EPISTEMIC REDRESS, RACE, GENDER AND THE SOUTH AFRICAN ACADEME: BEYOND LIP SERVICE

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Table of Contents

1.	Tow	ards a global paradigm shift around race as a scientific variable	2
2.	2. "Coloured" women: silenced historically, marginalized economically, vilified socially		. 10
3.	3. Racial thinking and academic knowledge production in South Africa		. 19
4. Afrio	4. A controversial Stellenbosch University study on the cognitive functioning of "Coloured" S African women		
5.	Criti	ques of the Niewoudt et al study	.24
2.	1	Ethical lapses	. 25
2.	2	Statistical analysis shortcomings	.27
2.	3	Research methodology defects	. 28
6. Falling through the institutional cracks: academic ethics, quality assurance systems and epistemic redress		. 30	
7. and	Towards an inclusive South African academic culture: balancing ethics, sound scientific practice nd academic freedom		
8.	Broader public policy questions		. 38
9.	. Concluding remarks		. 39
Ref	References42		

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The discourse on transformation in South African institutions of higher learning frequently focuses on the demographics of students, academic staff and university leadership, or on individual incidents of racism, sexism, homophobia or xenophobia. The challenges of racial stereotyping, gender bias and other forms of discrimination and bigotry are often relegated to "soft" diversity and/or human resource management issues, rather than foregrounded as strategic, systemic dilemmas confronting core research and teaching functions across many disciplinary domains. This is certainly not only confined to South Africa but, as discussed later in this paper, plays itself out on university campuses globally. Tensions relating to the knowledge production role of South African universities (past, present and future) remain often unacknowledged and unresolved: friction between their warped historic apartheid epistemic foundations and constitutional aspirations for an equitable, non-racial, non-sexist post-apartheid society, in the grey areas balancing academic freedom, research ethics and scientifically sound research practice.

It is no coincidence that academic freedom is enshrined in the South African constitution, arising from a brutal history of suppression and persecution of the few principled and independent-minded academics who dared speak truth to power during the apartheid era – and paid dearly for their courage and integrity, sometimes even with their lives. But like most other political and socio-economic rights, academic freedom is not absolute. The constitution is equally emphatic about social justice and fundamental human rights, including the right to dignity and equality.

Academic freedom does not only vest in the individual researcher. A crucial dimension of academic freedom is the institutional autonomy of the university in determining its research objectives, its teaching curricula and other social impact activities. However, with this institutional autonomy comes concomitant institutional responsibility to maintain high ethical and scientific standards– a duty of care and accountability to the transformative project of the Bill of Rights, and to the South African citizens who through VAT and other tax instruments help to fund higher education.

Recently Adjunct Professor Simplice Asongu resigned in March 2019 from the Graduate School of Business at the University of Cape Town due to an outcry surrounding a paper he co-authored with Oasis Kodila-Tedika in the Journal of Interdisciplinary Economics, entitled *Intelligence and Slave Exports from Africa*. tested the hypothesis that African countries "which were endowed with higher levels of cognitive ability were more likely to experience lower levels of slave exports" (2019, p. 1). Not only is the notion of a country-wide aggregate level of cognitive ability extremely problematic, but the paper's uncritical engagement with slavery and the colonial history of Africa suggests that ingrained racist mental models are still prevalent across institutions of higher learning, and that they are by no means confined to white academics. To be crass: the stupidity of Africans contributed to their enslavement which of course exonerates the slavers – a master trope of the victim blaming colonial mentality. Equally pertinently, this article's acceptance in a peer reviewed journal demonstrates that the problem is not confined to the South African academe but is symptomatic of a deeply rooted dysfunction in the global academic knowledge production system.

This paper draws on a controversial, recently retracted journal article by Stellenbosch University (SU) researchers on cognitive functioning in "Coloured"¹ women as an illustration of how racial thinking persists in the South African academe, despite a growing global scientific consensus that race as a biological construct holds no legitimacy. This analytical terrain is not only emotionally charged, but epistemologically complex and challenging, at the intersection of multiple disciplines including

¹ All racial descriptors (African, Indian, "Coloured", White) in this paper refer to race as a sociopolitical rather than biological construct, drawing on the terminology still used in South African government legislation and statistical publications. The term "Coloured" is reflected in quotes to reflect rejection of this arbitrary, apartheid racial classification, along with its associated descriptor "mixed race" which presupposes the existence of "pure races". Black is used to refer to Africans, "Coloureds" and Indians collectively.

medicine (especially human genetics), history, political science, law, psychology, philosophy, economics, sociology, development studies, geography and urban planning. This unfortunate publication, which prompted a widespread and intense public backlash in the media, raised a number of critical themes relating to research quality failures within the broader system of knowledge production for SU and other South African universities, research ethics, the impact of research on the research subjects and their communities, reputational consequences for SU and a deepening of the trust deficit, both within SU and beyond. Each of these themes interact with each other within the arena of academic freedom of expression, and the more intangible – but no less potent – arena of academic culture in higher education institutions.

This paper begins by reviewing the international academic consensus that while race as sociopolitical construct retains currency, race as an essential, biological construct is meaningless. The second section reviews how black women, and "Coloured" women in particular, have been silenced historically, marginalised economically and vilified socially during more than three centuries of colonialism, slavery and apartheid. This provides the context for how historically South African academics have engaged with black women. The third section examines how academia helped shape – and was shaped by – apartheid racial thinking, which distorted the epistemic machinery in many academic disciplines in ways still reflected in many subject curricula, as #RhodesMustFall and #FeesMustFall student protest attest. Against this backdrop, the fourth section summarises the controversial study by Nieuwoudt et al (2019) while the fifth offers a brief critique of the article. The sixth section discusses the persistence of racial thinking in some parts of academia despite institutional research quality and ethics safeguards, but also across South African society as a whole, underpinned and legitimised by post-apartheid public policy still predicated on racial classification. The last two sections conclude by exploring possible responses within SU and other institutions of higher learning, and raising broader public policy conundrums in relation to race.

1. Towards a global paradigm shift around race as a scientific variable

This section outlines the evolution of mainstream scientific thought on race. A dominant early paradigm of human diversity conceived of race as a both a biological and social construct, with different "races" endowed with essential characteristics which elevated them to supremacy or reduced them to inferior status. Post World War II, a new consensus emerged – championed by international multilateral organisations such as the United Nations – that while races exist they are, to all intents and purposes, equal. The latest advances in genetics and neuro-cognitive psychology however suggest that race as a biological marker has little credibility and limited usefulness, though race as a socio-political framework of analysis continues to have relevance, particularly in the social sciences.

Race is a fluid and provisional construct which has evolved in various ways in different geographical spaces, times and social and cultural contexts. There has never been single authoritative definition of race, or ontological consensus on how many races exist and how to identify them. For instance, unlike South Africa's stable fixation on four race groups, the US Census Bureau (2018) uses the following racial taxonomy:

- 1. White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
- 2. Black or African American: A person having origins in any of the Black racial groups of Africa.
- 3. American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.
- 4. Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- 5. Native Hawaiian or Other Pacific Islander A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Race can be broadly defined as the belief that some groups in the human population share heritable biological characteristics which differ from those of other groups. In addition to biological differences

as the basis of the social and political construct of race, certain innate temperaments, abilities and qualities were assigned to races which *ipso facto* were deemed superior, while other races which were deemed inferior and therefore less than fully human (James, 2016). For example, an individual may regarded as less intelligent, lazier, more promiscuous or prone to drinking alcohol *because* she was regarded as "Coloured". By extension, racism is the belief that distinct and discrete races exist, and that there is a hierarchy of such races, which is often a justification for prejudice, discrimination and violence towards persons deemed to be of another race. In large parts of Asia, Africa and the Americas, "colourism" is also prevalent, where people within the same ethnic group regard lighter complexions as superior to darker complexions (Craddock, et al., 2018). Colourism may be regarded as a form of internalized racism and self-hatred based on the physical characteristics (such as skin colour or hair) denigrated or valued by a dominant group.

The concept of race can be distinguished from that of ethnicity, although the two term are often used interchangeably, leading to much confusion. While race always relates to physical features, the term 'ethnic group" does not necessarily (Zagefka, 2009). Rather ethnicity may reflect a group which defines itself culturally and is distinguished as such by others. One definition of race refers to a "group of genetically related persons who share certain physical characteristics such as skin colour and facial features, and who have for a long time been isolated geographically, or have in common cultural or religious practices" (Feller, et al., 2014, p. 273). Many essentialist definitions of race extended beyond the mere physical to associated temperament or character traits such as laziness, lust, propensity toward crime, and work ethic (James, 2016). Ethnicity, on the other hand, refers to a "group of people of the same nationality, language or culture, and who may or may not have genetic markers in common" (Feller, et al., 2014, p. 273). The consensus among human geneticists is that assigning a racial category on the basis of physical features is "imprecise, arbitrary and subjective" and only genotyping tests can assign persons to genetic subgroups (Feller, et al., 2014).

The weight of human genetics opinion is that, despite genetic variation which exists on a spectrum, there is only one human race (American Association of Human Genetics, 2018). Human genetic variation is limited: people have 99% of their DNA sequences in common. If human races existed, then the degree of interracial genetic variation between the members of the different races should exceed the intra-racial variation within a particular race. Research studies have shown repeatedly, however, that here are as many genetic variations within members of the same racial group as there are between members of different racial groups (Feller, et al., 2014).

Biologists distinguish between phenotypes and genotypes. A genotype encompasses full set of hereditary information which comprise an organism's genetic identity, whereas the phenotype refers to the observable expression of its genome i.e. an organism's observed physical characteristics. Identical twins have the same genome, and hence the same genotypes. Their phenotypes are however virtually similar, but not identical. The finger prints of identical twins – for instance – differ slightly. Environmental factors ("nurture") also play a major role, interacting with an organisms genotype ("nature") to evolve its phenotype.

Genetic analysis generally traces a person's ancestors' continents of origin using ancestry informative markers. These ancestral continental populations are not, however, biological subspecies. While different ethnic groups may have different susceptibilities to disease, this relates not to race but to geographic ancestry. For instance, sickle cell anaemia is often regarded as an African-American disease. But it is prevalent in populations which derived from parts of West Africa and other areas where malaria is endemic. Hence people from many parts of the Middle East, the Mediterranean and India also present with sickle cell anaemia. Cultural norms, rather than race, may also influence vulnerability to disease. For example, Askenazi Jewish women with the BRCA 1 genetic mutation are more susceptible to breast cancer because the original founding population was small and the group is largely endogamous (Feller, et al., 2014). Genetic analysis therefore makes use "biogenetic clusters" or "continental races" based on ancestral country of origin. This approach to human population structure is distinct from the concept of biological race which posits the existence of hereditary "biologically based properties and differences constituting (or explaining) either the existence of socially identified races or, especially, the "racial" characteristics about which debate revolves e.g. IQ or health (disparities)" (Kaplan & Winther, 2014). This nuance is critical – as will be

seen in the later analysis of the research study by Nieuwoudt et al (2019) who make no distinction between biogenetic clusters/continental races and apartheid racial categorization.

Feller et al (2014: 273) propose some good practices in engaging with race as a scientific variable:

In order to minimize the risk of validating the spuriously derived genetic biological concepts of race, one should avoid the use of race-based analyses in clinical and research studies when there is no plausible role for race in the hypothesis. If race/ethnicity is used as a variable, one should clearly state the context in which it is being used, describe the method that was used to assess and categorize it, and discuss all significant findings.

In summary, most modern genetics uses the concept of "bio-genomic clusters/continental races" relating to the continent from which people's ancestors derived, which differs markedly from the commonly understood concept of race. These "bio-genetic clusters" – unlike discrete race groups – are not mapped one-to-one to the social groups generally ascribed to races in popular discourse, nor do they explain the social practices, expectations and value judgements surrounding race, including access to status, power, public services, goods, wealth, etc. Kaplan and Winther (2014: p1041) contend that the legitimacy in biological research of categorising the human species into smaller subgroups depands largely on the "purposes, measures and metrics" employed.

Although it has been the message of sages and mystics throughout the ages, the oneness of the human species as a scientific notion is then a fairly recent concept, and the consensus which is emerging is significant, but not uncontested in all academic disciplines. In a resurgence of biologically based genetic conceptions of race, Andreasen (2014) defended the genetic basis of race based on the cladistic theory of race. Morning (2012) asserts that while the social nature of race is common cause in sociology, biologists and anthropologists have not uniformly disavowed the biological nature of race on the basis of evidence from genetic science: "At best one can conclude that biologists and anthropologists now appear equally divided in their beliefs about the nature of race" (Morning, 2012:451).

A quintessential element of the racist mental model is its hierarchy, with the White male at its apex, followed by the White woman and then everyone else. A German professor, Johan Blumenbach (1752-1840) used comparative anatomy to classify all Europeans as a single "Caucasian" race, the most superior in relation to the four other races he identified. His contemporaries like Joseph-Arthur Comte de Gobineau claimed that it was a historical fact that the White race was the progenitor of all civilisation and would retain its pre-eminent position as long as its 'racial purity" is maintained, thus the need to contain miscegenation ("racial mixing") (Naicker, 2012). These assertions of White superiority and its corollary of black inferiority were absorbed largely uncontested into the mainstream canon of scientific disciplines such as anthropology, medicine, psychology, sociology, psychology, politics and economics (as illustrated in Figure 1 on page 5 below).

Another of the strands of "scientific" thought which provided an intellectual justification for racism was eugenics, with its emphasis on forced sterilisation and selective breeding – an intellectual antecedent of both Nazi and Apartheid ideology. In 1869, Francis Galton – cousin to Charles Darwin and a statistician studying human differences and the heritability of intelligence – advocated the first social measures to preserve or enhance biological characteristics, which he later terms "eugenics". Galton was the first to employ data collection questionnaires and surveys for anthropometric studies, and pioneered statistical techniques which are still widely applied in research today. He also invented psychometrics, the science of assessing differences in human intelligence and other mental abilities, aptitudes, attitudes, and behaviours through psychological tests (Genetics Generation, 2015). It is interesting to note that, in addition to its reliance on race as an explanatory variable, the Nieuwoudt et al (2019) paper also draws methodologically on psychometric testing and (flawed) statistical analysis to lend it legitimacy and the semblance of academic rigour.

Along with a particular brand of Christianity which was subordinated to Afrikaner nationalism, eugenics also constituted a major plank in the ideological scaffolding for colonialism, slavery and apartheid. Naicker (2012:209) notes that "socially constructed bias masquerading under the guise of

science, religious rhetoric and governmental legislation were fundamental to the production, maintenance and surveillance of the apartheid nation-state".

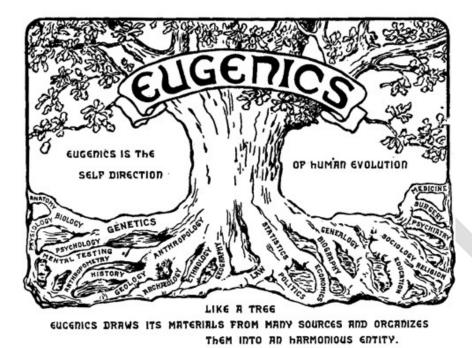


Figure 1: Logo of the Second International Congress of Eugenics, 1921

Brought to South Africa by the British, eugenics was enthusiastically adopted by the colonial English speaking medical profession in South Africa just after World War 1. Professor Harold Fantham (1876-1937), a eugenicist of note, claimed in presentations to the South African Association of Science that the primary threat to the White race was miscegenation-induced deterioration. In a 1932 paper entitled *Notes on some cases of racial admixture in South Africa*, Fantham concluded that the maintenance of "racial purity" was a priority for South Africa (Naicker, 2012).

The history of scientific racism and its application has been well document in South Africa by scholars such as Dubow (1995) in his book *Scientific racism in South Africa*, Legassick and Rasool (2000) *Skeletons in the Cupboard* and Abrahams (1997). After more than 20 years, therefore, the failure of academics to engage critically with racial thinking in contemporary scholarship is a malaise of the epistemological system which continues to package human biases as neutral, unassailable, scientific truths, in the face of overwhelming evidence to the contrary.

From the initial pejorative conception of race as the distinguishing criterion for a hierarchy of people, post World War II consciousness shifted to embrace the view (articulated by the United Nations) that while races existed, they were equal. In the wake of Nazi anti-Semitic atrocities in the concentration camps and Germany's defeat in World War II, the United Nations, in *"The Race Question"*, took the moral stand that – irrespective of whether human diversity is biological or cultural in origin – all people should have equal dignity and respect within the law (UNESCO, 1951a). They articulated the view that all humans belong to a single species, *Homo Sapiens*, which comprises a number of races, defined as "populations, each one of which differs from the others in the frequency of one or more genes" " (UNESCO, 1951a, p. 5). The similarity between people was seen as much greater than their differences because the genes accounting for the hereditary differences "were few when compared to the whole genetic constitution of man and to the vast number of genes common to all human beings regardless of the population to which they belong" " (UNESCO, 1951a, p. 5).

Source: Genetics Generation 2012

Race as a "biological fact" was accepted (i.e. purely physical differences, rather than psychological or temperamental), but the social "myth" of pure races and a hierarchy of races with some inferior to others was debunked. UNESCO conceded that the scientific truth may not counter emotional responses conditioned by implicit biases, but makes it harder to employ a scientific rationalization for feelings that people would not openly admit.

It is now generally recognized that intelligence tests do not in themselves enable us to differentiate safely between what is due to innate capacity and what is the result of environmental influences, training and education. Wherever it has been possible to make allowances for environmental opportunities, the tests have shown essential similarities in the mental characteristics among all human groups. In short, given similar degrees of cultural opportunity to realize their potential, the average achievement of the members of each ethnic groups is the same (UNESCO, 1951a).

This first UN Statement on Race attracted a lot of criticism on the grounds that it had reflect the opinions mainly of sociologists, and not physical anthropologists and geneticists who still envisaged a biological dimension to race. The physical anthropologists expressed the view that at that stage insufficient evidence existed to reject the conclusion that there were differences in intelligence across races (UNESCO, 1952). Accordingly, the UN Statement was revised to read:

When intelligence tests, even non-verbal, are made on a group of non-literate people, their scores are usually lower than those of more civilised people. It has been recorded that different groups of the same race occupying similarly high levels of civilisation may yield considerable differences in intelligence tests. When, however, the two groups have been brought up from childhood in similar environments, the differences are usually very slight (UNESCO, 1951b, np),

The conclusion reached was that "(a)vailable scientific knowledge provides no basis for believing that the groups of mankind differ in their innate capacity for intellectual and emotional development." (UNESCO, 1951b). It should be noted that certain scientists also objected, not to the interpretation of this scientific consensus, but to the imposition of what they saw as the intrusion of a political perspective into the scientific domain. This presupposes that it is possible to demarcate the scientific and political domains, but the history of race science and its symbiotic relationship with colonialism, slavery and apartheid demonstrates aptly how spurious this boundary is. Science, like any other societal endeavour, can never be value free, and is always shaped by the socio-political and economic context in which it is codified and practiced.

Nearly 30 years later, Article 2.1 of the 1978 UN *Declaration on Race and Racial Prejudice* again retains the concept of race as a biological construct, but refutes the putative hierarchy of races and the attachment of value judgments to racial differentiation.

Any theory which involves the claim that racial or ethnic groups are inherently superior or inferior, thus implying that some would be entitled to dominate or eliminate others, presumed to be inferior, *or which bases value judgments on racial differentiation*, has no scientific foundation and is contrary to the moral and ethical principles of humanity. (own emphasis) (UNESCO, 1978: np)

Article 5.2 called on States and the entire teach profession to:

... see that the educational resources of all countries are used to combat racism, more especially by ensuring that curricula and textbooks include scientific and ethical considerations concerning human unity and diversity and that no invidious distinctions are made with regard to any people; by training teachers to achieve these ends; by making the resources of the educational system available to all groups of the population without racial restriction or discrimination; and by taking appropriate steps to remedy the handicaps from which certain racial or ethnic groups suffer with regard to their level of education and standard of living and in particular to prevent such handicaps from being passed on to children (UNESCO, 1978: np).

Article 8 also calls on specialists in the natural sciences, social sciences and humanities to undertake objective interdisciplinary research into the causes and prevention of racism and prejudice, and places an obligation on them to do their utmost in disseminating their findings to prevent them being misinterpreted, and to educate the broader public. Since then, many countries – including post-apartheid South Africa – have embedded non-racism and a human rights culture with their constitutional and legal frameworks. It is extremely ironic that roughly at the same time as the United Nations was taking a principled stand against racism and prejudice from moral, political and scientific perspectives, White South Africans were mandating the Nationalist Party to embark on its apartheid crimes against humanity.

As recently as March 2019, the American Association of Physical Anthropology (AAPA) issued a new statement on race:

"Race does not provide an accurate representation of human biological variation. It was never accurate in the past, and it remains inaccurate when referencing contemporary human populations. Humans are not divided biologically into distinct continental types or racial genetic clusters. Instead, the Western concept of race must be understood as a classification system that emerged from, and in support of, European colonialism, oppression, and discrimination. It thus does not have its roots in biological reality, but in policies of discrimination. Because of that, over the last five centuries, race has become a social reality that structures societies and how we experience the world. In this regard, race is real, as is racism, and both have real biological consequences (AAPA, 2019, p. 1).

Periodically, however, pseudo-scientific justifications for differentiating and ranking humans on the basis of their race surface; ideologically driven biological determinism masquerading as social policy analysis, clad in the rhetoric and symbols of science which serves as an appeal to legitimacy and scientific authority but is in fact merely rhetorical divisive, devoid of scientific merit. One notorious example of this ilk was *The Bell Curve: Intelligence and Class Structure in American Life* by Richard Hernstein (a psychologist) and Charles Murray (a political scientist), which spawned a plethora of reviews and critiques. The title alludes to the bell shape of the normal statistical frequency distribution. The authors posit there is a general factor of cognitive ability which differs across individuals, stays more or less constant throughout a person's life and is largely (70%) heritable. They assume that this cognitive ability can be accurately measured by well designed and correctly administered inteligency quotient (IQ) tests which are unbiased in respect of socio-economic class, race, and ethnicity (Hernstein & Murray, 1994).

Their data were drawn from the thousands of participants tracked from the 1980s in the National Longitudinal Survey of Labour Market Experience of Youth study by the US Department of Labour. All of these participants had taken the Armed Services Vocational Aptitude Battery (ASVAB) which comprises 10 tests taken by those who sought entry into the US armed forces (word knowledge, paragraph comprehension, mathematics knowledge, arithmetic reasoning, general science, mechanical comprehension, electronics information, and auto and shop information). Where participants had also taken IQ tests at high school, these were also factored into the analysis.

Hernstein and Murray (1994) apply statistical analysis to measured IQ test results which they claim are normally distributed across race groups. Average IQ measured for subsamples of various race groups differed. One hypothesis would be that these differences in race group sample averages could be due to the mix of inordinately high or low scoring persons within those samples. Based on their statistical analysis, Hernstein and Murray arrive at the conclusion that the entire statistical distribution of Asian people is marginally higher than those of Whites, and substantially higher than African-Americans. They attempt to demonstrate that low IQ scores are related to undesirable social behaviours such as exiting education early, propensity towards crime, marriage, divorce, illegitimacy, welfare dependency, being impoverished and the probability of voting in elections. High IQ scores are associated with a cognitive professional elite with higher income, educational attainment etc. As a corollary, they suggest that suggest that racial differences in social outcomes of individuals are better explained by intelligence (as measured by IQ scores) than the socioeconomic status of their parents. Criticisms of this study ranged from its research design to its implementation (instruments used, statistical analysis etc.). Some of the conceptual critiques related to whether the ASVAB/IQ test was a valid, reliable and unbiased construct. Questions were raised as to the degree to which intelligence is heritable and immutable, and whether it could simplistically be reduced to a single number capable to ranking people in linear order of IQ (Beatty, 2016). Verbal IQ tests often reflect on prior knowledge rather than the ability to learn, and are usually administered in the standard form of languages like English or Afrikaans which have been formalized by elites. People who speak non-standard dialects of the language and are unfamiliar with standard vocabulary are likely to be disadvantaged. For instance, Alfano et al (2016) cite the word association example: runner is to marathon as oarman is to The correct answer is regatta. Clearly test takers who were spectators or participants at this sort of boat race would be in a much better position to answer this question. Alfano et al. (2016) point out that even so-called culture free tests which eschew language in favour of graphics may have their own inbuilt biases.

Other detractors pointed to serious flaws in the authors' statistical analysis. Hernstein and Murray had relied heavily on previous statistical studies which were fundamentally flawed and which they reproduced uncritically. The authors also omit data which do not accord with their narrative. The timed numerical ASVAB test component in which black people on average scored better than their White counterparts, was omitted despite it being the single best predictor of earnings. Fischer et al (1996) observe that Hernstein and Murray had adjusted the IQ data to eliminate the effect of education. They replicate Hernstein and Murray's analysis using the same variables but different weights and found that Hernstein and Murray's adjustments to the IQ data had increased the ability of IQ to predict poverty for Whites as much as 61% and for African Americans by as much as 74%. Hence Fisher et al (1996) conclude that the relationship that Hernstein and Murray claim exists between IQ and socioeconomic status is essentially an artefact of how the data had been manipulated (Korenman & Winship, 1995).

From a statistical perspective, Herenstein and Murray failed to distinguish correlation between IQ and socioeconomic status from causation, and therefore derived at the erroneous and misleading conclusions that measured IQ causes socio-economic status. Socioeconomic status is however a proxy for access to quality early childhood development and education, health care, nutrition etc. so socioeconomic status could very well influence IQ (Beatty, 2016).

In 1997, the American Psychological Association's Board published an investigative report, entitled *Intelligence: Knowns and Unknowns* which supported some of the statements in The Bell Curve e.g. that:

- even when variables such as education and family background have been statistically controlled, IQ scores have predictive validity for adult occupational status,
- there is little evidence to show that childhood diet influences intelligence except in cases of severe malnutrition.

However, they conclude that the reasons for the differential between reported White-Black IQ scores, however, are not known:

Several culturally based explanations of the Black/White IQ differential have been proposed; some are plausible, but so far none has been conclusively supported. There is even less empirical support for genetic interpretation. In short, no adequate explanation of the differential between the IQ means of Blacks and Whites is presently available (Neisser, et al., 1996).

Graves (2001:8) identified the hallmarks of scientific racism which are evident in *The Bell Curve* as follows:

- 1. "Claims which are not supported by the data given
- 2. Errors in calculation that invariably support the hypothesis
- 3. No mention of data that contradict the hypothesis
- 4. No mentions of theories and data that conflict with core assumptions
- 5. Bold policy recommendations that are consistent with those advocated by racists"

Section 5 on page 24 will make the case that four of five characteristics of racial thinking are present in the Nieuwoudt et al (2019) paper; however the Nieuwoudt paper lacks policy recommendation, bold or otherwise.

In addition to recent discoveries in relation to human genetics, advances in neuroimaging technology have also created a new trajectory of psychological study on intelligence as a testing and race. Alfano et al. report that the latest view is that intelligent behavior does not emanate from a single, general intelligence factor, but rather "emerges from an interaction of abilities across several task domains ...and differences in these abilities may not result primarily from genetic inheritance" (2016:484). Furthermore, in the United States context, students from groups stigmatized as being poor performers or having inferior abilities (social identies such as ethnic minorities or women) perform worse than their White counterparts due to the stereotype effect which may introduces measurement bias. When the individual student feels that her performance will be seen as representative of her ethnic group or gender, the level or threat engendered may significantly compromise not only the application of existing skills, but also the acquisition of new skills and learning. Studies have shown that the stereotype effect seems to operate by decreasing working memory capacity under situational pressure:

Ironically, it seems that the most qualified test takers are the most susceptible to stereotype threat, in large part, because, in their case, working memory capacity resources are spent on worrying about the test and how their performance on it will be interpreted by others instead of devoting these resources to actual test performance (Alfano, et al., 2016, p. 481).

Conversely, studies suggest that interventions aimed at bolstering the sense of social belonging of students from stigmatized groups and changing the way they think about themselves, their abilities and their intellectual capacity can successfully enhance academic performance (Alfano, et al., 2016, p. 481).

Driven by recent advances in medical science, contemporary global scientific thought recognizes human genetic diversity but is clear that race as a purely biological ontological construct is meaningless, devoid of scientific validity. Nevertheless race as a political, ideological and social construct continues to powerfully – yet virtually invisibly – shape the lived realities of people in South Africa and elsewhere. Rejection of race as a biological construct therefore does not mean that academic analysis should embrace the fiction of "colour-blind" world, where race and gender as a socio-political constructs are irrelevant. The formal markers of race, gender, class, disability and other forms of discrimination have varying intersectional impacts. Claiming to be racially and gender neutral, the 'colour-blind" lens could provide a justification for abdicating the responsibility for addressing the underling socio-economic and political conditions which perpetuate poverty, inequality and subordination. From a public policy perspective, race remains a legitimate target of study in the social sciences, even as its biological foundations are discredited.

If racial thinking is merely a product of human consciousness and the hypothesis of race as a scientific concept has been refuted, why does it persist in academia – as evidenced by the Niewoudt et al article? The Kuhnian theory in the philosophy of science hypothesizes that new findings which challenge a prevailing scientific paradigm are initially ignored, since they threaten to disrupt the vested interests in the mainstream scientific community and beyond. Only once a critical mass is reached, does the paradigm shift. Once the new paradigm becomes orthodoxy, then evidence and theories in conflict with the old paradigm which had been initially overlooked are then re-interpreted as support for the new dominant paradigm, and are assimilated into that canon (Kuhn, 1970).

But while the Kuhnian paradigm shift ultimately result from the conscious realignment of scientific worldviews and practices, racial thinking is much more nebulous, amorphous and unconscious. So perhaps the Foucaldian concept of the *episteme* is more relevant – in particular the assumptions and worldviews that are so fundamental, self-evident and ubiquitous to the *episteme* that they are rendered experientially "invisible" to the epistemic agents (such as individuals, organisations or systems) who operate within a particular knowledge production context and epoch. An apposite anology may be how right-handed people – until they injure their left hands - do not really appreciate the challenges left-handed people endure in a world designed for right handed people (scissors, can

openers, mouse buttons, computer key boards, three ring lever arch files, mugs, belts, to name but a few). In some countries, left handed people were regarded with suspicion historically. The English word sinister originally derives from the Latin word for left-handed people, and today retains a connotation of evilness and threat. Even today in some cultures children born left-handed are compelled to use their right as their dominant hand for writing, eating etc.

2. "Coloured" women: silenced historically, marginalized economically, vilified socially

This section asserts that – despite assertion by Nieuwoudt et al (2019) to the contrary – there is a great deal of diversity in the histories, ancestral origins and culture of the people classified as "Coloured" by the apartheid government. There is also a profoundly gendered dimension to "Coloured" people's experience of colonialism, slavery and apartheid which in the present continues to play itself out in South African society. African and "Coloured" women – in particular – bore the brunt of social, political, economic, psychological and sexual subordination and exploitation, a pattern which unfortunately endures to this day. In the face of an apartheid machinery obsessed with the separation of races and racial purity, "Coloured" – and for historical reasons discussed below – "Coloured" women in particular – remain a physical, living embodiment of shared indigenous and slave ancestry which cut across apartheid racial classifications and undermined the Afrikaner nationalist fiction of racial purity.

The distortion of South African historiography and social sciences through the colonial lens has deeply corrupted the epistemology of the South African academe, especially during the apartheid era. The transition to a constitutional democracy built on human rights values necessitated a scholarly reevaluation and re-engagement with race-based mental models and racial "common sense" which were – and indeed continue to be – so embedded, ubiquitous and "normal" that their invisible influence continues to be reproduced unchecked.

Pinkard – in the Hegelian tradition – observes that the study of history is not just the compilation of facts and narratives, but is "the account of humanity experimentally seeking to understand itself in all the myriad of ways it gives shape to itself in daily life and how historical change is intimately linked to our changes in self-understanding" (2019, np). Humans as a species collectively and individually shape who we are, and the philosophy of history is the "study of how we shape-shift ourselves across time" (Pinkard, 2019). In apartheid South Africa, black people – and "Coloured" women as the focus of this paper – were largely excised from officially recorded history (Adhikari, 2004; Van der Spuy, 2004). Instead, political, religious and economic interests and ideologies converged to create epistemic systems which permitted largely White South African elites – in the polity, economy and academia - to arrogate to themselves control over the narrative shaping the self-image of subjugated people, denying them their own historic agency and self-definition.

Far from being ethnically homogenous as claimed by Niewoudt et al (2019), within the apartheid category "Coloured" encompasses many diverse histories and identities. The genocide of the San and Khoe is different from the trauma inflicted on slaves forcibly brought to South Africa from Angola, Ghana, Indonesia, Malaysia, India and Mozambique. The history of the Griqua, Damara and Nama differs from those of Chinese, Madagascan or Mauritian origin. The distinctive experiences of various groups are conditioned by different historical, spatial, social and economic contexts and trajectories, despite being lumped together under a single apartheid racial classification. That Nieuwoudt et al (2019) can state unambiguously that people classified at birth as "Coloured" are a homogenous community beggars belief. Their ignorance is a testimony to the epistemic corruption of the education system which produced them as researchers. The bibliography of their paper draws exclusively on sources by White academics, while largely ignoring the work of academics of colour which would dispel this preconception.

Social and economic inequality born of conflict and domination have been the enduring hallmarks of the South African society and economy since its earliest beginnings, and remain so despite the country's transition to democracy. South Africa was colonised by the world's first multinational company, with shareholders in Holland but headquarters in Jakarta, Indonesia (formerly Batavia), known as the *Vereenigde Oostindische Compagnie* (VOC), the United East India Company. Following

in the wake of the Portuguese colonial scourge, the VOC (which was founded in 1602) may be regarded as a forerunner of the Googles, Amazons and Apple corporations which virtually ubiquitous in the contemporary global economy. Its rivals were the Dutch West India Company, as well as similar British, Spanish and German enterprises (Upham, 2012). With private armies and its own internal laws, the VOC secure a near complete monopoly in the lucrative spice trade through war with the British East India Company and and conquest of indigenous populations who attempted unsuccessfully to offer resistance. Human trafficking was a lucrative form of business, with the few slaves who survived the torment of captivity regarded as valuable commodities.

In 1652, the VOC established a refreshment station for European ships on route to the East which would soon develop into a colony, enforcing its own internal laws, collecting taxes, providing public goods and all other dimensions of public governance. Jan van Riebeeck, having been recalled from the VOC's trading post in Tonkin, Vietnam for fraud, was redeployed to the Cape to establish that station, with 82 men and 8 women, including his wife and personal slaves, mainly female, to satisfy their domestic services and sexual needs. By 1657, permission had been granted to 9 "free burghers" (mainly VOC officials released from their contracts) to start occupying farmland and laying claim to water sources, first snatching the prime Khoi pasture near the Liesbeeck River (where, incidentally, the University of Cape Town is currently located). In the following year, large scale import of slave labour commenced, with a cargo of 170 Angolan slaves on the *Amersfoot* (which the Dutch had captured from a hijacked Portuguese slave ship) and 228 Ghanaian slaves off the *Hassalt*. From 1710 onwards, the adult slave population was as much a three times greater than the number of settlers at the Cape and their descendants. By contrast, until the end of the eighteenth century the number of male slaves was four times greater than female slaves in some districts (South African History Online, 2011a).

Over time, the descendants of these White Dutch settlers attained a fairly high standards of living in relation to other 18th century societies. This standard of living has been attributed to a range of factors such as "a natural and institutional environment conducive to capital accumulation, settlers' ability to exploit slave and Khoesan labour, and the entrepreneurship exhibited by the settlers, possibly due to their high levels of human capital and strong social networks" (Fourie, 2014: 167). It is only relatively recently that the pivotal economic role of slavery at the Cape is being acknowledged. Apartheid propaganda deliberately downplayed the extent of the economic dependency on slavery and the depraved cruelty of the institution of slavery itself. Before 1980, studies generally portrayed the economic contribution of slaves as marginal and the character of Cape slavery as mild or even benign (Baderoon, 2015). This was the perspective reflected in apartheid text books and university curricula. More recent research confirms that the Cape Colony was unequivocally a fully fledged slave society, with widespread slave ownership and slave labour on settler wine and wheat farms, which was indispensable to the functioning of the economy and which permeated the entire legal, social and economic institutional fabric of the Colony (South African History Online, 2011a)

Increasing White settler land grabs and unrelenting expansion of settler farming "drove the Khoesan to abandon their pastoral lifestyle to become farm labourers" (Fourie & Green, 2015: p 195), with increasing numbers of Khoe employed by White farmers. Initially when the Cape was envisaged just as a small fortified stop-over, the VOC – out of fear of hostile reprisals by Khoe - instructed its officials and other settlers that the Khoi and other indigenous people were to be left alone with some autonomy (Guelke & Shell, 1992). As a result, slave labour began to be imported to meet the demand for agricultural labour. Slavery was practiced in the Cape from 1658 to 1838, first by the Dutch and then the British, with more than 60 000 slaves brought to the Cape. Fourie (2014) estimates that 24% of all settler's movable assets between 1673 and 1806 consisted of slaves, whereas cattle and sheep only accounted for 12% and 10% respectively.

As the settler occupation of the Cape progressed, demand intensified for Khoe labour on farms. The Khoe (who then numbered about 50 000) were either displaced from the lands which they and their cattle and sheep had inhabited for centuries, were exterminated or reduced to indentured labourers/ serfs on settler farms, as the White settlers with superior technology (guns and horses) gained control of the few perennial water sources available and choice pasture (Guelke & Shell, 1992). This model of subordinated servitude was perfected in the Cape and then replicated subsequently in the Afrikaner

Republics of the Orange Free State and the Zuid-Afrikaansche Republiek, a forerunner of the pass system of migrant labour that would later evolve. The autochthonic people were deprived of their liberty, languages, culture and their dignity, and later their "Coloured" descendants would then later be criticised for having "no culture":

In the wars which they fought against the Khoi and the San, the Boers frequently followed a policy of exterminating the mature adults, but capturing the children and raising them on the farms. These children were taught to speak Dutch and to practice the Christian religion. This system was hypocritically known as "apprenticeship", but in fact it was nothing better than slavery because normal human and family rights were not respected, and children were bought and sold separately from their parents (South African History Online, 2011a).

The European settlers also brought with them diseases, such as smallpox, which further decimated autochthonic communities at the Cape in 1713, 1755 and 1767 (Petersen, et al., 2013).

It should be borne in mind that at the time both slavery and forced labour, underpinned by racism, were widely accepted forms of social and economic organisation, not only in Cape law and in the Dutch Reformed Church but also in colonial occupations in other countries. For instance, in the American constitution states that all men are born equal, but still permitted slavery. A slave was regarded as property but as three-fifths of a White person for the sake of representation and direct taxation in terms of Article I section 2 of the 1797 Philadelphia Convention (Smith, 2017). White supremacist ideologies often provided the intellectual justification for depriving people of colour of their personhood, liberty and dignity in pursuit of the imperialist project. For instance, the philosopher Locke argued that only those who possess reason could be subject to natural law and the natural rights to liberty, sovereign ownership of one's own body and labour. Those judged deficient in reason, such as children or Africans and American Indians were therefore not entitled to such rights. In fact, slave owners contended that because black people were not equipped to deal with liberty they, in fact, benefitted from slavery (Mengel, 2014). Closer to home, denigration of the intellectual capability and behaviours of black people – and black women in particular – have provided a convenient justification for centuries of subordination and violation.

Gqola (2010), drawing on the work of Zoë Wicombe (a prominent writer and scholar of South African culture and cuisine) and Robert Ross (a historian) notes the virtual absence of slave memory among descendants in the Western Cape. Only court records subsist as detailed testimony to the pervasive social and economic institutionalisation of slavery for more than 170 years, which became hard coded in the DNA of the development trajectory of the Cape Colony and broader South Africa – an institutional configuration which even today conditions contemporary patterns of power and privilege in South African society. The present continues to be shaped by the past, not least in academia:

Uncovering memory and history demands a critical attentiveness to the uses of the past to negotiate positions in the present The absence of published slave narratives by Dutch and British slaves was seen to confirm the slaves' inadequacy. Further, studies of South African slavery within the discipline of history are as recent as the 1980s (Worden & Crais 1994) and this has contributed to the general disregard demonstrated for that particular moment in history, until recently (Gqola, 2010: 6).

It is comparatively recently that history of the Khoe and other indigenous people, the "Free Blacks" and slaves have been subject to systematic academic study, which had previously focussed mainly on the White colonial settlers and their descendants. In 1913 Harold Cressy, the first "Coloured" to obtain a degree in South Africa, called upon "Coloured" teachers to challenge the dominant narrative that "Coloured people" had played no role in the history of South Africa (Adhikari, 2008).

The early period of imperialist colonisation was largely downplayed in Afrikaner national historiography which found it expedient to focus on the "Great Trek", the Anglo-Boer war and the political and economic ascendency of Afrikanerdom in the twentieth century (Worden, 2007). While most of general historical surveys by Afrikaans-language historians largely disregarded the invisible underclass of Khoe, San, and slaves, a few notable historians such as Anna Böeseken, through transcription of archival records, created a body of knowledge not only of the colonialists such as Van

Riebeeck and Van der Stel, but also of the historically "invisible" inhabitants of the Cape (Worden, 2007). At the University of the Western Cape, a former "Coloured" university, the Instituut vir Historiese Navorsing (under the leadership of Hans Heese, Leon Hattingh and Henry Bredenkamp) also generated research on the underclass non-settler majority at the Cape during the VOC period in the 1970s and early 80s. Worden (2007: p5) contends that this body of work was "studiously ignored" by English-speaking historians for a number of reasons. It was written in Afrikaans. It was predominantly empiricist in orientation, emphasising meticulous recording of facts from primary sources rather than interpretation and theory building. Finally, the VOC period had come to be identified with a settler dominated, "White" Afrikaner history which became "somewhat contaminated during the apartheid years by its political associations" (Worden, 2007, p. 5). Only in the 1980s did a body of literature arise, influenced by international Anglophone trends in historiography, which explored the social, economic and political impact of colonialism on the indigenous population and the experiences of slaves and "Free Blacks".

The writings of slaves themselves and their descendants were largely overlooked by both White English and Afrikaans academia in South Africa. Books written by members of slave communities employed the Afrikaans dialect of Afrikaans, but were written in Arabic script and hence incomprehensible to White historians. The body of work of scholars such as Achmat Davids, Yusuf da Costa (Da Costa & Davids, 1984) and Mohamed Ajam (1986) sketch the development of Cape Muslims communities. Davids (a cultural historian, social worker, and educationalist) outlined the development of Arabic-Afrikaans as a written script during 19th and early 20th century Cape Muslim society after emancipation in the 1834, and its dissemination through local madrassas Funded by the Ottoman government, *Uiteensetting van die Godsdiens* ("Exposition of the Religion") was the first book to be printed in Arabic-Afrikaans in 1869 by Abubakr Effendi who had been sent to the Cape by Sultan Abdülmecid I at the request of Queen Victoria (Davids, 2012).

Indonesian elites who had resisted the Dutch incursion into the East Indies were also banished to the Cape as political prisoners. These include Sheikh Yusuf, nephew of Sultan Alauddin of Makassar, the first Indonesian ruler to accept Islam which had been brought to Indonesia by the famous Chinese muslim explorer and eunuch, Zheng He in seven voyages between 1405-33 (Encyclopaedia Britannica, 2019). Educated in what is now Saudi Arabia, Sheik Yusuf (also known as Abadin Tadia Tjoessoep) was a scholar and a lineage holder of the several sufi orders (such as the Khalwatiya and the Qadariya which at that time spanned North Africa and India, and later found purchase in the Cape). Sheikh Yusuf and his entourage of 49 people (including his wives and twelve children) were received by the then Governor of the Cape, Simon van der Stel. Similarly in retaliation to an alliance between Sultan Jalaladin of Tidore and the English, another scholar, Imam Abdullah ibn Qadi Abdus-Salam, a prince of Tidore in Trimate Islands, was also banished to the Cape in 1780. Affectionately known as Tuan Guru ("Mister Teacher"), Imam Abdullah – during his 12 years of imprisonment on Robben Island – hand wrote from memory several copies of the Quran (which still survive today) and a text on Islamic jurisprudence which would be the intellectual cornerstone of the Cape Muslim community in the 19th century (Da Costa & Davids, 1984).

All the strands of scholarship outlined above – be they in English, standard Afrikaans or Arabic-Afrikaans – have one thing in common: the voices of "Coloured" women themselves are conspicuous by their absence (Murray, 2010). It is therefore the views of largely White men who have dominated the skewed narrative about black women, legitimated by "science" and embedded and reproduced in the epistemic infrastructure of the South African education system, with White women increasingly acting as interlocutors as well. It is only really post-1994, that strong black academic women's voices have been allowed to emerge. While a vague awareness of slave ancestry exists, very little by way of detail remains in the folk memory. Baderoon observes this might be a collective psychological defence mechanism to recapture self-worth and dignity:

Forgetting is common even among those people who are descended from slaves, like me. As the writer and literary scholar Zoë Wicomb has argued, this is the effect of the deep psychic costs of almost two centuries of extreme violence, and the further violence of being blamed for inviting that brutality. This has resulted in a phenomenon she unforgettably called a "folk amnesia" born of "shame" (2015: np)

Sarah "Saartjie" Baartman, the much maligned "Hottentot Venus" has recently been the focus of attention at the University of Cape Town with the renaming of the former Jamieson Hall after her. In the name of science, the vulva and buttocks of Khoisan women - regarded by Linnaeus as subhuman Homo monstrous - were measured and probed, with Sarah Baartman being taken to England in 2010 as a human exhibit for the amusement of White men (Abrahams, 2011). However it is the poignant tale of Krotoa of the Goringhaicona, more commonly known as Eva Meerhof, who is perhaps most emblematic of the experience of "Coloured" women. Traded as a ten year old child by her uncle Autshumato (aka Herry die Strandloper) to Jan van Riebeek shortly after he had arrived at the Cape, exploited for domestic labour by Maria de la Quelerie, commodified sexually, Krotoa was baptized into the Dutch Reformed Church in 1662 as Eva. Acting as an interpreter, Krotoa was the first indigene to legally marry a White settler in 1664. After she was widowed, Krotoa became addicted to alcohol and engaged in several sexual liaisons with White men, resulting in "mixed race" offspring. One of the settlers noted in his journal that Eva had taken her two children and absconded with a freeman without a word, and that "... this lewd vixen (die lichtvaerdige prije) has often played us this trick, throwing aside her neat and clean clothes, and instead using stinking old cattle hides, just like all the other dirty Hottentoo women do" (Robertson, 2017).

She ended up a widowed alcoholic, rejected by both her own people and the White colonialists, dying in exile on Robben Island. The archetypal triangle of the White madam, the White "*Baas*" and the subordinate "Coloured " woman has therefore been a feature of Cape society since its very inception, and been reproduced faithfully since over the centuries.

Extreme violence – including sexual violence – was a continual shameful thread running through the social fabric of the Cape Colony. The endemic violence against women and children today therefore should therefore come as little surprise. Slaves outnumbered their masters, and slave rebellions and attempts to escape were brutally suppressed with violent and extreme punishment such as torture and hanging or being broken at the wheel, often without *coup de grace*. Slave uprisings were lead by Louis van Mauritius in 1808 with assistance from two Irishmen, and in 1825, Galant van der Caeb lead another mutiny shortly after Lord Charles Somerset, then Governor of the Cape, announced improvements in the conditions of slaves (SA History Online, 2017). The incidence of suicide among slaves was unsurprisingly very high. Because this was not only an inconvenience and a destruction of valuable property, the bodies of slaves who died by their own hands were mutilated and put on display as an object lesson to the rest of the slaves to deter destruction of VOC property. For instance, in 1671, the body of a 24 year old "Hottentot" paid servant woman called Zara/Sara who had committed suicide was put on trial, impaled and left in public to rot (Van Niekerk, 2005) (Upham, n.d.). Forms slave resistance – whether by violent revolt or by suicide – were largely excised from apartheid textbooks, denying their exercise of what restricted agency they possessed.

While the White population increased naturally with each generation, the deplorable conditions under which slaves were kept meant that they died frequently and would have to be replenished through fresh imports. It is estimated that about 60 000 slaves were imported, with the slave population reaching 38 000 in 1834 when the slaves were finally emancipated by the British (South African History Online, 2011a). Before the ban on importing slaves in 1807, it was cheaper to buy a new replacement slave than to properly feed and accommodate existing slaves in reasonable conditions. It was only afterwards once slave prices started rising due to relative scarcity that conditions improved slightly. Ross (2012) notes that while no White women did manual labour, the VOC expected slave women were expected to do as heavy manual labour as their male counterparts, even mining, making no gender distinction.

For female slaves sexual exploitation was rife since slave masters owned their bodies and they were also vulnerable to the predations of other male slaves. Breeding slaves meant multiplying wealth. Fertile female slaves fetched higher prices (Ross, 1978). In 1665 a cash incentive was given to female slaves who bore children for the Company, and in private households, male houseguests were offered female slaves, often against their will (Van Niekerk, 2005). A small proportion of the proceeds of VOC enabled prostitution found its way to the female slaves themselves, accruing in the main to the slave owners and the male slaves (often their own partners) who pimped them. This meagre income was used by some women slave to purchase the freedom of their children or

substitute slaves to exchange with the VOC for their own manumission. Shell (2012:251) notes that "half-breed" women slaves were encouraged to marry Dutchmen who would then be expected to free them and reimburse the VOC for the costs of heir maintenance and education. These, often lighter complexion, female slaves therefore had a path to freedom and social mobility not available to female slaves of darker hues and to male slaves in general. The link between complexion and privilege, formalised under apartheid, had its origins in the embryonic stages of South African colonialism, and racial stereotyping and "colourism" continue, regrettably, to be an enduring feature of our social – and academic landscapes.

While initially all slaves were imported, soon locally born children of slave mothers became an important source of labour and wealth. In fact, this became practically the sole driver of increasing slave numbers for the 27 years between the Abolition of Slavery Act in 1807 (which criminalised human trafficking in the British Empire) and 1934 when the slaves were emancipated. Van Niekerk observes that

... women, mostly of colour, were pawns in the economic enterprise of the Company. Their reproductive capacity was essential for the perpetuation of the system of slavery and for the continued existence and development of the settlement. Their sexual exploitation manifested in prostitution, concubinage and rape. While the Company could exploit female slaves for their labour and their bodies, Khoikhoi women could not be forced to work, but were nevertheless sexually exploited. Their exploitation was often by their own communities... When these women were driven to crime, they were severely punished and justice was not tempered by mercy... The archival records, which yield male colonial narratives only, portray them as animals (*bestie, moordadige varcken*), never taking into account the policies of the Company, both official and unofficial, which set the scene for their lives (2005, p. 155).

In the earliest phases of colonisation, there was a substantial gender imbalance in relation to White men and women. Only 20 of the 360 Cape population in 1658 were listed as "White women and children" (South African History Online, 2011a). Once the children were discounted, this suggests that the ratio of males to females was severely skewed. As a result, many of the early slave women were manumitted, married Dutch settlers and became the matriarchs (*stammoeders*) of thousands of South Africans across racial classification colour lines. These include Catherina van Bengalen (who entered into the first legal "mixed marriage" in 1656 and was baptised in the Dutch Reformed Church), Angela van Bengalen (who was owned by Van Riebeeck), and Angela's daughter, Anna de Coning (who would become mistress of the Groot Constantia estate. Baptism in the DRC meant that the slave "acquired" a soul and could be regarded as fully human, entering into White society and even possibly reaching its highest echelons. For example, Simon van der Stel was born in Mauritius, only saw Holland when he was 20 and had a slave grandmother, making him the first "Coloured" Governor at the Cape (Da Costa & Davids, 1984)

Figure 2: Anna de Koning, only known Cape slave portrait



Source: South African History Online, 2011b

Around 480 women of non-White descent married into the White colonial population between 1657 and 1807 when the slave trade was prohibited, securing upward mobility for themselves and their descendants (Ross, 1978).

This phenomenon set the trend for "passing" where fair "Coloured" people would attempt to pass themselves off as Whites by disowning their own darker family members in order to assume a White identity and its attendant privileges. Marriage as a form of social mobility was largely unavailable to male slaves since society frowned upon White women consorting with black men, be they slave or freeborn, and such liaisons were rare. In "Coloured" women, racial boundaries have always been more fluid than for "African" women or "Coloured" and "African" males though the heavy price of the "privilege" of passing has often been severing of kinship and friendship ties and social subjugation. Because of these tensions, "Coloured" women have often been the object of vilification not only by Whites, but also by other "Coloureds" and African.

Not a single man was ever convicted for the rape of an indigenous or slave woman, because it was not regarded as a crime In fact it was socially acceptable in White society for "a young white man to begin his sexual activity by seducing slave women, and the women in question no doubt had little choice in the matter" (Ross, 1978, p. 25). The VOC Slave Lodge (constructed in 1679 and currently the Iziko Museum in Adderley Street, Cape Town) was the main brothel where the "husbands" of slave women often pimped them out to sailors and soldiers from passing ships, with slave owners receiving the lion's share of the proceeds (Ross, 1978). Dutch Reformed Church baptismal records evidence that slave women frequently named European sexual partners as the fathers of their children. Shell speculates:

Were the women of the slave lodge being defiant of the racial order by flaunting their European partners, or simply establishing for their offspring the best possible chance in a colony where the advantages depended so clearly on a light skin colour? If slavery became increasingly race based in the colony, then the genius of the lodge women lay in their success in making that association as difficult and troublesome as possible for the ruling order and by flaunting European fatherhood, they also put their pimping spouses in place (2002: 259)

It is through no coincidence, therefore, that the population classified as Cape "Coloured" displays the greatest genetic diversity in the world (Tishkoff, et al., 2009), and that genetic studies reveal a gender-specific bias of maternal Khoe ancestry and White paternal ancestry (Petersen, et al., 2013)

As noted earlier, British occupation displaced the VOC as colonial masters at the Cape in 1795 after defeat of the Dutch during the Napoleonic wars and between 1807 (when the Abolition of Slave Act human trafficking in the British Empire) and 1833 (when the Slavery Abolition Act was passed), slavery continued to be practiced in the Cape. The emancipated slaves then became 'apprentices' to their former masters for four years, to allow slave owners to adjust to this legislative change, with slavery finally ended on 1 August 1838 (Williams, 2016). The first wave of British settlers in 1820 therefore did not enjoy the benefit of slavery, unlike their Dutch predecessors.

Life for the newly emancipated slaves often did not improve. Farmers who could not afford to pay for ex-slave labour evicted them, leaving them destitute since they had little own savings of access to land. This resonates eerily familiarly with contemporary farm evictions of black workers. Some newly freed slaves settled at mission stations (South African History Online, 2016). Those who remained in the employ of their former slave masters were often subjected to the "dop" tot system whereby wages were (partly) paid in alcohol along with tobacco, administered in regular doses throughout the day (Williams, 2016), creating a substance addiction, and contributing the alarmingly high rates of fetal alcohol syndrome still seen today. Alcohol had also also given to the slaves since the earliest days of the Cape colony – in both cases a form of social control to ensure a docile labour force to serve settler economic interests, along with vagrancy laws, the pass system and extension of credit to farm labourers to keep them indebted (Williams, 2016). It is bitterly ironic that the same settler community which later condemn the drunkenness of the Khoi and the slaves and their descendants were the very drug pushers who foisted alcohol and tobacco on them in the first place.

The town of Stellenbosch is the second oldest colony in South Africa and it - and the University by extension - is named for Simon van der Stel, the first Governor of the Cape (The preceding rulers like Jan van Riebeeck had been designated Commanders). "Mixed race" Van der Stel would no doubt have been classified as "Coloured" under apartheid, another fact which was conveniently obscured in apartheid era history texts, but illustrates neatly the fluidity of race as a social and a political construct.

The town's history is rooted in the lucrative colonial wine trade (Williams, 2016) with its insatiable demand for slave and Khoi labour which enriched the VOC officials and their descendants and maintained their relatively high standard of living.

After the colonial era, the dignity of Black women and men was further assaulted by a slew of Apartheid laws which formalised the racial discriminatory practices which had been embedded in the DNA of the Cape Colony and hence South Africa since its inception. The Population Registration Act 30 of 1950, divided South Africans into three race categories: (a) White, (b) Native/Bantu/Black and (c) Coloured – an all encompassing portmanteau term for anybody who was not White or Native/Bantu, all codified in identity documents. In 1959, Proclamation 46 further divided the Coloured group into seven subgroups: Cape Coloured, Cape Malay, Griqua, Chinese, Indian, Other Asiatic, and Other Coloured. Indians were later reclassified as a separate race. The other legislative pillars of apartheid included: the Group Areas of 1950, the Prohibition of Mixed Marriages Act of 1949, the Immorality Amendment Acts of 1951 and 1957, and the Reservation of Separate Amenities Act 49 of 1953. Racial classifications then became the portal of admission to opportunities for education, employment, housing, public transport, health care, sport and leisure facilities, access to finance, entrepreneurship as well as urban space.

Instead of using a strictly scientific racist biological approach to race classification based on physical appearance and genealogy, the Nationalist government adopted a more flexible approach "that gave official standing to long established social readings of racial difference, which tied these judgements closely to hierarchies of social class" such as "habits, education and speech, deportment and demeanour" (Posel, 2002, pp. 55-56). The Population Registration Act employed the following definitions:

A white person is one who in appearance is, or who is generally accepted as, a white person, *but does not include a person who, although in appearance obviously a white person, is generally accepted as a Coloured person* [my emphasis]

A native is a person who is in fact or is generally accepted as a member of any aboriginal race or tribe of Africa.

A Coloured person is a person who is not a white person nor a native. (Posel, 2002, p. 56)

From an administrative perspective, no special expertise or training was given in racial classification on the basis of appearance or general acceptance and there were no standard operating procedures for classification, but it was left to racial "common sense" based on racial stereotypes. Superior social standing and privileges of White (like access to education) were considered as evidence of biological superiority and biological superiority in turn was seen as the driver of White dominance. Posel (2002: 64) summarised this tautological reasoning succinctly: "(r)acial differences ratified and legitimised social and cultural hierarchies which, in turn, were held up as evidence of racial differences".

Over time, the racial classifications have been internalised by South Africans, even the youth born post 1994. While some people classified as "Coloured" had rejected the term wholesale as an intrusive, humiliating racist imposition, others had more readily self-identified with the label. One reason for this could be the more privileged position and higher status "Coloureds" occupied relative to "Africans" on the basis of their descent from European colonialists and more complete assimilation into Western culture, which resonated with the white supremist apartheid ideology (Adhikari, 2004).

In Stellenbosch itself, community life across the socio-economic classes of all races seems to have been dominated by a set of elite, landholding families in the nineteenth century who occupied strategic positions in institutions such as divisional and municipal councils, churches and the judiciary. Their complex social dynamics encompassed not only conflict but also "cooperation, neighbourliness and paternalism" across racial boundaries (Fransch, 2010, p. 408). Stellenbosch Municipality was one of the few which offered resistance to the introduction of apartheid measures by the Nationalist Party government and tried to cushion its impact on the local populace (Fransch, 2010). Unlike the relatively harmonious co-existence across racial groups of inhabitants born in Stellenbosch, the student population (amounting to 1500 in 1938) largely from the North of the country was largely supportive of Afrikaner nationalism which exacerbated racial tension in the town manifesting in incidents such as

the "Battle of Andringa Street" (Fransch, 2010). The advanced the view that the University helped "indoctrinate" the future Afrikaner leadership of the country.

In the 1940's land in Cloetesville (formerly Cloetesdal) and Idas Valley was earmarked for "Coloureds" as spillover areas. In the 1950s and 60s with the implementation of the Group Areas Act, "Coloured" families were forcibly removed from *Die Vlaktes* in the centre of the town of Stellenbosch at the behest of national government (Fransch, 2010) to the periphery of the town alongside other black neighbourhoods such as Idasvallei, Kayamandi and Jamestown. According to Statistics South Africa Census 2011, the Cloetesville population comprises about 15 300 people who are predominantly "Coloured" and Afrikaans speaking. Of these 26% having matric (which is roughly on par with the average across Stellenbosch Municipality as a whole) and 6% having some form of post-school education (in well below the 17.3% average for the whole municipality). The settlement largely comprises formal housing with access to basic services such as water and electricity, yet only 29% of households have access to computers and 56% had no access to the internet. 13% of households reported earning no income, 32% income below R38 200 per annum, 22% between R38 201 and R76 400 and 17% between R76 401 and R153 800 per annum. Women head 38% of the households in Cloetesville (Statistics South Africa, 2011).

It is clear that Cloetesville is not an affluent community, still largely marginalised from full participation in the economy and with limited access to higher education. While certainly not among the poorest communities in South Africa, Cloetesville contrasts starkly with the affluent communities which boast the most millionaires in South Africa. It would beggar belief to contend that the current socio-economic dynamics of Cloeteville are unrelated to 350 years of systematic institutional exploitation and exclusion. The structural inequalities in contemporary Stellenbosch were not borne of historical happenstance – they were deliberately engineered through formal and informal political and economic institutions of racism and patriarchy.

As discussed at length above, "Coloured" women have endured a continuum of oppression in different guises: 40 years of apartheid, 176 years of slavery, 350 years of colonialism and patriarchy – an institutionalized misogyny that violated the integrity of their bodies, their minds, and spirits in every possible way. Two themes have loomed large in dehumanising them: their voracious and/or deviant sexual appetites and their supposedly low intelligence. Ironically, in a breath-taking form of victim blaming, the crimes of the largely (though not exclusively) white male patriarchy are laid at the door of "Coloured" women themselves, who to this day are plagued by stereotypes of intellectual deficiency, sexual licentiousness, alcohol and drug dependency and other forms of moral degeneracy.

Black women, whether classified as "Coloured" or as African by the apartheid regime, have always been at the very bottom of the heap in the social, political and economic hierarchies in the territories that would later comprise the Republic of South Africa. Though there have been improvements in the lives of some of them, many economically, socially and politically marginalised groups at the receiving end of many forms of violence: physical, psychological, and - as it turns out – epistemic.

It is indisputable that successive generations of institutionalised violence have wrought untold suffering and unhealed trauma for the historically subjugated people in the Western Cape. But despite this, some of descendants of indigenes and slaves have demonstrated resilience and resourcefulness, eking out livelihood for them and their families through:

"... the creation of new cultures, their evasion of official strictures and categories, their remaking of received practices, and their splicing of language, food, music and beliefs in ways which would come to shape national culture as a whole " (Baderoon, 2015).

Democratic South Africa has created the opportunity for those people classified "Coloured" to define their own social and political identities on their own terms, not through the gaze of the White settler gaze, codified in law or the White academic, reified in bodies of academic research and curricula. Not surprisingly, in this painful and promising process of re-imagining the self and asserting own agency, the "Coloured" identity remains contested, contingent and in flux. At the intersection of global trade routes at the foot of Africa and the first point of contact in the colonial invasion, there is perhaps no other groups in South Africa whose historic experience and genetic diversity more poignantly

resonates with the essence of both Africanness and global integration articulated by former President Thabo Mbeki in his *I am an African* speech:

I owe my being to the Khoi and the San whose desolate souls haunt the great expanses of the beautiful Cape.... I am formed of the migrants who left Europe to find a new home on our native land.... In my veins courses the blood of the Malay slaves who came from the East.... I am the grandchild of the warrior men and women that Hintsa and Sekhukhune led.... I am the grandchild who lays fresh flowers on the Boer graves at St. Helena.... Being part of all these people, and in the knowledge that none dare contest that assertion, I shall claim that – I am an African.

3. Racial thinking and academic knowledge production in South Africa

Before presenting a specific critique of the Nieuwoudt et al (2019) article, this section reflects on the persistence of racial thinking in South African universities and global academia at large. The arguments adduced in the previous two sections of this paper draw extensively on the work of scholars who have demonstrated a critical and nuanced engagement with the construct of race in the South African context. Some of these thinkers are affiliated with SU, drawn from an array of academic disciplines. The Niewoudt et al (2019) paper however demonstrates that this consciousness is certainly not universal, and for some researchers a race based paradigm still appears to be dominant.

The American Association of Physical Anthropologists contrasts the popular representation of science as value-free, impartial and a political with the "cultural stereotypes, biases, and ethnocentric views" embedded within "many ostensibly biological concepts of race" through which racism has – and continues to be – "co-constructed with inaccurate depictions of human variation provided by scientists" (AAPA, 2019, p. 2). The AAPA has taken a form stand against these practices, while frankly acknowledging the role of biological anthropology in entrenching and reproducing the race concept and racist political doctrines through the "misuse, falsification, or biased production of scientific information" (AAPA, 2019, p. 2).

In South Africa, SU was one of the intellectual incubators of *Volkekunde* from 1926, an Afrikaans variant of physical anthropology which then spread to Pretoria, Potchefstroom and Bloemfontein. *Volkekunde* provided the intellectual underpinnings of "separate development" so key to apartheid political and economic "separate" development doctrine, in response to the "poor White" and "Native" problems. Prof Max Eiselen, Chairman of the Commission on Bantu Education, left Stellenbosch University to assume the position of Secretary of Native Affairs under the leadership of the notorious Hendrik Verwoed, then Minister of Native Affairs in the 1950s (Mbali & Walters, 2013). More than 5 years ago, Mbali and Walters (2013) noted that:

...the anthropological exhibition at the Stellenbosch University museum has utilised a similar conceptual framework since the 1970s, something very troubling given the fact that the democratic transition of our country occurred almost 20 years ago. This project has emerged in an institutional context where students and academics in the faculty of arts and social sciences are increasingly working towards a greater acknowledgement of Stellenbosch's past and its legacy in our teaching and research.

In response to this, an innovative programme of seminars, workshops and collaborative learning events called "Indexing the Human: From Classification to a Critical Politics of Recognition" was initiated to prompt a re-thinking of the past and future of social anthropology and of the human sciences at SU. Such initiatives are laudable, but – as discussed below – to the extent to which the problems or racist thinking and gender discrimination are systemic, they require an institutional locus and appropriate funding to ensure sustained impact. The accretion of academic norms and culture over decades will not be evolve without sustained, conscious intervention.

The role of local and international academia – including SU - in providing the ideological justification for institutionalized racism is incontrovertible. The academe and the Dutch Reform Church were both complicit in providing a moral fig leaf for large scale racial subjugation, where systematically depriving

fellow humans of their personhood, dignity, franchise, citizenship and opportunities for economic and social mobility.

Broodryk (1991) notes that Stellenbosch academics played a major role in crystallising apartheid racial policies between 1936 and 1948, actively opposing the immigration of Jews to South Africa and participating in a number of commissions including the Wilcocks commission (1934), the De Villiers' commission (1936), the Sauer commission (1948), the protest against the findings of the Fagan commission (1948) and the founding of the Suid-Afrikaanse Buro vir Rasse-aangeleenthede in 1948.

J.D.J Hofmeyer who completed his B.Sc. and M.Sc. at SU, doctorates from Cornell and UNISA and was the first head of genetics at the University of Pretoria and the founding President of the South African Genetics Society in 1956-57. In 1967, Hofmeyer in a chapter entitled "Racial Biology of the Bantu of South Africa" in a book R.E. Kuttner's book *Race and Modern Science* refuted UNESCO's stance that race was a myth, and put forward Bantu ethnogenesis and ethnology to lend a genetic dimension to Bantustan policy which was being phased in at the time. Hofmeyer maintained that racial genetic differences shaped culture and ethnicity and that Verwoed's vision of ethnic bantustans were congruent with underlying biological principles such as natural selection and biological inequality (Dubow, 2015).

By contrast, some SU academics stood out as critics of discriminatory apartheid policies that kept black people in poverty. For instance, Erika Theron, retired Professor of Social Work at SU chaired a *Commission of Inquiry into Matters Relating to the Coloured Community* in 1973 to 1976, on which Prof Sampie Terreblanche and Prof W.B. Vosloo from SU were also represented. The Theron Commission made several recommendation which directly opposed apartheid policies. These included the repeal of apartheid legislation such as the Mixed Marriages Act of 1949 and political representation for "Coloureds". These recommendations were rejected by the apartheid regime, and eclipsed by the 1976 student uprisings which created shockwaves which reverberated throughout the country (Barnard, 2000).

It is hardly surprising that the epistemological communities within universities should mirror the political and economic power relations of the society in which they are situated. As in the past, the South African academy continues to be a microcosm of a society and economy in which racial and gender disparities and power imbalances persist and are replicated in the dynamics of knowledge production at interpersonal, institutional, societal level, in ways which resonate with similar global dynamics. Because of its influential epistemic role, academia can operate to magnify, legitimate and entrench political ideologies and vested interests or it can subvert and disrupt the dominant political narrative. In shaping public policy debates, academics occupy positions of epistemic power and privilege. In addition to factors such as international competition and market forces, the academe is also shaped by public policy (including funding). Conversely, academia - in how it chooses to interpret the world, the evidence basis and voices it chooses to acknowledge, and the consensus conclusions it draws and disseminates - also helps to shape both formal public policy and popular discourse. Through teaching activities, academia reproduces those mental models - accurate or defective - in students and the popular media. John Maynard Keynes summed it up perfectly when he observed that "madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back".

One prominent public policy debate in the South African context – in which academia played an engaged and constructive role, was whether HIV caused AIDS and the appropriateness of antiretroviral as a response. Another ongoing contested public policy arena is anthropogenic global warming, its consequences and potential responses. But while academia can contribute to increasing social wellbeing through research, evidence-based policy advice and teaching, academia can also play an enormous destructive role, as the sorry history of racial science intertwined with apartheid so amply attests. This raises the crucial issue of the South African academy taking responsibility of its past epistemic abuses and their lasting and continuing impact, as well as how to remedy the situation.

To make sense of the knowledge production systems in academia in relation to society generally – and the need for epistemic redress in the South African context specifically, social epistemology provides a useful framework of analysis. This is a relatively new branch of philosophy which evolved

during the 1980s and 90s, drawing on the sociology of science which focuses on knowledge and justified belief in relation to social interaction. Its scope of study would include collective knowledge producing agents (universities, journals, scientific panels and courts) and social systems and institutions (democracy, freedom of speech and intellectual property regimes). This is in contrast to classical epistemology which had emphasized individual doxastic attitudes (beliefs, disbeliefs and agnosticism in terms of truth, rationality and justification), abstracting from their broader social, political and economic environments. Social epistemology has both a normative component which – as a form of applied ethics - looks at how knowledge production ideally ought to be conducted. There is also a positive component which looks at how science is actually advanced in practice including the teams in which researchers collaborate, their division of labour and rewards systems (Goldman & Blanchard, 2018)

The moral norms for truth, justification and knowledge evolve over time. For example, before the mid-1970s, doctors used to routinely withhold information from patients "for their own good" in what was termed "medical paternalism". Now the ethical norm for the medical profession is that patients have a right to full information about their conditions and the range of treatment options. For a long time, however, some physicians persisted in medically paternalistic behaviour. One of the reasons for this is an array of formal and informal institutional mechanisms and social norms that confer a privileged socially privileged status on the medical profession. These tend to operate to "disable physicians' ability for self-criticism and insulate the medical profession from outsiders' criticisms" (Goldman & Blanchard, 2018). In recent years, however, this privileged epistemic status has been diluted by imedical litigation with expert witness testimony, medical journalism and increased patient knowledge and awareness.

The analogy with the privileged epistemic authority of academics is pertinent. Given that scientific consensus regarding race as a construct and racism have changed, there may be institutional arrangements and social norms which are still insulating parts of the South African academe from criticism for racial thinking, thereby lowering their incentive to align with international scientific norms. The extent to which these dynamic play out would depend on the specific university and disciplinary context. Supervision by senior academics, oversight by ethics committees and peer review should ideally correct deviations from ethical norms and departures from rigorous, replicable research methods. An active science journalism fraternity which disseminates key research findings in a user friendly manner and robust public debate serve a similar function.

As will explored later, in the case of the Nieuwoudt et al (2019) paper, there were successive, cumulative failures or weaknesses in research supervision and the functioning of the ethics committee as an independent safeguard of the dignity, rights, well-being of all actual or potential participants in research conducted at SU. Ethics committees approve initial research proposals and do not oversee the final execution of a research study. Universities like SU do not appear to have rigorous institutional quality assurance of final research outputs, leaving it to the domain of peer review, in the interests of academic freedom. In the case of the Nieuwoudt et al (2019) paper, and the Asongu and Kodila-Tedika (2019), it would appear that internal university lapses were compounded by the poor quality of peer reviewers for the international journals to which the articles had been submitted, and – in the Nieuwoudt et al paper, by the National Research Foundation which should have had more stringent ethical controls as a funder.

Social epistemology has provided new conceptual tools and lenses to analyse the imbalances in power relations in broader society (be they social, economic, or political) and how these impact knowledge production systems in academia and beyond. These power relations determine the rules and principles (both formal and informal) which govern the production and dissemination of knowledge, who are regarded as experts, the extent of deference to their authority and patterns of inclusion and exclusion.

These conceptual tools include: epistemic injustice, testimonial injustice, hermeneutical injustice, epistemic virtue and epistemic trust. *Epistemic injustice*, a concept introduced by Fricker (2007) occurs when a person or group is wronged in her/their capacity as knower(s). An example would be of Bantu education under apartheid which deprived black youth in particular – of access to education

and knowledge by refusing to allow them access to universities and libraries, as well as particular disciplines and professions which had been reserved for Whites.

Testimonial injustice occurs when a speaker is accorded less credibility by the hearer because of her prejudice about the speaker, for instance when all White juries have refused to believe black defendant's testimony, which have later been substantiated by evidence (Fricker, 2007).. Similarly, English accents of South African second language speakers – especially if they are black – might erode their credibility in some audiences. Or somebody speaking in Afrikaaps may be judged as being less intelligent than somebody speaking standard Afrikaans. An experience often cited by black women academics in previously White universities is their widespread credibility deficit with other staff member and students despite academic publications and track records. Khunou et al. (2019) confront forms of testimonial injustice as they grapple with their anxieties about claiming their full academic citizenship, and fears of their lived experience being derogated and being labelled as unreliable, untruthful and emotional, to their professional detriment.

Hermeneutic injustice occurs when a group – due to prejudice – is excluded from practices which generate new knowledge for a society as a collective and therefore lack the conceptual skills to be able to make sense of their distinct social experience. For example, in the 1970s before the concept of sexual harassment had been articulated, victims found it difficult to articulate and understand the behaviour they had endured (Fricker, 2007). Similarly, Black people in South Africa - and women in particular - have found it difficult to make sense of their various histories and how it affects their current lived realities, since they have either been omitted from the mainstream pooling of knowledge, or the mainstream lens has been distorted by powerful mainstream epistemic elites. As discussed further below, the Nieuwoudt et al paper (2019) is one of a long and dishonourable intellectual lineage of research projects from South African universities with "Coloureds" as their object of study which did little to engage with the hermeneutic injustice which had been meted out to this and other groups in the past.

One way to attempt to prevent such epistemic injustices if for researchers and institutions to cultivate awareness and sensitivity to possible cognitive biases based on prejudice. However, such biases may be too deeply entrenched or even unconscious (Goldman & Blanchard, 2018). Ultimately, the only way to mitigate epistemic injustice is to reconfigure power relations so that the common pool of hermeneutic resources is enriched by the full range of human perspectives.

While education systems can promote epistemic virtues such as truthfulness, impartiality, openmindedness, inclusiveness and intellectual humility, they can - intentionally or otherwise - also foster epistemic vices such as dogmatism, bias, servility, uncritical thinking and self-denigration (Kidd, 2019). Kidd (2019: 224) regards an education system as epistemically corrupting if it tends to create contextual and structural conditions which foster the development of epistemic vices by agents (such as students and academics), which then shape how these agents view the world and exercise their agency. The Bantu education system - imbued with the political ideology of racial hierarchies - was engineered to develop a sense of inferiority and submissiveness in black students. The apartheid education system simultaneous entrenched and perpetuated the colonial ideologies and mind-sets of race, gender and class in formerly White institutions of higher learning, with various degrees of subtlety. Steve Biko's Black Consciousness movement was a response to this apartheid propaganda which emphasised the imperative of black people to value themselves and overcome apartheid indoctrination in the struggle for liberation, viewing blackness as a mental attitude rather than merely skin pigmentation (Hadfield, 2017). The #FeesMustFall and #RhodesMustFall movement created public dialogues around many of these challenges in the context of student demand for curriculum change.

The extent to which epistemic corruption was successful depended on a host of factors, ranging from the psychological orientation of individual students and academics, institutional structures, educational and research aims and practices, reward systems, implicit norms and culture of the various universities. Departments in certain universities offered much greater resistance to government interference in research agendas and curricula. Some universities asserted their institutional autonomy and freedom of speech more vigorously than others and some academics –

through their teaching and research – actively subverted the apartheid agenda. To a greater or lesser extent, the institutional legacy of epistemic injustice has, by and large, gone largely unexamined in South African universities, where transformation has focused predominantly more tangible and easily monitorable goals such as the diversity profiles of students and faculty.

A final crucial concept relates to trust in epistemic authorities such as academics, scientists and other experts engage in the processes of communication and engagement, teaching, learning and policy development. As Origgi observes:

We do not just accept information, but we reconstruct in a manner relevant for us. Trusting other people is involved in the constructive process of understanding... A stance of trust ... is part of the interpretive competence that grounds our capacities to understand, to learn how to communicate, and to cope with the complex social networks of knowledge that make us humans (2004:69).

The demands for "decolonisation" of the curricula of South African universities of the #FeesMustFall student protests, may be also seen as a manifestation of lack of epistemic trust.

The concept of *epistemic redress* can therefore be seen as the acknowledgement of historic forms of epistemic, hermeneutic and testimonial injustice and epistemic corruption in the social knowledge production systems, and re-orienting those systems towards epistemic virtues such as ethics, inclusivity and rebuilding epistemic trust.

Against the backdrop of the social epistemological concepts delineated above, the following section analyses the Nieuwoudt et al (2019 paper), as a product of an epistemic system historically distorted by the political apartheid ideology and corrupted by the fiction of biological racism.

4. A controversial Stellenbosch University study on the cognitive functioning of "Coloured" South African women

This provocative and deeply disturbing journal article published by researchers from SU recently caused wide spread hurt and anger among people of colour, prompting an academic backlash in April 2019 which reverberated throughout the South African academe. This section demonstrates that this pushback cannot be brushed off as mere identity politics or deviations from political correctness, but is – on the contrary – a response to fundamental epistemological flaws, ethical breaches and poor scientific research.

The article entitled *Age- and education-related effects in Colored*² *South African Women* was published in March 2019 in the international journal *Aging, Neuropsychology and Dysfunctional Development* by Nieuwoudt, Dickie, Coetsee, Englebrecht and Terblanche from the US Department of Sport Sciences. Following a huge outcry and trenchant criticism, the paper was retracted by the Journal on 2 May 2019.

The objective research objective was to assess the cognitive functioning of young and middle aged "Coloured" women, and test the hypothesis that "lower cognitive function will be associated with older age and lower levels of education" (Nieuwoudt, et al., 2019, p. 2). The authors' rationale for the study is that more research on cognitive functioning in South Africa, particularly among Coloured women, could facilitate advocacy for services and community based interventions, prioritisation of funding for cognitive studies and legislation on neurocognitive health. The paper focuses on cognitive functioning which is not the same as intelligence. Cognitive abilities are regarded as lower order functions which are more fluid than IQ (which is seen to be stable throughout a person's life) and more invariant to environmental factors. As affirmed by one of the researchers in a radio interview:

The study did not address intelligence but rather a cognitive functioning which is the very specific functions of our brain which helps us to pay attention to things, to remember things, and plan tasks. It is not a question of intelligence. (Terblanche, 2019).

² The Nieuwoudt et al. (2019) article used the American spelling of "Colored" rather than the standard South African study. This has been retained in verbatim citations from that paper.

The paper uses a non-random sample of 60 self-identified "Coloured" women between the ages of 18 and 64 years who reside in the predominantly "Coloured' settlement of Cloetesville near Stellenbosch in the Western Cape.

Two tests were used to assess the "Coloured" women's cognitive functioning: a pen-and-paper based Montreal Cognitive Assessment (MoCA) with a maximum of 30 points and a computerized neurocognitive test (CNS Vital Signs software) administered in English or Afrikaans The 7 cognitive domains tested by the CNS Vital Signs test include: memory, executive functioning, reaction time, psychomotor speed, cognitive flexibility, complex attention, and processing speed. A composite cognitive function z-score was also calculated, based on both the MoCA and CNS Vital Signs test.

Participants were given a 10 minute familiarization exercise on a computer keyboard, and then took the tests a week later. A pilot study of the Afrikaans version of CNS Vital Signs software was done on 8 "Coloured" women to determine its test-retest reliability. A MoCA score of at least 26 out of 30, was considered "normal" in cognitively healthy adults, based on an American control group (Nieuwoudt, et al., 2019, p. 4). The whole sample average was 23.4 which fell below this cut-off and individuals in the the sample were therefore deemed to exhibit low cognitive functioning.

The CNS Vital Signs software generated age standardized cognitive test scores which were analyzed relative to the age standardized scores of 1600 cognitively health, White Americans aged 7 to 90 years old. Scores in the average range (standard score 90-100) or above average range (>110) were considered indicative of normal cognitive functioning, whereas scores in the low average (standard score 80–89), low (70–79) and very low (standard score <70) ranges were deemed to have demonstrated "poor cognitive functioning" and be indicative of "cognitive impairment or deficits' (Nieuwoudt, et al., 2019, p. 5).

The sample was stratified into 4 age categories. The statistical analysis consisted of testing whether the differences in mean cognitive scores across the various age and education groups were statistically significant, and whether the correlation between the cognitive scores and age and education levels were statistically significant. Differences between the mean MOCA scores and CNS cognitive domain scores in each age category were tested to see if there were statistically significant differences. The correlation coefficients between age groups and MoCA and CNS domain scores were calculated, controlling for body mass index (BMI). Similarly, the whole sample was also subdivided into participants who had completed high school and those who had not. The difference between the means of the 2 groups was measured, tested for significance and the correlations between education levels and MoCA scores and CNS domain were calculated, once again controlling for BMI.

The Nieuwoudt et al. (2019) analysis yielded three main findings: "(1) most women, starting from the youngest age group, had below average cognitive function scores compared to age-standardized norms, (2) age-related cognitive changes were observed, which mirrored international trends and (3) significant associations were observed between education levels and all domains of cognitive functioning" (Nieuwoudt, et al., 2019, p. 10). The study concludes with two sweeping generalisations, The first is: "Colored women in South Africa have an increased risk for low cognitive functioning, as they present with low education levels and unhealthy lifestyle behaviours". The second is: 'Young to middle-aged Colored women present with low cognitive function and which [sic] is significantly influenced by education" (Nieuwoudt, et al., 2019, p. 2).

5. Critiques of the Niewoudt et al study

An online petition directed at the editorial board of the *Aging, Neuropsychology and Dysfunctional Development* journal by a group of academics demanding the retraction of the article gathered more than 10 000 signatures (Boswell, et al., 2019). These concerned academics included Dr Barbara Boswell and Shanel Johannes (University of Cape Town), Zimitri Erasmus (University of the Witwatersrand), Prof Kopano Ratele (Unisa) and Shaheed Mahomed (South African History Online). The Psychological Society of South Africa also issued a strongly critical statement on the Nieuwoudt et al. paper (PSSA, 2019). These critiques fall roughly into three main (though not mutually exclusive)

categories: ethical lapses, statistical analysis shortcomings and methodological defects. These are summarised below.

2.1 Ethical lapses

The Nieuwoudt et al. study attracted criticism for uncritically employing essentialist constructs of race, which were perceived as reinforcing harmful colonial stereotypes of "Coloured" women as intellectually deficient, and for failing to put the interests of their research subjects first. They characterise "Coloureds" as "...a 'mixed race' ethnic group consisting of 32–43% Khoisan, 20–36% Black African, 21–28% White and 9–11% Asian clans" (Nieuwoudt, et al., 2019, p. 1). As discussed in Section 1, the notion of ethnicity is distinct from that of race, but the authors use these terms interchangeably, as well as the term "population group". Implicit in their use of the term "mixed race" is the belief not only that biological races exist, but also that that there are also hypothetical (but scientifically unsubstantiated) "pure" races. The precision of the proportions presented, at first glance, appear to lend credibility to their assertion. However the authors never clarify what exactly they mean by these percentages. As a result they create the impression that "Coloured" people are an admixture of the biological "races" cited. Boswell et al. (2019:1) suggest that these percentages "can only be read as percentages of biological inheritances by 'race' and 'clan'".

The source article by Erasmus et al. from which this statistic is drawn is also rather vague about precisely what these proportions are intended to reflect, but does clarify to some extent that they relate to genetic ancestry rather than race: "The South African coloured population group comprises people whose ancestry is about 32–43% Khoisan, 20–36% black, 21–28% white and 9–11% Asian" (2012: p 841). A degree of ambiguity still remains about whether the underlying construct Erasmus et al. refer to is race or continental ancestry. It is only when examining the underlying reference on which Erasmas et al. themselves rely – De Wit, et al. (2010:p 145) – that it becomes abundantly clear that these percentage refer to the "major ancestral components of this population" which are "predominantly Khoesan (32–43%), Bantu-speaking Africans (20–36%), European (21–28%) and a smaller Asian contribution (9–11%), depending on the model used". From their text is not clear whether Nieuwoudt et al did not understand the difference between race and continental ancestral origin, or whether they simply ignored it because it did not fit in with their race based ideological lens. Either way, fudging this important conceptual distinction is misleading and methodologically unsound.

A subsequent in interview given to the *Cape Talk* radio station, by Prof. Elmarie Terreblanch, head of the Sport Science department at the SU and co-author of the Niewoudt et al paper does nothing to dispel an essentialist biological interpretation of race: "For scientists and research, it is really difficult.....We have to look at different racial groups, we have to specify. All population groups have different problems and we have to characterise that." (Terblanche, 2019). She goes on to argue that because government (Department of Health) still uses racial classification in its statistics, the researchers had no choice but to follow suit. This is not a cogent argument – the choice of research methodology rests with the authors alone in their exercise of academic freedom, not Government. But it does attest to the fact that race based classification remains the primary unit of political and public policy analysis, and thereby retains its legitimacy in academia and elsewhere. The tension between race as a criterion for redress and the perpetuation of racial thinking remains an unanswered – yet increasingly pressing – broader public policy question discussed later in Section 8.

The Erasmus et al (2012) paper cited by Nieuwoudt et al draws attention upfront that the term "Coloured", though an accepted convention in historic White academic literature, is highly contested and sensitive issue among people of colour. In some quarters, the term is rejected with contempt by many people classified as such against their will during the apartheid era. Others – like the 60 women sampled in the Nieuwoudt et al study – do self-identify with the term. Nowhere in the Nieuwoudt et al article do they evince any inkling that the racial descriptor they employ is contentious and potentially insulting, accompanied by an absence of alternative viewpoints on race.

While a case could have been made that race as a scientifically justifiable variable might merit inclusion in their study, the authors attempt to make no such case in their article and instead simply *assume* that this is the case. As noted earlier, good practice would suggest that researchers avoid the use of race-based analysis in clinical studies unless there is a plausible role for race in the hypothesis

under scrutiny, and that the context in which it is used is described, the method employed to assess and categorise is outlined as well as all significant findings (Feller, et al., 2014). So for example, Nieuwoudt et al could have argued that age-related cognitive decline in "Coloured" women required further study due to greater incidence of foetal alcohol syndrome due to the historic legacy of the "dop" system, or an epigenic argument based on centuries of intergenerational trauma. Instead their justification is simply that there is a "paucity of research describing the level of cognitive functioning in South Africa, particularly among Colored women" (Nieuwoudt, et al., 2019, p. 2). This is hardly a compelling reason for the inclusion of race as a variable, especially since, by their own admission, "it is unlikely that the situation is any different for Black Africans in South Africa (Nieuwoudt, et al., 2019, p. 13). As Walters (2019) has pointed out that the Nieuwoudt study failed to derive any useful insights about "Coloured" women per se, but rather their findings would have been pertinent to *any* individual who would have been exposed to the type of environmental conditions in a township such as Cloetesville. The Psychological Society of South Africa is equally unequivocal that the justification offered by Nieuwoudt et al for race-based selection of subjects – that "Coloureds" are an underresearched population – is not defensible (PSSA, 2019).

Nieuwoudt et al (2019) assert that "(p)revious research also established that Colored women present with a high incidence of risky lifestyle behaviours including tobacco use, excessive alcohol consumption and recreational drug use as well as an increased prevalence of cardiometabolic diseases ... Thus, evidence suggests that Colored women are exposed to most factors that have known negative effects on cognitive functioning". This characterisation of "Coloured" women engaging in risk behaviours is not confined to their sample but instead is generalised to the entire 2 million population of "Coloured" women. In support of this proposition, they cite three sources: Erasmus et al., 2012; Phaswana-Mafuya, Peltzer, Chirinda, Musekiwa & Kose, 2013 and Wechsberg et al., 2008. The claim that "Coloured" women have a higher prevalence of cardiometabolic disease is substantiated by the two of the papers cited: Erasmus et al. (2012) and Phaswana-Mafuya et al (2013). But the evidence that Nieuwoudt et al produce that "Coloured" women drink alcohol and engage in recreational drug use does not stand up to closer scrutiny. If Nieuwoudt et al had bothered to read the Wechsberg et al (2008) paper they cite closely, they would have noted that a criterion for inclusion in the study was that the "Coloured" women in the Mitchell's Plain and surrounding areas in the sample should already taking drugs and have a low income (less than \$167 a month). These women were recruited, inter alia, by approaching them in places where drug users are known to frequent. The alcohol and drug consumption and sexual behaviours of this sample of 52 women were then monitored. It should be crystal clear to anybody with the most tenuous grasp of statistics, that the probability of this sample being representative of all "Coloured" women is remote. Either Nieuwoudt et al. did not grasp this, or they included it because it resonated with their racist stereotypes of all poor "Coloured" women as promiscuous, drunk drug addicts.

So set are the authors on their essentialist argument that "Coloured" women indulge in risk behaviours, that they did not even solicit information from their research subjects on their individual tobacco use, alcohol consumption or recreational drug use to validate their hypothesis. Instead their crude reasoning followed the following lines: these research subjects are "Coloured" women; "Coloured people indulge in risky behaviours" *therefore* the sampled women are more likely than average to indulge in risky behaviours. The fact that these risk factors for cognitive functioning had been identified by Nieuwoudt et al in their literature review but they made no attempt to measure empirically the extent to which these factors impacted on the 60 research subjects in their sample is a serious methodological flaw. The researchers – in effect – substitute a crude generalisation for actual evidence, either because it conformed with their preconceived racial stereotypes or because they could not be bothered to collect the relevant data from their sample.

The tone of the Nieuwoudt paper vacillates between apartheid racial science circa 1960 (e.g. "mixed race"), rhetorical pretensions to scientific legitimacy, paternalism and pity. For instance, the term "present with" is typically used in the medical literature to refer to the appearance of symptom or sign of illness in a patient before a medical professional. Saying that "Colored women present with low cognitive functioning" (Nieuwoudt, et al., 2019, p. 1) is a standard use of this term of art. However, Nieuwoudt et al's use of the term in the context of "Colored women present with low education"

(2019:1) and "Colored women present with a high risk of risky lifestyle behaviours" (2019:10) is more problematic. Not only are these gross generalisations as noted before, but the wording suggests that poor education and risky lifestyle behaviours are a symptomatic of the Coloured condition (i.e. essential), rather than an outcome of socio-economic deprivation and other environmental factors.

Interestingly enough, Nieuwoudt et al. do not cite a SU doctoral study conducted on working class 558 "Coloured" adolescent girls aged 13 to 17 years old in the Stellenbosch district by Lesch (2000), which concluded that the sample studied did not represent a sexually high-risk community, and that their incidence of reported risky sexual behaviours did not differ significantly with those of adolescent populations in Europe and America, although initiation of sexual activity was at a younger age (Lesch, 2013).

Nieuwoudt et al acknowledge that "Coloured" women are a "vulnerable population group" (2019: 10) and attribute the low cognitive ability in their sample to disadvantage under apartheid which still persists: "sadly, their low cognitive ability is likely the consequence of a history of poor education, which probably is still not adequately addressed in the post-Apartheid era" (2019:14). They, however, do not look beyond education to other social determinants of health such as good nutrition, access to health care, threat of physical violence and other poverty related factors which may have impacted on their sample's cognitive development.

A penultimate element of research ethics relates to the criterion of non-harm as raised by the Psychological Society of South Africa which they contend was violated by the Nieuwoudt et al paper (PSSA, 2019). A statement was put out by the Cape Flats Women's Movement in response to the paper makes it clear that they felt their dignity to have been impaired: "We are the demographic of your study. Life on the Cape Flats is brutal and the challenges we face are endless. We don't think you can even begin to imagine what kind of mental ability this takes. How do you think our children look at us now that a famous university has declared their mothers to be idiots?" (Kuljian, 2019). Uncritical perpetuation of racial stereotypes based is an insidious form of epistemic injustice and an abuse of the epistemic power academics wield, especially when legitimated by an international scientific journal.

The final dimension of research ethics relates to the researchers' actions (or – more accurately – omissions) in relation to those young "Coloured" women in the sample who appear to already be exhibiting signs of mild cognitive impairment, or to be most at risk for premature cognitive decline. At no point in the article do Nieuwoudt et al clarify whether this risk was communicated to the affected women in the sample and whether they were encouraged to seek more in-depth neuropsychological assessment and education to preserve and promote their cognitive health. This seems to demonstrate a very narrow researcher self-interest, and scant regard for the wellbeing of the women in the sample as human beings, rather than data points for analysis. Unless research subjects and their communities visibly benefit from participation in academic studies, the research process risks being viewed as "poverty porn" reality shows in which privileged academics descend briefly into the under-privileged communities conveniently located on the doorsteps of their ivory towers, and discard them once their usefulness has been outlived. Not only is the reputational damage incalculable, but it also would place the feasibility and credibility of future research at risk.

2.2 Statistical analysis shortcomings

The tiny sample sized of 60 women drawn from a single geographic location, and its non-random selection basis, provide no scientific basis for statistical inference to the roughly 2 million women classified as "Coloured". The authors note their limited sample size and sampling method as a fundamental limitation right at the end of the study, leading their findings to be "likely not fully representative of the larger Colored population in SA" (Nieuwoudt et al, 2019: p14). Despite these caveats and qualifications, the authors have no compunction about ignoring their own statement of limitations to make broad and emphatic generalizations which are not supported by their methodological approach. In the face of the rather rudimentary statistical methodology employed, the authors still bizarrely maintain that "the findings of this study provide novel and valuable insight into the cognitive performance of Colored women" as a whole (Nieuwoudt, et al., 2019, p. 14). The only way this could be logically and statistically reconciled is if all Coloured women are indeed

homogenous in all aspects material to their cognitive functioning, as Nieuwoudt et al claim elsewhere in the article, and the sample drawn from Cloetesville were fully representative of "Coloured" women across the board, which is clearly not the case.

Another statistical limitation which is noted by Nieuwoudt et al is that "the cross-sectional design of this study only allows for the description of associations between variables, while the direction of the association could only be theorized" (2019:14). In other words, the statistical techniques applied in the study could demonstrate correlation among variables but could not attribute causation. Correlation is not sufficient evidence for a cause-and-effect relationship between socio-economic and other risk factors and health outcomes. Once again, despite acknowledging the statistical limitations, Nieuwoudt et al go on to disregard those very limitations by concluding "Colored women in South Africa have an increased risk for low cognitive functioning, as they present with low education levels and unhealthy lifestyle behaviors" (2019:1) which clearly attributes causality. In effect, they conduct a cross sectional study, but they interpret it as if it were a longitudinal study, drawing on unconvincing "indirect" evidence to buttress their conclusions.

Table 1 of the Nieuwoudt study reflects that the second oldest group (aged 40-49 years) performed the best, much better than the 18–29 years and 30-39 years groups. This appears to contradict the author's assertion of simple age-related decline, but this contradictory evidence is never discussed by the authors (Boswell, et al., 2019). This suggests that evidence which contradict the researchers' findings were not adequately taken into account when arriving at conclusions.

2.3 Research methodology defects

Some of the ethical breaches outlined above also have methodological ramifications. The researchers use racial categories not merely as a descriptive attribute of their sample, but as a selection and explanatory variable. As noted earlier, Nieuwoudt et al. identify certain variables from the literature such as "risk behaviours" in respect of consuming alcohol, tobacco and recreational drugs, but instead of measuring actual consumption patterns within their sample, they resort to "Colouredness" as their portmanteau explanation for assuming the extent of these behaviours within their sample.

Because socio-economic status of the household is a crucial determinant of access to nutrition, health and education services, the omission of this variable from study is a serious flaw. Nieuwoudt et al (2019) do consider employment status, but this is unlikely to be useful since 6 of the 60 women sampled were still at school (with parental income more relevant) and 2 retired (and presumably receiving some form of social grant or pension). By contrast, an earlier 2011 Stellenbosch University PhD study on *The Adaptation and Norming of Selected Psychometric Tests on 12- to 15-year-old Urbanized Western Cape Adolescents* not only takes a more nuanced approach to race as a variable in the study, but also explicitly draws on measures of socio-economic status, educational quality, language etc. This study aimed to assess whether cognitive tests developed in settings outside of the Western Cape have valid application for clinical and research purposes in this area (Ferrett, 2011). For the sample of about two hundred coloured and white, Afrikaans- and English-speaking 12- to 15-year-olds, drawn from 47 schools, Ferrett found that "(w)ithout exception, quality of education exerted a stronger effect on neuropsychological performance than age" (2011: p 288). Furthermore, there appeared to be interaction between quality of education, language and race:

Where language, race, and quality of education were all significantly associated with cognitive test performance, results showed trends toward a continuum of performance, from highest to lower scores, as follows: English-white-advantaged; Afrikaans-white-advantaged; English-coloured-disadvantaged; Afrikaans-coloured-advantaged; and Afrikaans- coloured disadvantaged. This pattern was consistent with trends exhibited for adolescents from the Eastern Cape (Ferrett, 2011, p. 288).

While the two studies are not completely comparable, it is clear that the Ferrett study is much more rigorous in controlling for factors such as socioeconomic status and education quality. While Nieuwoudt et al (2019) acknowledge that capturing quality of education is a limitation of their study, they make no reference to why household income might have been excluded, or provide a control group of non-"Coloured" women drawn from the same geographic location.

Nieuwoudt et al go on to conflate race and class, stereotyping people formerly classified as "Coloured" as a social underclass: a 'homogenous group ...generally described as a poor, lower working class community". They base this across-the-board assessment a single outdated 2013 reference (Du Plessis & Van der Berg, 2013) and dated racial stereotypes, rather than readily available, more recent Statistics South Africa survey data. While their description may well apply to the residents of Cloetesville in their sample, the socio-economic status of the roughly 5 million people formerly classified as "Coloured" at present varies markedly across the income spectrum. According to the *2014/15 Living Conditions Survey*, 9.63% of "Coloured" households earn below the lowest quintile of R6 485 per capital per annum, and 17.23% earn in the second lowest quintile between R6 486 and R13 819. A further 25.33% of "Coloured" households had an income per capital in the fourth quintile R28 092 to R71 478, and 20.90% of "Coloured" households fell in the highest quintile above R71 479 (Statistics South Africa, 2017).

This conflation of race and social class is convenient for the researchers – on this premise they can conveniently save themselves the trouble of actually attempting to measure the socio-economic status of their research subjects (e.g. through household income). The researchers capture a binary variable employment status on Table 1 (Nieuwoudt et al, 2019:3), which acts as a proxy for income level. This is not a useful instrument since 6 of the youngest women sampled were still at school and 2 were retired, hence 13% of their 60 women sample were not even part of the labour force. Furthermore, beyond an initial mention in Table 1, employment status never actually enters into their subsequent analysis. "Colouredness" therefore becomes the primary proxy for low income and/or low socio-economic status, and enters the authors' conceptual framework as an explanatory variable, rather than merely an attribute of a given sample, such as the Body Mass Index. This is unfortunate, since household income (proxying for access to nutrition, health services, access to education etc). is likely to be a better indicator of health status – including cognitive performance – than race.

Both the Psychological Society of South Africa and Boswell have called into question the utility and credibility of the MoCA in the absence of normative data appropriate for the sociodemographic profile being tested. For instance Robbins et al. (2013) found that the MoCA results of HIV-infected Xhosa-speaking South Africans on several tasks were similar to North Americans aged 70 and over who had Alzheimer's disease, and concluded that the normative benchmarks in the MoCA are not appropriate for South African samples (Robbins, et al., 2013). Nieuwoudt et al (2019) do acknowledge the lack of locally derived normative comparators, but do not offer a view on the extent to which this may have biased their results.

Ferrett (2011) acknowledges that use of the Afrikaaps dialect of Afrikaans is the common vernacular dialect spoken by "Coloureds" in the Western Cape, a slave creole much older than the standard Afrikaans spoken largely by Whites, and this tends to be mixed with English. This language risk is mitigated to some extent by the pilot study which Nieuwoudt et al used to test the Afrikaans version of the CNSVS test. However, the main factors which would impact the accessibility of formal standard Afrikaans to Afrikaaps speakers would be the duration, and more importantly, the quality of their education. In time bound tests which measure response times, for example, linguistic idiosyncrasies across dialects could exercise a material influence over results.

In conclusion, analysis would suggest that the impact of race as a variable on cognitive performance is unlikely to be distinct from other socio-economic factors such as household income, other social determinants of health and access to quality education. Furthermore, there is no sound statistical basis to generalize Nieuwoudt et al's findings to around 2 million "Coloured" women. Despite its disingenuous pretensions at scientific legitimacy and proof by repeated assertion, the Nieuwoudt et al (2019) paper falls far short of both the high research quality and ethical standards formally espoused by SU.

Nieuwoudt et al as researchers still operate from a model of racial thinking. They have not been able or willing to engage critically with South Africa's past and the change in mind set required by the constitutional right to dignity and the ethical imperative of doing no harm to the very marginalised community they purport to be trying to help. Their appreciation of the requirement of scientific rigour and methodological rigour seems tenuous at best and the article's contribution to new knowledge is

marginal to non-existent. The researchers have been unmindful of their positions of epistemic power vis-à-vis the women under study, which confers on their their opinions an epistemologically authoritative standing due, deriving from their claim to science, their previous academic qualifications, the reputation of the University with which they are affiliated and the affirmation of an international journal. The literature base on which they draw is largely biased toward White academics, rather than also including the reflections of "Coloured" academics reflecting on their own communities. This continues the historic precedent in which the views of White academics were deemed the authoritative voices on "Colouredness" – indeed the ONLY authoritative voices.

Section 2 on page 10 outlined the extent of the historical physical and sexual violence, social and economic oppression, and mental and spiritual abuse systemically visited upon black women. Uncritical researcher treatment of "Coloured' women in this instance – and countless others – amounts to little more than self-serving secondary victimization – whether intentional or not. Yet the challenge lies not only in the infractions of individual researchers who have yet take ontological responsibility for how they operationalise race-related variables and exercise their agency as researchers, but also the broader system of academic knowledge production. The following section elaborates this line of argument which was introduced in Section 3 on page 19.

6. Falling through the institutional cracks: academic ethics, quality assurance systems and epistemic redress

The word "university" derives from the Latin phrase *universitas magistrorum et scholarium*, referring to the community of scholars and students which transcends the "bricks and mortar" infrastructure of the physical footprint of an institution of higher learning. The institutional rules in academia are codified in a myriad of formal policies, procedures, structures, practices and mechanisms of reward or sanction – some of which are national policy applicable to the higher education sector as a whole, others which emerge from the dynamics within universities themselves. Equally important are the less tangible, but no less potent, informal institutions such as norms, common values, institutional culture, spatial arrangements, traditions and symbols of the academy. Cumulatively they characterize the hierarchy of epistemic authority and distribution of power and privilege within a university, determining who may be admitted into its membership, what constitutes scientific knowledge, who may be an authoritative knower and who may speak. These institutional arrangements of a university shape the lived realities of all who inhabit it, including its students, academics, management, support staff, workers, surrounding communities and all the members of the public with whom it interacts (Swarts, et al., 2018).

As outlined earlier, pseudo-science has been used to rationalize racial, gender, and other forms of discrimination globally and in South Africa, some manifestations as blatant as the eugenics literature used to justify apartheid separate development, others in subtler, but no less toxic, forms. In the United States, universities have in the past played a major role in propagating scientific racism and benefited directly from the slavery, deriving funding from the slave trade and exploiting slave labour (Carp, 2018; Smith & Ellis, 2017). Some of the more prominent universities include Harvard, Brown, Columbia, Yale and University of Virginia. In 1832, the Catholic Jesuit priests who ran slave plantations in Maryland sold 272 slaves to finance the establishment of Georgetown University (Swarns, 2016). Triggered by student protests, American universities in the United States – lead by Brown University in 2003 – have recently began investigating their own complicity in the slave trade. These initiatives are unlikely to eradicate racism or compel the descendants of those who profited directly and indirectly from the slave trade to acknowledge their inherited privilege, but they do go some way in correcting an otherwise distorted history:

The gaps in our knowledge about the experience of American slavery are volumes and volumes wide. These projects have narrowed them, and will continue to do so, but they've also revealed how much has been lost, suppressed, or considered unworthy of preservation in the official record. Beyond the institutional histories they uncover, these projects reveal a kind of segregation of our national memory or, at the very least, a willful amnesia (Carp, 2018, p. np).

It is not coincidental that the oldest South African university, the University of Cape Town was built on Rondebosch, one of the first "Free Burgher" settler land grabs locations, and that SU is located in the second oldest Dutch colony in this country. Nor was it coincidental that there was a symbiotic relationship between the architects of apartheid in fashioned their political and economic ideologies and formerly Afrikaner universities like Stellenbosch University, or the close association between the University of Cape Town and Cecil John Rhodes, the focus of the #RhodesMustFall student protests.

A legitimate question from the public therefore is how representative of Stellenbosch University research as a whole is the Niewoudt et al paper? A second issue is what sort of echo chamber environment creates researchers such as these at school and universities, where their social and institutional environment supports this sort of thinking?

Much research from SU drawn from many diverse disciplines have demonstrated a considerably more nuanced approach than Nieuwoudt et al to the challenge of confronting race as a variable in scientific study in post-Apartheid South Africa. The sources cited in this paper are but a few of those. In a voice note to a *Symposium on Re-structuring Science and Research at Stellenbosch University on the Basis of Justice, Inclusion, and Ethical Integrity* held on the 21 May 2019, the Rector and Vice-Chancellor of SU, Wim de Villiers conceded that what had transpired was wrong but noted that a "single piece of research in no way reflects the ethics, quality and values of SU's research programme" (Githawu, 2019). On the other hands, commentators such as Boswell (2019) and Kuljian (2019) have expressed the view that the problem is much deeper than that. Gasnolar (2019) views the Nieuwoudt et al article not as a isolated aberration but as evidence of a more entrenched form of epistemic corruption:

Black women in South Africa have a heavy burden to wrestle with – always confronted by violence. Violence through deed but also through the word. The authors of this article are but a microcosm of that violence as much as Stellenbosch University has a chequered past – a past that cannot simply be wished away. Incidents of violence, racism and misogyny have taken place often without any real consequence.

Walters – herself a graduate of SU and post-doctoral researcher in the Department of Sociology and Social Anthropology – highlights the danger of reinforcing outdated beliefs and scientific practices through uncritically accepting fixed and essentialised racial categories. She poses a poignant question to SU academic community as it reflects upon its 100 year old history:

Is this publication a return to previous racialised assumptions (a case of having been here before)? Or is it evidence that we never left them behind? (Walters, 2019b)

Jansen (2019), a Professor in the Department of Education at Stellenbosch University, regards the Nieuwoudt el al (2019) study as "a continuation of 100 years of research at Stellenbosch University that makes ... connections - in this case between being coloured and certain kinds of behaviours". Moreoer he contends that that racial thinking and racial "commonsense" are so embedded within South African society and academia that he was "not surprised when these researchers were first approached, they said: 'but what did we do wrong?' And that their second response was 'but we were just trying to help the coloured women". In fact, Jansen identifies "a history of contempt and pity that runs through 100 years of research at Stellenbosch University" (2019: np).

Despite the barrage of criticism on so many levels, the researchers have publicly defended their work in the media, seemingly oblivious of the obvious shortcomings. This unsound research output was not the product of a solitary junior researcher but an entire team in the Department of Sports Science, including the Head of Department no less. The fact that the manifold flaws in the research methodology and lapses of research ethics were not detected earlier strongly suggests that the quality of academic supervision in that Department is severely compromised. In fact, "there was huge debate in the department [of Sport Sciences, own insertion] about using the term 'coloured' " (Terblanche, 2019). While there appears to have been dissenting views within the small and relatively new Department of Sport Science, it appears that the racialized thinking model prevailed. One wonders whether the opinions of any women academics of colour were even canvassed, or whether a

consensus of White academics was deemed sufficient, as it has been throughout the history of SU's century of engagement with "Colouredness".

Responsibility for the epistemic failures so evident in the Nieuwoudt et al paper do not lie solely at the door of the researchers in question. There has clearly been a systemic failure with challenges at multiple levels of the system of academic knowledge production at Stellenbosch University and internationally.

The Nieuwoudt et al. article reflects approval by SU's Ethics Committee. This may indicate a dysfunction at this level as well. The article in question formed part of a broader study proposal on the risk factors for heart disease, physical activity, fitness, eating habits and cognitive functions of "Coloured" women in Stellenbosch (Stellenbosch University, 2019a). But rather than rendering the broader study more legitimate, it raises the identical issues around the uncritical use of race in the broader study to those which have already been raised. Moreover, the academic convention is that each published article is a stand-alone product judged on its own merits e.g. an article which draws from a PhD study should be able to stand independently as an internally coherent scholarly work, and not rely on the broader study to provide whatever context is lacking.

It could be argued that the Ethics Committees only review the proposed research and not the execution of the research proposal or the final product. This is true, but highlights once again the role of inadequate academic supervision. Furthermore, the study was funded by the National Research Foundation. The fact that racist mental model inherent in the Nieuwoudt et al study raised no objections during the funding review process suggest raises further questions.

Even more disconcerting was the failure of the independent peer reviewers in the journal *Aging, Neuropsychology and Dysfunctional Development* to challenge either the ethical or methodological shortcomings of the Nieuwoudt et al. article. Although the editors and publishers of the journal eventually retracted the article, it is clear that without the public outcry following Boswell et al's open letter and online petition there would have been no repercussions for the authors. In their statement of retraction, the editors of the journal admit:

the article contains a number of assertions about 'colored' South African women based on the data presented that cannot be supported by the study or the subsequent interpretation of its outcome. Specific data that would be relevant to these assertions was not collected. In addition, the references provided are not supportive of the claims that are made about the participants in the study or about South African women more generally. (Editorial Board JANDD, 2019)

The Psychological Society of South Africa (2019) have made a set of useful recommendations, which encompass not only individual researchers, but the broader system of academic knowledge production. They exhort:

- a) "Researchers and scientists to reflect on their own personal biases and conceptualisations of race with the aim of self-development, to reduce and eradicate racism and discrimination, which can be manifested in their research teaching and practice.
- b) Teachers and supervisors to be conscious in their knowledge exchange with students and to promote the production and use of relevant and ethical science.
- c) Institutions of higher learning to take responsibility for the management of knowledge produced by staff, students and groups within the organisations and contribute to their training in research integrity, social relevance of research and good ethical practice.
- d) Ethics committees to review proposed research studies through a critical race theory lens and to implement policies and procedures with the aim to remove potentially discriminatory research based on gender, race and ethnicity.
- e) Grant agencies to be sensitive to issues of race and discrimination in research and communities of study, and to request detailed information from applicants regarding the rationale for using demographic markers such as race as a variable in research.

- f) Journal reviewers and editors to be more vigilant in the reproduction and dissemination of research that may strip research participants of their dignity and perpetuate discrimination within society.
- g) For all knowledge consumers to familiarise themselves with the content of articles and research findings and fact check information before sharing and distributing to others, as well as consider the implications of sharing.
- h) The Department of Higher Education to not reward such research which does not contribute to scientific knowledge or the good of the public

While the PSSA's advocacy for implicit bias training goes some way in addressing race-based thinking at an individual level, it does not resolve the systemic epistemic barriers and injustices which – through the might of the apartheid state and the complicity, and in some cases – active support of formerly White universities - black people were debarred from participating in the knowledge creation and that research ethics in relation to race was implemented more in the breach than the observance. Epistemic redress imposes a moral duty on the academy in the present when engaging with a distorted epistemic past:

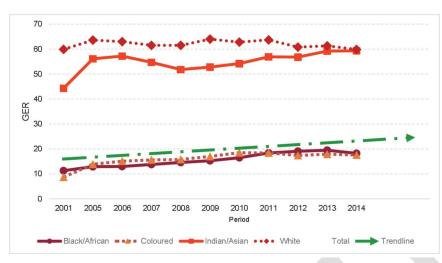
The facts might not be racist, but the facts that we rely on can be the results of racism, including racist institutions and policies. So when forming beliefs using evidence that is a result of racist history, we are accountable for failing to show more care ...Precisely what is owe can vary along a number of dimensions, but nonetheless we can recognize that some extra care with our beliefs is owed along these lines. We owe each other not only better actions and better words, but also better thoughts (Basu, 2019: np).

Given that black people were debarred from formal knowledge production and the power relations embedded in research and teaching are still highly skewed against them, it is hardly surprising that their views are largely absent from the bulk of the formal historic canon of academic knowledge in South Africa. The literature survey is a staple of most kinds of scientific research – a review of the existing strands of thought in the literature, identification of gaps, an academic lineage of the evolution of theories, a conceptual provenance. Given South Africa's history it cannot however be assumed that the historic body of academic literature is a fair and inclusive representation all relevant views and arguments. Because there may be little written from the perspective of the epistemologically marginalized majority, the vicious cycle of epistemic exclusion may perpetuate itself, unless conscious care is taken. As Chenua Achebe so pithily articulated it: until the lions have their own historians, the history of the hunt will always glorify the hunter.

Formal institutions in the higher education sector have change markedly, but informal institutions – including power relations within universities – often much less so. Academic cultures, mindsets and informal institutions may generally be more intractable because change entails not just intellectual knowledge, but emotional knowledge (Jansen, 2019).

The transformation largest shifts have been in the student body, however the bulk of postgraduate students in higher education, especially in science, technology and mathematics, remain largely White or Indian. The gross enrolment ratio (GER) represents the total enrolment of women in post-school education regardless of age, as a percentage of the eligible official age population corresponding to the same level of education (20-24 years) in a given year (Statistics South Africa, 2014). From Figure 3 below, it is clear that enrolments for "Coloured" and African women, while increasing between 2001 and 2014, fall far below the level of access enjoyed by White and Indian women, with GERs of the latter roughly three times greater than the former.

Figure 3: Gross enrolment ratio by population group for females in post-school education and training, 2001 to 2014



Source: Statistics South Africa (2014:59)

Besides inequality in access to education, many black students – ill-prepared by poor quality of basic education and poverty for the rigours of university academic life, experience high drop-out rates, high failure rates and take much longer than the prescribed time to complete their courses of study (Swarts, et al., 2018).

Former white schools and institutions of higher learning are seen as the pathways to mobility – social, economic and academic. Graduating from a formerly white university immediately signals educational quality to prospective employers and improves employability and labour market outcomes: graduates from historically disadvantaged universities are more likely to be unemployed than their counterpars from previously white universities. For example 13.4% of University of the Western Cape graduates were reported as unemployed and seeking employment work, in comparison with 6.4% of University of Cape Town graduates and 4.8% of SU graduates who fell in that category, due to factors such as institutional reputation and greater social capital (CHEC, 2013).

Returns to higher education in South Africa are substantial, creating pathways to social and economic mobility. Yet entry into the privileged spaces of formerly White universities is not without costs for those black students afforded the opportunity, costs which transcend the purely financial. Some black students – especially those from disadvantaged backgrounds - reported feeling excluded by language, racial stereotypes and discrimination, sexism, being made to feel inferior or unwelcome, feeling too intimidated to ask for help, isolation and an absence of a sense of belonging on formerly White campuses. The majority of SU students surveyed by Dumiso (2004) expressed the opinion that racial divisions still exist in the classroom, residences and the student centre, exacerbated by cultural and language differences. The controversy around the *Luister* video released by the Open Stellenbosch movement in 2015 (ENCA, 2015) underscores that racial tensions simmer unresolved today at SU, as in many other South African universities.

Academic institutional cultures often places pressure on many black students to assimilate into the prevailing institutional norms, rather than promoting reciprocal, mutually valued and appreciated, cultural interchange. For example, at schools black students may feel pressured to change their behaviours (e.g. assume different accents, suppress their mother tongue and code-switch between formal languages and township vernaculars) to align more closely with the dominant 'White'' institutional culture. This process often alienates black students from their own families, communities and indeed, from their own selves (Swarts, et al., 2018).

The student protests in around #RhodesMustFall and #FeesMustFall in 2015 also highlighted black students' perceptions that content of university curricula were too Eurocentric and out of touch with the South African context, prompting demands for curricula to be "decolonized". English (and sometimes Afrikaans) remains the language of academia on campuses, Eurocentric epistemologies

are esteemed and regarded as the standard while African scholars and knowledge are relegated to the periphery. Many black students in formerly White universities had never been taught by black professors, who could better understand their background and experiences, act as role models, and could augment English instruction with vernacular or indigenous languages (Swarts, et al., 2018).

Although there is some variation across disciplines, faculties and universities, the bulk of senior academic staff, senior management and journal editors, publishers and peer reviewers remain largely White, with English being the dominant language. Black academics, particular women, are few and far between in the higher leadership echelons of universities and other institutions of higher learning (Mokhele, 2013). Many of them are in relatively junior positions, and feel voiceless, with very little direct impact on university policy or operations. Even when they are appointed to top leadership positions, black women face enormous resistance to change – sometimes overtly, other times more subtly questioning their intelligence, competence and legitimacy (Mahabeer, et al., 2018; Naicker, 2013). The perception that black academics, particularly women, are appointed only to meet employment equity quotas helps perpetuate the stereotype that they are less capable than their White counterparts (Swarts, et al., 2018).

Racist stereotypes are destructive because they are often insiduously internalised, eroding self confidence and self-esteem, and fostering "imposter syndrome". Forming our own identity – whether professional or personal – involves self-descriptions which we continuously modify in relation to our environment and interactions with others. We, as inherently social beings, tend to depend on other humans for validation of our self-worth and affirmation of our dignity and self-respect in relation to our self-descriptions. American sociologist W.E.B DuBois who articulated the concept of "double consciousness" in *The Souls of Black Folks* as a

"This sense of always looking at one's self through the eyes of others, of measuring ones sole by the tape of a world that looks on in amused contempt and pity".

When our core self-perceptions are ignored or challenged by others in favour of their own expectations and stereotypes (state or implied) based on our race, gender, sexual orientation, country of origin etc, in a daily onslaught of micro-aggressions, it erodes our souls, much like drops of water over time carve out vast canyons.

7. Towards an inclusive South African academic culture: balancing ethics, sound scientific practice and academic freedom

The notion of the "teachable" moment, drawn from education theory, was popularized by the book Robert Havighurst in his 1952 book, *Human Development and Education*. It reflects the idea that certain times – often prompted by unusual, emotive or high interest circumstances – are conducive to a gestalt shift which permits a breakthrough individual, organisational and societal in learning. Could this be a "teachable moment" for South African universities, SU in particular, channeling the hurt and anger surrounding the Nieuwoudt et al paper be into greater mutual understanding about how race operates in academia, by engaging with, rather than suppressing - a potentially valuable debate? To achieve this would require sustained academic leadership commitment, to rise above rhetoric and lip service and cut to the heart of drivers of inclusion and exclusion at South African universities.

Although discrimination on the basis of race, colour, disability or sexual orientation no longer exist on paper, less overt forms continue to colour the working realities of many academics from groups who were previously marginalized (Khunou, et al., 2019). A core issue is whether black academics are invited into white academic spaces with the implicit academic bargain that they play by the existing "rules of the game" i.e. assimilation. Or whether there is genuine space for them to co-create a new set of institutional rules which is truly inclusive, a set of rules which are embodied in the "values in use" in day-to-day academic life, rather than the laudable but often sterile verbiage of university mission and values statements, strategic plans and other formal trappings of management intent.

A very first step for a genuine paradigm change, a shift in the mental models and the other intangible scaffolding of the academic enterprise in South Africa is the acknowledgement of the existence and persistence of a hierarchy of epistemic power and privilege that shapes perceptions and realities of

inclusion and exclusion. Then comes the recognition of our own inbuilt biases which contribute – consciously or unconsciously – to the problem for self-awareness is critical precondition to harnessing our collective agency in academia in support of positive change. The answer does not lie in more formal policies and a protracted processes to police them. Ethics committees, for example, could become more risk averse and shy away from posing hard questions around race which society should continue to discuss and upon which policymakers should reflect and act. At the end of the day, the answer can only lie in the domain of education to inculcate professional and constitutional norms, and conscious self-interrogation based on common values-in-use. But this form of epistemic redress in relation to issues of race, knowledge production and social justice has to be institutionalized in universities, in the same was as epistemic corruption was under colonialism and apartheid.

Altering formal processes through fiat without managing the necessary changes in mind-sets and mental models and dealing with emotions of anger, discomfort, anxiety, defensiveness and disenchantment, run the risk of what is termed "institutional decoupling", whereby the formal practices change, but the informal practices and conventions underpinning the inherited legacy culture do not (Andrews, 2013). In fact, adoption of formal policies creating a semblance of change and action might even serve to perpetuate, rather than disrupt and redirect, the status quo. For instance, while recruitment policies might explicitly prioritise black or women academic appointments, the outcomes of hiring decision-making processes (e.g. who will actually be offered the next academic post) can for decades continue to replicate historic demographics and university power relations, effectively allowing symbolic gestures and empty recruitment rituals to be substituted for substantive action, deflecting criticism but deferring transformation,.

This is by no means unique to South Africa. In both the US and Canada, for instance, student demographics have changed radically, but the profile of academics has not, despite decades of employment equity policies. In 2013, 84% of full-time American professors were White (58 percent males and 26 percent females), 4 percent Black, 3 percent Hispanic, and 9 percent Asian/Pacific Islander. Similarly in Canada, 81% of full time professors were white and 66% white male in 2016 (Sensoy & Di Angelo, 2017). Unless there are clear rewards, sanctions and incentives for achieving diversity in recruitment, succession and promotion to create an inclusive academic environment with influential involvement of previously marginalized groups, this is unlikely to change in the medium term.

Even as the optics of universities in South Africa and abroad alter, this change is most often at the junior levels, who exercise comparatively little influence in decision making. Some of those black academics who do filter through the rarified portals of career progression to senior level find themselves unable to meaningfully affect the outcomes of the institutional dynamics which they have bought into. Some black academics – like their White counterparts - have only had exposure to the White canonical mainstream, and are thus intellectually co-opted. "Outsiders" become powerless "insiders" (Khunou, et al., 2019), convenient but uninfluential tokens of transformation.

White women academics in South Africa have in the past faced – and often continue to experience - patriarchal exclusion from academia, while simultaneously enjoying the privilege of race and class. In this milieu, their responses have varied markedly. Some of them have continued to uncritically replicate epistemically corrupt discourses. Gouws observes that they often failed to "acknowledge the objectification of the Black research subjects" (2012:527). Other White women academics have, as allies, chosen to subvert and reframe existing discourses and practices, creating more action space for academics from previously marginalized groups to co-create a more inclusive academic culture. What is extremely heartening is the increasing willingness of young White academics – male and female – to confront issues of epistemic access, justice and redress, which augurs well for the creating an ethical and inclusive academic culture, as young black academics become more vocal in their assertion of full academic citizenship.

For the SU, reputational damage and erosion of trust wrought by the now retracted Nieuwoudt et al (2019) paper come at a time when other research entities within the University are path breaking work in promoting an inclusive academic culture and a "decolonized" syllabus consonant with constitutional values, increased social dialogue and cohesion. For instance, the Laboratory for the Economics of

Africa's Past (LEAP). in pioneering the application of quantitative techniques to African economic and social history, has revealed knowledge about Cape slave society hitherto ignored or suppressed. LEAP has generated insights on economic impact of the earliest human migrations, colonialism, slavery and apartheid, an important lever for decolonialising the economics curriculum. Scholars such as the Prof Amanda Gouws (SARChi Chair in Gender Politics) and Prof Thuli Madonsela (Law Faculty Trust Chair for Social Justice) and many others are conducting research and educational interventions for social justice and social cohesion, as are many of the other Departments and research units at SU.

Despite sterling initiatives such as these, the Nieuwoudt et al (2019) paper has drawn attention to the fact that not all units across the various academic disciplines have invested enough in critically evaluating their scholarship and teaching in relation to our apartheid past or the socio-political and economic realities of our present. This has reinforced a widespread perception that *all* Stellenbosch University programmes and activities are of this ilk. SU has instituted an investigation to understand the sequence of lapses which resulted in a methodologically unsound and ethically compromised article being published in an international journal. What recommendations flow from that investigation and the manner and alacrity with which they are implemented will be crucial to rebuilding trust and reputational capital.

SU responses have to be perceived to be appropriate, fundamental and sustained, rather than mere public relations gestures of appeasement while the furore subsides and after which operations revert to "business as usual". One criterion would be the extent to which a university-wide response is accorded sufficient focus and prominence in the SU's strategic plan, and the extent to whether this response would permeates core teaching practice and research activities make more visible progress to fulfilment of SU's transformation plan goal of "deliberating on the relevance of our knowledge and producing new knowledge to move our society from an exclusive past to a socially just, sustainable, thriving, democratic future"

Commentators such as Witbooi (2019) have proposed changes to curricula to deal explicitly with the problematique of race, science and knowledge production.

To combat this crisis in the value system, I propose that all universities develop a compulsory first-year course on knowledge systems and how race-based science is not "re-emerging" or "rearing its ugly head", but rather, that this approach in academia has been consistently present. The saddest thing is when students enter and leave university with their views of the world unchanged and unenlightened. What I consider even worse is when an institution of higher learning arms and encourages how its students move through the world by reconfirming over and over again a problematic knowledge construct.

In the wake of the Nieuwoudt et al. paper furore, a number of forums held searching discussions on race, gender and science, but in future are these likely to remain isolated occurrences or will they institutionally embedded in the academic year schedule, to encourage dialogue, mutual understanding and debate? If so, where would the institutional locus? Without an institutional machinery with appropriate resources and convening power, good intentions for SU transformation are likely to remain just that.

A recent publication *Black Academic Voices: The South African Experience* begins to explore some of the complexities around epistemic, ideological, interpersonal and identity issues in a divided society and a grossly unequal economy like South Africa (Khunou, et al., 2019). However this is but one contribution to an under-researched void, which South African universities have the appropriate skills and capability to fill, from an array of pertinent disciplinary perspectives. Gouws (2012) suggests that conflict is an inevitable result of unmediated, uncritical engagement with our apartheid past and post-democratic present:

Students come to tertiary institutions with histories of domination. Even students who did not grow up under apartheid still suffer from internalized racism. They come with unmediated experience and have to learn that we need to theorize the experience in order to make sense of it. This theorization has to include both gender and race components to validate their

experiences – something that often pit White students against Black students, because their lived realities are so different (2012:534)

The 2018 controversy surrounding the *Talking Transformation* and *Inkululeko – Talking freedom* booklets which was covered extensively in the media is a case in point (Alberts, 2018; Botha & Slade, 2018; Zille, 2018).

Some work has already been done at SU in this regard, for instance the now dated by still relevant study by Dumiso (2004) but there is potential for much more, given the contested nature of the terrain and its relevance not only for the South African academy, but for universities in the global South and other divided societies, grappling with similar dilemmas. Unfortunately research work on race, science, gender, academic culture and diversity tend not to be highly valued, well funded and resourced internationally (Sensoy & Di Angelo, 2017) or at SU, as the now defunct M. Phil in Gender Studies illustrates (Gouws, 2012)

There may be opportunities to learn from other universities outside South Africa. Desivilya et al. (2017) examine the different ways in which faculty at an Israeli university respond to the challenges posed by social divisions and inequalities in a conflicted society. They conclude that dialogue and engagement on these issues provide a platform for academics to recognise and deal with differences while seeking for common ground. They conclude that "Faculty's awareness of their own diverse identities and positions constitutes a crucial precursor for developing their educational capabilities as meaningful social change agents". Desivilya et al. (2017:102). It is important that not only faculty but also senior management of the university are exposed to many, different voices.

I would like to believe that there are enough common core values with the South African academe and that educational, research and outreach practices can – to some extent - be consciously adapted and shaped, rather than evolving unconsciously and tacitly. But this requires visible, tangible and sustained commitment by all role-players in the academic ecosystem, particularly senior leadership. Without clear, widely consulted approaches to practically operationalizing values and ethics, investment in institutional capacity and appropriate incentives, the status quo becomes the default policy in practice. Collectively internalising ethics and values is a process, but research policies need to explicitly outlaw ethical infractions inconsistent with constitutional rights, including racial stereotyping and discrimination and the associated consequences. The infractions should attract academic censure in the same way as plagiarism, violation of intellectual property or falsifying results. It is encouraging that attitudes do change over the long term, as a study of evolution of explicit and implicit American attitudes to race, skin tone and sexual orientation have trended towards neutrality (but not, interestingly enough, attitudes to body weight) between 2007 and 2016 (Charlesworth & Banerji, 2019)

8. Broader public policy questions

Universities are also a platform to raise the issue of race, science and society more broadly, since academic thinking is often influential in shaping popular culture. As a political construct, race in South Africa is alive and well. In analyzing voter pattern trends in electoral results, for instance, race remains the most common de facto unit of analysis. Statistics South Africa routinely continues to disaggregate data by self-reported racial groups. Race remains codified in law for purposes of redress and redistribution: black economic empowerment, preferential procurement, sector and institutional diversity targets. Yet successive generations of students coming into academia never having been classified at birth by the apartheid regime, and yet have to grapple with the continued application of old apartheid classifications.

While imbued with the concept of race, legislation in the democratic dispensation have shied away from defining racial classifications, invoking self-identification instead and leaving such definition to racial common sense (Stone & Erasmus, 2012). De Vos (2012) argued that non-racially based corrective action measures may be constitutionally valid, opening up the possibility of disposing of racial discriptors.. But Maree contends that there are too many groups have developed vested

interests in the current form of racial classification to discard it soon (2013). So, for example, the Traditional and Khoi-san leadership Bill of 2015 recognises kings, queens, headmen and headwomen, offices which brings with it no territorial redress but other material benefits and creates a group with an interest in reifying the designation "Khoi-san" as defined in the Bill.

Whereas race in the past was virtually completely correlated with class, income, wealth and opportunity, the emergence of a small black middle class and elite means that this is not as clear cut as it once was On the other hand, a race and gender "invisible" approach is far from neutral and is li.ely to further entrenches "racial commonsense" and provides a justification for racial thinking. Presciently Posel raised some of these issues in 2002, and concluded disturbingly that as race markers become decoupled from class and status, "the likelihood of more narrowly bodily readings of racial difference is also likely to grow", reverting to forms of essentialist biological race and the "reinvestment in the significance of the body as a site of differentiation" (Posel, 2002: 70-71)

A seemingly intractable conundrum is the tension between the need for redress and further entrenchment of race based thinking. Is legislative codification of race as a permanent feature of the public policy landscape desirable in the light of constitutional aspirations to a non-racial society? This is an important debate for academics to participate in, since eliminating racialist thinking in universities is unlikely to be successful while it still permeates broader South African society.

9. Concluding remarks

This paper builds a cogent argument that Nieuwoudt et al (2019) article is an egregious incidence of epistemic failure which is a product not only of a particular researcher team, research supervisors, ethics committee or university. The shortcomings of the international journal peer review suggests a more pervasive dysfunction in the global academic knowledge production system. These challenges are by no means peculiar to the SU; similar leitmotifs play themselves out across academic campuses across the country. SU, however, has to confront its role in the epistemic corruption of the apartheid era, preceded by centuries of colonialism, and commit to epistemic redress by remedying confluence of institutional shortcomings give rise to the ethically dubious and methodologically compromised Nieuwoudt et al. article.

South Africans have a tendency to refer conflicts for resolution by the judiciary, so called "law fare". But these conundrums – fundamental though they are – are not issues of law, but of ethics and of academic culture. Academics are well equipped to do the hard labour of self-critical introspection and reimagining scholarly institutions. We are trained to rely on evidence, and when new facts come to light, to revise our theories and mental models. If we as academics cannot have these poignant conversations with each other - even if we agree to disagree - how can we fulfill our roles as thought leaders and intellectual role models in the broader public discourse on social justice? It is time for researchers to aspire to strive for wisdom in support of the greater good and intellectual empathy which goes beyond academic publications and citations, for universities are microcosms of society as a whole.

Academic knowledge must translate into more discerning, effective action and more inclusive and welcoming institutional cultures, if the next generation of black women academics are to be spared the struggles endured by their predecessors and participate as full academic citizens. Black women academics enjoy much greater opportunity to pursue scholarship, as a result of the activism, endurance and sacrifice of our predecessors. We, however, have to step up to the plate to ensure that the aspirant black academics don't face the unpalatable choices and bear the onerous burdens to which we were subjected. In the face of what black female students and academics have already achieved in defiance of an epistemically corrupted knowledge production system, I have every confidence that they will succeed.

Still I Rise by Maya Angelou

You may write me down in history With your bitter, twisted lies, You may trod me in the very dirt But still, like dust, l'll rise.

... Out of the huts of history's shame I rise

Up from a past that's rooted in pain I rise

I'm a black ocean, leaping and wide, Welling and swelling I bear in the tide.

Leaving behind nights of terror and fear I rise

Into a daybreak that's wondrously clear I rise

Bringing the gifts that my ancestors gave, I am the dream and the hope of the slave.

l rise

l rise I rise.

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