

# Teen brains may not be as hard-wired for crime as previously thought

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Spikes in crime rates for teens and young adults suggest that biology may primarily drive risk-taking and law breaking, but Penn State criminologists studying crime statistics in other countries indicate that culture may also play a role in shaping teen criminal behavior.

In a study of age and [crime](#) statistics from Taiwan, the researchers said that the Asian country's youth crime pattern differs from the model seen in most western countries. In the U.S., which tends to be more individualistic, for example, involvement in crime tends to peak in middle to late teens and then declines, said Darrell Steffensmeier, Liberal Arts Research Professor of Sociology and Criminology. However, in Taiwan, which has more of a collectivist culture with less separation between generations, the crime rate does not dramatically peak as it does in the U.S. Participation in most crimes in Taiwan tends to reach a high point in the late 20s or early 30s, he added.

"There is obviously a relationship between age and crime, but, historically, there have been two competing views," said Steffensmeier. "The overwhelmingly most acceptable view now is that the age-crime association is invariant. It's universal—crime peaks in late adolescence and

then drops—always and everywhere. But our findings suggest that, in some countries and cultures, the age-crime association is different, so it can't be invariant."

According to the researchers, who released their findings in a recent issue of *Criminology*, if crime and age patterns are the same across cultures, that would suggest the age-crime relationship is a preprogrammed behavior driven by biology and neurobiology.

"If it's universal, then it implies a biological basis," said Steffensmeier.

He said the idea that biology influences the high teen [crime rates](#) may also guide policy making on punishment, crime prevention and rehabilitation.

"Saying that teen brains are wired for crime has become a mantra, in many ways," said Steffensmeier. "Some see this as having policy implications, too. For example, if teenagers are pre-programmed for sensation-seeking, which leads to crime, then it means that they're less responsible and blameworthy. Therefore, people who believe this might say we need to undo this punitive juvenile justice system. Now, it may be that the justice system is too punitive, but the idea that this age-crime relationship is driven primarily by biology becomes a scientific rationalization."

According to the researchers, the differing patterns between Taiwan and U.S. crime rates suggest that cultural factors may also be important influences on [criminal behavior](#).

"Whatever the biological, or neurobiological, factors that might contribute to criminal behavior, culture and social structure apparently play as great, or greater role," said Yunmei Lu, a doctoral candidate and graduate assistant in sociology and criminology. "It also suggests a greater amount of plasticity for humans, including during their

adolescence."

In Taiwan, parents are more active in supervising their children, according to Lu. There is also a steep price for nonconforming Taiwan teens.

"In Taiwan, teens are less likely to emphasize autonomy and fun and less likely to engage in behaviors different from, or opposed to, the adults," said Lu. "Taiwan youth are more likely to view deviance as too risky to their future success in attending a good school or finding a good job."

Hua Zhong, associate professor of sociology, The Chinese University of Hong Kong, also worked with Steffensmeier and Lu on the study. She emphasized that patterns of parental and school involvement in Taiwan may make the country's age-crime schedule more spread out than in the U.S. for all types of criminal offenses.

"In Taiwan, parental and school supervision and involvement are very extensive during adolescence but would be reduced after those children graduated from high school," she said. "Youth after 18 years old would then have more freedom for exposure to deviant or criminal messages."

Zhong added the age and crime relationship in Taiwan could be linked with its philosophical roots in Confucianism.

According to Zhong, the way societies eventually integrate youth into the world of adults also may play a large role in age-crime patterns.

"Different societies may have differences in age-graded norms and integration of youth with adult society in ways that lead to differences in extent of adolescent crime and the age-crime association," said Zhong.

The researchers used arrest data from the Taiwan Criminal Investigation Bureau of Police Administration Agency. Data on the U.S. arrests came from the FBI's Uniform Crime Reporting Program. They examined violent crimes, such as robbery and assault, as well as nonviolent crime, such as theft and fraud.

To understand such diversified mechanisms of the age-crime relationship and provide policy suggestions for reducing the high adolescent concentration of criminal offending in U.S., the researchers plan to study age-specific crime data in other countries in order to provide more cross-cultural comparisons.

Provided by Pennsylvania State University

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