adolescence](#) as some sort of mental illness. Teenagers are not crazy. They’re different.

When it comes to crime, they are less responsible for their behavior than adults. And typically, in the law, we don’t punish people as much who are less responsible. We know from our lab that adolescents are more impulsive, thrill-seeking, drawn to the rewards of a risky decision than adults. They tend to not focus very much on costs. They are more easily coerced to do things they know are wrong. These factors, under the law, make people less responsible for criminal acts. The issue is: as a class, should we treat adolescents differently?

Q. IS THE CRIMINAL JUSTICE SYSTEM BEGINNING TO TAKE THESE DIFFERENCES INTO ACCOUNT DURING SENTENCING?

A. It’s been coming up in cases. I went to Washington in November to watch the oral arguments in [two related cases](#) before the [Supreme Court](#) that ask: should someone who committed a crime as a teen be subjected to life imprisonment without a chance for parole, ever?

With these cases, and another in 2005 where the high court threw out the death penalty for adolescents, I was scientific consultant to the American Psychological Association on its amicus brief. What we said in the death penalty case — and now — was that we have considerable evidence showing that adolescents are different from adults in ways that mitigate their criminal

responsibility. But since 2005, there's been a lot of new scientific evidence supporting this position.

Q. WHAT IS THE NEW EVIDENCE?

A. In the last five years, as neuroscience has moved forward with functional [magnetic resonance imaging](#) and with research on animals, there have been dozens of new studies of adolescent brain development. These show that the brain systems providing for impulse control are still maturing during adolescence. Neuroscientists have shown that the part of the brain that improves most during adolescence is the prefrontal cortex, which is involved in complicated decision-making, thinking ahead, planning, comparing risks and rewards. And the neuroscientific research is showing that over the course of adolescence and into the 20s, there is this continued maturation of this part of the brain. So now, we have brain evidence that supports behavioral studies.

Moreover, we're seeing that behavior can change once the brain more fully matures. Take thrill-seeking, for instance. What happens is that when people move out of adolescence, they become less interested in it. For example, I can't stand riding on a roller-coaster now. I liked it as a teenager. I can't stand driving fast now. I liked driving fast when I was a teenager. What has changed? I'm not as driven today by this thrill-seeking sensation. And in our studies, we've shown that there is a kind of normative decline in sensation-seeking after middle adolescence. A lot of adolescent crime is driven by thrill-seeking.

Q. HOW DOES THIS NEW INFORMATION lead to concluding that the courts shouldn't sentence some adolescents to life in prison without parole?

A. Given the fact that we know that there will be a developmental change in most people, the science says that we should give them a chance to mature out of it. No one is saying that kids who commit horrific crimes shouldn't be punished. But most in the scientific community think that we know that since this person is likely to change, why not revisit this when he's an adult and see what he's like?

Q. DO YOU HAVE TEENAGERS AT HOME?

A. We have a son, Ben, who is now 25 and who works at [Random House](#). He did something as a teenager that led me to a whole program of research. He and some friends went to the window of a girl they knew and inadvertently set off a burglar alarm. When a police squad car came, they panicked and fled. When I found out, I said: "Do you realize that you were running from armed

police officers who thought they were interrupting a break-in. What were you thinking?” He said: “Well, that’s the problem. I wasn’t.” I wondered: “What goes on when kids are in a peer group that pushes them to make bad decisions?”

Since then, we’ve had people of different ages come to the lab and bring two friends with them. We give them computerized risk-taking tests while we image their brains. We compare brain activity when individuals are watched by their friends and when they are alone. For the adults, the presence of friends has no effect. But for adolescents, just having friends nearby doubles the number of risks they take. We’ve found that a certain part of the brain is activated by the presence of peers in adolescents, but not in adults.

Q. YOU ADVISED THE DEFENSE TEAM OF [OMAR KHADR](#), THE YOUNGEST DETAINEE AT GUANTÁNAMO BAY. WHY GET INVOLVED IN THAT CASE?

A. Because he was 15 when he was captured in a safe house in Afghanistan, where he’d been sent by his father, who was active in [Al Qaeda](#). There was a battle in 2002 to take this house where American troops died.

He was interrogated for many hours and admitted to having thrown a grenade that killed an American soldier. He later recanted. I was asked by his Defense Department counsel to advise on whether what he said during interrogation was reliable and his degree of culpability, if he did do it.

In my deposition, I said I don’t know whether he did it or not, but there are studies that say that adolescents are more likely than adults to give false confessions. There’s the Central Park jogger case, where it turned out a group of teenagers gave false confessions. Five were convicted. Several years later, an adult murderer and rapist confessed to the crime.

Q. IT HAS JUST BEEN ANNOUNCED THAT YOU’VE WON THIS \$1 MILLION KLAUS JACOBS PRIZE. WHAT DO YOU INTEND TO DO WITH THE MONEY?

A. I want to extend our work on [adolescent development](#) to teenagers in other cultures so that we can determine whether the patterns are universal. There’s a longstanding debate over how much of adolescent behavior is biological or cultural. Perhaps this award will lead to more answers.