

— Between crime prediction and crime prevention

Transcription of the interview with Adrian Raine¹ - Ch. 2

2. Inside a psychopath's brain

Psychopaths are criminal offenders, they lack conscience, they lack remorse, they lack guilt. And part of the brain that's critically involved in emotion, the amygdala, is a brain area we scanned in a group of psychopaths and compared the volume, the size of the amygdala, in the psychopaths, compared to the normal control group. And what we documented here is that the amygdala, which is critically important for emotions, is reduced in volume by 18% in the psychopaths compared to the normal controls. So if you have a psychopathic criminal offender in front of you who doesn't care about what they have done, that isn't concerned about their victims, and does not seem remorseful, you can ask yourself, "what makes a person like that?" And I think part of the answer is that they have a structural impairment to that emotional part of the brain, the amygdala, that gives rise to these feelings of empathy and warmth and care and love for other people.

“Because of a structural impairment to the emotional part of their brain, psychopaths lack conscience, remorse, and guilt”

We were interested in the amygdala, we were interested in the fact that psychopaths make bad moral decisions. Now we know that when we make moral decisions, that brain area, the amygdala, is quite strongly activated. You might be familiar with some of the laboratory tasks that we use to give people difficult moral decisions. One is the trolley dilemma, you've got a runaway train on a railway track going to kill five railway workers. You are standing on the footbridge, looking over the railway line. Standing next to you is a large gentleman. You can save the five lives if you push the big

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man off the bridge, he stops the train, he dies, but you save five. Question. Will you push him off the bridge? You won't, but some people would. You really should, it's utilitarian moral decision making, five for one.

I think that no matter what we decide, we'd get a little bit emotional. And the reason for that is that the amygdala is activated. What we found, when we put psychopaths through a test like that, and assess amygdala function,

“We found that the higher the psychopathy score, the lower the amygdala function”

Emotion drives moral behaviour, the feeling of what is right and wrong. That feeling is very important in whether we do right or wrong. But if the amygdala is burnt out in psychopaths, for reasons beyond their control, then how moral is it of us to punish psychopaths as harshly as we do?

Has the criminal justice system got it right when it comes to punishment and responsibility, although, of course, this is a very difficult question to answer, and it goes beyond science certainly.

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[to be continued]