

SPOTTED

# Spotted: Gene-editing ethics; treatment turmoil

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27 MARCH 2015

WEEK OF MARCH 23<sup>RD</sup>

## Gene-editing ethics

The creators of the gene-editing tool CRISPR, which has been used to **mutate, activate, delete** and **duplicate** genes in cells and animals, are pushing to **ban the technique** in people. “You could exert control over human heredity with this technique,” CRISPR co-creator David Baltimore, former president of the California Institute of Technology, **told *The New York Times*** in an article last week. Autism researchers have used the method to study the effects of mutations linked to the disorder. But some fear it might one day be used to swap someone’s mutant gene with a healthy version. “I personally think we are just not smart enough — and won’t be for a very long time — to feel comfortable about the consequences of changing heredity, even in a single individual,” Baltimore said.

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## ABA unease

An article published 20 March in *The Guardian* **explores perceptions** of a widely used autism therapy: applied behavior analysis. The therapy, dubbed ABA, uses rewards to encourage children with autism to display ‘normal’ behaviors, such as eye contact. For instance, Jack — a 9-year-old boy described in the article — earns tokens for not walking on his tiptoes. He can later cash in these tokens to do things he loves. The approach has been **proven to work**, but some people with autism call it abusive for pressuring children to conform. “Being trained to obey, and to force our brains to do things in a way they are not wired to do, causes long-lasting pain,” 31-year-old Amy Sequenzia wrote to the newspaper. ABA providers see things differently, however. “We’re not trying to deny kids the right to be who they are,” said **John McEachin**, co-director of the California-based Autism Partnership. “We are expanding their horizons and giving them tools so that ultimately as adults they can make their own choices.”

## Unlocking autism

Nearly a quarter of children with autism **speak few or no words**. One of these children, 14-year-old Emily Browne, is the **focus of a feature** published on Boston University's website. She is participating in a research study led by **Helen Tager-Flusberg**, director of Research on Autism and Developmental Disorders at Boston University, aimed at understanding why some children with autism don't speak and **whether this can be changed**. "Imagine if you were stuck in a place where you could not express anything and people were not understanding you," said Tager-Flusberg. "Can you imagine how distressing and frustrating that would be?"

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## Empathy gap

Neuroscientists are searching the brain for the origins of empathy — the ability to understand and share the feelings of others, and something that **people with autism struggle with**. A feature published last week in *The New York Times Magazine* looks at the work of Emile Bruneau, cognitive neuroscientist at the Massachusetts Institute of Technology, who **uses brain imaging to study empathy** in areas of conflict around the world. He hopes his work might suggest how to close the "empathy gap" between a person and his enemy. "The idea is to intervene at the psychological level before we intervene at the societal level," Bruneau told the magazine.

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