

CURRENT ISSUE HIGHLIGHTS:

- [Reviews](#)
- [Climate Change and the Law](#)

ASK THE EXPERTS:

- [If mutations occur at random over the entire sequence of a species' genome, how can a complex organ such as an eye evolve? How can all the mutations that direct the development of that organ be concentrated in the right places?](#)



SEARCH

- Technology
- Space & Physics
- Health
- Mind
- Nature
- Biology
- Archaeology & Paleontology
- News
- Video
- Blog
- In Focus
- Ask the Experts
- Weird Science
- Podcasts
- Gallery
- Recreations
- Magazine
- SA Digital
- Subscribe
- Store

November 12, 2007

[BROWSE BY SUBJECT: MIND](#)

October 16, 2007

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

- E-mail
- Print
- RSS
- StumbleIt
- digg
- reddit
- newsvine
- it Us

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



Image: © ISTOCKPHOTO/TYLER STALMAN

- Current Issue
- Past Issues
- Order
- Subscribe
- Renew
- Give a gift
- Change Address
- Customer Care

Magazine Content

Free Newsletters

enter e-mail

Most Popular

Related Links

Latest News

- [Mouse Study Suggests Anxiety Disorders Take Root in Infancy](#)
- [Excessive TV-Watching During Adolescence May Lead to Violent Behavior in Adulthood](#)
- [Effects of Smoking May Be Passed Down through Generations](#)

Video News

Submit your videos >

- Origin of cosmic rays unearthed
- Indonesia's volcanoes keep rumbling
- Chopstick bra
- Surgery success for eight-limbed girl
- Eight-limbed girl's rare operation
- more >



NEW!

60SecondScience.com

Quick science news to fuel your day

Breaking Science News from Reuters

Updated today at 9:27

- [PM ready to enter Japan cell phone market in spring](#)
- [Drug-resistant bacteria found to trick immune system](#)
- [Ariane rocket launch set for Monday](#)
- [UK politicians censure EU satellite project](#)

(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.

ADVERTISEMENT (article continues below)



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

[Study finds little strokes lead to big strokes in a week](#)

[World faces choice on human cloning: U.N. study](#)

[CORRECTED - World faces choice on human cloning: U.N. study](#)

[Intel launches new chips with smaller circuits](#)

[World should ban human cloning, except medical: U.N.](#)

[Latin music fans going mobile in Spain](#)

[Disney to launch cellphone service in Japan: paper](#)

[China says bead toy contained toxic substances](#)

[More than 150 cholera cases in Vietnam: state media](#)

[Temple built 4,000 years ago unearthed in Peru](#)

[Time runs out on talks on drugs for poor countries](#)

[more >](#)

► **EXCLUSIVE ONLINE ISSUES & SPECIAL EDITIONS**

[The Rise of Nanotech](#)

[The Early Years](#)

[Reality-Bending Black Holes](#)



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?"

MORE MIND ARTICLES:

[The Birth of a Brain Cell: Scientists Witness Neurogenesis](#)

[Bystander Stem Cells Keep Original Neurons Humming, Restore Memory](#)

[How the Brain Maps Symbols to Numbers](#)

[When the Eyes Play Tricks on the Ears](#)

[How to Win an Election: Make a Good First Impression \(in Less than 250 Milliseconds\)](#)



NEWS FROM OUR PARTNER

SCIENTIFIC AMERICAN **MIND** www.SciAmMind.com

[How the Brain Maps Symbols to Numbers](#)

[When the Eyes Play Tricks on the Ears](#)

An advertisement for MerckProductServices.com. It has a light blue background with a white border. The text includes: "Visit MerckProductServices.com", "Product Samples: One easy form. Choose, print, sign, return.", "eMedical Forums: Hear the latest on current topics of interest.", "Educational Materials: Obtain patient brochures, journal reprints, more...", "Links to the medical internet and more". At the bottom, it says "Register now! It takes seconds, and opens a world of resources for you and your practice." Below the ad, it says "MerckServices.com" and "Ads by Google".

[See your ad here](#)

© 1996-2007 Scientific American, Inc. All rights reserved. Reproduction in whole or in part without permission is prohibited.

[Subscribe](#) | [Customer Care](#) | [Subscriber Alert](#) | [Order Issues](#) | [Site Map](#) | [Search](#) | [Jobs](#) | [About Us](#) | [Contact Us](#) | [Press Lounge](#)
[Advertising](#) | [Institutional Site License](#) | [Privacy Policy](#) | [Terms of Use](#) | [Permissions](#) | [Reprints](#) | [Custom Publishing](#) | [Partnerships/Licensing](#)
[Science](#) | [Travel](#) | [Cruise](#) | International Editions: [Brazil](#) | [France](#) | [Germany](#) | [Italy](#) | [Japan](#) | [Spain](#) | [Other](#)