

OPINION

The numbers game

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This month's *Scientific American* features an **article about autism** that debates one of the most vexing questions in the field: how real is the autism epidemic?

This is a persistent and, for many, a highly emotional debate. On the one hand is the theory that there is a massive, unexplained rise in the number of children being diagnosed with autism. On the other are experts who note that there have been a great many changes in diagnostic practices in the mid-1980s that explain the trend. And then there is the vast gray zone in between those two stances.

The authors, Scott O. Lilienfeld and Hal Arkowitz, spend some time on different popular theories, but seem to favor the hypothesis that the rise in numbers is in large part the result of a change in how autism is diagnosed. They point out, for example, that to be diagnosed with autism in 1980, an individual had to meet 6 of 6 criteria laid out by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders. Today, the diagnosis depends on meeting any 8 of 16 criteria.

The definition of autism has also expanded from two subtypes in 1980 to five now, including Asperger syndrome. As our scientific director Gerald Fischbach **notes in his review** of the very first paper that described autism, there's still much confusion about the distinction between Asperger's Syndrome and high-functioning autism.

The article goes on to discuss the potential role of legal changes in the educational system in the expanded numbers. Finally, the authors cite two studies to support the idea of "diagnostic substitution."

In the **first study**, researchers reviewed the prevalence of autism between 1992 and 2002 in a sample of more than 10,000 children in a part of England. They found that if the diagnostic criteria for autism remain the same, there is no change in the incidence of autism either. **The second study** compared the incidence of autism as reported by special education services to those of

mental retardation and learning disorders. That study found that the upward trend in diagnoses of autism coincides with a downturn in other developmental disorders (see graph, right).

In the *SciAm* article, the authors end by suggesting that even if the rates of autism are rising, they might be rising less rapidly than they appear to at first glance. What's your opinion?