



Racist Science: The Burden of Black Bodies and Minds

The point of our objection is that this study draws on a racist epistemological frame despite centuries of Black radical anticolonial activism and scholarship produced in opposition to these framings. The implications of this study are that Black women bear the burden of its findings, while Black knowledges are debased and erased.

By Barbara Boswell, Zimitri Erasmus,
Shanél Johannes, Shaheed Mahomed
and Kopano Ratele

On 26 April 2019, the authors of this piece wrote to the editors of the journal *Aging, Neuropsychology and Cognition: A Journal on Normal and Dysfunctional Development*. We objected to, and requested the retraction of, the now widely known article¹ published in its March issue by academics at Stellenbosch University (SU). The objection was posted on the Amandla.Mobi website as an open letter. With the agreement of the authors of the article in question (hereafter Article 1), the journal published its retraction on 2 May 2019 – record timing in academic publishing. At

the time of writing, the petition had 10 228 signatures. The point of our objection is that this study draws on a racist epistemological frame despite centuries of Black radical anticolonial activism and scholarship produced in opposition to these framings. The implications of this study are that Black women bear the burden of its findings, while Black knowledges are debased and erased. The potential psychological damage that results from such racist studies is virtually incalculable. Furthermore, Black scholars and activists then bear the burden of responding to this nonsensical “science”.

In response to the objections around this study and to a broad outcry against the history of racist science specifically at this institution, SU held a symposium on re-structuring science and research on 21 May 2019. The Psychology Society of South Africa (PsySSA) and the Psychology Department at SU published statements calling for the said article to be retracted. Soon after these objections entered the public domain, the University of Cape Town (UCT) withdrew its affiliation to a study reported in the article 'Intelligence and Slave Exports from Africa' and published in the March 2019 issue of the *Journal of Interdisciplinary Economics* (hereafter Article 2). One of the authors is an academic from UCT's Graduate School Business (GSB), while the other is from the University of Kinshasa, DRC. On 16 May 2019, the *Cape Times* reported that the UCT academic had resigned from his post. The research project from which Article 1 emerged was approved by SU's ethics committee. Article 2 did not have ethics approval from GSB. Both articles claim that there is a relationship between race, more specifically blackness and African-ness, and impaired cognitive function. Here we focus on Article 1.

'Race' and the category 'Coloured'

Our objection to Article 1 is premised on its racist ideological underpinnings, reproduction of colonial stereotypes about African people – African women in particular – as cognitively deficient, and its reproduction of harmful stereotypes of women classified as 'Coloured' in South Africa. The authors ignore a large body of postcolonial, decolonial, and critical race theory that shows that a) 'race' is an idea created by Europe, not a biological fact; b) the idea of 'race' is a set of articulated political relations, not a human trait to be used as a scientific variable; and c) that racial categories – even when used as markers of self-identification – are highly unstable, fluid, and provisional. Instead, they uncritically use the apartheid racial designation 'Coloured' with their definition of the term:

The term 'Colored' is a product of the Apartheid era (1948–1994). It describes a 'mixed race' ethnic group consisting of 32–43% Khoisan, 20–36% Black African, 21–28% White and 9–11% Erasmus Asian clans (et al., 2012). The Colored community is, in terms of social class, considered the most homogenous group in South Africa and are

“ This definition does not problematise the idea of 'mixed race'; presupposes the idea of racial purity; incorrectly suggests that 'Colored ethnic groups', though supposedly 'racially mixed', are a homogeneous class; conflates 'race' and ethnicity; and suggests what can only be read as percentages of biological inheritance by 'race' and 'clan'. ”

generally described as a poor, lower working-class community (du Plessis & van der Berg, 2013). (Nieuwoudt, Dickie, Coetsee, Engelbrecht and Terblanche, 2019: 1–2)

This definition does not problematise the idea of 'mixed race'; presupposes the idea of racial purity; incorrectly suggests that 'Colored ethnic groups', though supposedly 'racially mixed', are a homogeneous class; conflates 'race' and ethnicity; and suggests what can only be read as percentages of biological inheritance by 'race' and 'clan'. The latter is both akin to eugenics and reproduces twenty-first century technologies of 'race' that are premised on particular misinterpretations and abuses of genomic science.

The epistemically violent idea of 'mixed race' erroneously implies that there are such things as 'pure races'. People historically classified 'Coloured' are not of 'mixed race', 'mixed ancestry', or of 'mixed origins'. Communities so classified refer to South Africans 'loosely bound together for historical reasons such as slavery, creolisation and a combination of oppressive and selective preferential treatment under apartheid. "Coloured" is neither a common ethnic identity nor a biological result'. (Erasmus, 2017: 112). With respect to 'social class', these communities are far from homogeneous. In this regard, the authors of Article 1 ignore the latest data from Statistics South Africa about economic activity, labour force, poverty, and indigency, instead electing to cite incorrect, outdated sources in order to support their argument. This data confirms that racialised capitalism legitimates political domination and economic exploitation.

Bad data and a flawed methodology

In our objection we illustrate that Article 1 is scientifically flawed. Its title, abstract, and introduction infer that the results are applicable

“The authors of Article 1 use a cognitive measurement instrument that has been demonstrated to be *deficient and inapplicable* to South African contexts. Moreover, they acknowledge that their normative sample data is dated and drawn from a population of white, adult Americans.”

to all ‘Coloured South African women’. This is despite the authors’ acknowledgement that they draw on a small sample size; the fact that the 60 participants were from only one geographic community; and the authors’ admission that their methodology produced a result that ‘is likely not fully representative of the larger Colored population of SA’ (p. 14). Significantly, the instrument used to measure cognitive function, the Montreal Cognitive Assessment (MoCA) has been shown, in the South African context, to yield results that are fundamentally flawed. Robbins, Joska, Thomas, Stein, Linda, Mellins and Remien (2013) found that HIV-negative Xhosa-speaking South Africans tested with this instrument performed similarly on several tasks to *North Americans aged 70 and over who had Alzheimer’s disease*. This led them to conclude that:

... the normative data from the MoCA samples is likely wholly inappropriate for this [South African] population. Using [this data] ... may lead to misclassification of healthy individuals as impaired in populations similar to our sample. Further research is needed to establish locally appropriate normative data and to determine the most sensitive and specific cut-off scores. Most participants in this study, regardless of HIV status, would be classified as impaired when compared to the MoCA normative sample. (Robbins et al., 2013: 450)

The authors’ own data (Table 1) shows that the group of women aged 40–49 are within their ‘normal’ range, attaining an average MoCA score of 26.1. They fail to explain this as it contradicts not only their claim of age-related decline but also their spurious link to educational level. This group had the second-lowest average education level, namely 10.3 years of formal schooling. The authors do not

discuss this discrepancy. Coen, Robertson, Kenny and King-Kallimanis (2015), in their examination of the strengths and limitations of MoCA, posit that it is a measure of mild cognitive impairment; it is not robust; it requires a longitudinal study; it cannot be viewed as a substitute for in-depth neuropsychological assessment; and it is a more accurate and reliable indicator when a MoCA upper limit of mild cognitive impairment is set at 22 and at 17 for Alzheimer’s disease. The authors of Article 1 did not use a longitudinal study and all the average MoCA scores in their study were above 22 for all age groups.

The CNSVS data in Figure 1 of Article 1 contradicts the reported data. The graph shows that 55% or more of the women attained scores ranging from low average to average and above average, i.e. above a score of 80. Yet the authors report that 55% of the women scored less than 80 in three or more categories and they report that only 22% of the women scored above 80. These inconsistencies show, at the very least, careless editing. The CNSVS data does not substantiate the MoCA results, which are also contradictory.

Thormann, Goettelb, Monschb, Berresd, Jahne, Steinderb and Monscha (2018) in their work on a German-speaking cohort (sample size 283) also caution against the use of a 26–30 MoCA score as the ‘normal cognitive range’, which they claim is too conservative and has a high risk of a false positive. They report that results are influenced by demographic factors that are yet to be adequately determined. They viewed their own results with caution as there was no normative standard set in Germany, and demographic and cultural differences along with other factors may have resulted in the normal cognitive range being quite different from the American norm.

The authors of Article 1 use a cognitive measurement instrument that has been demonstrated to be *deficient and inapplicable* to South African contexts. Moreover, they acknowledge that their normative sample data is dated and drawn from a population of white, adult Americans aged 7 to 90 years (see p. 10 of the article). The value of comparing their sample of 60 ‘Coloured’ women to *this normative sample* is highly questionable. It also makes white westerners ‘normative’, ascribing any difference in scores to cognitive deficiency. The CNSVS programme was

only tested on eight women, which is not enough for any standard to be set.

In sum, their argument is circuitous and biased. They begin with the premise that ‘Coloured’ women are at ‘increased risk for low cognitive functioning’ (p. 1) and work from this assumption to confirm that these women are ‘at high risk...for low cognitive functioning’ (p. 10). For them, one of the possible explanations for these findings is that ‘the very low cognitive scores are attributed to a combination of low education level, poor quality of education and socio-demographic factors such as *ethnicity*, employment, marital status, income and health status...’ (p. 10, emphasis added). In other words, without a comparison or matching group, the authors conclude that low cognitive scores are attributable to *ethnicity* (i.e. what they define as being ‘Colored’). However, their own data does not support their assertions. There is no new finding here. This is a repackaged Verwoerdian paradigm.

The genesis of the idea of ‘race’

The use of ‘race’ as a classificatory system within modernity finds its genesis in colonisation and European imperialist expansion. European race theorists from the 1700s onward provided the science behind imperialism’s drive to ‘other’ and to rationalise conquest and enslavement. This intellectual project created the global system of racism, which infuses hegemonic knowledge and marginalises the global south. Carl Linnaeus, born in 1707 and considered the ‘father’ of racial classificatory systems, identified four races, each of which is provided with characteristic features. He then ranked humans in a hierarchy of superiority with Europeans at the top and the Africanus at the bottom. He further named a sub-species, *Homo Monstrous*, a category that is not-quite human, which included the ‘Hottentots’ of Southern Africa.

He asserted that:

The American is reddish, choleric, erect; the Asiatic, yellow, melancholy, tough; the African, black, phlegmatic, slack. The American is obstinate, contented, free; the European mobile, keen inventive; the Asiatic cruel, splendour-loving, miserly; the African, sly, lazy, indifferent. The American is covered with tattooing, he rules by habit; the European is covered with close-fitting garments and

rules by law; the Asiatic is enclosed in flowing garments and rules by opinion; the African is anointed with grease and rules by whim. (Linnaeus cited in Kwah Praah, 2002: 22).

The preamble to the USA’s Declaration of Independence (1775), seen by many as an enduring statement of human rights, draws on race science. For Thomas Jefferson – a founding father of the USA, the third American president, and drafter of this document – the ‘men’ to which he refers excludes those enslaved on his plantation in Virginia. Jefferson encouraged scientific racism by calling on scientists to determine ‘the obvious inferiority’ of African-Americans to justify slavery. In his ‘Notes on the State of Virginia’, Jefferson described Black slaves as follows:

‘They seem to require less sleep. A black after hard labour through the day, will be induced by the slightest amusements to sit up till midnight or later, though knowing he must be out with the first dawn of the morning’ (1784: 143). Colonial conceptions of indigenous and colonised populations as less than human were seen to justify conquest, land dispossession, slavery, genocide, and white ‘stewardship’ of supposedly deficient Black people.

Feminist historian Yvette Abrahams, in her essay, ‘The Great Long National Insult: “Science”, Sexuality and the Khoisan in the 18th and Early 19th Century’, shows that these conceptions underpin the sexualised dehumanisation of Sarah Baartman by French scientist Jacques Cuvier, who used Baartman as a human specimen. A century later, in 1937, SU enlisted 133 men in a study that claimed to determine ‘racial type’ by distinguishing white Afrikaners from ‘Coloured’ men based on skin colour, eye colour, hair texture, and more than 80 other measurements of the head and body (Kuljian, 2019). After the Second World War, the use of Nazi-eugenics to murder six million Jews and millions of opponents of fascism prompted UNESCO’s statement on race in 1950, which denounced race as a biological fact and declared it a social myth. But the *effects* of race are neither mythical nor illusory to those who carry its burden.

Whose burden?

Historically, responding to racist science has

largely been the burden of Black and of other negatively racialised bodies and minds worldwide. The class and geo-politics of Euro-centric racialised conceptions of 'the human' are as central to this burden as they are to Euro- and American-centric mainstream knowledge. These conceptions of 'the human', which remain premised on European 'Man' as the measure of all things human, were key to racialised slavery, colonialism, and racialised capitalism. Scholars refer to the imbrication of these systems of power and dominance and to their traces in the present as modernity-coloniality or colonial modernity. Nazi science of 1930s and 1940s Germany was premised on this Euro-phallogocentric notion of 'the human'. The articulation of 'race' and what it means to be human accounts for the history of human experiments on negatively racialised and poor human bodies. Cuvier's dissection of Sara Baartman's body in his attempt to 'prove' the 'missing link' between animals and humans is familiar to most South Africans. Further afield, the Southern slave-owner James Marion Sims, who is considered the 'father' of modern gynaecology and who invented what we now know as the vaginal speculum, performed his experiments on 'enslaved black women without anaesthesia' in the nineteenth century (Holland, 2017). The U.S. Public Health Service's 40-year long Tuskegee Syphilis Trials (1932-1972) left Black American participants in the trials untreated. There are countless examples of such unethical scientific practice.

The Stellenbosch study discussed above did not in a literal sense violate the physical bodies of the participants in the ways that Cuvier, Sims and the Tuskegee Trials did in the nineteenth and twentieth centuries. However, this does not make it 'less racist', a notion which is itself problematic. The point of our objection is that this study draws on the same epistemological frame *despite* centuries of Black radical anticolonial activism and scholarship produced in opposition to this framework. The implications of this study are that Black women bear the burden of its findings and that Black knowledges are debased and erased. The potential psychological damage that results from all these racist studies is virtually incalculable. Furthermore, Black scholars and activists are then obliged to respond. Yet in response to our objection in a radio interview, one of the authors

of Article 1 remained oblivious to the weight of this multi-pronged burden.

Our objection to this work and our demand for its retraction is not a call for the authors to be expelled. The Symposium held at SU on 21 May restated the historical argument that such epistemic violence is endemic to dominant knowledge frames and called for restorative epistemic justice. As scholars, activists, and a thinking public, it is our ethical responsibility to name this violence; to be conscious of the ways in which it is perpetrated; to be conscious of who benefits from it; and to be conscious of who repeatedly 'does the race work' of resisting and surviving this violence. The deafening silence to date on the part of the authors of Article 1 can be read in several ways. Possible explanations are a stubborn defence of whiteness as 'all-knowing', which reveals indifference to its injustices, and a cowardice that hopes to hide until 'the storm passes' and 'business as usual' is resumed. ■

References

- Abrahams, Y. (1997). The Great Long National Insult: 'Science', Sexuality and the Khoisan in the 18th and early 19th century. *Agenda*, 13(32): 34–48.
- Boswell, B. (2019). "Letter to the Editorial Board of Aging, Neuropsychology and Cognition". Available from: <https://awethu.amanda.mobi/petitions/letter-to-the-editorial-board-of-aging-neuropsychology-and-cognition-1>
- Coen, R. F., Robertson, D. A., Kenny, R. A., and King-Kallimani, B. L. (2016). Strengths and Limitations of the MoCA for Assessing Cognitive Functioning: Findings from a Large Representative Sample of Irish Older Adults. *Journal of geriatric psychiatry and neurology*, 29(1): 18–24.
- Erasmus, Z. (2017). *Race Otherwise: Forging a New Humanism for South Africa*. Johannesburg: Wits University Press.
- Holland, B. (2017). 'The 'Father of Modern Gynecology' Performed Shocking Experiments on Slaves'. Available from: <https://www.history.com/news/the-father-of-modern-gynecology-performed-shocking-experiments-on-slaves>.
- Jefferson, T. (1787). 'Notes on the State of Virginia'. Available from: <https://docsouth.unc.edu/southlit/jefferson/jefferson.html>.
- Kuljian, C. (2019). Study signals enduring racism in science. *Mail & Guardian*, 10 May 2019. Available from: <https://mg.co.za/article/2019-05-10-00-scientific-racism-rears-its-head-again>
- Nieuwoudt, S., Dickie, K. E., Coetsee, C., Engelbrecht, L. and Terblanche, E. (2019). Age- and Education-related Effects on Cognitive Functioning in Colored South African Women. *Aging, Neuropsychology and Cognition: A Journal on Normal and Dysfunctional Development*. DOI: 10.1080/13825585.2019.1598538.
- Prah, K. K. (2002). Race and Culture: Myth and Reality. In N. Duncan, P. Gqola, M. Hofmeyer, T. Shefer, F. Malunga and M. Mashige (Eds). *Discourses on Difference, Discourses on Oppression*. Centre for Advanced Studies of African Society (CASAS) Book Series, 24: 9–36.
- Robbins, R. N., Joska, J. A., Thomas, K. G., Stein, D. J., Linda, T., Mellins, C. A. and Remien, R. H. (2013). Exploring the Utility of the Montreal Cognitive Assessment to Detect HIV-associated Neurocognitive Disorder: The Challenge and Need for Culturally Valid Screening Tests in South Africa. *The Clinical Neuropsychologist*, 27(3): 437–454. DOI: [10.1080/13854046.2012.759627](https://doi.org/10.1080/13854046.2012.759627)
- Thormann, A. E., Goettelb, N., Monschb, R. J., Berresd, M., Jahne, T., Steinderb, L. A. and Monscha, A. U. (2018). The Montreal Cognitive Assessment: Normative Data from a German-Speaking Cohort and Comparison with International Normative Samples. *Journal of Alzheimer's Disease*, 64: 643–655. DOI 10.3233/JAD-180080
- Van der Merwe, A. S. (Chair) (2019). Restructuring Science and Research on the basis of Justice, Inclusion and Ethical Integrity. Symposium conducted at Stellenbosch University. Available from: <https://www.youtube.com/watch?v=YkdmIzqR3oY>

(Endnotes)

- ¹ 'Age- and Education-related Effects on Cognitive Functioning in Colored South African women' by Nieuwoudt et al.