

ICE BREAKER SPEECH

To be delivered Wednesday, April 15, 2015

The End of the Line

Mr./Madame Toastmaster, fellow Toastmasters, and esteemed guests:

I had never made it all the way to the end of the line. My journeys on the London Tube system during my time studying abroad while an undergraduate at Duke took me from station-to-station within that ancient network of tunnels, but never to the very last station on any train. For instance, I might take the Red Line from Mile End Station in the direction of Ealing Broadway, but ultimately exit at Oxford Circus. This was not out-of-the-ordinary though; it is just that the Tube system indicates a direction of travel by naming the train's last stop. But this time was different. It was my last day before heading home for Christmas, and I was on the Blue Line today, bound for the very last stop: Heathrow Airport. Did it actually matter that I had never made it to the end of the line before? We will see.

Since Heathrow was a ways away from campus, I had a lengthy ride ahead of me, which gave me time to think. I enjoy building mental frameworks, or analogies, for understanding and contextualizing my life, and on this tube ride toward the end of the line I was realizing a pattern. Before I share that analogy with you, though, I think it is useful to talk about some other analogies that have come to me over the years, so you will be able to understand me better. The first one I will share came to me after my first year in graduate school.

When I came to Stanford I started with a mechanical engineering design focus. In that first year, I learned how to take the kernel of an idea and work with a team to develop that into a final-stage prototype product. This was a huge leap forward from my undergraduate work, and for most of the time, I felt like I was in way over my head; I was not sure how I would cope if things got harder. Little did I know that that is what was about to happen.

Though I enjoyed mechanical design, I felt a desire to move into energy-related research, and I switched tracks in my second year. Needless to say, I found that graduate-level thermodynamics, combustion, and physical gas dynamics were very difficult courses. To my surprise, however, I actually ended up doing well in this new field. It occurred to me that the way I had been thinking about challenges up until then was like walking into the deep end of a swimming pool. I thought that as I waded deeper and deeper, the water would eventually come up over my head – or, in the same way, as the challenges I faced got more and more difficult, I would eventually reach a point where I was overwhelmed and could not continue. On the contrary, though, I found through this experience that as I faced more and more difficult challenges, my ability to handle them increased. I was not drowning in the metaphorical deep end – I was actually getting taller, and my head remained above water!

While on the whole I found myself growing tremendously through graduate school, those of you who have pursued research will understand that there are times that can seem devoid of purpose. My second analogy comes from one such time. The equipment that I was using would ordinarily be pumped down to a very strong vacuum. However, my experimental chamber had a leak... somewhere. Actually, it turned out to be several leaks. Now, at Sandia we have expensive equipment called helium leak checkers that make tracing leaks a lot easier. At Stanford, though, graduate students are deemed sufficiently cheap as to not require such sophisticated equipment, making leak checking a long, arduous process of trial and error. Talk about tedious. Needless to say, during this month-long time I felt as though I was stuck in a bit of a rut, being bounced around by this and that theory about what might be causing my leak problems. Kind of like a record player needle might feel in the groove of an LP, battered this way and that by its vinyl canyon. But guess what? That needle does not know that its vibrations are actually making a beautiful sound. And looking back on it, I actually developed some great character qualities like patience, perseverance, and discipline that are core to who I am today – qualities that I think sing an anthem of victory over the difficulties I felt for that tumultuous time.

Anyhow, back to me on the Tube in London on my way to the end of the line; this is the subject of my third analogy. What hit me is that the entire time I had been in the city, I had traveled in many directions, or put another way, toward many last stops. Each of those last stops set me on a course, but ultimately the significant point of each leg of the journey was that it got me to a new station, where I could pick up a new train line with a new direction. It was not important that I reach each particular last stop, but that each end-of-the-line gave me a direction and enabled me to make progress. Similarly, in my life I have had many plans and many goals. Some of them I have actually reached, like getting a graduate degree. But others I never achieved; rather, they helped bring me to a new place where I could catch a new destination that was better or made more sense. It is like when I started graduate school with a design focus, but through that learned that energy research was a better fit for me. I have come to believe that ultimately things sort themselves out one way or another. After all, I did make it to the end of the line at Heathrow Airport just that one time, and that is how I got home.

Mr./Madame Toastmaster.