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Psychopathic killers: Computerized text analysis uncovers the word patterns of a predator

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As words can be the soul's window, scientists are learning to peer through it: Computerized text analysis shows that psychopathic killers make identifiable word choices – beyond conscious control – when talking about their crimes.

This research could lead to new tools for diagnosis and treatment, and have implications law enforcement and social media.

The words of psychopathic murderers match their personalities, which reflect selfishness, detachment from their crimes and emotional flatness, says Jeff Hancock, Cornell professor of computing and information science, and colleagues at the University of British Columbia in the journal *Legal and Criminological Psychology*.

Hancock and his colleagues analyzed stories told by 14 psychopathic male murderers held in Canadian prisons and compared them with 38 convicted murderers who were not diagnosed as psychopathic. Each subject was asked to describe his crime in detail. Their stories were taped, transcribed and subjected to computer analysis.

Psychopaths used more conjunctions like "because," "since" or "so that," implying that the crime "had to be done" to obtain a particular goal. They used twice as many words relating to physical needs, such as food, sex or money, while non-psychopaths used more words about social

needs, including family, religion and spirituality. Unveiling their predatory nature in their own description, the psychopaths often included details of what they had to eat on the day of their crime.

Past as prologue: Psychopaths were more likely to use the past tense, suggesting a detachment from their crimes, say the researchers. They tended to be less fluent in their speech, using more "ums" and "uhs." The exact reason for this is not clear, but the researchers speculate that the psychopath is trying harder to make a positive impression, needing to use more mental effort to frame the story.

"Previous work has looked at how psychopaths use language," Hancock said. "Our paper is the first to show that you can use automated tools to detect the distinct speech patterns of psychopaths." This can be valuable to clinical psychologists, he said, because the approach to treatment of psychopaths can be very different.

More information: "Hungry like the wolf: A word-pattern analysis of the language of psychopaths," *Legal and Criminological Psychology* (online Sept. 14, 2011).

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