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Some maltreated children develop into adults with antisocial behavior and become violent offenders, whereas many others do not. In the August 2 *Science* Caspi *et al.* provide a genetic insight into the variable response to childhood maltreatment (*Science* 2002, **297**:851-854). They examined a functional polymorphism in the promoter of the gene encoding **monoamine oxidase A** (MAOA), an enzyme involved in the metabolism of neurotransmitters. Deficiencies in MAOA have been linked to **aggressive behavior** in mice and men. They studied more than 1,000 children, examining a VNTR (variable number tandem repeat) polymorphism in the *MAOA* promoter that is known to affect expression levels. They found evidence for a significant gene-environment interaction; maltreated male children with low MAOA expression showed the greatest risk of developing antisocial behaviour. This study demonstrates how the interplay between genotype and environmental factors can affect complex adult behaviours.

References

1. *Science*, [<http://www.sciencemag.org>]
2. Localization of human monoamine oxidase-A gene to Xp11.23-11.4 by *in situ* hybridization: implications for Norrie disease
3. Monoamine oxidase: from genes to behavior.