


**AUTHOR:**

Jeremy J. Midgley<sup>1</sup> 

**AFFILIATION:**

<sup>1</sup>Department of Biological Sciences, University of Cape Town, Cape Town, South Africa

**CORRESPONDENCE TO:**

Jeremy Midgley

**EMAIL:**

jeremy.midgley@uct.ac.za

**HOW TO CITE:**

Midgley JJ. A question worth asking. *S Afr J Sci.* 2020; 116(special issue), Art. #8591, 3 pages. <https://doi.org/10.17159/sajs.2020/8591>

**ARTICLE INCLUDES:**

- Peer review
- Supplementary material

**KEYWORDS:**

conservation, education, implementation

**PUBLISHED:**

10 July 2020

©2020. The Author(s).  
Published under a Creative Commons Attribution Licence.

## A question worth asking

The relative lack of black South African students registered for senior undergraduate and postgraduate courses in Biological Sciences, has long been an issue and remains an issue at the University of Cape Town (UCT). For example, the Honours and taught Masters courses in biological sciences have only a handful of black South Africans registered this year (2020). Research institutes are required to report on the numbers of black South African postgraduate students they are training, and transformation is a key component of a successful review. No-one has previously investigated the underlying reasons for the low numbers of black South African students doing Biological Science Honours and Masters courses at UCT including the highly acclaimed Conservation Biology course. I was Head of a Department in Biological Sciences for nearly a decade in the 2000s and I, like all other Heads before and after me have also failed to understand this issue from the prospective student's perspective. There has been plenty of speculation on these matters but neither I nor anyone else in my department considered running the kind of exploratory survey that Prof Natrass<sup>1</sup> ran last year.

This issue is not unique to conservation studies at UCT. The relatively low numbers of black scholars in conservation science is observable at local and international conferences. I saw this at an International Conservation Congress in France (ATBC 2016). The field of evolution in particular is known for its failure to attract significant numbers of black scholars. Graves (2019)<sup>2</sup> considered higher levels of religiosity, lack of role models, biological racism, institutional racism and getting into medical school as explanations for this problem in the USA. That black people are under-represented in some fields within the biological sciences is a real, contemporary and global problem, not only a UCT problem. The objective of the Commentary by Prof Natrass<sup>1</sup> is thus to be welcomed. It has started a much-needed discussion on transformation, and I hope this conversation can be more solution oriented over time.

I'm not familiar with the survey methodology but to me, neither the hypotheses nor the interpretation of the results was racist. By my reading of the Commentary, the key take-home message is that socio-economic considerations are the most important (middle-class materialism provides relief from familial financial obligations, access to good schooling, pets, Kruger Park holidays) not race.

Whatever one scored on the survey questions is not on its own correct, relevant, good or bad. Take materialism (worked out on a standard global scale using many questions); who says being a materialist is bad – and try telling that to the huge UCT classes in Business Science/Commerce or to the rich or the poor. Who says being a materialist is even bad for conservation (many rich people have made tremendous financial contributions)? Who says liking red-wing starlings is good (on what scale, for what)? Who says

having a pet is good/admirable? Who says fallism is good or bad? The survey questions did not have right and wrong answers.

Science starts with exploratory hypotheses and correlations. Prof Natrass<sup>1</sup> has provided a few and has given her interpretation. Is she biased? Of course, everyone is. She has laid out her bias (the questions she thought might differentiate those thinking about studying conservation versus those not and her interpretation of these results). Could other survey questions be added, could the questions be improved? Of course! The Commentary calls for further research and other researchers should take up the challenge. They could do their own study, add new questions based on their own biases or hypotheses, write it up and importantly see if they are better predictors than those in Natrass<sup>1</sup> and finally, take what scientific response comes their way.

I am a biologist, not a social scientist so I cannot comment on whether Natrass's exploratory research was good enough (i.e. were good question spoiled by poor analysis, or was the analysis fundamentally limited by the failure to include other data, for example about student household income?). I don't know, but I think a scientific reply is what is needed, not the condemnation we have seen on email/twitter/web pages. Could Natrass have used kinder (or more tactful) words in her Commentary? Possibly, but it is not obvious to me where, and besides space/brevity is an issue in science journals. Could she have explained the background thinking behind her hypotheses more carefully? Probably, though again, I presume she was constrained by the space limitations of a Commentary and I look forward to her response(s) to the letters proposed in the special edition. Even so, with regard to one of the most controversial aspects of her Commentary – the inclusion of the World Values Survey materialist index, Natrass provided three references providing useful context in this regard. In the same volume of the South African Journal of Science is a study on bone sizes of black South Africans in comparison to other racial groups here and elsewhere<sup>3</sup>. One context for this paper was our

high crime rate<sup>3</sup>. This paper is part of a global research effort which shows racial differences of bones. I am surprised this paper was not labelled as racist. Is comparing bone morphology across races different to comparing social or cultural values?

Other papers produced by Biological Sciences that evoke strong emotions amongst the public, students and academics are not played out in the media/email. Rather they (such as the penguin debate) are addressed through the pages of journals and workshops<sup>4</sup>. Therefore, opposition to this paper in the media seems to me primarily because it concerns race and values. My impression from reading some of the email strings going around UCT and from comments on social media is that the Commentary has been deemed offensive primarily because one racial group (black South African students) has been seen as being othered (through the reporting of statistical results and different scores) by a white researcher. I appreciate that most black South African students have a different lived reality to most white South African students. I also appreciate the frustration many black South Africans feel about the history of frequent othering by whites. But does othering, or at least perceived othering, make this paper racist? Not according to my understanding of racism (prejudice without data and analysis). We need to develop a better collective understanding of what racism means and we should be careful about accusing people of racism as this can have devastating effects on the people concerned and is detrimental to the quality of academic debate.

UCT is a very racialised institution. We are required to classify staff/students/committees according to racial composition, and the inclusion of black South African students and scholars on research funding applications makes a big difference to funding success. The National Research Foundation has instituted strict quotas for supporting postgraduate students based on race. Given this environment we must deal with race continuously and make generalisations, such

as why do some courses/Departments /academics have too few black South African students? People have criticised the Commentary because of its unnuanced discussion about race and generalisations about racial groups in South Africa. How then must we deal with what is race? The students interviewed in Natrass were asked to self-classify their race very broadly (black or other). Future studies should possibly ask for a more detailed, nuanced self-classification to take the full diversity of South Africans into account but we will still need to make generalisations.

The Natrass commentary has triggered heated arguments within the Department of Biological Sciences at UCT. Much of this debate has focused on why different readers perceive this Commentary as racist or just much needed research into a persistent problem dogged by opinions and assumptions. Why did I get involved? There were two reasons. Firstly, although I am more interested in the biology, than the social/cultural attitudes to conservation, for example the biological reasons for the declining population of the Clanwilliam Cedar (White et al 2010)<sup>5</sup>, I know social aspects are just as important for implementation of the above kinds of conservation biological research. For example, Wilhelm-Rechmann et al. (2014)<sup>6</sup> looked at social/cultural factors of councilors and officials (Afrikaans, English, Coloured and Xhosa) and conservation implementation in the eastern Cape. They found that amongst other factors, eco-centricity was related to culture and that conservation is frequently interpreted as being a socially unjust endeavor, disrespectful toward people and lacking realism. This link between culture and eco-centricity is not unique to South Africa<sup>6</sup>. I see many parallels between this paper and Natrass. Natrass has taken the first step to address a long-standing, difficult but important issue in Conservation Biology education at UCT.

Secondly, in trying to understand why so many are accusing Natrass of being racist, with debate I thought I could understand the ‘this is racist, no it is not’ problem. My experience in

the debate has shown me that many white staff and students in Biological Sciences at UCT also feel confused about what is racism. They are concerned that whatever language and framing they use to understand and debate the issue will be construed as racist – they are thus largely silenced. We need to urgently resolve this issue, as it has cost valuable time and energy and frayed relations. Conservation is a field in crisis as we enter the Anthropocene and the 6<sup>th</sup> extinction. UCT needs diverse, highly qualified academics to train diverse postgraduate students if we are to help stem the rising loss of biodiversity while improving the lives of the poorest. To achieve this, difficult questions, including those on race and poverty will need to be asked.

### References

1. Natrass N. Why are black South African students less likely to consider studying biological sciences? *S Afr J Sci.* 2020;116(5/6), Art. #7864, 2 pages. <https://doi.org/10.17159/sajs.2020/7864>
2. Graves JL. African Americans in evolutionary science: Where we have been, and what’s next. *Evo Edu Outreach.* 2019;12:18. <https://doi.org/10.1186/s12052-019-0110-5>
3. Bidmos MA, Brits D. Updated lower limb stature estimation equations for a South African population group. *S Afr J Sci.* 2020;116(5/6), Art. #6871, 7 pages. <https://doi.org/10.17159/sajs.2020/6871>
4. Cherry M. African penguins put researchers in a flap. *Nature.* 2014;514:283. <https://doi.org/10.1038/514283a>
5. White JDM, Stevens M, Berndt J, Coetzee BWT, Massad TJ, Nupen LJ, et al. Understanding recruitment limitations in a critically endangered species: The story of the iconic Cape cedar (*Widdringtonia wallichii*). *Glob Ecol Conserv.* 2020. <https://doi.org/10.1016/j.gecco.2020.e01062>
6. Wilhelm-Rechmann A, Cowling RM, Difford M. Responses of South African land-use planning stakeholders to the New Ecological Paradigm and the Inclusion of Nature in Self scales: Assessment of their potential as components of social assessments for conservation projects. *Biol Conserv.* 2014;180:206–213. <http://dx.doi.org/10.1016/j.biocon.2014.10.012>