Learning to say ‘yes, and’

I stood behind the curtain, my hands shaking. As I listened to the crowd laugh at the host’s jokes, all I could think was, “Why did I believe I could do this?” Two months earlier, I had signed up for improv classes at a local theater, along with four other grad students. We hoped that improv training—which involves acting out unscripted scenes—would improve our science communication skills. That sounded great in principle, and our program would pay the fees. But when the host gave us the cue to come on stage, I seriously wondered what I’d gotten myself into.

When I first heard about the improv classes, I was torn. As an introvert, I feared getting on stage and improvising in front of strangers. However, I knew I wanted to work as a science communicator after finishing my Ph.D., so it seemed like the perfect opportunity to improve my speaking ability and gain confidence thinking on my feet. I signed up, knowing the experience would take me well outside my comfort zone.

During our first class, we learned a core concept of improv: “yes, and.” It means that, as improvisers, we accept what fellow performers say. If someone says that rhinos are librarians, for example, then rhinos are librarians. We do not question the logic; we say “yes” and continue with the scene as if nothing is awry.

To do this effectively, our teacher warned us that we’d have to avoid second-guessing ourselves. Sometimes scenes go in unexpected directions. The best improv happens when performers stay open to different possibilities and say whatever pops into their minds.

I got a taste of how difficult that is when acting out my first scene. My classmate turned to me and said, “Mom is going to be so mad.” Mad about what? My mind spun out ideas, and my inner critic shot them all down. We broke the car? No, that’s too easy. We failed a test? No, you don’t want your classmates thinking you’re stupid on the first day. I finally landed on an answer: “Yes, we’re going to be late for dinner.” The scene proceeded from there, and we eventually finished as two sisters who lost their way on a hiking trail.

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That training came in handy 6 months ago, when I was giving a seminar about my science. An audience member surprised me with a question that didn’t grow out of the information I’d presented. Instead of getting flustered, I implemented the “yes, and” approach—accepting the question at face value and letting my mind focus on why it was asked. That helped me shift gears and find an appropriate answer.

The benefits of improv go beyond communication. Early on in grad school, I would get stuck when my experiments generated unexpected data; my inner critic would assume I had made a mistake. But now, after embracing the “yes, and” concept, I no longer go into an experiment thinking that I already know the story my data are going to tell.

Last year, I used that approach after encountering confusing data. Instead of getting discouraged, I kept exploring the data and ended up identifying a new type of cell—one that wasn’t behaving as expected. If I hadn’t stayed open to the possibility that the results were real, I would have missed out on the most exciting finding of my Ph.D. so far.

All scientists can benefit from this lesson. If the data say rhinos are librarians, then it’s worth investigating whether rhinos are, in fact, librarians. Our job as scientists isn’t to generate data that support a preconceived story. Our job is to say “yes, and.”

As for that debut performance, I must admit that I cannot remember much of it. In front of the deafeningly loud crowd, it went by in a blur. But I do recall that when we left the stage, my face ached from grinning. That very night, I registered for the next level of classes—excited to discover what else I’d learn from improv.

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