

WE SHOULD DO WHAT WE DO BEST IN OUR USUAL WAYS

O. Akbulut

Faculty of Engineering and Natural Sciences, Sabanci University, Tuzla, Istanbul, Turkey

Copyright © 2012- 2016 Dr O. Akbulut This is an open access article published under **Creative Commons Attribution - Non Commercial- No Derives 4.0 International Public License (CC BY-NC-ND)**. This license allows others to download the articles and share them with others as long as they credit you, but they can't change them in any way or use them commercially.

Corresponding author:

Dr Ozge Akbulut

Address: Faculty of Engineering and Natural Sciences, Sabanci University, Tuzla, Istanbul, Turkey, 34956

E-mail: ozgeakbulut@sabanciuniv.edu

We, scientists, are not immaculate against frustration and impatience that we frequently experience; but there is also a balmy, irreplaceable feeling that rises from stomach to face, once we hold our inventions in our hands or publish an important finding. Being a scientist entails believing, most of the time in an irrational and romantic way, you can identify the most important global problems and you are a member of a clan that is going to solve these specific problems. That clan, the chamber of academia, especially in engineering and technology-related fields, remains in the domain of its male members who set the rules for the society of learned men. Asserting your place in this demanding community, with constant evaluation/self-evaluation, is hard. It is even harder if you are a woman—sometimes because of obvious physiological differences but more often because of less visible society-defined roles. Thankfully, the awareness towards the problem of gender-imbalance has increased in the recent past, and the academic world has made strides for the improvement of the situation of women by paying more attention to childcare, equal pay, and career development. But much remains to be done. Here, though, independent of the gender, I would like to ponder upon the expectations of academia from its prospective members and what academia might do to facilitate a better selection process.

The factory default settings of lives of scientists are implausibly arranged that we are almost always expected to choose science over other daily or life-long pleasures and other hats that we may wear. And, while the progress in science depends on the brightness and willingness of the members of the clan, there are also uncontrollable external effects such as the funding situations, national/international policies, and availability of high-quality

laboratories. However, contrary to the general belief that we want more and more people in science... well, in fact, we only want those that qualify and are motivated. If you have science genes like those similar to that of tennis genes of Federer or you think you are slightly short but then you have the perseverance to invest in endurance like Nadal did (referring to Nadal's biography, Rafa), you are welcome to our clan (which is, needless to say, would have been ruled by Steffi Graf in a world of equality). But then, it is also on the shoulders of the clan, the responsibility of finding, recruiting, and nurturing the best. When does a child decide to have a competitive, challenging but hopefully rewarding career in science and technology? When can we catch children and cultivate seeds of curiosity and motivation for science in them before they are irreversibly cross linked and solidified by the norms of the society (and yes, I am a materials engineer)? I echo with the recent movements (or at least with the determination of the problem) that the curricula of earlier education should be designed to represent possibilities in science. This inclusion though cannot just be made on course material and left as a burden to the primary school/kindergarten instructors. The universities and research institutions should collaborate with local (and distant) schools more proactively for hands-on demonstrations and this collaboration should be incentivized by the state or international organizations through solid channeling of benefits to the involved institutions—"solid and tangible incentivization" is the keyword here. We should also focus on how to convey the material since the research shows that raising awareness on the problem of underrepresentation and sexual bias helps younger generations to realize the external

resources of fears of incapability that they might experience. [1] The problem of recruiting from non-traditional backgrounds within our own societies and from resource-limited regions worldwide should also be addressed if we are truly seeking brilliancy coupled with motivation. Online technologies, tailored according to the realities of these geographies, can be used to diffuse to these areas at earlier stages of education. Later on, through international collaborations, fellowships can be designed to offer research opportunities to the college students in these settings. Overall, our clan should be an equal opportunity provider in educating, promoting, and recruiting. Yes, we have to rely on law-makers in the long run, but it is our clan and we should do what we do best: identify the problem and offer a solution for sustainable betterment of the world.

O.A. thanks Dr. Oznur Tastan of Bilkent University, Dr. Cagri Yalkin of Brunell University, and Dr. Jan Hennings of Central European University for their time.

Reference:

1) Hazari, Z.; Potvin, G.; Lock, R. M.; Lung, F.; Sonnert, G.; Sadler, P. M. Factors that affect the physical science career interest of female students: Testing five common hypotheses Phys. Rev. ST Phys. Educ. Res. 2013, 9, 020115.