

Address to 0.5ers, December 1, 2012

0.5 ers, President Chris Paxson, Dean Katherine Bergeron, Reverend Janet Cooper-Nelson, and significant supporters of this Class of 0.5ers, I am truly honored to have a few moments to address you. My remarks are primarily intended for the celebrating 0.5er's. Thinking about addressing this segment of the audience alone has been daunting.

0.5 ers, you are special even among Brown students. You made a choice to return to Brown or to transfer to Brown or interrupt your adult life to come to Brown. You all had considerable time to reflect about taking an action that would constantly remind you that you were out of step. Friends graduated before you or you had to befriend students who had already cemented connections to other Brown students or you were in an advanced stage of human development relative to your classmates.

Why were you willing to be a syncopated student at Brown? There are myriad reasons (that's for Mike

who told me that I could not use myriad, even correctly, without sounding pretentious). I choose to reflect on two themes that make me cherish being at Brown.

Creativity and access.

The image above helps me center my remarks.
What do you see? A doorstep? A circus? An inclined plane? The universe?

In some sense, they are none or all of these. In fact, these sharpie decorated wedges of wood were entries in a Physics Art Show.

It is a show for people who like physics and like art! This annual event was inspired by Brown.

A few years ago, I had a first year advisee, Carolyn. She was also in the introductory physics course I was teaching that Fall. Like many of you, Carolyn came to Brown excited by more than one well-defined area. We had discussions with our Meiklejohn about art courses that lit Carolyn up just as much as physics. Later in the semester, I could see her dedication as she walked to RISD carrying her large flat artist's portfolio in the winds of the East Side.

But why a Physics Art Show?

First, to celebrate the creativity that comes with research and learning in physics. I choose to believe that one of the reasons you have found Brown appealing is that you have been inspired across fields by the creativity of your professors and classmates. Think of Arnold Weinstein in Comparative Literature, Karen Fischer in Geology, Ken Miller in Biology, Trisha Rose in Africana Studies,... pick yours.

Physics research has led to vivid descriptions of visible natural phenomena. We can explain how waves of light move scatter from water droplets to create rainbows. We also have vivid descriptions of the invisible, like atoms and the recently discovered Higgs boson.

It is easy to lose sight of the need for creativity when feeling mired in a physics problem. I have hoped that the Physics Art Show has encouraged members of our department to more overtly display their creativity, just as people like Carolyn are apt to do naturally.

These fancy wedges represent the second impetus for a physics art show. It was intended to make physics more inviting, to open it up to a greater audience, and to recognize that while the answers in physics are often concrete, the route to the answers and their interpretation can be very individual.

Here's my interpretation of this image: I see inclined planes. These are physics, get this, workhorses. Boxes slide and balls roll down them. They are entry level shapes for physics. Some of the first things you see.

Normally, however, inclined planes appear in monochrome. Todd, the artist (I will come back to him later) infuses them with a glory that sparks imagination. Now, I see folded space, ripples on water, and the universe. I believe these inclined planes invite others to see.

In another moment, I see ramps, like those that increase access.

And in another moment, I see wedges, items that make it easier to open up spaces. In this wedge moment, I am reminded of some of the most satisfying feelings I have while working here. They arise when I help a student have an AHA! moment, that moment when a concept or idea that they have been struggling to understand becomes their own. To help them I feel that I need to find their perspective in order to help them mold it into their understanding.

Oh, but careful...careful with that wedge. That also comes to mind. I have the pleasure of working with first semester students in Physics 70. This course attracts physics enthusiasts who have a young love for the subject and often, an identity partially tied to being successful with it. They encounter phenomena for the first time like precession...DO A DEMO! I want them to explore why this happens. It's hard to get it. I want them to focus on getting it, not the fact that they haven't gotten it yet.

I dare to say that the professors that most inspired you at Brown share my AHA! moment satisfaction. They endeavored to open you up, to connect with you so that their arguments were more compelling, their explanations were more universally clear and you were maximally engaged. Their efforts enabled you to delve deeply into complex topics and to take a more nuanced view of issues that could be emotionally charged or divisive.

Wedges can also be divisive; they cut things in two. This wedge makes me think of the recent election season. There were complex issues related to the economy, gay marriage, and national security. The rhetoric surrounding them did not promote understanding of what are very nuanced matters. Instead, we were bombarded with half truths to drive us apart.

Back to the good, gentle, imagination provoking wedges....their creator, Mr. Todd French, is one of the custodians in our building. His wedges have gone viral...more than a hundred are distributed around our offices and labs. I am very happy that he likes art and Brown physics so much that he was inspired to create them.

Shortly, you will receive your degree. Please accept my heartfelt congratulations. I am thrilled for you that you will carry the moniker of Brown graduate forever. It will be the most homogenizing description of the very diverse group that you truly are.

As you, and I quote the Brown mission statement, “discharge the offices of life with usefulness and reputation” I encourage you to wield the most colorful wedges you can imagine.