

The Tedium You Enjoy

Jay Hosler

LAS Keynote, April 2025

Dr. Jay Hosler is David K. Goodman '74 Professor of Biology.

I stand before you today with three problems. The first came to my attention yesterday after talking to several students and learning that they did not know what the word tedium meant. Using a term that people don't know in a title is a bad start for someone whose made a career of trying to explain complicated concepts simply.

This brings me to my second problem because now, for the sake of clarity, I need to define tedium but starting a talk with a definition is the most overused cliché in the entire history of speeches. Nevertheless, here I go.

Tedium is the process of being tedious.

This, of course, brings me to my third, and final, problem: I should probably define tedious just to be safe thus starting my talk with not one but two definitions.

Tedious: Boring and repetitive.

Not a great start, but with our terms defined, I'd like to pose a scenario and ask you if it sounds familiar.

You attempt to tell a friend or family about the cool work you've done for LAS. As you're telling them, you notice that their eyes begin to glaze over. As an astute student of human nature, you know exactly what you need to do. You need to give them more details to recapture their attention. You need to share all of the gory minutiae of the experiments you ran or the surveys you analyzed or the numerous historical tomes you perused. But even as these thrilling details are flowing from your lips you notice that they take a step back. Undaunted you forge ahead, but then they take another step back. And then they suddenly need to take an urgent call, but you didn't hear their phone ring. And as they run away, you are forced to reflect. They seemed...bored. But that doesn't make sense because you know, objectively, that your work is fascinating.

What is happening?

When I started graduate school, I joined a lab that worked with frogs and hormones to study amphibian reproductive Behavior. It was literally very sexy work. My boss was Sunny Boyd and she was incredibly enthusiastic about her work. She loved extracting blood samples, running various assays and behavior tests. She even enjoyed labelling the massive number of tubes required for each experiment, analyzing data, and writing papers. She was a great mentor who was the ideal model of what a scientists should be.

But I hated the work. Almost every aspect was a tedious slog for me, and I knew without a doubt I did not want to do this for the rest of my life.

Eventually I moved to the lab of Harald Esch. Harald studied insects. He was particularly interested in the how the nervous system created behaviors. Not surprisingly, insect behavior is affected by a lot of things, including temperature. If it's too cold they fall over and slip into something called chill coma. My project was to figure out why that happens. To do that I had to study how the electrical activity of their flight muscles changed at low temperatures. This meant spending long hours (which stretched into

days, then weeks, and then months) trying to put a fine glass electrode into a single insect muscle cell so I could watch how it worked when it got cold. And I had to keep it there for a long time as I slowly cooled the preparation, hoping it wouldn't pop out. My daily routine involved making fine glass electrodes, filling them with salt solutions, preparing teeny tiny flies for surgery, and trying over and over and over again to get the tip of that damned electrode into one cell. Every day, the same thing.

I felt a lot of emotions in those months. I got frustrated. I was confused by the programming I had to do in DOS to run my equipment. I got mad at myself and, stupidly, I got made at the insects. There were days when I feared my boss's frustration over my slow progress.

But the one thing I never felt was bored. The work never felt tedious.

To be clear, working with the insects was no less repetitive than the work I did in the frog lab. And I had Sisyphean days with those insects, where it felt like I was rolling a big research boulder up a hill everyday only to watch it roll back down at quitting time. But I loved it. I loved it so much I wanted to keep doing it.

When I moved to my post-doctoral research, I took my skills to a lab studying how honeybees learn and started examining how various neurotransmitters alter memory formation in bees. This required doing microscopic brain surgery on honeybees and long, long behavioral assays. Lots of frustration, confusion, anger, and nervousness again. But not boredom.

Because I had found the tedium I enjoyed.

It doesn't matter what questions you seek to answer in life. It doesn't matter what job you get or the role you play in society. There will be repetitive aspects that will look boring to people from the outside. But if you are interested in the answers. If you have a passion for the questions, the tedium will be bearable. And while you may not exactly love it, that tedium will not be a barrier to your success. The challenge is to find it. It isn't always easy. It was hard for me to leave the frog lab. I had been trained through sports and the general chest thumping of the 1980's that you shouldn't be a quitter. Quitters are losers. I remember calling my undergraduate advisor once and telling him I wasn't going to quit even though I hated the work. My advisor, Michael D. (Mad Dog) Johnson told me, and I quote, "that is fricking stupid." Only, he didn't say frickin'.

He didn't use these words, but he essentially told me that I might have to wade through a number of different things to find the right tedium for me.

When my honeybees tried to kill me 25 years ago, I decided to stop working with them, and focus my professional work on writing and drawing graphic novels and comics about natural history. Now, I know what you're thinking: it must be a glamorous lifestyle full of non-stop action and excitement. Let me tell you about what goes into making page. I typically will type up entire story and that story will go through multiple iterations. On average, the script for any give page may be revised and rewritten 3 or four times before I'm confident enough to print out a working copy. Then I start planning the page and as I do so I rewrite the script again, making adjustments for the art. Then I pencil the page. Just roughly to see how things lay out. Sometimes more than once. Then I go over the pencils with ink so that it prints well. Finally, I color it. When all is said and done, I have probably rewritten and redraw any given page of a 150-300 page book five or six times.

Now unless you're a process junkie, that probably sounds tedious and repetitive. And I suppose it is, for other people. But I love it. And what I wish for you it that you find the tedium that doesn't feel tedious. The repetition that isn't repetitious and the questions that make it all worthwhile.

I still get frustrated, I feel afraid sometimes that I won't be able to solve a story or visual problem, I worry that I won't find a publisher for a book, I worry that book won't find an audience, I get

overwhelmed with everything I want to say, or irritated that I can't find just the right...uh...just the right...words. And I get mad...when no one buys my books...which means I'm mad a lot.

But I'm never bored.

Today is about celebrating the fruits of your labors. Today we rejoice in your results and applaud your creativity. And I hope we can all appreciate the tedium that each and every one of you has endured on your path to make beautiful and wonderful things. I hope that through this process many of you have found a tedium can enjoy. And if you have, please, I beg, keep it to yourself. Honestly, we don't need to know the details.

Thank you and good luck today.

