Chapter 4

Overcoming the Myriad of Obstacles: The Ongoing Journey as a Female African American Physicist

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ABSTRACT

This chapter documents the experiences of the ongoing journey of an African American female physicist. They correspond to those in documented studies of other African Americans and females in both the specific field of physics as well as the broader area encompassing Science, Technology, Engineering, and Mathematics (STEM). While there are some anomalies, when scaled with the norm of these groups, there is a thread of consistencies in the obstructions and difficulties that seem to be unique to mostly African Americans and on a smaller scale to White females. The intent of this writing is to shine a light on the status of affairs particularly in the scientific Ph.D. community, an area that many have felt was immune to the difficulties faced by African Americans on the lower end of society. It is evident that our society is neither “post-racial” nor “post-sexist”, even on the higher intellectual turf.

INTRODUCTION: THE TROUBLING DATA

After climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I have come. But I can rest only for a moment, for with freedom comes responsibilities, and I dare not linger, for my long walk is not yet ended. (Mandela, 1975)

History is decorated with African American inventors and scientists who have made world changing contributions despite the obstacles that surrounded them (List of African American Scientists and Inventors, 2015). Despite a rich history as contributors in all arenas, many decades after Jim Crow has formally ended, African Americans are poorer and have harder lives than their counterpoints in White society. DOI: 10.4018/978-1-5225-0174-9.ch004
They still face racism at every turn. Their women also face sexism. Echoed in Mandela’s quote above, and as recently stated in his speech on the 50th celebration of Bloody Sunday, President Barack Obama clarified the fact that the Civil Rights movement did not end decades ago but is an ongoing movement, a work still in progress. (Obama, Selma, 2015)

It is a constant rebuttal to discriminatory practices that the adequate intelligence, skills or motivation is lacking for advancement. Nonetheless, for the underrepresented, while moving forward with all the required facilities such as brain power, ambition, and diligence to accomplish and succeed being in place, their crossing the bridge to success is still not a given. Too often, Blacks in the higher level technical arena have to double or triple prove themselves over and above what is required of Whites. This is a systemic problem for Blacks and women and is discussed at length in the report “Double Jeopardy” (Williams, Phillips, & Hall, 2014). Additionally, amongst a significant segment of the scientific community, African American females still are stereo-typed and perceived as outside of “the best and brightest”, which the technical field pursues. The same words can come out of a White male and an African American female; however, the former is accepted as credible and brilliant and the latter is subject to many levels of, sometimes never ending scrutiny. In the term coined as “Prove it Again” in the above mentioned report (Williams, Phillips, & Hall, 2014), the resulting unfair requirement stems from the perception of what is and is not credible and scientifically brilliant by the status quo scientific community. One’s perception of scientific/technical worth has been documented in studies, such as” Merit alone is not enough” (Eichler, 2012), and further discussed throughout this chapter. So for the underrepresented in these situations, acceptance of credibility is not based on merit but on personal preference and bias, which is highly un-scientific and illogical. Unfortunately discriminatory thinking is hardwired into the minds of a too large segment of society. This is however, racist, period.

If success was based on merit alone, the status of STEM for African Americans and women would be very different. In the same article by the previously referenced Eichler (2012), it was acknowledged that merit alone will not put one ahead. Not everyone can get through or around “the good ole boys” system. In some of these relevant scenarios, power is in numbers, and the underrepresented are just outnumbered. As for government instituted remedies, too often but not always, Affirmative Action efforts are staging shows set up to appease. They do a poor job of resolving the issues of fairness for all the underrepresented within a STEM group. In fact, due to sometimes insincere implementation, too often these programs birth another set of problems.

While it may be well known that racial tension and injustices against African Americans has escalated in some arenas since the election of our first Black President, it may not be known how those in STEM fields have been affected in parallel but on a different plane. In particular, those seeking Ph.D.’s in the hard physical science areas, which have always been White male dominated, are suffering despite their intellect and the quality of the metrics they possess for success.

The current US President, at the time of this writing, has put forth more STEM related initiatives than any US President known to date. In light of that and to the contrary, there has and is a huge disparity that exists in these fields such that African Americans in particular are still disproportionately underrepresented.

The reasons for this disparity are complex, but it is not because there is less capability or brain power in African Americans. After making it through the many levels of difficulties that African Americans face such as inequality in K-12 education and a greater percentage of poverty and single parent families; there is still a tremendous racial and, if female, gender firewall to surmount. All of this is encountered once one has been proven just as technically competent as White male counterparts.
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