

By Collin R. Diedrich

# Lessons from learning disabilities

**“H**ave you thought of going to business school instead of becoming a scientist?” I had just failed my first attempt at my comprehensive exam for my Ph.D. program in molecular virology and microbiology when an adviser in the university’s disability resource office asked me this question. She went on to say that science requires a lot of reading, and she thought that might present a problem given my learning disabilities, which make reading and processing language a challenge for me. I told her that if I wanted to go into business, I would have gone to business school, and she was underestimating my abilities. Despite her reflexive reservations, and thanks in part to her eventual support, I went on to pass my second exam 3 months later, receive my Ph.D., and pursue a satisfying career in biomedical research.

Getting here has been fraught with obstacles. I read poorly, and I process spoken language slowly. I have a hard time reading street signs while driving and ordering from menus that don’t have pictures. I avoid reading books. I don’t retain much general knowledge. I have trouble remembering names. I even struggle to remember small but important details, including the date of my wife’s birthday. Throughout my life, daily challenges like these have left me feeling straight-up stupid.

In my academic life, I had panic attacks over homework assignments and was beset by a constant fear of reading out loud in class. My self-doubts were reinforced when I scored in the bottom 30th percentile on the verbal section of the GRE. They were solidified when I was rejected from all but one of the graduate schools I applied to. My pride was most devastated when I failed my comprehensive exam. On countless occasions, I haven’t felt intelligent enough to be a scientist.

When these feelings creep up on me, I have learned to remind myself that I excel in some areas, and that I can ask for help in the areas I do not. Although asking for help can be difficult, it’s incredibly important for people with learning disabilities—and it’s equally important that their communities provide it. I never would have overcome my failures if it weren’t for constant support from my family and friends; the reasonable accommodations I received in school thanks to the Americans with Disabilities Act; the confidence of my teachers and professors, who treated me like a normal student who happened to need to record lectures and take extra time on exams; and my graduate school adviser and



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wonderful co-workers, who pushed me to be the best scientist I could be.

In some ways, my learning disabilities have actually prepared me well for a career in research. My learning disabilities make common knowledge hard to understand, forcing me to ask questions relentlessly and fine-tune my critical thinking skills. I’ve learned to question everything, including the dogmatic notions scattered throughout the scientific literature. Asking these questions has garnered me several publications. My learning disabilities have also forced me to become intimately familiar with failure—good preparation for the routine failures of research. Experiments fail until they do not. Hypotheses go through countless rounds of failure before they are finalized and published. Editors regularly reject manuscripts. But I survive getting knocked down by these failures because my learning disabilities taught me to stand up and push forward after each one.

Truthfully, my learning disabilities have made me the scientist I am today. My learning disabilities define me—and now that makes me proud. People with unique minds have asked novel questions and solved significant problems in the past, and they will continue to do so in the future—but only if we help them excel. If we let those with learning disabilities settle for being “stupid,” we’re wasting that chance. And that isn’t very smart. ■

# Science

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