

Keynote Speech for the Cal- State University Monterey Bay 2013 Commencement

Introduction by President Ochoa:

Today our Commencement Address is presented by Dr. Robert Danziger. This Carmel resident received an Honorary Doctorate of Fine Arts degree from Cal-State Monterey Bay in September 2011 in recognition of his accomplishments as a musician, inventor, and sustainable energy pioneer. Welcome. Dr. Danziger.

Commencement Address:

President Ochoa, Faculty and Staff, families, friends, graduates:

I'd like to start by asking you a question. By applause, make some noise if you are the first in the history of your family to get a college degree?

Congratulations!

Now with me it was my parents, they were the first, so if you, or perhaps a child, a parent, a grandparent, brother or sister was the first to get a college degree, make some noise!

Ladies and gentleman, we all have ancestors from hundreds of years ago who were slaves, or serfs, or refugees from war and famine. But they endured. They persevered. And they put all of their hopes and dreams and love into their child. They prayed that that one day their blood and passion would beget a descendant who would rise above their circumstances; hoping that for the first time, someone would have the chance to lead their family to accomplishment, to safety and sufficiency.

If there is a heaven they are there now. Ladies and gentleman, dear graduates, you have accomplished much and earned the right to stand proud. You have. In

addition, on this day, at this hour, after hundreds of years of waiting and hoping, when your name is called and you walk across this stage and receive your diploma, your ancestors dreams have come true, for all of you, their hearts are glad, and they can now rest content. Finally every sacrifice they made, every oppression they endured – was worth it.

[HOW CAN I COMPETE?]

When I was sitting where you are today, I was asking myself: How am I going to compete, measure up against the people who have graduated from the elite schools?

I went to a small regional law school while working two jobs, and studying alternative energy. Through luck I was offered a job at Jet Propulsion Laboratory, which had more triple PhD's than anyplace in the world, and almost of all of them from the elite schools. Leading deep space work for the United States like the recent Mars landings, they were forming an alternative energy think tank, and I was to be part of it. One of our jobs was predicting the future as it applied to energy and environment.

The Dean at the school had some sense of what I was getting into (cause I didn't) and called me into his office. He said:

“When one of these guys is predicting the future, or telling you the nature of the universe, if they are not floating six inches above the ground it's just an opinion.”

He told me my opinion was as good as anybody else's, and that was really great advice I share with you today.

Jet Propulsion Laboratory was an amazing place to work. History happened every day. I loved it there. For example, one day I went to the cafeteria for breakfast, sitting next to me was some guy who turned out to be the navigator for a future mission to Jupiter called Galileo.

He explained to me that they had no way to get the spacecraft Galileo to Jupiter, they were stymied because their older, solid fuels could no longer be used for interplanetary space missions, and the new liquid fuels weren't strong enough.

I was eating oatmeal, he kind of spaced out, grabbed my oatmeal, smoothed it out with his fingers, and started putting raisins, and sugar cubes, and walnuts into the oatmeal, in the form of our solar system. Then he started drawing in my oatmeal while spacing well off into his own thoughts. He drew some circles around earth, which was a raisin, and explained that you couldn't go fast enough in orbits around earth and slingshot to Jupiter. His finger sent oatmeal flying towards me and a walnut that was the sun, and he said "The orbit's not big enough."

Then he started muttering to himself, "But you know, if we made the orbit all the way between Venus [a sugar cube] and Earth [the raisin I mentioned], we could build up enough energy to get to Jupiter!!" He was very excited. He was drawing circles, and oatmeal was flying everywhere, it was literally dripping off of me. He got really excited, jumped up and ran away, ran from the table.

And believe it or not, that's exactly what they did. They called it "VEEGA" for Venus-Earth-Earth Gravity Assist. Orbiting twice around Venus and Earth, Galileo slingshot 500 million miles to Jupiter.

And it all started in my oatmeal. Who knows what would have happened if it was Cream of Wheat or Cheerios, we probably would have ended up at Saturn.

Ladies and gentlemen, I had a ringside seat to history on that day, and many would have been very surprised. I was a funny kid, a giant kid. I was the biggest person in school from the second grade on, and was never in a room with someone my size for over thirty years. Starting at the age of two, maybe earlier, I was told thousands of times, thousands of times, I was going to die soon because of my size. And that I had neither the skill or the smarts to make a mark in life. Add to that a back broken when I was 18, I nevertheless started a successful alternative energy company, have one of the lowest carbon footprints in history, been awarded ten patents, won the New York Film Festival Best Original Music Award, received an Honorary Doctorate from this University, and I stand before you today.

I, and indeed many of you, probably all of you, were told we were not going to make it. Almost everyone here today has been hit, rallied, and redeemed themselves, everywhere up there [the bleachers], and everywhere down here [the field], and at this time I am delighted to note that we were right and those who doubted us, were wrong.

[Vernon Elementary School, Teacher's name is Adriana Moran]

I leave you with the story of the most beautiful thing I ever saw. It was at the Vernon Elementary School, which my company had adopted. The most impoverished school in the district, in the middle of the dirtiest air in the United States. We provided programs and all kinds of stuff for the children. The kids loved it and I loved it too.

One day my wife Martha and I went over to the school, and the students in the Special Education class took us into their room to see a dance they had prepared. They closed the door, and positioned themselves on the empty floor. A young girl whose body twisted permanently to the side, and a challenged boy who beamed as he stood straight and proud, prepared their beginning position. Several other groups of kids combined to make their bent bodies part of iconic arrangements ready to move in time with the music. The teacher put on an angelic toy piano version of “White Christmas.” And they began to dance. It was the most beautiful dance I have ever seen, and not because they were challenged kids, it’s because it was just beautiful. They achieved what every artist seeks – a perfect moment.

I found out the teacher, this hero, had looked through hours and hours of ballet and other dance videos, to find world-class choreography that used the positions that her students were born to. She showed these kids the beauty in their bodies, where society was telling them they were too different to matter, and they did it, they found the universal beauty in themselves.

Ladies and gentleman, if you can find in yourselves the beauty and the honor and the joy those children found, and the wisdom and love of our magnificent teachers, you will make your mark, you will raise your family, and you will seize this opportunity with all the fire and passion that brought you to this day, and that will propel you, and your family, into the future.

Congratulations and blessings to all of you.

[note – some of the text is taken from my book, “A Funny Thing Happened on the Way to Energy Independence” and the speech I gave at the 2011 CSUMB ceremony awarding me a Doctor of Fine Arts (Honorary)]