

Gut instinct: We can identify criminals on sight, study finds

April 8 2011, By George Lowery

(PhysOrg.com) -- A woman walking her dog encounters a man. She has an instant, visceral reaction to him and screams. The next day, she sees his picture in the newspaper; he has been charged with rape.

This anecdote prompted three Cornell researchers to reopen a "long and sordid" history of research and debate about whether we can determine who is a criminal by looking at his face.

Their finding: We can.

"In two experiments, subjects were able to distinguish between criminals and noncriminals by rating each photo we presented to them," said human development doctoral student Jeffrey Valla '12, first author of the study, published in the *Journal of Social, Evolutionary and Cultural Psychology* (Vol. 5:1), with human development professors Stephen Ceci and Wendy Williams.

The researchers gathered head shots of Caucasian males, ages 20 to 29, put them all against a white background and controlled for attractiveness and display of facial emotion. Half were photos of convicts. The criminals were on their first conviction, had short hair and little to no facial hair. About half the criminals had been convicted of violent crimes (forcible rapes, murder, assault) and half for nonviolent crimes (forgery, theft, arson and drug dealing).

On a scale of one to seven, study participants rated how likely each man

was to have committed a crime. If they thought a crime had been committed, they were asked to pick violent or nonviolent crimes and to specify which crime had taken place.

"We found a small but reliable effect," Valla said. "Subjects rated the criminal photos as significantly more likely to have committed a crime than noncriminals."

But the participants could not distinguish between violent and nonviolent offenders, and women subjects had more trouble correctly identifying rapists than men.

"We speculate that part of the reason why rapists might be successful is that they may purposefully make themselves appear to be nonthreatening to gain access to their victims," Valla said.

The researchers also found that after the experiment, subjects who said they "knew" which photos were police mug shots were worse at picking criminals than those who said they didn't know the photos' origin.

"We wanted to explore this without any preconceptions whether people can distinguish criminals from noncriminals, if there is a difference in appearance between criminals and noncriminals, and whether it's inherent or whether it's gained through experience -- the so-called Dorian Gray effect, in which you come to wear your experiences on your face," Valla said. "I'm not saying that's what people are picking out in the criminal photos, but it's one possibility."

Valla said some people react with aversion when he describes the experiments, in part because it smacks of data abused by adherents of such discredited theories as Social Darwinism, eugenics, phrenology and the "born criminal" -- a "subhuman species" with drooping eyes, large ears, protruding jaw and flat nose -- which led to the sterilization of

[criminals.](#)

Should we trust our intuition about people?

"If you're walking down the street and see someone who looks sinister, and you don't have to engage with him, are you going to give him the benefit of the doubt? Ideally, yes. But our study participants were more likely to err on the side of thinking someone was a criminal than not. Perhaps our reptilian brain is a little less ready to take such a risk," he said.

Provided by Cornell University

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