

Wherever You Go

Let me begin by reading an email that I received two years ago for my 21st birthday:

Dear Deborah,

In a few days you will be 21 years old. Our warmest congratulation to your Birthday. You already received your birthday present, which was the Goldwater award. This makes you eligible for admittance into the Ph.D. program of virtually any American University. Our love is with you wherever you go.

There is a problem that we wish to mention. With your over-loaded work program you do not have enough time to sleep. We learned that you are sleeping only 40 to 45 hours per week, instead of the 56 to 60 hours required. The physiological role of the sleeping is the regeneration of the metabolites formed during work. Thus, all our cells produce lactic acid and CO₂ which is converted to H₂CO₃, another acid. While acid is generated ATP is produced to provide energy to all kind of cell function, including that of the brain. When we sleep enough all the used ATP will be regenerated, but incomplete sleep leaves a part of the acids in the cell. Our body operates at pH 7.4 for normal cell function and stops operating when the pH drops below 6.6. We feel extremely tired when the pH drops and if this situation persists we get nervous breakdown. The nerve cells are the most sensitive. For you, who wants to be a neuroscientist, enough sleep is a must. You must eliminate items from your overcrowded program and use the liberated time for sleep. We know, it is difficult to decide what is less important, but an intelligent person can do that. With this procedure, you will celebrate many more Happy Birthdays to come.

Love,

Grandpa Michael and Grandma Kate

After receiving this email, I smiled for a good hour, forwarded the email to my parents, read it aloud to my friends. On the one hand I loved sharing this email because it provided a few laughs, a few stories, and yes, a break from my overloaded work program. On the other hand, I think my real reason for sharing the email was because, at that moment, I could think of no better way to characterize who my grandparents were, what they stood for, what they valued, and what they believed.

At this moment, two years and many tears later, I still can't think of any better way.

The first clue comes from the first sentence "In a few days you will be 21 years old." Known for their punctuality, Kate and Michael celebrated birthdays well in advance—and we were advised to call the night before to wish them a Happy Birthday. Unfortunately, I cannot say I've inherited this trait, which I believe also makes me a poor candidate for the Kate Barany PhD Award.

The second clue is given in their congratulations on my scholarship for undergraduates in math and science. As you all know, my grandparents have always counted the success of their family ahead of their many successes. And between George, Francis, my brother Michael, my cousins Isabelle and Lilly, and sometimes me, they have much to be proud of. I could be wrong, but I think they get a little extra joy when that success comes in the sciences. My conversations with Michael would cover each component of my life, but he'd always have a few more questions about the science-y parts. My favorite exchange was when I mentioned I was interested in studying Psychology in college, to which he simply replied, "Biology?" His thoughts on

the matter must have resonated somehow, because in my graduate studies I follow closer in his footsteps than I had ever intended. Michael did pioneering work in muscle physiology and MRI; now I study motor control with the help of MRI.

The third clue is reflected in the second paragraph, expressing their concern for my lack of sleep. Of course, always providing solid evidence for a claim, and never wasting an opportunity for a science lesson, this concern is coupled with a detailed discussion of the biological basis of a nervous breakdown. Michael continually gave advice on our health, even as his own health deteriorated. I was given detailed instructions on everything from how to recover from a cold to how bright my light bulb should be in order to read (it's 100 watts, in case anyone's wondering). Kate's advice was less scientific—especially as I grew older, she focused on what type of boy I should date, and when and how I should go about dating said boy. This too, however, was backed with evidence—mostly based on Kate's days as a young girl who had no trouble breaking the hearts of potential suitors. Regardless of the exact content, Michael and Kate's advice stressed that they truly cared about us and had our best interests in mind, even if it meant difficult choices or sacrifices.

Only in the past year have I truly grasped the scope of my grandparent's enormous impact on society—from their numerous publications and book chapters, to their careful mentorship of countless students, to their tireless work to change discriminatory policy. I admit until recently I did not realize the extent to which Kate, in particular, was an advocate for women in science. When she won the Women of the Year award in 1996, I still thought her name was “Grandma Cakes,” because I didn't know her as the person who fought for a more flexible tenure system to benefit young women faculty members, but as the grandmother who would always have an endless supply of baked treats for me to eat. But then again, I guess that was the point: here's someone who can be so completely dedicated to her family, without sacrificing her career in the process. I hope I can emulate these ideals as I continue my graduate education.

I've heard and read about so many touching memories of my grandparents since their passing. While some stories are straightforward and candid, and others funny, surprising, or endearing, I see them all help to expand the schema I've etched of Kate and Michael over a lifetime. As my fragile childhood memories of my grandparents continue to fade, I am so grateful for these strong and loving anecdotes.

But there are some memories that simply cannot be conveyed in a speech, a picture, one email, or one thousand emails (as much as my Dad may try). Watching the serenity of Kate's swimming, readying my racket as Michael briefly took off his suit jacket to play tennis, walking hand in hand with them down the streets of Chicago, noticing her accent whenever she said “Misu,” noticing his accent whenever he said “Kati”.

And years later,

My Dad holding Kate's limp hand as Mozart echoes throughout the walls. My Dad hugging Michael and saying goodbye so tenderly, right before they lift Michael from his bed for the last time. My brain, not sure how to react.

Until I remember the final clue in the email: “Our love is with you wherever you go.” And this I know is true even now. As we are here to reflect on Kate and Michael's extraordinary lives, and how they have influenced our lives, I would like to close by reflecting how they have shaped my future:

Would my research be the same without Michael's early work on MRI? Maybe, maybe not. Would my opportunities be the same without Kate's efforts concerning women in science? Maybe, maybe not. Would I be where I am and who I am today without their constant love and support? No, definitely not.

So thank you Grandma and Grandpa for the joys, the guidance, and the love, which I will always remember wherever I go.