

What makes a murderer? MRI scans reveal reduced gray matter patterns in convicts

[Kent Kiehl](#) and his research team regularly park their long, white trailer just outside the doors of maximum-security prisons across the US. Inside the vehicle sits the bulky body of a mobile MRI machine. During each visit, people from the prison make their way to and from the vehicle in hourly shifts to have their brains scanned and help to answer an age-old question: What makes a murderer?

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Controlling for substance use severity, time in prison, age, and IQ, the team analyzed the MRI data to look for differences among the study participants. Compared with the other two groups, the 200 men who had committed homicide showed significantly [reduced gray matter](#) in several brain regions that play important roles in behavioral control and social cognition.

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Kiehl notes that his MRI study could also someday contribute to new evidence-based measures of homicidal risk. These measures could supplement current measures of violent behavior, such as psychological questionnaires, if future studies demonstrated they carried predictive weight, he says. Beyond courts of law, he also suggests that understanding how violent behavior arises could pave the way to better psychological treatment aimed at both rehabilitation and prevention.

Read full, original post: [Secrets in the Brains of People Who Have Committed Murder](#)