

Off-White: decentring Whiteness in tobacco science

Juliet P Lee ¹, Raglan Maddox ^{2,3}, Michelle Kennedy ^{4,5},
Shadi Nahvi ⁶, Mignonne C Guy ⁷

'Vulnerable' is sometimes used to refer to specific groups of people who use tobacco products. In bioethics, 'vulnerable' denotes a need for protection.^{1,2} In tobacco science, however, the precise nature of vulnerability is commonly undefined. Tobacco programmes may seek to engage 'vulnerable' people in programmes that 'develop capacities' or 'build strengths', implying that people who smoke are deficient in qualities that make other people invulnerable to smoking and the tobacco industry. 'Vulnerable' may also simply code for 'not White' or 'off-White'. Some minoritised populations indeed experience specific vulnerabilities (eg, Black people globally, from overpolicing and brutality). The sources of their vulnerabilities are not intrinsic but rather extrinsic: systems of oppression that disenfranchise and de-invest in minoritised groups and further institutionalise bias, racism and discrimination.³ The academic discourse of vulnerability in tobacco science often reflects and perpetuates racialised logic, which can, in turn, marginalise populations most impacted by the tobacco industry-fuelled commercial tobacco epidemic, and contribute to reproducing the inequities we seek to change as health scientists.

There is an urgent need to recognise and mitigate racialised logic to improve tobacco science.⁴ As Indigenous peoples (RM, MK) and people racialised as Iranian American (SN), White/Jewish (JPL) and Black (MCG),

we recognise that the construction of race and racism are interconnected, intertwined and pervasive across all social systems, including in tobacco science.⁵ We focus on race and racism while recognising that critical perspectives can help liberate science from all oppressive structures based on personal characteristics, for example, ethnicity, Indigeneity, nationality, sexual orientation, sex, gender, dis/ability and class. We also recognise that these forms of oppression operate intersectionally with racism in tobacco use, tobacco control, research, evaluation and policy.⁶⁻⁸

HIERARCHIES IN SCIENCE

Racialised logic was produced by White Euro-Western people within institutions of sociopolitical and economic power to elevate White people and centre White Euro-Western knowledge.⁹ There is no biological basis for the construct of distinct human 'races of Man'. The notion is rooted in Christianised ideas of a 'great chain' of beings classed and arranged hierarchically from beasts to humans to God. In later schema, European male humans were ranked closest to God, above females and people of non-European origin.¹⁰ This hierarchical human order was used to justify and legitimise colonisation and resource extraction of the peoples and lands of Africa, Asia and later the Americas. Extractive industries and colonial administrations worked alongside Christian institutions ('God, gold and glory'¹¹), with catastrophic impacts on Indigenous and all other peoples who White Christians desired to subjugate. The concept of 'race' arose in the 17th/18th centuries CE with the trans-Atlantic slave trade to justify kidnapping and enslaving African children and adults, relegating them to commodities in plantation economies that mass-produced sugar, cotton and commercial tobacco. Enslavement of the Indigenous peoples in the Americas and Oceania followed settlers' colonial demands for territory,^{12,13} and White settlers' profit from selling captive Indigenous people and/or forcing their unpaid labour,¹⁴ which continued well into the 20th century^{15,16} and even to present day.¹⁷

Social scientists—predominantly highly educated White men—were deployed to study colonised people, often working for colonial authorities to enable more control

over subject populations.¹⁸ Euro-Western biomedical and psychosocial sciences were used to justify colonialism and enslavement. Some of their methods and constructs used have been discredited, but still appear in scientific discourse,¹⁹ for example, in 'race norming' or 'race conditioning'.²⁰ A quintessential form of racialised logic is the default White reference group²¹: an expectation that, for example, research examining smoking prevalence among minoritised population groups should compare respective characteristics including smoking prevalence with non-Indigenous White peoples, irrespective of social-structural determinants of health that make White and non-White tobacco use non-comparable. What structures of science perpetuate this centring and privileging of Whiteness in tobacco control science?

SCIENTIFIC SEGREGATION IN TOBACCO SCIENCE

While smoking and commercial tobacco-related death and disease among elite White Euro-Western people have declined over recent decades, these declines have not commonly been experienced in equal degree by poor and less-educated people racialised as non-White.²² Nevertheless, the tobacco control scientific community continues to disproportionately comprise the same group that aided in and benefits from the institutionalisation of racialised logic: male, highly educated, and racialised as White. Terms such as 'vulnerable', 'at risk', 'minority' and 'urban' are often used in place of racist terms of past eras. When used categorically and uncritically, these terms can diminish the personhood and status of a research participant. Diminished personhood can continue to cause harms and reinforce deficit narratives, 'othering' the population of interest devoid of context²³ while inherently reasserting the 'superiority' of the academic scientists and, in turn, people racialised as White.

Scientific segregation consolidates White privilege within positions of power in predominantly White academic institutions,²⁴ and marginalises non-White peoples and knowledge.²⁵ Euro-Western human sciences borrow heavily from physical sciences, with concepts such as experimentation, contamination, exposure and randomisation applied uncritically to complex social contexts and human experiences. Meanwhile, other theories and methods that are relevant to or appropriate for people who are not racialised as White are discounted and undervalued. For example, Indigenous tobacco science has been routinely excluded from nearly all major academic research institutions in the USA, despite Native Americans having longer histories and relations with

¹Prevention Research Center, Pacific Institute for Research and Evaluation California, Berkeley, California, USA

²Bagumani (Modewa) Clan, Milne Bay, Papua New Guinea

³National Centre for Epidemiology and Population Health, Australian National University, Canberra, Australian Capital Territory, Australia

⁴Wiradjuri, Condobolin, New South Wales, Australia

⁵Equity in Health and Wellbeing Research Program, Hunter Medical Research Institute, College of Health, Medicine and Wellbeing, University of Newcastle, Callaghan, New South Wales, Australia

⁶Departments of Medicine, and Psychiatry & Behavioral Sciences, Albert Einstein College of Medicine - Montefiore Medical Center, Bronx, New York, USA

⁷African American Studies, Virginia Commonwealth University, Richmond, Virginia, USA

Correspondence to Dr Juliet P Lee, Prevention Research Center, Pacific Institute for Research and Evaluation California, Berkeley, CA 94704, USA; jlee@prev.org
Dr Raglan Maddox;
Raglan.Maddox@anu.edu.au

the tobacco plant, which is also native to the Americas, than any other society. Social-structural determinants of health,²⁶ including racism,^{27–28} structural racism,²⁹ cultural racism,^{27–30} structural sexism,^{8–13} colonisation³¹ and racial capitalism,^{32–33} are also marginalised in academic tobacco research.

AN UNNATURAL GAP

As a result of these forms of scientific segregation, we find a widening gap between the predominantly privileged White tobacco research academy and its predominantly socially marginalised non-White subjects. This gap mirrors the exploitative patterns of colonialism, for indeed the livelihoods, careers and institutional privileges of White elite tobacco scientists depend on the populations of non-White and marginalised peoples who use commercial tobacco products. Like colonisation, however, scientific segregation is not accidental, 'natural' or 'organic', but rather a product of human agency, (re)produced through social hierarchies. Within the science academy, women and non-White people are not only less represented in advanced degree programmes, but dramatically less represented in those programmes in elite institutions.^{34–35} The consolidation of White male privilege within the academy³⁶ supports the continued reification of white theories and methods as 'universal', when in fact these methods and theories are cultural artefacts reflecting privileged White peoples' beliefs and values. In addition, the academy reproduces itself through structures of power which generally exclude non-White (and non-male) scientists and their scholarship.³⁷ In over 36000 articles published in top-tier psychology journals between 1974 and 2018, very few articles even mentioned race or racism as topics of research. The majority of editors of these journals were White, and of the few articles that highlighted race, most were written by White authors.³⁵

Segregation results from practices and policies that make certain social spaces 'exclusive'. In the contexts of real estate, educational institutions and social clubs, exclusiveness has been understood to add 'value'. The value added to exclusive neighbourhoods in the USA has benefited people who are Christian, wealthy and racialised as White while disadvantaging people who are non-Christian, non-wealthy and/or racialised as non-White.³⁸ Segregation of Indigenous people onto reservations, missions and reserves³⁹ effectively reduced their ability to participate in the cash economy or to own homes, while both implicit and explicit policies segregated Indigenous people in urban neighbourhoods and in educational settings.^{40–42} Because many academic institutions privilege enrolment of the children

of alumni, the legacy of exclusionary policies can endure and continue to perpetuate harms well beyond the overt end of these policies. When scientists are predominantly academics, they will therefore tend to be White elites. Without careful consideration and explicit inclusion of community members, research conducted by White researchers on people who smoke will inevitably be based on an exploitative relationship in which elite White people continue to benefit from segregation.⁴³

HOW CAN WE DO THIS BETTER?

For tobacco-related research to serve all peoples, science must evolve. We cannot achieve this goal without understanding and addressing how racism influences our own logic and the institutions within which scientific knowledge is produced. Actively identifying and implementing institutional and structural changes to disrupt White epistemic oppression and hegemony can support desegregation in tobacco sciences.⁴⁴ We can and must critically examine exclusionary policies and structures in tobacco control institutions, and reshape our science to be *inclusionary*. This requires reconsidering, for example: membership qualifications, dues and other costs; organisational and meeting structures; leadership, committees and governance; staffing, funding and scholarships; research conceptualisation, research design, research procedures and ethics review; and dissemination of results. Ethics review boards should be precise in their application of the term 'vulnerable' in review and approval.^{45–46} Rather than simply recycling past years' programme elements, conference planning groups can assess their processes to minimise biases that privilege specific groups and types of science. Commercial tobacco scientists, funding entities, institutions and publishers must invest in academics, editors, trainees^{47–48} and mentors who are not White and demonstrably operate outside of White racialised logic. Tobacco researchers should meaningfully engage with anti-racist science and explicitly adopt an anti-racist approach, including Indigenous methodologies and wise practices,^{49–51} measurement of and mechanisms to address and mitigate racism,^{52–53} and restorative justice practices in publication. We can practise citational justice by citing Black women,^{54–55} and queer, Indigenous and/or non-academic writers; credit community partners as lead or co-authors⁵⁶; re-envision the value of highly racialised journal impact factors and implement metrics for anti-racist science; and publish with open access to ensure that research results are accessible to community members as well as academics.⁵⁷

MOVING OFF-WHITE

Decentering Whiteness in tobacco research demands critically assessing and interrupting all formations that reproduce inequities. We continue to witness Black excellence in tobacco control, public health and beyond.⁵⁸ However, we also witness the cumulative burden of commercial tobacco-related death and disease, as we continue to dig graves for our loved ones, with global progress toward tobacco control goals, for example, established in the Framework Convention on Tobacco Control, as yet unattained.⁵⁹ We need to take the next step, safely placing communities in the lead to foster commercial tobacco- and nicotine-free futures.⁶⁰

Twitter Juliet P Lee @JulietPLee, Raglan Maddox @RaglanMaddox, Michelle Kennedy @Dr_M_Kennedy, Shadi Nahvi @ShadiNahvi and Mignonne C Guy @DrSDOH

Acknowledgements The authors acknowledge the insights and guidance of the communities with whom we live and work.

Contributors All authors co-conceptualised this article. Initial and responsive drafts by co-lead authors JPL and RM were augmented and revised by MK, SN and MCG. All authors approved the final version.

Funding JPL was supported by grants T32CR5321 and T32CF5371 from the University of California Office of the President Tobacco-Related Disease Research Program. MK was supported by Australian National Health and Medical Research Council Early Career Fellowship (1158670). SN was supported by grant K24DA051807 from the US National Institute on Drug Abuse. MCG was supported by a grant 79456 from the Robert Wood Johnson Foundation, by grant U54DA036105 from the US National Institute on Drug Abuse and the US Center for Tobacco Products and by grant P50MD017319 from the US National Institute on Minority Health and Health Disparities.

Disclaimer MCG was supported by the National Institute on Drug Abuse of the National Institutes of Health and the Center for Tobacco Products of the U.S. Food and Drug Administration under Award Number U54DA036105. The content is solely the responsibility of the author and does not necessarily represent the official views of the NIH or the Food and Drug Administration.

Competing interests Pfizer provided varenicline to Albert Einstein College of Medicine (2017–2022) for R01DA042813 (PI: SN). The other authors have no conflicts of interest to declare.

Patient consent for publication Not required.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.



OPEN ACCESS

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly

cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

JPL and RM contributed equally.

JPL and RM are joint first authors.



To cite Lee JP, Maddox R, Kennedy M, *et al.* *Tob Control* 2023;**32**:537–539.

Tob Control 2023;**32**:537–539.
doi:10.1136/tc-2023-057998

ORCID iDs

Juliet P Lee <http://orcid.org/0000-0003-2330-3736>
Raglan Maddox <http://orcid.org/0000-0002-2770-0686>
Michelle Kennedy <http://orcid.org/0000-0001-9691-068X>
Shadi Nahvi <http://orcid.org/0000-0001-5501-4942>
Mignonne C Guy <http://orcid.org/0000-0003-4530-2013>

REFERENCES

- Clark B, Preto N. Exploring the concept of vulnerability in health care. *CMAJ* 2018;190:E308–9.
- Mackenzie C, Rogers W, Dodds S. Vulnerability and bioethics. In: *Vulnerability: New Essays in Ethics and Feminist Philosophy*. Oxford University Press, 2014.
- Breland AB, Carroll D, Denlinger-Apte R, *et al.* Centering racial justice for Black/African American and Indigenous American people in commercial tobacco product regulation. *Preventive Medicine* 2022;165:107117.
- Waa AM. Wise practices in commercial tobacco research to promote racial equity. *Nicotine & Tobacco Research* 2023;25:603–4.
- Piper ME, Maddox R, Castro Y, *et al.* Lessons learned on addressing racism: recommendations from the Society for Research on Nicotine and Tobacco's Racial Equity Task Force. *Addiction* 2022;117:2567–70.
- Tan ASL, Hinds JT, Smith PH, *et al.* Incorporating intersectionality as a framework for equity-minded tobacco control research: a call for collective action toward a paradigm shift. *Nicotine Tob Res* 2023;25:73–6.
- Nahvi S, Cooperman NA. Review: the need for smoking cessation among HIV-positive smokers. *AIDS Educ Prev* 2009;21(3 Suppl):14–27.
- Homan P. Structural sexism and health in the United States: a new perspective on health inequality and the gender system. *Am Sociol Rev* 2019;84:486–516.
- Bonilla-Silva E, Zuberi T. Toward a definition of White logic and White methods. In: Zuberi T, Bonilla-Silva E, eds. *White Logic, White Methods: Racism and Methodology*. Rowman. Littlefield, 2008: 3–27.
- Mosse GL. *Toward the Final Solution: A History of European Racism*. Wisconsin: University of Wisconsin Press, 2020.
- Njenga G. *A summary of characteristics of the European economy at the beginning of the modern age: European discoveries and expansion 15–1700; by SB Clough and RT Rapp*. Strathmore University Business School, 2015.
- Wolfe P. Settler colonialism and the elimination of the native. *Journal of Genocide Research* 2006;8:387–409.
- McKetta S, Prins SJ, Hasin D, *et al.* Structural sexism and women's alcohol use in the United States, 1988–2016. *Soc Sci Med* 2022;301:114976.
- Gallay A. *Indian Slavery in Colonial America*. U of Nebraska Press, 2009.
- Haskins V. Domesticating colonizers: domesticity, Indigenous domestic labor, and the modern settler colonial nation. *Am Hist Rev* 2019;124:1290–301.
- Jacobs MD. *Indian boarding schools in comparative perspective: The removal of Indigenous children in the United States and Australia, 1880–1940*. Department of History, University of Nebraska, 2006.
- Sama SH, Florence KT. Slavery and slave trade activities: the case of Blackbirding in the Pacific Ocean and interiors from the 19th to the 21st centuries period. *JAERS* 2021;8:036–51.
- Asad T. *Anthropology and the colonial encounter*. London, 1973.
- Carter R. Genes, genomes and genealogies: the return of scientific racism? *Ethnic and Racial Studies* 2007;30:546–56.
- Gasquoin PG. Race-norming of neuropsychological tests. *Neuropsychol Rev* 2009;19:250–62.
- Williams DT. A call to focus on racial domination and oppression: a response to "racial and ethnic inequality in poverty and affluence, 1959–2015". *Popul Res Policy Rev* 2019;38:655–63.
- Nguyen-Grozavu FT, Pierce JP, Sakuma K-L, *et al.* Widening disparities in cigarette smoking by race/ethnicity across education level in the United States. *Prev Med* 2020;139:106220.
- Watego C. *Another Day in the Colony*. Queensland, AU: University of Queensland Press, 2021.
- Guy MC, Afifi RA, Eissenberg T, *et al.* Greater representation of African-American/Black scientists in the National Institutes of Health review process will improve adolescent health. *J Adolesc Health* 2020;67:631–2.
- Bhakuni H, Abimbola S. Epistemic injustice in academic global health. *Lancet Glob Health* 2021;9:e1465–70.
- Krieger N. Measures of racism, sexism, heterosexism, and gender binarism for health equity research: from structural injustice to embodied harm—an ecosocial analysis. *Annu Rev Public Health* 2020;41:37–62.
- Williams DR, Mohammed SA. Racism and health I: pathways and scientific evidence. *Am Behav Sci* 2013;57:1152–73.
- Bonilla-Silva E. Rethinking racism: toward a structural interpretation. *American Sociological Review* 1997;62:465.
- Bailey ZD, Krieger N, Agénor M, *et al.* Structural racism and health inequities in the USA: evidence and interventions. *Lancet* 2017;389:1453–63.
- Hicken MT, Kravitz-Wirtz N, Durkee M, *et al.* Racial inequalities in health: framing future research. *Social Science & Medicine* 2018;199:11–8.
- Tuhiwai Smith L. *Decolonizing Methodologies: Research and Indigenous Peoples*. Bloomsbury Publishing, 2021.
- Robinson CJ. *Black Marxism The Making of the Black Radical Tradition (revised and updated)*. UNC Press Books, 2020.
- Leong N. Racial capitalism. *SSRN Journal* 2012;126:2151.
- Mullen AL, Baker J. Gender, race, and ethnic segregation of science fields in U.S. universities. *J Women Minor Sci Eng* 2008;14:159–76.
- Roberts SO, Bareket-Shavit C, Dollins FA, *et al.* Racial inequality in psychological research: trends of the past and recommendations for the future. *Perspect Psychol Sci* 2020;15:1295–309.
- Weeks A, Justice AV, Nugent R, *et al.* jPresent!: affirming Latinx voices within health sciences library scholarship. *J Med Libr Assoc* 2021;109:693–6.
- Reid G, Escobar Jones C, Poe M. Categorical racism: how leading medical journals reproduce segregation in American medical knowledge. *Bill of Health* 2022. Available: <https://blog.petrieflom.law.harvard.edu/2022/06/07/citatonal-racism-how-leading-medical-journals-reproduce-segregation-in-american-medical-knowledge/>
- Lee JP, Ponicki W, Mair C, *et al.* What explains the concentration of off-premise alcohol outlets in Black neighborhoods? *SSM Popul Health* 2020;12:100669.
- AIATSIS. Missions, stations and reserves. 2022. Available: <https://aiatsis.gov.au/explore/missions-stations-and-reserves>
- Markham F, Biddle N. Indigenous residential segregation in towns and cities, 1976–2016. *SocArXiv* [Preprint].
- van Ham M, Tammaru T, Ubarevičienė R, *et al.* Urban socio-economic segregation and income inequality.
- Burridge N, Chodkiewicz A. An historical overview of aboriginal education policies in the Australian context. In: *Indigenous Education: A Learning Journey for Teachers, Schools and Communities*. Rotterdam: Brill, 2012: 9–21.
- Petteway RJ. On epidemiology as racial-capitalist (re) colonization and epistemic violence. *Critical Public Health* 2023;33:5–12.
- Razack S, Naidu T. Honouring the multitudes: removing structural racism in medical education. *Lancet* 2022;400:2021–3.
- Malone RE, Yerger VB, McGruder C, *et al.* "It's like Tuskegee in reverse": a case study of ethical tensions in Institutional Review Board review of Community-Based Participatory Research. *Am J Public Health* 2006;96:1914–9.
- Rogers W, Lange MM. Rethinking the vulnerability of minority populations in research. *Am J Public Health* 2013;103:2141–6.
- Murray D-S, Richardson L, Tesfaye R, *et al.* Black in Neuro, beyond one week. *J Neurosci* 2021;41:2314–7.
- Davis DR, Hickman NJ, Choi K, *et al.* Impact of the Society for Research on Nicotine and Tobacco Health Disparities Network's scholarship on professional development of its recipients. *Nicotine Tob Res* 2020;22:141–3.
- Parker M, Pearson C, Donald C, *et al.* Beyond the Belmont Principles: a community-based approach to developing an Indigenous ethics model and curriculum for training health researchers working with American Indian and Alaska Native communities. *Am J Community Psychol* 2019;64:9–20.
- Morton Ninomiya ME, Maddox R, Brascoupe S, *et al.* Knowledge translation approaches and practices in Indigenous health research: a systematic review. *Social Science & Medicine* 2022;301:114898.
- Maddox R, Drummond A, Kennedy M, *et al.* Ethical publishing in "Indigenous" contexts. *Tob Control* 2023;tc–2022
- Adkins-Jackson PB, Legha RK, Jones KA. How to measure racism in academic health centers. *AMA J Ethics* 2021;23:E140–145.
- Ben-Cheikh I, Beneduce R, Guzder J, *et al.* Historical scientific racism and psychiatric publications: a necessary international anti-racist code of ethics. *Can J Psychiatry* 2021;66:863–72.
- Smith CA, Williams EL, Wadud IA, *et al.* Cite Black Women: a critical praxis (a statement). *Feminist Anthropology* 2021;2:10–7.
- Craven C. Teaching antiracist citational politics as a project of transformation: lessons from the Cite Black Women movement for White feminist anthropologists. *Feminist Anthropology* 2021;2:120–9.
- Sarna-Wojcicki D, Perret M, Eitzel MV, *et al.* Where are the missing coauthors? authorship practices in participatory research. *Rural Sociology* 2017;82:713–46.
- Funk J, Guthadjaka K. Indigenous authorship on open and digital platforms: social justice processes and potential. *Journal of Interactive Media in Education* 2020;2020.
- Calma T. Basil Hetzel Oration: the COVID-19, racism, mental health and smoking crises. *Aust N Z J Public Health* 2022;46:249–51.
- Maddox R, Waa A, Lee K, *et al.* Commercial tobacco and Indigenous peoples: a stock take on Framework Convention on Tobacco Control progress. *Tob Control* 2019;28:574–81.
- Maddox R, Kennedy M, Drummond A, *et al.* "Dispelling the smoke to reflect the mirror": the time is now to eliminate tobacco related harms. *Aust N Z J Public Health* 2022;46:727–9.