

Sex offending may be in the genes but knowing that won't prevent it

April 21 2015, by Mairi Levitt



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A high-profile piece of research recently suggested that the sons and brothers of convicted sex offenders are more likely to be convicted of sex crimes than others. The implication is that the potential for

committing a sex offence may be [written in our genes](#). But while this is an interesting finding, it is unlikely to help prevent sex crimes or catch offenders.

The [research](#), which analysed DNA from 21,566 men convicted of sex offences in Sweden between 1973 and 2009, found that sons and [brothers](#) of convicted sex offenders were four to five times more likely to be convicted of [sex crimes](#) than men in the [general population](#). In seeking to explain this connection, the researchers found that in only 2% of cases could this familial connection be explained by shared environmental factors, such as social or environmental aspects of their upbringing that siblings would have experienced together.

On the other hand, their shared genetics were a factor in 40% of cases, with the remaining 58% of cases stemming from environmental factors not shared between family members but which affected the offending individual uniquely.

Genetic factors were also found to be stronger for child molestation (46%) than for adult rape (19%). While the study makes an estimate of the heritability of sexual offending, it cannot of course pinpoint the [genes](#) that might be involved.

Nature vs nurture

Putting a figure on the genetic basis for behaviour seems to suggest that these factors are inherited directly by the children from their parents. Of course genetic material from both parents is passed on, but genetic traits are developed through interaction between genes and the environment. As can be seen from the percentages above, the largest proportion of cases involved a large, rag bag of environmental factors, whether shared or specific to that individual, that are by far the greatest influence on behaviour than inherited genes.

Separating out genetic and environmental factors – or nature and nurture – may be useful as a model but does not really make sense because research has demonstrated that [gene development is affected by the environment](#).

Any report of genes influencing behaviour tends to polarise opinion. Some may welcome the science and see this as confirmation that sex offenders are biologically different from other people and could perhaps be prevented from offending. Others will be concerned about the stigmatisation of family members defined as "at risk", but still unlikely to offend themselves. Only about 2.5% of brothers or sons of convicted sex offenders were also convicted so the preventative programmes aimed at at-risk families, suggested by the researchers, would mainly target the innocent.

So what then might this mean in practical terms? The discovery could perhaps one day lead to the identification of specific genotypes but could or should this affect the way we deal with sex offenders?

A genetic defence

A genotype [has already been identified](#) that increases the risk of violent behaviour in specific environments. Dubbed the "criminal" or "[warrior gene](#)", it has in some cases even been used successfully by defence teams in mitigation pleas to [avoid the death penalty in the US](#), or reduce the length of sentences in the US and [Italy](#).

It might be thought odd that a convicted murderer, who is at increased risk of offending and therefore presumably more dangerous to the public in the future, would be treated more leniently. Sex offenders, particularly where children are involved, are probably even more stigmatised than other violent criminals so perhaps a genetic defence would not work in their favour.

What is clear is that finding genetic influences on behaviour does not affect legal responsibility. Legal responsibility does not depend on someone being fully autonomous, or on an abstract notion of free will. It is recognised that there are many genetic, biological and [environmental factors](#) that influence behaviour, and it may be harder for all sorts of reasons for some people to refrain from criminal acts than others.

Any research that helps us to understand problem behaviours is to be welcomed, but the headline figure – a genetic link in 40% of cases – does not tell us that [sex offenders](#) "can't help it" or are different from "normal" people. The "warrior gene" variant is present in around a third of Caucasian [men](#), but those who are not ill- treated in childhood are actually less likely to be violent than the rest of the population. The genes that make up the people who we are, and the environments in which we are raised cannot be considered independently of each other.

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