Taming Baby Rage: Why Are Some Kids So Angry?

New research indicates babies are born with violent tendencies that most learn to control
By Nikhil Swaminathan

It is not the cartoons that make your kids smack playmates or violently grab their toys but, rather, a lack of social skills, according to new research.

"It's a natural behavior and it's surprising that the idea that children and adolescents learn aggression from the media is still relevant," says Richard Tremblay, a professor of pediatrics, psychiatry and psychology at the University of Montreal, who has spent more than two decades tracking 35,000 Canadian children
(from age five months through their 20s) in search of the roots of physical aggression. "Clearly youth were violent before television appeared."

**FAILURE TO UNLEARN:** A Canadian researcher suggests that all children have a tendency to be aggressive as toddlers, but, through socialization, many learn to communicate through different means.

Tremblay's previous results have suggested that children on average reach a peak of violent behavior (biting, scratching, screaming, hitting…) around 18 months of age. The level of aggression begins to taper between the ages of two and five as they begin to learn other, more sophisticated ways of communicating their needs and wants.

Tremblay on Wednesday is set to present preliminary study results showing a genetic signature consistent with chronic violent behavior at a meeting of The Royal Society, the U.K.’s academy of science, in London.

"We're looking at to what extent the chronically aggressive individuals show differences in terms of gene expressions compared to those on the normal trajectory," he told *ScientificAmerican.com*. "The individuals that are chronically aggressive have…more genes that are not expressed." The fact that a gene can be silenced or the level of protein it encodes reduced, he added, "is an indication that the problem is at a very basic level."

When children first begin to poke, prod and even slap, parents, teachers and siblings often react by indicating that those behaviors are inappropriate. But, citing studies done in animals, Tremblay notes that an unfit environment beginning in the womb may affect a child's ability to learn this lesson in the first place. And he plans to extend his genetic studies to include expectant mothers to determine if their behavior during pregnancy is linked to the down tuning of genes that may be associated with chronic aggression.

"In the long studies we've been doing, we've measured a number of characteristics during pregnancy and after birth that are good predictors" of chronic aggression in children, Tremblay notes. Possible factors that might influence neurobiological
Development of the fetus, he says, include smoking, drinking, poor nutrition and excessive stress.

Tremblay speculates that genes play a significant role: for instance damaged genes may make it hard for children to acquire language, frustrating them and making them prone to violence, among other means of making themselves heard. "When you don't master language," Tremblay says, "it's hard to get people to understand what you want."

Kate Keenan, an associate professor of psychiatry at the University of Chicago, views this new genetic analysis as the logical next step in Tremblay's long-term exploration into childhood aggression. She believes Tremblay's work may help uncover genetic profiles distinct to chronically aggressive children that may allow researchers to answer questions like, "Can we differentiate [between these kids] even earlier?" [and] "How early can you intervene?"

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