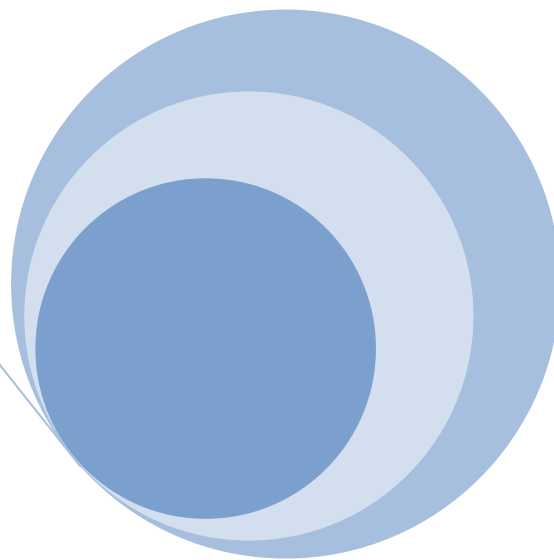


The Atlantic



Correlation, causality, vaccination





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You would have to have more heart than me to ignore the distressed search of parents of autistic children for the cause of their child's condition. "I saw," they say; "one shot, and then the child who talked and laughed began to withdraw." It's hard to argue with someone's pain.

However, I will. Our brains are designed to learn by associating events that happen at the same time or in sequence. When you were a child, that's how you learned that if you touched the stove, it would burn long before you understood how combustion worked. We also have other ways of learning, but that time bond is the strongest and most primordial association. We spend our whole lives looking for those connections.

This is not a bad heuristics, but of course, it often leads to a deviation, which is why there are so many ridiculous "cures" for hiccups. The fact that your child has regressed after receiving an injection does not mean that it has caused the regression. That suggests a theory..., but that theory was tested and found to be missing.

Anti-vaccination sites support your belief by systematically excluding anyone who offers counter-evidence from the domain of acceptable sources. Pharmaceutical studies cannot be trusted because they have a profit motive. The CDC is tied to big business. The "medical establishment" wants to make money by shooting its children unnecessarily. In fact, the only person you can trust is the guy who is writing the site.

This is the right sign of a crank. It's possible that all these people are wrong - science has had far more spectacular failures in the face of clear evidence. But there is no multi-million dollar conspiracy.

These sites separate studies that show no link between vaccination and autism, ignoring much more obvious problems in studies that support this link. The state of medical research is really quite horrible for people who do other types of research, thanks to a combination of problems with human beings and generally abysmal statistical practice. But it is more likely that problems are found in poorly funded, inadequately staffed, and generally poorly planned studies, which aim to show a link between vaccination and autism.



•A doctor who has been working with autistic children for decades offers a very interesting paper on the topic, which I found through Blissful Knowledge. He reports that long before vaccine theory, parents always identified something that was causally related to their children's late onset autism:

•At the Children's Unit of WMHI, we had both forms of Autism Disorder. In some children, the clinical signs and symptoms of autism were present from birth. In others, the child was quite normal (neuro-typical) at birth and reached developmental milestones, including language acquisition at usual times and in the usual way. But then, at two, three, or four years of age, a conspicuous regressive process began to rob the child of all this natural progress. Interestingly, in these late-breaking cases, all the parents had some sentinel event which, in their minds, represented the cause of this terrible regressive pattern: "since he fell off the pier and nearly drowned"; "the time he was trapped in the silo"; or "since he went to the hospital to have his tonsils removed.

•The point is that there is a natural tendency on the part of parents to look for and blame some event or procedure for the onset of such a surprising regression in a child that it was otherwise developing normally. Dr. Down called this regression "habitual loss of brightness. Dr. Down attributed that regression to the "second set of teeth. Obviously, in the search for causes, one must separate the temporal from the causal relationship.

•I've seen cases of autism starting late well before there was an acceleration of vaccine schedules to current levels. And in each of these cases, the parents pointed to some special event that, in their mind, was responsible for the beginning of the regression. A century earlier, Dr. Down described cases of late onset autism well before there was any vaccination program. As I mentioned above, he attributed this regression, at least temporally, to the "second dentition".

•Looking for these links is totally natural. However, dedicating vaccines has real and terrible consequences. Millions of children die around the world every year due to childhood diseases that we eliminate here through vaccination. Now, as these websites scare people about vaccination, we are seeing a resurgence of these diseases. People are dying again and others have permanent health problems. Leaving the children unvaccinated means going back to:



- Iron suspenders and lungs for people with polio (57,628 cases in 1952)
- Encephalitis and sterility for people with mumps (200,000 cases per year in the 1960s)
- Congenital rubella syndrome for children whose mothers contracted the disease during pregnancy.
- Blindness, pneumonia, encephalitis, and death - one per thousand - for people with measles (nearly 1 million cases a year in the U.S. before vaccination).
- Encephalitis and pulmonary hypertension for people with pertussis - thanks to people who do not vaccinate their children, in 2001, 17 people, mostly children, died of pertussis (200,000 cases in 1940).
- Cardiac arrest and paralysis for people with diphtheria (207,000 cases and about 15,000 deaths in 1920).

Vaccinations frighten us because diseases do not. And they don't because of vaccines.

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