

When I first met my great-grandmother, it often seemed like we were operating on parallel planes. She only knew of China, I had spent all of my 8 years in America. She only spoke Chinese, I only spoke English. Being in America for me was freeing – a place based on the ideals of individual freedom and equality. Being in America for her was a loss of independence – a permanent reminder of her age and her impact on my parents, who needed to care for her now.

Her first day in America was awkward. My parents stuck us together in a room, hoping for a bonding experience. She began speaking, “你长的真大!” Her voice abruptly cut off, seeing my lack of comprehension fall over my face. We sat in silence, until she spotted a badminton set in the corner of the room. Obliging, I followed her, as she picked up the racquets and sprinted outside.

As she served the shuttlecock, I thought that my great-grandmother would forfeit within minutes. I returned her serve in an easy lob. My great-grandmother dashed to the net and slammed the birdie down on my side. After an hour, I had lost 74-12.

My great-grandmother’s sense of herself was so strong that when she lost herself, the loss felt sharper. The loss of her memory was at once slow and sudden. One day, she remembered my face; the next, she didn’t. My parents stopped letting her play badminton after she wandered off in the middle of a match.

As her Alzheimer’s worsened, my great-grandmother moved into an assisted-living community, close enough for me to ride my bike to visit her. They had a piano in the lobby, so one day, I began playing songs from her childhood in China. Slowly, other seniors gathered around us. Music, I hoped, would span time and space, penetrating through the fog of the tau proteins cluttering their brains. After I finished my song, people came up to me, clasped my hands, and called me the names of people from their pasts.

My great-grandmother passed shortly after – kidney failure, the doctors said, brought on by an infection and exacerbated by Alzheimer's. For a moment, I wished that my memories could be erased – that I could escape this pain I felt at her loss. But then I realized that her memory could become an inspiration.

I began working at a protein biology lab, studying green fluorescent protein (GFP). GFP is an important visualization tool for mapping out amyloid plaque peptides and tau proteins, the suspected causes of Alzheimer's disease. Every procedure I completed, every sequence I published, was in memory of my great-grandmother.

Now, a decade after meeting my grandmother, I'm an admitted freshman student at Columbia University, where I plan to study protein chemistry. In my work, I will focus on finding a cure for Alzheimer's. I hope to work towards a world where no person had to suffer like my great-grandmother did.