

How Many Roads Must We Walk Down? G. Srinivasan (E5/11 Arera Colony, Bhopal, India, gopalan.srinivasan@gmail.com) and Luis Escobedo (Unit for Institutional Change and Social Justice, University of the Free State, 209 Mandela Drive, 9301 Bloemfontein, South Africa, luis.escobedo.dangles@gmail.com).

Increasing attention has been paid to the challenges affecting the lives, experiences and relations of scholars associated with non-core, subaltern, or racialized groups or categories, in Earth Science departments [1-7]. Relative to all disciplines in Science, Technology, Engineering and Mathematics (STEM), Earth Science lacks diversity in terms of ethnicity, nationality, gender, or disability, among others [1-8], an aspect that may be rooted in the colonial exploitation of natural resources in the conquered lands [1]. Yet, to better harness Earth Science to solve social issues such as those that relate to climate change or supply of natural resources, e.g., water or minerals, equity, diversity, and inclusivity need to be normalized among the workforces.

Workplace diversity initiatives were often founded on discrimination-fairness, access-legitimacy paradigms. An alternative paradigm is that of learning-effectiveness, which relates diversity to improvement in the quality of problem solving [9-10]. From this angle, an intersection of perspectives of individuals and groups from various cultural, ethnic, racial, gender, and other identifications can impact collective thinking and understanding [11]. However, diversity expansion tends to still be controlled by society's core- or privileged groups, rather than by those most affected due to their marked, non-core, subaltern, or racialized collective identifications [12-14].

In our research, we raise two fundamental questions about the lived experience of underrepresented minority faculty in Earth Science departments. 1. Is there a disparity in resource allocation for doing research? If so, what is the impact? 2. Are there biases, whether overt or covert, reflective or unreflective, in performance evaluation? If so, how are they manifested?

To respond to these questions, in this abstract, we engage with a foreign scholar's memories of his lived experience of racial categorization during the time when he held a tenure-track faculty position at the Geology department of a premier North American university between 2003 and 2010. Furthermore, this engagement occurs in the context of a trans-disciplinary collaboration, where the narrator's memories are collected, interpreted and analyzed collectively as well as materialized in co-authorships, like the present abstract.

The experiences are recounted as follows. **A)** Disparate Resource Allocation Requiring Building of Laboratory: The scholar's primary expertise in ion microprobe was beyond the scope of start-up grant.

The department's suggestion of obtaining funding for the Thermal Ionization Mass Spectrometer (TIMS) for isotopic analyses seemed practical, as scholar was assured of backend support for sample preparation from a geochronology laboratory being shifted to the department. Once the scholar obtained grants for research and TIMS, the promised support was not provided. Building a laboratory for meteorite sample preparation for TIMS analyses became indispensable to start research. As the start-up grant did not budget funds for such a laboratory, this gap was made up with personal sweat equity, superhuman effort and imagination. In contrast, the geochronology laboratory (with no tenured/tenure-track faculty) and another tenure-track faculty appointed later were given adequate funds for building clean laboratories that covered for their needs. Additionally, they did not face stress from migration and racialization. **B)** Undervaluing of Laboratory's Need for Security and Integrity of sample and experiments: The need for a safe laboratory to prevent terrestrial contamination, loss of meteorite samples; or stymied work was not given the importance that it deserved for 18 months after the laboratory became functional [15]. While the scholar's need was overlooked, however, other more privileged faculty, mostly identified as white/Western, got the secure labs that they asked for. **C)** Minimization and Derision of claims for effective lab space: The fund shortfall after building labs to buy essential labware was overcome by incorporating discarded labware from a European institution. Once in use, its ownership was claimed as a loan to a former associate and demanded back. All labware was returned. Despite the scholar's protest, departmental administration did not interrogate the claim as later queries revealed that there was no such loan. The Lab was dysfunctional, and research was halted for months prior to the start of tenure review. **D)** Material Consequences: The enormous efforts and countless hours spent in the development of a lab did not only delay research production in an environment of disparate resource allocation, as well as of indifference to the need for a safe laboratory space, and the trivialization and derision of all claims to solve this issue. They also disrupted the researcher's work-personal life balance, as well as his research focus, work plan, progress, productivity, and creative energies. All planned work with post-doctoral fellow and students was cancelled. The department replaced some labware but did not consider the time and efforts that had been invested to build the laboratory, time and

efforts that could have been used in the production of research outputs. As the tenure clock was ticking between 2003 and 2007, there was no useful time for productive work coming from the laboratories that the scholar had built, and for which he had gotten funding for TIMS. This also impacted the scholar's future grant attracting capability. Furthermore, and as will be indicated below, the challenges faced by the scholar would eventually be the reason for his and his family's relocation to his home country, and for his further stigmatization within academia.

E) Running the extra mile: Notwithstanding all the above challenges, six papers, including one in *Science* (2007) [16], were published. This was comparable to previously successful candidate for tenure. **F) Bias:** Considering the standards applied, tenure was possible. However, bias came to light when the decision was challenged. Tenure denial was founded on internal opinion, not without a conflict of interest, that the scholar was technically incompetent of managing TIMS laboratories and incapable of supervising students and research staff. Besides that, the scholar's publications [16-17] were rated as ordinary and unimaginative. Additionally, an internal view opined that prizes/ peer recognitions had been awarded to the scholar for political reasons. An external reviewer characterized ^{182}Hf - ^{182}W systematics paper [16] in eucrite zircons as "voodoo cosmochronology". Nonetheless, five external reviewers recommended favorably, and some queried about adequate time, opportunity, and resources for research. The negative decision was challenged on grounds of procedural irregularity, bias, and differential standard. Disparate resource allocation and poor working conditions were also protested. A human rights complaint was also filed for discrimination in resources, overall working conditions, and biased review.

The scholar was then asked to refile for tenure. The intervening period saw successful publication on Nd isotope methods from the laboratories [18], an invited review paper, and progress with Mg, Ba and Gd isotope methods and student research. Tenure looked possible again, however, toxic gossip continued. Students left the scholar's group and joined the geochronology lab, as had happened before. Seeing this as an unwinnable battle, the scholar distanced himself, same as in a previous situation [19]. The scholar left for his home country to safeguard his mental and physical health and preserve family life. **G) Stigmatization within academia:** Back in his homeland, the sum and substance of the three internal letters and partial information about tenure denial was incorporated in the assessment record and vitiated his employment.

The above experiences expose workplace predicaments, of struggles with deep seated beliefs, naturalized practices, and informal and unwritten norms of socialization that enable an arena where racial categorization is not just able to flourish and perpetuate, but where it is also trivialized and ultimately denied. How do we rationalize the impact of lived experiences of racial categorization in the contexts offered by the Earth Science community? As has been noted before [20-21], women, as well as racial and other minorities, find less traction in their career compared to the more privileged core-group members. One reason is the disparity in resource allocation and disruption to work. Another is the impact of assessments pervaded by implicit and explicit bias.

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