A statistician with Tourette's syndrome

(Interview of Andrew Gelman for the American Statistical Association Committee on Statistics and Disability, July 2026)

1. Where did you grow up?

I grew up in Silver Spring, Maryland, a suburb of Washington, D.C. My parents both worked for the government. Earlier my dad had worked for General Electric in their aerospace division, building circuits to compute missile trajectories. Around 1970 he was laid off for a while, then later transferred to the D.C. area, and a couple years after that he took a job at the Environmental Protection Agency, working in the division that enforced the phase-out of leaded gasoline. He learned there were openings at the EPA from an announcement one day in Mike Causey's Federal Diary column in the Washington Post. My mom was a housewife, and then when I was old enough to take care of myself after school she worked as a secretary, then as a substitute teacher, then as an economist for the Bureau of Labor Statistics. One of her jobs there was to call up companies and check on the employment numbers that they were sending to the government. One of my sisters worked during high school at a McDonalds restaurant that was two blocks from our house. That was fine except that she had to wear a hairnet and the boss was sexist: the grill was for boys only. Girls were allowed to make fries but not burgers. Later she got summer clerical jobs: she was really focused and could type a zillion words a minute. Every time she got a temp job the organization always wanted her to stay on permanently. One summer after

graduating from college my brother worked as clerk for the National Oceanic and Atmospheric Administration His job was to enter the weather numbers that came in. He had a boss who was very orderly. At one point there was a hurricane that wiped out some weather station in the Caribbean, and his boss told him to put in the numbers anyway. My brother protested that they didn't have the data, to which his boss replied: "I know what the numbers are." Nowadays we call this sort of thing "imputation" and we like it. But not in the raw data! I bet nowadays they have an NA code.

Silver Spring is in Montgomery County, Maryland, which at the time I was growing up was the richest county in America as measured by median income. Montgomery County was not a haven for the ultra-rich, but it had very few poor people. It seemed nearly uniformly upper middle class. Where I grew up was not the richest part of the county, but we were all comfortably middle class. Our family did not have extra savings in the bank, but there was no concern about paying the bills each month. My parents, like many people in the area, worked at desk jobs for the U.S. government. These were non-supervisory jobs, with nothing close to the autonomy and pay that I receive as a tenured professor, but secure jobs with steady incomes. In Montgomery County, compared to the country (or, even more so, the world) as a whole, we had something approximating political, social, legal, and economic equality. The police were part of the community, the doctors and nurses were part of the community, etc. We felt neither like an occupied country or like a colonial power.

I'm not completely sure why this should be, but it often seems to be the case that local equality is a sort of privilege, bought by amassing enough of a surplus that society can afford to underwrite the efforts that it takes to keep a more natural state of inequality at bay. I think that equality is desirable, and I count myself very lucky to have grown up in a community that was both prosperous and equal.

2. Where did your interest in statistics/data science come from?

I studied math and physics at MIT. To be more precise, I started in math as default—ever since I was two years old, I've thought of myself as a mathematician, and I always did well in math class, so it seemed like a natural fit.

But I was concerned. In high school I'd been in the U.S. Mathematical Olympiad training program, and there I'd met kids who were clearly much much better at math than I was. In retrospect, I don't think I was as bad as I'd thought at the time: there were 24 kids in the program, and I was probably around #20, if that, but I think a lot of the other kids had more practice working on "math olympiad"-type problems. Maybe I was really something like the tenth-best in the group.

Tenth-best or twentieth-best, whatever it was, I reached a crisis of confidence around my sophomore or junior year in college. At MIT, I started right off taking advanced math classes, and somewhere along the way I realized I wasn't seeing the big picture. I was able to do the homework problems and do fine

on the exams, but something was missing. Ultimately I decided the problem was that, in the world of theoretical math, there were the Cauchys, the Riemanns, etc., and there were everybody else. I didn't want to be one of the "everbody else." Unfortunately I didn't know about applied math at the time—at MIT, as elsewhere, I imagine, the best math students did the theory track.

I was also majoring in physics, which struck me as much more important than math, but which I felt I had even less of an understanding of. I did well in my classes—it was MIT, I didn't have a lot of friends and I didn't go on dates, so that gave me lots of time to do my problem sets each week—and I reached the stage of applying to physics grad schools. It was only at the very last second in April of my senior year that I decided to go for a Ph.D. in statistics rather than physics.

I had some good experiences in physics, most notably taking the famous Introduction to Design course at MIT—actually, that was a required course in the mechanical engineering department but many physics students took it too—and working for two summers doing solid-state physics research at Bell Labs. We were working on zone-melt recrystallization of silicon and, just as a byproduct of our research, discovered a new result (or, at least it was new to us) that solid silicon could superheat to something like 20 degrees (I think it was that, I don't remember the details) above its melting point before actually melting. This wouldn't normally happen, but we had a setup in which the silicon wafer was heated in such a way that the center got hotter than the edges, and at the center there were

no defects in the crystal pattern for the melting process to easily start. So it had to get really hot for it to start to melt.

Figuring this out wasn't so easy—it's not like we had a thermometer in the inside of our wafer. (If we did, the crystalline structure wouldn't have been pure, and there wouldn't have been any superheating.) We knew the positions and energies of our heat sources, and we had radiation thermometers to measure the exterior temperature from various positions, we knew the geometry of the silicon wafer (which was encased in silicon dioxide), and we could observe the width of the molten zone.

So what did we do? What did I do, actually? I programmed a finite-element model on the computer and played around with its parameters until I matched the observations, then looked inside to see what our model said was the temperature at the hottest part of the wafer. Statistical inference, really, although I didn't know it at the time. When I came to Bell Labs for my second summer, I told my boss that I'd decided to go to grad school in statistics. He was disappointed and said that this was beneath me, that statistics was a step down from physics. I think he was right (about statistics being simpler than physics), but I really wasn't a natural physicist, and I think statistics was the right field for me.

Why did I study statistics? As part of my understanding of statistical workflow, I've come to consider Why questions as pointers to potential interventions. The intervention that happened to me was that I took a data analysis course from Don Rubin when I was a senior in college. MIT had very few

statistics classes. I'd taken one of them and liked it, and when I went to a math professor to ask what to take next, he suggested I go over to Harvard and see what they had to offer.

I sat in on two classes: one was deadly dull and the other was Rubin's, which was exciting from Day 1. The course just sparkled with open problems, and the quality of the ten or so students in the class was amazing. I remember spending many hours laboriously working out every homework problem using the Neyman-Pearson theory we'd been taught in my theoretical statistics course. It's only by really taking this stuff seriously that I realized how hopeless it all is. When, two years later, I took a class on Bayesian statistics from John Carlin, I was ready to move to a model-based philosophy.

3. Would you share information about your disability?

I have Tourette's syndrome, which manifests for me as uncontrollable need to twitch. I've had it since around the age of 6, which I've been told is the usual pattern. Over the years, the twitches have moved around—they've included coughing, swallowing, and other small vocalizations; chewing on things; head shaking; and movements of my shoulders or other joints.

Perhaps relatedly, I've never been able to sit still and I almost never look people in the eye. I'd lose a staring contest with just about anybody. When I was a kid, adults would sometimes get mad at me for not looking them in the eye. I remember being shouted at by an assistant principal in elementary school. As an adult, I still usually let my eyes dart around rather than locking

eyes with people in conversation. Also, I can't visualize people or faces. If I close my eyes and try to picture people I know, I can't visualize their faces. I can only think of them as collections of attributes (shape of face, hair color, hairstyle, etc.). When I run into people I know, I recognize them—I'm not "face blind." But I'm not so good at the task. Often it takes me a while to be sure, and I can be thrown off when someone is wearing different clothes or has new glasses or a new haircut, which I guess is consistent with me remembering people as collections of attributes rather than visual images. Maybe this is because, unlike most people, I don't have decades of practice looking people in the eyes.

I'm not sure how much of the above is Tourette's-specific and how much is just me, but I'm mentioning it because it all seems connected in how I feel. It goes like this: sometimes I feel a need to twitch—it either comes all by itself or because I'm thinking about it (as right now). With great effort, I can suppress the twitch for a half a minute or so—maybe the best analogy I can give you is how it feels when you're hanging from the pull-up bar or holding your breath: the longer you do it, the harder it is, and eventually you just have to let go. Twitching exists in some interesting zone between tremors and voluntary motion. When I twitch, I'm deciding to do so; it's just that I can't decide not to do it.

One thing, though: I don't have coprolalia, which is when people blurt out inappropriate swear words. I like to swear as much as anyone, I guess, but it's just part of my speech; it doesn't come out as a twitch. I've read that most people with Tourette's don't have coprolalia; it's just a dramatic thing that

gets associated with the condition. This is not to say that I never say anything inappropriate—I remember in a faculty meeting about thirty years ago, someone said something and I responded, "Get the fuck outta here!", in my best Eddie Murphy voice. Unfortunately, I don't think anyone else in that room had seen Beverly Hills Cop, so they just thought I was cussing the guy out! My bad. This had nothing to do with Tourette's, though; it was just poor judgment in the moment. It's not like I was feeling a need to curse.

But here's the biggest thing. I never thought of myself as having Tourette's until I was 28! It's not that I thought I didn't have Tourette's. I'd heard of the condition, and it had never crossed my mind that I might have it. What happened was that one day I was chatting with a colleague at the medical school and he offhandedly mentioned that I had Tourette's. I don't remember how it came up, but once I heard it, I was like, yeah, I guess that's right. And after that I read up on it a bit. Years later I asked my parents how they thought about my twitching. They told me they never talked with me about it because they didn't want me to be self-conscious about it. That sounds about right. It would've been horrible if they'd tried to get me to stop. I've tried to keep this in mind—not always with success, I'm sorry to say!—when my kids do things that annoy me.

I'm not part of any Tourette's community. Every once in a while I see someone on the street who's twitching, and that kind of makes me happy, and I added my name to the Wikipedia page of people with Tourette's syndrome. But every time I do this, someone takes it down because I can't point to any authoritative source and, as you might know, blogs don't

count. Once this interview officially appears, I can link to it and finally remain listed on that page.

Every once in a while I see something in the news media on Tourette's and I react to it. For example, the neurologist Oliver Sacks has written very perceptively on the topic, and that's great, but then after he died, some material from his journal was published, including this bit about Tourette's patients: "With my help and almost my collusion, they can extract the maximum possible from their sickness—maximum of knowledge, insight, courage. Thus I will first help them to get ill, to experience their illness with maximum intensity; and then, only then, will I help them get well!" And my reaction was, Maybe we don't want to "get well," dude! And a few years ago I was motivated to write the following letter to the London Review of Books:

" 'Aggressive, fizzing nonconformity, the diplomatic equivalent of Tourette's syndrome, is an essential part of North Korea's nature,' Richard Lloyd Parry writes. This is a terrible analogy. If you have Tourette's syndrome, twitching is not something you have any desire to do and it doesn't serve your interests. Rather, you twitch because it becomes escalatingly uncomfortable to keep from twitching. In contrast, as Lloyd Parry explains, the North Korean government has a strong rational incentive to develop nukes as a deterrent. I don't know what the diplomatic equivalent of Tourette's syndrome would be, but it wouldn't be an action that instrumentally benefits one of the players in a negotiation; it would have to be some action that is noticeable, can't be stopped, and does no harm to anyone else involved."

4. How has your disability affected your work as a statistician, if at all?

For me, Tourette's syndrome has not been a disability, as it has not interfered with my ability to function in the world, and I have not needed to accommodate or work around it in any way. When I was a kid I'd get teased and get into fights, but if it hadn't been the twitching, I'm sure it would've been something else. I kind of wonder what other people say about my twitching when I'm not around—I give a lot of talks, and you can see me twitching all over Youtube—but that's one of the blessings of the world, that we don't hear what people say about us behind our backs.

I don't know if this is true, but I kind of like to think that Tourette's has actually helped me with my work. I say this because I associate my Tourette's with a lack of ability to concentrate—but another way of saying this is that I always have about a hundred ideas in my mind at once. I carry a notebook around with me to write down ideas as they come up, because otherwise I might forget. It's not that I can never focus, but my work as a statistician typically involves bouncing from one idea to another. This can also help with writing. People sometimes ask how I can be so productive, writing all these books, articles, and blogs. One answer is that a limiting factor in writing can be waiting for inspiration, but I never need to wait, because some new idea is always popping in, so when I get stuck I can jump from project to project. I have lots of bad ideas too—that's just how it goes—and there are lots of other

ways to do research; this is just a style that's worked for me.

5. What message would you share with your younger self about life as a statistician with a disability?

You know that saying, that being a white guy is like playing the game of life on easy setting? No way that's true of all white guys, but it's definitely been true of me. I've had the occasional setback in life, but mostly I've had all the breaks. Obviously I've been lucky enough to have a career doing something that I'm very good at. OK, that's not all luck: I've worked hard, and I consciously moved away from options where I wouldn't have been the best at what I do. But to have grown up in a society where this has been possible, with such wonderful public and private education systems from high school onward, that's all gone so smoothly.

When I was a kid, my mother told me that I could do great things and that I had a responsibility to the world to do so. I've taken that to heart. One thing it took me a bit longer to realize is that just about everyone has something unique and valuable to contribute to the world. I try to convey this to students. I'm not a great teacher—I tend to focus on the material being taught rather than on the individual students, and indeed one reason I wrote two pretty good books (I think) on how to teach is that I've needed to work through a lot of specific techniques to get students involved. Even if I'm not tuned in to what each student can do, I remember the larger goal of giving them the tools to be able to do their best work.

In answer to your question above, if I could talk with my younger self, I'd say, "Hey—you know that twitching that you do? It's called Tourette's syndrome and it's no big deal."

6. What would you like people to know about working with others with your kind of disability?

If you see someone who twitches, and it bothers you, or if you're curious about it, just ask! People are typically very willing to talk about their health or body issues, and you might learn something. It's been very rare that anyone has ever come up to me and asked about my twitching. Maybe they think it would offend me to bring it up, or perhaps it's more that people who don't twitch won't find Tourette's syndrome very interesting. It could well be something that's much more fascinating from the inside than to others.

7. Which one of your achievements are you the most proud of and why?

A great achievement is anything that is difficult, requires sustained effort, and has intrinsic value as judged by people you respect. I will leave it to those people to decide what they consider to be my most important personal and professional achievements.

8. Is there anything else you'd like to share about your experiences as a statistician with a disability?

I do not think of myself as being disabled or as having a disability. There's an expression, "temporarily abled," that describes all of us whose bodies are working well. As babies and young children we are disabled in the sense of needing others to take care of us at all time, and if we reach old age we again lose the ability to function autonomously throughout the day. If we are lucky, we get several decades of non-disability in the middle of our lives, something I've experienced ever since the age of 5 or so and which I hope to maintain for a few decades longer.

To the extent that Tourette's is associated with disability for me, it's that I've been told that all this twitching will give me arthritis, so maybe when I'm in my seventies I'll barely be able to move my neck and be in pain all the time. That would be horrible. But I don't think about it much now except to do my stretching and core exercises every day.