

For adolescent crime victims, genetic factors play lead role

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This is Assistant Professor Kevin M. Beaver of the Florida State University College of Criminology and Criminal Justice. Credit: Florida State University

Genes trump environment as the primary reason that some adolescents are more likely than others to be victimized by crime, according to groundbreaking research led by distinguished criminologist Kevin M. Beaver of The Florida State University.

The study is believed to be the first to probe the [genetic basis](#) of victimization.

"Victimization can appear to be a purely environmental phenomenon, in which people are randomly victimized for reasons that have nothing to do with their genes," said Beaver, an assistant professor in FSU's

nationally top-10-ranked College of Criminology and Criminal Justice. "However, because we know that genetically influenced traits such as low [self control](#) affect delinquent behavior, and delinquents, particularly violent ones, tend to associate with antisocial peers, I had reasons to suspect that genetic factors could influence the odds of someone becoming a victim of crime, and these formed the basis of our study."

Beaver analyzed a sample of identical and same-sex fraternal twins drawn from a large, nationally representative sample of male and female adolescents interviewed in 1994 and 1995 for the National Longitudinal Study of Adolescent Health. "Add Health" interviewers had gathered data on participants that included details on family life, social life, romantic relationships, [extracurricular activities](#), drug and alcohol use, and personal victimization.

The data convinced Beaver that genetic factors explained a surprisingly significant 40 to 45 percent of the variance in adolescent victimization among the twins, while non-shared environments (those environments that are not the same between siblings) explained the remaining variance. But among adolescents who were victimized repeatedly, the effect of genetic factors accounted for a whopping 64 percent of the variance.

"It stands to reason that, if genetics are part of the reason why some young people are victimized in the first place, and genetics don't change, there's a good chance these individuals will experience repeat victimization," Beaver said.

Findings from the study are described in a paper to be published in a July 2009 special issue of the journal *Youth Violence and Juvenile Justice* dealing with biosocial criminology. Beaver served as lead author of the paper, "The Biosocial Underpinnings to Adolescent Victimization," - which currently can be accessed on the journal's Web site at <http://yvj.sagepub.com/pap.dtl>. His co-authors are criminology graduate

students Brian Boutwell and J.C. Barnes of Florida State and Jonathon A. Cooper of Arizona State University.

"It is possible that we detected this genetic effect on victimization because it is operating indirectly through behaviors," Beaver said. "The same genetic factors that promote antisocial behavior may also promote victimization, because adolescents who engage in acts of delinquency tend to have delinquent peers who are more likely to victimize them. In turn, these victims are more likely to be repeatedly victimized, and to victimize others."

Thus, write Beaver and his colleagues, victims of crime are not always innocent bystanders targeted at random, but instead, sometimes actively participate in the construction of their victimization experiences.

"However, we're not suggesting that victimization occurs because a gene is saying 'Okay, go get victimized,' or solely because of [genetic factors](#)," Beaver said. "All traits and behaviors result from a combination of genes and both shared and non-shared environmental factors."

And environmental factors can make a difference, he noted. The social and family environment in an adolescent's life may either exacerbate or blunt genetic effects -- a phenomenon known in the field of behavioral genetics as a "gene X environment interaction."

Source: Florida State University ([news](#) : [web](#))

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