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The implicit epistemology of *White Fragility*

Alan Sokal [1,2]

[1] Department of Mathematics, University College London, Gower Street, London WC1E 6BT, UK
[2] Department of Physics, New York University, 726 Broadway, New York, NY 10003, USA

Corresponding author. E-mail: sokal@nyu.edu

ABSTRACT

I extract, and then analyse critically, the epistemological ideas that are implicit in Robin DiAngelo's best-selling book *White Fragility* and her other writings. On what grounds, according to DiAngelo, can people know what they claim to know? And on what grounds does DiAngelo know what *she* claims to know?

KEYWORDS: White Fragility, epistemology, objectivity, social construction, relativism, postmodernism

Robin DiAngelo's book *White Fragility* was on *The New York Times* non-fiction best-seller list for 155 weeks after its publication in 2018; in the wake of the George Floyd murder, it was briefly catapulted to #1. As of June 2020, total sales were around 1.5 million (Green 2020). The book has also been highly influential in academia: in the five years since its publication; it has garnered 1,041 citations on the Web of Science (of which 276 in journals of Education,[1] which is DiAngelo's field) and 5,326 citations on Google Scholar (as of March 24, 2023).

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[1] This includes the categories Education Educational Research (247), Education Scientific Disciplines (20), Psychology Educational (18) and Education Special (2). (These numbers add up to more than 276 because several articles have multiple classifications.) Education is by far the largest category of citations of DiAngelo's book, far exceeding Ethnic Studies (81), Sociology (76), Social Sciences Interdisciplinary (57), Religion (51), Psychology Multidisciplinary (44), Communication (43), Women's Studies (37), Social Work (36), Political Science (34), Social Issues (34), Nursing (32), Cultural Studies (30), … .

In this article I shall not attempt to address the substantive content of DiAngelo's stimulating and provocative book; that has been done in a multitude of reviews from a variety of interesting perspectives.[2] Suffice it to say that in my view there is much wisdom in DiAngelo's plea to white people, such as I am, to reflect more deeply about our possibly unconscious prejudices and about the myriad ways in which Black people's routine daily experiences might differ radically from our own, and for these reasons to be more humble in our interactions with people of colour and to listen more carefully and empathetically to what they tell us.[3]

My goal in this paper is considerably more limited: to extract, and then critically analyse, DiAngelo's implicit epistemology. On what grounds, according to DiAngelo, can people know what they claim to know? And on what grounds does DiAngelo know what *she* claims to know?

Helen Pluckrose and James Lindsay, in their important and controversial recent book *Cynical Theories* (2020), say the following about the philosophy underlying DiAngelo's work:

> DiAngelo's is probably the purest manifestation [among those considered in this chapter] of the postmodernist conception of society. Like her contemporaries, she displays an unshakable conviction in the postmodern principles and themes.[4] This indicates that these have been reified as the foundation of the Social Justice metanarrative. (Pluckrose and Lindsay 2020: 207)

Here I would like to put forward a rather different view. It seems to me that, epistemologically, DiAngelo is very far from being a hard-core postmodernist; rather, what she puts forward could be called 'postmodernism lite'. In this article I would like to substantiate this conclusion through citations of DiAngelo's work, and also to elucidate the two distinct senses in which I think that DiAngelo's postmodernism is 'lite'.

I take the following as a rough definition of what I mean by 'postmodernism'.

> an intellectual current characterized by the more-or-less explicit rejection of the rationalist tradition of the Enlightenment, by theoretical discourses disconnected from any empirical test, and by a cognitive and cultural relativism that regards science as nothing more than a 'narration', a 'myth' or a social construction among many others. (Sokal and Bricmont 1998: 1)

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[2] See Roediger (2018), Jackson (2019), Sanneh (2019), Bergner (2020), Burke (2020), Calme (2020), Chait (2020), Cisneros (2020), Frey (2020), Hughes (2020), Kling and Harper (2020), Lozada (2020), McWhorter (2020, 2021c), Pan (2020), Reilly (2020), Taibbi (2020), Church (2021), Dreier (2021), O'Bannon (2021), Owolade (2021), Paslay (2021), al-Gharbi (2023), Finkelstein (2023: Chapter 4). See also McWhorter (2018, 2021c) for a critique of a broader current of thought that includes DiAngelo's work.

[3] But not uncritically—for this, too, is profoundly racist, as McWhorter (2021a, 2021b, 2021c, especially pp. 107–11 and 160–7) has eloquently explained.

[4] [Footnote added by me:] Pluckrose and Lindsay extract from postmodernist writings—notably those of Michel Foucault, Jacques Derrida, and their followers—two postmodern principles and four postmodern themes. The two principles are the *postmodern knowledge principle*, which consists of a radical scepticism towards the possibility of objective knowledge (or even objective truth), along with a commitment to cultural constructivism; and the *postmodern political principle*, which asserts that society is structured by systems of power and hierarchy that unconsciously organize everyone's ways of thinking so as to reproduce this same system of domination. The four postmodern themes are the blurring of boundaries, the power of language, cultural relativism, and the loss of the individual and the universal.

It should be stressed, however, that this definition covers what could be termed 'classic postmodernism'.[5] The more recent evolutions of postmodernist thought—what Pluckrose and Lindsay (2020) call 'applied postmodernism' and 'reified postmodernism'—are more explicitly selective in their relativism, and in fact dogmatically absolutist with regard to certain subjects. As will be seen, DiAngelo fits this mold to a great extent, but not perfectly.

Citations illustrating DiAngelo's epistemology will be taken principally from her book *White Fragility* (DiAngelo 2018) and from her book *Is Everyone Really Equal?*, co-authored with Özlem Sensoy (Sensoy and DiAngelo 2017a). Additional information will be extracted from her PhD dissertation (DiAngelo 2004) and from various other writings.

My critique of DiAngelo's epistemology will have three strands, drawing attention to:

1) Vague, inconsistent and sometimes incoherent use of epistemological concepts and distinctions: in particular, confusion between actual knowledge and *claims* to knowledge, between knowledge and belief, and between knowledge and truth; confusion between objectivity and neutrality; and confusion between different senses of social construction.
2) Misrepresentation, to the point of caricature, of the nature of science and scientific method, and of ideas from the philosophy of science.
3) Logical and argumentative fallacies: notably the psychogenetic fallacy (also known as Bulverism) and the Kafka trap.

These flaws do not, in my view, disqualify the substantive content of DiAngelo's work; but they do cast it in a more problematic light, as I shall explain in the conclusion.

Some readers may wonder whether I am holding DiAngelo's work to an unfairly high standard: employing the scalpel of academic philosophy to dissect a book (DiAngelo 2018) that is manifestly aimed at a popular, nonacademic audience. I would answer, first of all, that the same epistemic flaws afflict DiAngelo's publications in scholarly journals, as well as her book (Sensoy and DiAngelo 2017a) aimed at 'preservice and practicing teachers' (p. 12); I shall demonstrate this in detail in what follows. Secondly, it seems to me that clarity of thought is not a mere academic nicety, but is an essential component of informed public debate; if academic philosophy can help to provide or enhance such clarity, that constitutes a significant contribution to society. And finally, many nonacademics (especially in the US white community) dismiss DiAngelo's work because they sense that it is on shaky epistemic ground, albeit without being able to articulate exactly why (moreover, they would probably not use the

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[5] Furthermore, this definition concentrates on what Pluckrose and Lindsay (see Footnote 4) have called the 'postmodern knowledge principle' and largely ignores what they have called the 'postmodern political principle'. It is an interesting question, but beyond the scope of this article, to assess the extent to which DiAngelo's work employs, or relies on, this latter principle.

word 'epistemic'). By offering here a detailed critique of DiAngelo's implicit epistemology, I hope to set the stage for a more fruitful dialogue and debate concerning DiAngelo's ideas: one that would avoid the twin dangers of uncritical acceptance and premature dismissal.[6]

LITE POSTMODERNIST TENDENCY #1: WEAK INVOCATIONS OF RELATIVISM AND SOCIAL CONSTRUCTIVISM

Unlike hard-core postmodernists, DiAngelo does not propound, whether implicitly or explicitly, a full-blown relativism with respect to truth or knowledge. She does cast repeated aspersions on the possibility of objectivity, but mainly as a way of discrediting the claims to objectivity of her ideological opponents, not as a consistent philosophical principle. Indeed, Sensoy and DiAngelo (2017a) stress, correctly in my view, the difference between *opinion* and *informed knowledge* (pp. 35–7), which they harness to defend their own positions on social issues:

> When [students] make claims based on anecdotal evidence with regard to the concepts studied— for example claiming, 'Now there is reverse racism'—[they] are in effect expressing an opinion that is not supported by scholarly evidence. We would not use opinion in astronomy class and believe it unlikely that a student arguing that she or he disagrees with Stephen Hawking on a matter of astronomy would have her or his position taken seriously, much less feel free to make such a claim to begin with. Yet in the social justice classroom, scholars such as Peggy McIntosh, Michel Foucault, and Beverly Tatum are regularly disagreed with well before comprehension of their work is mastered. (pp. 35–6)

Of course, this analogy is somewhat disingenuous: it insinuates that there is unambiguous and undisputed scholarly evidence concerning the complex question of alleged 'reverse racism',[7] and about the value of the work of McIntosh, Foucault, and Tatum, that is somehow comparable in solidity to the knowledge obtained in astronomy. But the basic principle—that empirical assertions need to be supported by evidence that goes beyond mere anecdote—is both correct and thoroughly nonpostmodernist.

Sensoy and DiAngelo return to this issue in their next chapter:

> It is important to distinguish between *opinions*, which are often based in commonsense understandings, and *critical thinking*, which is based on expertise through study. Unfortunately, popular culture promotes the idea that all opinions are equal. … (p. 57, emphasis in the original)

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[6] I am extremely grateful to an anonymous reviewer for suggesting the ideas in this paragraph.

[7] In fairness to Sensoy and DiAngelo, it should be observed that their phrase 'not supported by scholarly evidence' is ambiguous. If they mean to assert that the existence of reverse racism is not supported by any scholarly evidence, then the criticism given here in the main text, regarding the unacknowledged existence of serious scholarly debate over this question, is appropriate. But if they mean only that *the student* has failed to cite any scholarly evidence in support of their claim of the existence of reverse racism, then their disapproval of the student's stance is completely justified.

It is hard to imagine a statement that is more emphatically nonrelativist than this last sentence.[8] Sensoy and DiAngelo go on:

> However, critical thinking is not simply having different opinions; critical thinking results in an informed perspective after engaging with new evidence and accounting for multiple layers of complexity. … For example, although someone might disagree that social injustice exists, to be credible they must root their argument in an understanding of the knowledge that has already been established and demonstrate how their opinion brings new evidence for consideration. From a scholarly perspective, offering anecdotal evidence that social injustice does not exist (e.g. 'In today's society, everyone has an equal opportunity to succeed, regardless of race, class, or gender') is equivalent to the claim, 'I looked out my window and the Earth doesn't look round to me'. To argue that there is no longer social injustice and have validity, one must be aware of existing knowledge in the field. (p. 57)

So far so good, albeit with one large caveat: Sensoy and DiAngelo imply here (albeit without explicitly saying so) that the principal alternative to their own views on social injustice—which they set forth in great detail in their book—is the claim that social injustice *does not exist*. But almost everyone, from ordinary citizens to social scientists of all ideological stripes, is aware that social injustices exist. The debate is not about the *existence* of social injustice; rather, the debate is about *which* social institutions are unjust, and *in what ways*, and *by what mechanisms*—a debate that has both empirical and normative dimensions—and about what are the best approaches for remedying those injustices.

Be that as it may, Sensoy and DiAngelo then wade onto shakier ground:

> From an academic perspective, knowledge claims must stand up to scrutiny by peers who are specialists in the subject. This process is called *peer review*, and it is the cornerstone of how academic knowledge is evaluated. Claims about social injustice made within the academic community have undergone peer review. Although there are debates within this community, peer scholars have found the arguments to be relevant and worthy of engagement. (p. 57, italics in the original; see also p. 33)

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[8] In her book, DiAngelo makes another explicitly antirelativist statement:

> [The guideline to 'speak your truth'] can position all beliefs as truths and, as such, equally valid. Given that the goal of antiracist work is to identify and challenge racism and *the misinformation that supports it*, all perspectives are *not* equally valid; some are rooted in racist ideology and need to be uncovered and challenged. (DiAngelo 2018: 127, emphasis in the original)

The only ambiguity here concerns *why* DiAngelo thinks that certain perspectives are invalid (or in any case less valid than others). Are they invalid because they are rooted, as she sees it, in racist ideology? Or are they invalid because they are, as she sees it, factually false? (In the latter case they might *also* be rooted in racist ideology—something that would be worth pointing out—but this would not be the fundamental reason that they are invalid.)

The same ambiguity arises when Sensoy and DiAngelo (2014: 4) write: 'Everyone's perspective is not equally valid when some are uninformed, unexamined, or uphold existing power inequities.' Here 'uninformed' and 'unexamined' are epistemic defects, while 'uphold existing power inequities' is an assertion about the alleged real-life consequences of an idea.

Here Sensoy and DiAngelo are being rather naive (or so it seems to me) about the nature of peer review.[9] Of course, peer review is an important process for filtering scholarly work, without which the quality of academic publications would undoubtedly be much lower, on average, than it currently is; but passing peer review is not always a *necessary* condition for scholarly soundness, and above all it is very far from being a *sufficient* one. Especially in the humanities and social sciences, there exist scholarly journals that are run by a single ideological 'school', in which members of that school certify each other's work through a 'peer review' process in which the views of outsiders play no role whatsoever. In these cases, peer review helps to maintain scholarly standards *as defined by the relevant ideological subcommunity*; but it does nothing to ensure that the work is capable of withstanding criticisms —even criticisms that insiders would feel obliged to acknowledge—that might be raised by outsiders, because those criticisms had no opportunity to be heard.[10] Furthermore, even in the hard sciences, where ideology plays a much smaller role, passing peer review does not mean that a result is correct, or even highly likely to be correct; correctness to a high degree of reliability can only be established after a sometimes long process of replication and refinement.

Further aspects of Sensoy and DiAngelo's relativism, concerning the universality of scientific knowledge, will be discussed in the next section.

DiAngelo's social constructivism, like her relativism, is also 'lite'—or rather, it oscillates erratically between strong and weak forms. On the one hand, Sensoy and DiAngelo describe their view as follows:

> [C]ritical scholars in the field of education … argue that a key element of social injustice involves the claim that particular knowledge is objective, neutral, and universal. An approach based on critical theory calls into question the idea that objectivity is desirable or even *possible*. The term used to describe this way of thinking about knowledge is that knowledge is socially constructed. When we refer to knowledge as socially constructed we mean that knowledge is reflective of the values and interests of those who produce it. This concept captures the understanding that all knowledge and all means of knowing are connected to a social context. (p. 53, emphasis in the original)

In the second sentence, it is ambiguous whether the denial (or doubt) that 'objectivity is desirable or even *possible*' refers to the objectivity of the knower or, rather, to the objectivity of the knowledge itself—which is a key distinction, since a socially diverse and viewpoint-diverse community of investigators can produce knowledge that is more

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[9] It is unclear whether the 'claims about social injustice' here alluded to by Sensoy and DiAngelo—those that 'peer scholars have found … to be relevant and worthy of engagement'—refer to normative moral/ethical arguments concerning the nature of justice and injustice, or to empirical claims about particular social processes, or both. My comments regarding the nature of peer review apply, *mutatis mutandis*, to both aspects.

[10] Indeed, maintaining scholarly standards as defined by the relevant ideological subcommunity may in some cases involve *subverting* scholarly standards as defined by outsiders: for instance, when peer reviewers require authors to delete or rephrase arguments that might call into question (even inadvertently) the dogmas of that subcommunity.

objective than any of the investigators individually.[11] But the first sentence refers unambiguously to the *knowledge*; and taken together with the second sentence, it seems to assert not only that knowledge can *never* be objective, neutral, or universal—three quite different things, as will be discussed below—but that epistemological claims to the contrary in fact play a key role in perpetuating social injustice.[12]

Furthermore, the meanings of 'knowledge' and 'socially constructed' in this paragraph are ambiguous; and quite different doctrines will result from different interpretations of these terms. Philosophers usually understand 'knowledge' to mean 'justified true belief' or some similar concept;[13] but social-constructivist sociologists have sometimes employed idiosyncratic redefinitions of this term, such as this one from Barry Bloor (1991: 5):

> Instead of defining it [knowledge] as true belief—or perhaps, justified true belief—knowledge for the sociologist is whatever people take to be knowledge. It consists of those beliefs which people confidently hold to and live by. ... Of course knowledge must be distinguished from mere belief. This can be done by reserving the word 'knowledge' for what is collectively endorsed, leaving the individual and idiosyncratic to count as mere belief.[14]

Some theorists of multicultural education have taken a similar tack; for instance, James Banks (who was DiAngelo's thesis advisor[15]) redefines 'knowledge' to be simply a synonym of 'belief':

> I am using knowledge in this article to mean the way a person explains or interprets reality. (Banks 1993: 5)

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[11]   This point has been made by many people, including Longino (1990, especially pp. 66–82), Haack (1998, especially pp. 104–9), Brown (2001, especially pp. 184–7 and 201–5), Haidt (2012: 90), McIntyre (2019, especially pp. 85–91), Oreskes (2019, especially pp. 136–7, 143–6 and 249–50), and Rauch (2021, especially pp. 70–8 and 192–4).

Here the epistemically fundamental issue is viewpoint diversity, but one important aspect of this (though far from the only one) is social diversity (of sex/gender, race, class, nationality, ethnicity, religion, etc.). Roughly speaking, one may expect that social diversity plays a larger epistemic role in the social sciences, while other forms of viewpoint diversity play a larger role in the natural sciences. For a variety of views on the epistemic relevance of diversity within the scholarly community, see Harding (1986), Longino (1990), Kitcher (1993), Solomon (2001), Brown (2001: Chapters 8 and 9), Wylie (2006), Duarte et al. (2015), Stanovich and Toplak (2019).

[12]   This first assertion is also made explicit later in the book: 'Critical theory challenges the claim that *any* knowledge is neutral or objective, and outside of humanly constructed meanings and interests' (p. 204, emphasis mine). See also p. 41, where Sensoy and DiAngelo explicate 'the concept of knowledge as *never* purely objective, neutral, and outside of human interests' (emphasis mine).

[13]   I say 'or some similar concept' in view of the famous counterexamples of Gettier (1963).

[14]   See also Barnes and Bloor (1982: 22n), where they redefine 'knowledge' as 'any collectively accepted system of belief'. It should be noted, however, that Bloor, only nine pages after enunciating this nonstandard definition of 'knowledge', reverts without comment to the standard definition of 'knowledge', which he contrasts with 'error': '[I]t would be wrong to assume that the natural working of our animal resources always produces knowledge. They produce a mixture of knowledge and error with equal naturalness …' (Bloor 1991: 14).

[15]   DiAngelo (2004: iii).

It is not clear, therefore, which meaning Sensoy and DiAngelo intend.[16] They helpfully clarify their assertion that knowledge is socially constructed by re-phrasing it as the assertion that 'knowledge is reflective of the values and interests of those who produce it'. But this could mean at least three different things:

1) People's values and interests play a role in determining which *false* beliefs they come to have.
2) People's values and interests play a role in determining which *true* beliefs they come to have.
3) People's values and interests play a role in determining which of their beliefs are (or ought to be regarded as) true.

Statements #1 and #2 are manifestly true, and in fact truisms; they are perfectly compatible with traditional (antirelativist) philosophical views. Indeed, exploring the details of these processes is an interesting program of empirical research in psychology and sociology. Statement #3, by contrast, is a strongly relativist view: namely, the truth or falsity of a belief would be relative to the values and interests of the believer (or of the social groups to which they belong). To put the question another way: Are Sensoy and DiAngelo stating only the truism that people's beliefs arise in part from a social process? Or do they contend that the *validity* or *truth* of those beliefs is itself relative to some social group or social process? Their social constructivism is, at bottom, deeply ambiguous.

This same ambiguity recurs throughout the book. For instance, Sensoy and DiAngelo say:

> In order to understand the concept of knowledge as never purely objective, neutral, and outside of human interests, it is important to distinguish between discoverable laws of the natural world (such as the law of gravity), and knowledge, which is socially constructed. By *socially constructed*, we mean that all knowledge understood by humans is framed by the ideologies, language, beliefs, and customs of human societies. Even the field of science is subjective (the study of which is known as the sociology of scientific knowledge). (p. 41, italics in the original)

Here they seem to concede that 'discoverable laws of the natural world', such as the inverse-square law of gravitation, have objective status as truths about the universe. But if these laws are not only objective facts about the universe, but are *discoverable* by humans, then does our knowledge of these laws, once discovered, not constitute *objective knowledge* in precisely the sense conventionally understood by scientists and antirelativist philosophers of science? It goes without saying, of course, that humans' discovery of the inverse-square law of gravitation occurred within a social process

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[16] Elsewhere, DiAngelo hints at—but does not explicate—*yet another* nonstandard interpretation of the word 'knowledge': 'Critical thinking in the study of race includes the ability to recognize and analyze the ways in which meaning (knowledge) is historically, politically, and socially constructed and infused with political investments.' (DiAngelo 2016: 22)

that was motivated in part by practical ends (for instance, understanding astronomy as an aid to navigation) that in turn were related to the ideologies of the era (i.e. conquest and colonization). But it is only in an extremely weak and tenuous sense that our (or Isaac Newton's) knowledge of the inverse-square law of gravitation can be regarded as 'framed by the ideologies, language, beliefs, and customs of human societies'.

In the last sentence of this citation, Sensoy and DiAngelo claim that 'even the field of science is subjective'; but when they spell out what they mean by this radical-sounding claim, it turns out to be amazingly tame:

> For example, consider scientific research and how and when it is conducted. Which subjects are funded and which are not (e.g. the moon's atmosphere, nuclear power, wind power, atmospheric pollution, or stem cells)? Who finances various types of research (private corporations, nonprofits, or the government)? Who is invested in the results of the research (e.g. for-profit pharmaceutical companies, the military, or nonprofit organizations)? How do these investments drive what is studied and how? How will the research findings be used? Who has access to the benefits of the research? As you can see, these are not neutral questions—they are always political, and they frame how knowledge is created, advanced, and circulated. Because of this, knowledge is never value-neutral. (p. 41)

Even the most hard-headed philosophical realist would not quarrel with any of this. In particular, none of these considerations show that the *knowledge* produced by the natural sciences is in any way 'subjective'.[17]

When it comes to concrete examples of 'knowledge as socially constructed', Sensoy and DiAngelo's constructivism is once again extremely modest. For instance, they give (pp. 55–7) the example of a study (Anyon 1981) in which elementary school students from a variety of social backgrounds were asked 'What is knowledge?', and the responses were very different in working-class, middle-class, and affluent-professional-class schools. They conclude that:

> how these students conceptualized knowledge was shaped by the intersection between their social class and the institution of schooling. This institution provides students with very different education based on their position in society and the resources they have access to. This is profoundly significant because the kind of knowledge we receive in schools has concrete implications for our later positions in life. (p. 56)

This conclusion is indeed very important; but it has nothing to do with social constructivism in the epistemological sense, and it is perfectly compatible with realist views of knowledge (in particular, the idea that 'knowledge' means 'rationally justified true belief' and that 'true' means 'in accord with the way the world really is').

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[17] Of course, some of these considerations point to potential conflicts of interest that might cast doubt on the *reliability* of certain items of purported scientific knowledge (see, for instance, Goldacre 2012). But these sociological, economic, and political considerations are easily encompassed within a traditional realist philosophy of science. Indeed, manipulation of scientific evidence by interested parties is of concern to realists *precisely because* it undermines the central goal of scientific inquiry from a realist perspective, namely, to obtain (probable approximate) truths about the way the world is—and also because, in some instances (like those reported by Goldacre), these manipulations can have extremely harmful social consequences.

Furthermore, unlike radical social constructivists, DiAngelo does seem to admit that there exist facts, about both the natural and social worlds, that are not mere social constructions. For instance, she cites as fact (correctly in my view) the finding of contemporary geneticists that 'the external characteristics that we use [socially] to define race are unreliable indicators of genetic variation' (DiAngelo 2018: 15).[18] Similarly, she cites data from quantitative social science studies—which she treats unabashedly as facts—when it serves her argument (Sensoy and DiAngelo 2017a: 65; DiAngelo 2018: 42n5, 93n5): for instance, the influential Emily–Greg/Lakisha–Jamal employment study (Bertrand and Mullainathan 2004),[19] and data about white Americans' housing market preferences as a cause of residential segregation (Quillian 2002).[20] By utilizing natural and social science in this way, DiAngelo can have her cake and eat it too, albeit at the expense of philosophical consistency.[21]

On the other hand, a vastly more radical version of social constructivism was expressed in DiAngelo and Sensoy (2009) and Sensoy and DiAngelo (2017b); it will be discussed in the next section.

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[18] **Note added:** After preparing the first version of this article, I became aware of recent work by geneticists that calls this late 20th-century consensus into question, suggesting that it may have been based on early studies that employed too small a number of genetic markers. For instance, Tang et al. (2005), analyzing genetic data from 3,636 subjects in the USA and Taiwan and employing 326 microsatellite markers, found four major genetic clusters, which showed near-perfect (99.86 percent) correspondence with the four self-reported race/ethnicity categories (white, African-American, East Asian, and Hispanic). They caution, however, that 'Hispanics generally represent a differential mixture of European, Native American, and African ancestry, with the proportionate mix typically depending on country of origin. Our sample was from a single location in Texas and was composed of Mexican Americans', so that the results might be quite different were a wider variety of people of Latin American ancestry to be included in the sample.

The interpretation of these and related findings is highly controversial, and it is far beyond my competence to assess the competing arguments. For a variety of views, see, for example, Race, Ethnicity, and Genetics Working Group (2005), Foster (2009), Santos et al. (2009), Barbujani, Ghirotto, and Tassi (2013), Graves (2015), Maglo, Mersha, and Martin (2016). I stress that these findings do not contradict the idea that 'race' is *in large part* a social construct, even if it reflects *to some extent* measurable genetic facts associated to geographical ancestry.

[19] In the years since the pioneering work of Bertrand and Mullainathan (2004), there have been numerous similar studies of labor market discrimination, in many countries around the world. For reviews of this research, including extensive discussion of the methodological issues, see Pager (2007), Zschirnt and Ruedin (2016), Bertrand and Duflo (2017), Quillian et al. (2017), Baert (2018), Neumark (2018), Neumark and Rich (2019). But see Simonsohn (2015, 2016) for discussion of the possible confounding effects of perceived socioeconomic status (alongside race); and see also Jacquemet and Yannelis (2012) and Gaddis (2017) for other potential confounding factors.

[20] For further evidence about the causes of racial segregation in housing—on which there is an enormous literature—see, for example, Charles (2003), Sampson and Sharkey (2008), Boustan (2017, Chapters 4 and 5) and the references cited in these works.

[21] This *selective* deployment of postmodernist scepticism/relativism is characteristic of—indeed, is probably *the* fundamental characteristic of—what Pluckrose and Lindsay (2020) have termed 'reified postmodernism'.

LITE POSTMODERNIST TENDENCY #2: SUPERFICIAL VERSIONS OF PHILOSOPHICAL DEBATES

There is a second way in which Sensoy and DiAngelo engage in postmodernism 'lite'. Namely, their account[22] of the relevant philosophical issues[23] lies at a level that can only be described as caricatural: one that in all likelihood reflects a 'trickle-down' (and attendant distortion) of ideas as they pass from philosophy departments to sociology departments to education schools (the academic home of Sensoy and DiAngelo)[24,25]—an academic version of the children's game that Americans call 'telephone' and other anglophones call 'Chinese whispers'.[26] All the right buzzwords are used, but the meaning is, alas, thoroughly mangled.

'There is no objective, neutral reality', writes DiAngelo in one of her articles (2006: 54); this sentence is thrown out almost as an obvious platitude, with no justification and no follow-up, during an otherwise thoughtful exploration of the intersection between race and class.[27] This assertion conflates objectivity with neutrality, and also mistakenly employs them as adjectives that modify 'reality'.

Of course, 'reality' means simply 'the way the world is'; it needs no adjective. Sometimes, it is true, people (including me) refer to 'objective reality' as a way of stressing that facts about the way the world is are independent of anyone's beliefs

[22] And, one may legitimately surmise, their own understanding—since it is exceedingly unlikely that Sensoy and DiAngelo would *consciously* seek to mislead their readers in this respect.

[23] Good introductions to contemporary debates in the philosophy of science can be found, for instance, in Brown (2001), Ladyman (2002), and Godfrey-Smith (2003). The essays in Hollis and Lukes (1982) give a variety of views concerning rationality and relativism. See also Labinger and Collins (2001) for an interesting three-round discussion between scientists and sociologists of science (but unfortunately no philosophers); and see Haack (1998) for some illuminating reflections on epistemology, science, and the sociology of science. These are, of course, merely selections from an enormous literature.

[24] Let me stress: I am *not* claiming that this intellectual pathway—from philosophy to sociology to education—is in any way universal, or that this ordering of disciplines represents a hierarchy of knowledge or rigor. I am only surmising, based on internal evidence and literature citations, that this was the pathway taken in the specific case of the philosophical concepts that Sensoy and DiAngelo use.

[25] For a trenchant critique of the role of schools of education in contemporary American university life, see Asher (2018). Alas, this article seems not to have elicited the wide-ranging debate that in my opinion it deserves.

[26] The origin of the moniker 'Chinese whispers' is unclear, but it is arguably based on 19th-century racist ideas that Chinese people were inscrutable or unintelligible. See https://en.wikipedia.org/wiki/Chinese_whispers for references, as well as for the terminology in other languages.

[27] In fairness to DiAngelo, it is perhaps worth quoting the entire paragraph, in order to show the valid (in my opinion) ideas within which this confusing philosophical statement is embedded:

> The belief in objectivity, coupled with setting White people up as *outside of culture* and thus the norm for humanity, allows us to see ourselves as universal humans who can represent all of human experience. People of color can only represent their own racialized experience—that is, Robert Altman is a film director whose work is expected to relate to everyone, Spike Lee is a Black film director whose films are from 'the Black' perspective. But there is no objective, neutral reality. Human objectivity is not actually possible, but as long as we construct the world as if it is, and then ascribe it only to ourselves, we keep White experience and people centered and people of color in the margins. (DiAngelo 2006: 54, italics in the original)

about those same facts.[28] But it is redundant to call reality 'objective'; and it makes no sense at all to call reality 'neutral' or 'not neutral'.

People, on the other hand, can be objective or not objective,[29] neutral or not neutral; but the two are quite different things. Consider, for instance, a team of scientists conducting a clinical trial of a vaccine against the novel coronavirus (SARS-CoV-2). These scientists are decidedly *not* neutral: they want the vaccine to work, and they will be sorely disappointed if it does not. On the other hand, they strive (albeit imperfectly) for objectivity: namely, they aim at bringing their beliefs about the degree of efficacy of the vaccine into as close accord as possible with its *actual* degree of efficacy. Indeed, their striving for objectivity is a direct consequence of their *non*-neutrality: they want the vaccine to be efficacious *in reality* in protecting people from the COVID-19 disease; they do not merely want to convince other people, perhaps falsely, of its purported efficacy. (The incentives for the pharmaceutical company that employs them are, however, less clear-cut: the company could make handsome profits even if the vaccine turns out to be less efficacious than was initially believed.[30]) Here 'objectivity' means epistemic objectivity: namely, a person or group is objective on some particular issue to the extent that their judgments on that issue are determined by a fair weighing of the relevant evidence and are not prejudiced or biased by irrelevant beliefs or influences.[31]

Of course, a *belief* (especially a false one) can have non-neutral *effects*. For instance, if legislators believe that high marginal tax rates discourage work among high-income professionals (e.g. surgeons) to a larger extent than is actually the case, they may enact tax policies that benefit the upper classes and disadvantage the middle and lower classes. Alternatively, legislators may *pretend* to have such a belief in order to provide a publicly presentable *excuse* for a policy that they actually favour on other grounds (perhaps precisely *because of* its differential effects on economic classes). This kind of situation, in either version, *may* be what Sensoy and DiAngelo have in mind when they assert that knowledge is 'never purely objective, neutral, and outside of human interests' (2017a: 41). But their critique is rendered inchoate by their deep ambiguity about what they mean by 'knowledge'—as discussed earlier—as well as by their failure to disentangle 'objective', 'neutral', and 'outside of human interests'.

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[28] This is true even when the relevant facts concern the state(s) of mind of one or more human beings. The facts about those people's state(s) of mind are independent of other people's beliefs about those people's state(s) of mind. This has long been understood by legal scholars: '[For there to be fraud] there must be a misstatement of an existing fact: but the state of a man's [*sic*] mind is as much a fact as the state of his digestion. It is true that it is very difficult to prove what the state of a man's mind at a particular time is, but if it can be ascertained it is as much a fact as anything else. A misrepresentation as to the state of a man's mind is, therefore, a misstatement of fact.' [*Edgington v. Fitzmaurice* (1885) 29 Ch.D. 459 at 483, CA, per Bowen LJ]

[29] Or rather: more objective or less objective—since no one can be *perfectly* objective.

[30] It is the task of the government regulators to provide an additional layer of objectivity; that is why conflicts of interest in the regulatory agency must be guarded against.

[31] I thank Harvey Siegel for suggesting that it would be valuable to make explicit, even if briefly, my understanding of epistemic objectivity. See also Brown (2001: 101–4) for a brief discussion that distinguishes ontological objectivity (of statements) from epistemic objectivity (of people).

DiAngelo's discussion of objectivity is further muddled by her failure to distinguish between objectivity as an ideal goal, objectivity achieved in reality, and objectivity *claimed* (perhaps falsely) to be achieved in reality; and also by an all-or-nothing thinking that insists, at least at times, that objectivity must either be perfect or else is nonexistent. 'Objectivity tells us that it is possible to be free of all bias', she says at one point, belittling the idea (DiAngelo 2018: 9). However, later in the book she points out, correctly, that 'humans cannot be 100 percent objective' (p. 81)—a statement that seems, at least by implication, to recognize *degrees* of objectivity. Alas, DiAngelo never tells us clearly whether it is desirable to strive to be more objective, even if it will inevitably be less than 100 percent. On the face of it one might think that, by encouraging white people to listen more carefully to the perspectives of people of colour, DiAngelo believes that by doing so they can become at least slightly more objective (or less subjective); but this interpretation collides with her explicit 'call[ing] into question the idea that objectivity is desirable or even *possible*' (Sensoy and DiAngelo 2017a: 53, emphasis theirs).[32] Finally, DiAngelo is right to criticize the egocentric notion that 'my worldview is objective and the only one operating' (DiAngelo 2018: 121). More generally, it is completely appropriate for her to criticize *claims* to objectivity that she regards as unjustified (each such critique can then be evaluated on its specific merits). But that is quite different from disparaging objectivity as a goal.[33]

Sensoy and DiAngelo's discussion of objectivity is muddled even further when they conflate it with value-neutrality, and additionally conflate those philosophical notions with specific historical claims:

> The notion of value-free (or objective) knowledge was central to rationalizing the colonization of other lands and peoples that began in the 15th century. For example, if we believe that Columbus was simply an explorer and trader, we reinforce the idea of discovery as outside of political and ideological interests. The promotion of this idea has allowed dominant culture to ignore the genocide of Indigenous peoples and the transatlantic slave trade that his 'discoveries' set in motion. (Sensoy and DiAngelo 2017a: 49)

[32]   By contrast, DiAngelo's thesis advisor James Banks has unambiguously defended the goal of objectivity, in terms with which I fully concur:

> Objectivity must be an aim in the human sciences because there is no other reasonable way to construct public knowledge that will be considered legitimate and valid by researchers and policy-makers in diverse communities. *However, we need to rethink and to reconceptualize objectivity so that it will have legitimacy for diverse groups of researchers and will incorporate their perspectives, experiences, and insights.* The sociologist Patricia Hill Collins (1995) states that the most objective truths result when diverse groups participate in validating ideas. … Researchers should strive for objectivity even though it is an unattainable, idealized goal. (Banks 1998: 6, emphasis in the original)

[33]   As Judith Suissa has pointed out to me, DiAngelo is also failing here to distinguish between objectivity regarding descriptive statements about the world and objectivity regarding normative/evaluative judgments. Suissa surmises that DiAngelo may be 'playing [not necessarily consciously] on the intuition that claims to objectivity in "worldviews" (which are obviously at least partly evaluative) are suspect, if not impossible, in order to cast doubt on claims to objectivity when it comes to facts about reality' (personal communication).

Sensoy and DiAngelo give no evidence (nor even a reference) for their bold claim that two rather abstract philosophical concepts—the objectivity and value-neutrality of knowledge—were 'central to rationalizing the colonization of other lands and peoples that began in the 15th century'. Of course, there might indeed be a connection, but if so it must be highly indirect, and the causal chain from ideas to conquest needs to be made explicit and argued in detail, using historical evidence. For Sensoy and DiAngelo, by contrast, this link is apparently so obvious as to require no further explanation. But that is not all: even more stunning is their conflation of these philosophical issues with the specific historical claim that 'Columbus was simply an explorer and trader'. For starters, what informed person nowadays could believe that Columbus was *simply* an explorer and trader, and not *also* a brutal conqueror?[34] But above all, why should subscribing to some particular philosophical view about the objectivity or value-neutrality of knowledge oblige one to accept *any* particular view concerning Columbus, much less 'to ignore the genocide of Indigenous peoples and the transatlantic slave trade'? What is the alleged logical link? Sensoy and DiAngelo do not say. For whatever it is worth—which may not be much—I would argue, *pace* Sensoy and DiAngelo, that rigorous historical investigation can *objectively* document the holocaust of Indigenous peoples in the Americas (Thornton 1987; Stannard 1992) and of Africans in the transatlantic slave trade (Thomas 1997).

Continuing along these lines, Sensoy and DiAngelo (2017a) serve up a caricature of scientific method as a counterpoint to their own Critical Theory orientation:[35]

> [S]cientific method (sometimes referred to as 'positivism'—the idea that everything can be rationally observed without bias) was the dominant contribution of the 18th-century Enlightenment period in Europe. Positivism itself was a response and challenge to religious or theological explanations for 'reality.' It rested on the importance of reason, principles of rational thought, the infallibility of close observation, and the discovery of natural laws and principles governing life and

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[34]   Indeed, it appears that a majority of Americans—especially those in the younger cohorts—are aware of Columbus' brutality. A YouGov survey of 7,486 US adults in October 2020 asked: 'Do you consider Christopher Columbus to be more of a hero or more of a villain?' (Ballard 2020). The results for all adults were 40 percent for 'more of a villain', 32 percent for 'more of a hero', and 29 percent for 'don't know'. The split was 39–37–24 for males, and 40–27–34 for females. Only those of age 55 and over gave a plurality to 'hero' (28–46–26); younger groups gave strong pluralities to 'villain', reaching 53–17–30 in those aged 25–34. The most striking contrasts (not surprisingly) were by political affiliation: Democrats overwhelmingly preferred 'villain' (57–15–28), while Republicans overwhelmingly preferred 'hero' (11–66–23); independents modestly preferred 'villain' (40–30–29). Interestingly, preference for 'hero' *rose* with income level: those with annual incomes under $40,000 favoured 'villain' (38–28–34), while those with incomes above $80,000 favoured 'hero' (35–40–24). Differences by region of the country were negligible.

It should be stressed that this question asked respondents whether, *on balance*, they considered Columbus to be *more of* a hero or a villain. It follows that the number of people who believe that Columbus was, *among other things*, villainous (e.g. a brutal conqueror) is larger—and probably significantly larger—than the number answering 'villain' to this question.

[35]   See Burbules and Berk (1999) for a detailed analysis of the similarities and differences between the traditional notion of 'critical thinking' and the current of thought known as Critical Pedagogy (or Critical Social Justice). The latter is inspired in large part—as Sensoy and DiAngelo (2017a: 50–1) also point out—by the Critical Theory of the Frankfurt School.

society. Critical Theory developed in part as a response to this presumed infallibility of scientific method … . (pp. 50–1)

It is hard to know where to start in cataloging the errors in this one paragraph. It is true that scientific method was one of the key contributions to 18th-century (and 17th-century) Enlightenment thought, and that it was in large part a response and challenge to religious and theological explanations of reality (no scare quotes needed). But positivism was only one of numerous competing philosophies of science, and anyway arose only in the 19th century (Comte) and, in the variant called 'logical positivism', in the 20th century (the Vienna Circle); both are now largely discarded as philosophies of science, due to the criticisms lodged by Popper, Quine, Wittgenstein, and others. Despite this, the term 'positivism' has retained some currency within the social sciences, largely as a bugaboo having only a weak connection with its original philosophical meanings;[36] and Sensoy and DiAngelo's (mis)characterization is an extremely vulgarized descendant of that already vulgarized one.

Finally, and most importantly, the alleged infallibility of observation and scientific method is a complete red herring. Perhaps such a conception of science was taught in Education schools 75 or 100 years ago as the supposed truth; and perhaps it is still taught there today as a convenient straw man. But it is in fact the polar opposite of the practice and philosophy of modern science. As Sensoy and DiAngelo correctly observe, the scientific method is a worldview giving primacy to observation and reason and a methodology aimed at acquiring accurate knowledge of the natural and social world. This methodology is characterized, above all else, by the *critical spirit*: namely, the commitment to the incessant testing of assertions through observations and/or experiments—the more stringent the tests, the better —and to revising or discarding those theories that fail the test.[37] Furthermore, this methodology has been refined and improved through four centuries of scientific practice: we now know the importance of independent replication, statistical tests, control groups, double-blinding, and randomization, among many other things. Far from imagining that 'everything can be rationally observed without bias', the whole point of these methodological innovations has been to compensate for the inevitable human biases and to minimize their effects.[38] Last but not least, one corollary

[36]   See Halfpenny (1982) for a detailed account of the history of positivism in the natural and social sciences; he distinguishes fully *twelve* different meanings of the term. See also Bricmont (2000) for some observations on the distinction between positivism and 'positivism'.

[37]   See Bricmont (2005) for an illuminating discussion of the critical/sceptical aspect of science.

[38]   For a brief discussion of these methodological improvements, see Brown (2001: 45–7). See also Kaptchuk (1998) for a fascinating history of blinding and double-blinding in medicine, and Chalmers (2001) for an analogous history of control groups and randomized allocation. MacCoun and Perlmutter (2015) discuss the recent application of blind data analysis also in the physical sciences.

Another crucial element in the compensation of individual bias is the social structure and moral/intellectual norms of the scientific community: see the references cited in Footnote 11 above.

of the critical spirit is *fallibilism*: namely, the understanding that all our empirical knowledge is tentative, incomplete, and open to revision in the light of new evidence or cogent new arguments (though, of course, the most well-established aspects of scientific knowledge are unlikely to be discarded entirely).[39] Popes may claim to be infallible, but scientists most emphatically do not.

This canard is repeated a few pages later:

> [F]or many Westerners the ideal of positivism (that European science followed rules and thus its findings are indisputable) is very powerful and deeply entrenched. (p. 54)

This characterization of modern science as 'European' is deeply insulting to the many Chinese, Japanese, Indians, and others who are now among its foremost practitioners; but it does fit in with Sensoy and DiAngelo's denial that scientific knowledge can be universal (an issue that I will discuss in greater detail in a moment).

All these misconceptions are amalgamated in the glossary at the end of Sensoy and DiAngelo's book, which defines 'positivism' as 'a perspective or philosophy of the scientific method as objective, neutral, and the ideal approach to understanding the world' (p. 241).

One final strange amalgam comes when Sensoy and DiAngelo briefly address the nature–nurture question:

> Nature arguments claim that inequality is natural or biological and thus will always be with us (positivism). Nurture arguments claim that inequality is constructed by society and thus can be changed (constructivism). (p. 198)

This passage sets up a double confusion: First of all, the relative roles of nature (i.e. genetics) and nurture (i.e. environment) in various aspects of human development—an empirical question of biology, psychology, and sociology—do not have any necessary implication for the quite different question of the causes, the mutability or immutability, and the desirability or undesirability of social inequality (though admittedly the first question does provide some context for the second). But, above all, these questions of psychology, sociology,

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[39]   This point was also made clearly by Harvey Siegel (1988: 108) in the context of science education:

> [P]luralist science education … recognizes that scientific knowledge is never final or certain, but is always subject to amendment or revision on the basis of additional evidence or novel theoretical considerations; that is, pluralism recognizes the fallibility of scientific knowledge.

It is also important to note that well-tested theories in the mature sciences are supported in general by a powerful web of interlocking evidence coming from a variety of sources; rarely does everything rest on one 'crucial experiment'. Moreover, the progress of science tends to link these theories into a unified framework, so that (for instance) biology has to be compatible with chemistry, and chemistry with physics. Susan Haack (1998: 95) has illuminatingly analogized science to the problem of completing a crossword puzzle, in which any modification of one word will entail changes in interlocking words; in most cases the required changes will be fairly local, but in some cases it may be necessary to rework large parts of the puzzle. Fallibilism is the idea that it is better to work in pencil than in pen; or 'if you must use ink, make sure it's washable!' (p. 95)

economics, and politics have no logical connection whatsoever with the epistemological debates somewhat misleadingly posed here as positivism v. constructivism.

The (mis)characterization of science and scientific method in Sensoy and DiAngelo (2017a) is far from being an isolated element in their work; rather, it seems to play a central role in their conceptualization of the nature of knowledge. It goes back to an article they wrote a decade earlier (DiAngelo and Sensoy 2009), where it was expressed in even more extreme form. Here they begin by making once again the valid distinction between mere opinion and critical thinking, and they thoughtfully analyse how students in courses tackling social justice issues sometimes assert the 'right to my opinion' as an excuse for failing to address the substantive content of ideas that challenge the socially dominant ideologies. So far so good. But they tie this very interesting analysis—wholly unnecessarily in my view—to an image of science that is caricatured in the following sardonic passage from Kincheloe (2008), which they quote approvingly:

> [In the context of seeking an unbiased truth], the ideal educator becomes the detached practitioner, an independent operator who rises above the values of special interests. The detached practitioner occupies a secure position immune from critique. He or she has, after all, employed the correct methodology in reaching his or her position. If pursued 'correctly,' there is no questioning the authority of the scientific method. (Kincheloe 2008: 47, quoted in DiAngelo and Sensoy 2009: 443)

Let us put aside the slyly deprecatory comments about the goal of 'seeking an unbiased truth' (what is so bad about that?), and analyse the rest of this paragraph. The notion that science is 'immune from critique' is bizarre; after all, scientists are constantly critiquing each other's (and ideally also their own) work. Indeed, one of sociologist Robert Merton's famous norms of the scientific community —'four sets of institutional imperatives … taken to comprise the ethos of modern science' (Merton 1973: 270)—is *organized scepticism*. Ditto for the alleged prohibition on 'questioning the authority of the scientific method'.

Pursuing this line of argument, DiAngelo and Sensoy assert (p. 445) that 'One of the key strategies of domination in mainstream society is the normalizing of particular knowledge as universal and shared by all', adding that 'it is understood [by critical scholars] that knowledge does not transcend but is rooted in and shaped by social positions and specific interests'. To develop this point, they once again cite Kincheloe:

> One of the central dimensions of Western colonial domination has involved its production of 'universally valid knowledge' that worked to invalidate the ways of knowing that had been developed by all peoples around the world. In the name of modernization, salvation, civilization, development, and democracy, colonial powers have made and continue to make the argument that they know better than colonized peoples themselves what serves their best interests—and they have the knowledge to prove it. Universalism, the idea that all scientifically produced knowledge is true in all places and for all times, is a key concept in our discussion of knowledge and its relation to critical pedagogy and its concern with power and justice. Many Westerners after the scientific revolution of the seventeenth and eighteenth centuries believed that because European science followed the proscribed [sic] rules of knowledge production its findings are indisputably universal. (Kincheloe 2008: 5, quoted in DiAngelo and Sensoy 2009: 445)

This passage conflates two quite distinct issues: the validity and universality (or lack thereof) of particular scientific theories, and the sometimes nefarious technological

and ideological uses to which those theories were put by colonialists. The inverse-square law of gravitation was discovered in the 17th century by an Englishman, Isaac Newton. That is a fact; and it is also a fact that, to the best of our current knowledge, this law is universally valid,[40] in India (and in Andromeda galaxy) no less than in England. I do not know whether any 19th-century English statesmen claimed that Newton's discovery—and others made by English scientists—gave England the right to rule India (Kincheloe, DiAngelo, and Sensoy do not cite any evidence that they did); but if anyone did make that claim, it is manifestly false. The fact that English scientists knew how to predict to very high precision the motions of the planets quite obviously does not imply that English politicians 'know better than colonized peoples themselves what serves their best interests', much less that they have the right to rule over another people without their consent.[41] Even more bizarre is the assertion that, in the 21st century, the (former?) 'colonial powers … *continue to make* [that] argument'.

The most shocking aspect of this paragraph, however, is its clear insinuation—unsubstantiated, alas, by any evidence or argument—that scientific knowledge cannot be universal. Do Kincheloe, DiAngelo, and Sensoy really think that the inverse-square law of gravitation is merely 'European'? That Asian and Latin American, and African physicists today use this law, not because of the massive observational and experimental evidence that has been amassed in its favour over the last three centuries, but simply because of European politico-ideological hegemony and cultural imperialism?

What is striking is that, although Kincheloe, DiAngelo, and Sensoy are purporting to make *general* claims about *all* science, they do not deign to discuss anything so concrete as the inverse-square law of gravitation, the atomic theory of matter, or the double-helix structure of DNA. Rather, their examples of false claims to universality are 'race as a scientific category based in essential difference' (DiAngelo and Sensoy 2009: 446) and 'the scientific view of Africans as childlike and thus in need of paternalistic oversight' (Kincheloe 2008: 5), along with '[t]he Nestlé Corporation's promotion of its infant formula as a scientifically-validated more healthy baby food than breast milk' (Kincheloe 2008: 6). The first example concerns ideas that have been recognized as pseudoscience for nearly a century, if not more; the second concerns a multinational corporation's propaganda that *contradicts* the nearly universal view of experts in medicine and public health (American Academy of Pediatrics 2012; Kramer and Kakuma 2012) and that has been condemned by

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[40] To a very high degree of approximation, though not exactly. We now know that Newtonian mechanics (1687) has to be replaced by Einstein's general relativity (1915); and this will, in turn, probably have to be replaced by an as yet-unknown theory of quantum gravity. See Footnote 42 below for further details.

[41] Let me be clear: I am not denying that many Europeans in the 18th and 19th (and even 20th) centuries took the achievements of European science and technology to be evidence for (or even definitive proof of) the superiority of European over non-European culture, and thence as justification for imperialism. (See e.g. Marshall and Williams 1982 for a detailed study of 18th-century Britons' views of the non-European world.) My point is simply that (a) all such arguments from science to conquest, whether made explicitly or implicitly, are logically invalid; and (b) those arguments, and the fact of their historical use, have no bearing on the validity or universality of 'European' science. I am grateful to Judith Suissa for raising this issue with me.

the World Health Organization since at least 1981 (Dobbing 1988). But above all, it is very strange to regard these theories as counterexamples to universalism, as if 'racial science' and Nestlé propaganda were true in some places and for some times (to cite Kincheloe's words) but false in others. It is more accurate to regard these theories as false, in all places and for all times.[42]

Some of DiAngelo and Sensoy's proposals are in my view quite sensible ones, provided that their ambiguous social constructivism is interpreted in a suitably weak sense. For instance:

> [C]ritical pedagogues guide students along at least three fronts: first, in critical analysis of the products of mainstream knowledge that masquerade as neutral, universal, and 'objective'; second, in critical self-reflection about their own socialization into the matrix of relations of oppression that are embedded in society; and third, in developing the skills with which to see, analyze, and challenge the mechanisms of ideological domination. (p. 445)

But the first step in critical analysis is learning to distinguish—by using case-by-case analysis of evidence and arguments—between the products of mainstream knowledge that *masquerade as* neutral, universal, and objective, and those that *are in fact* neutral, universal, and objective. If DiAngelo and Sensoy simply declare *a priori* that the latter are nonexistent—as they seem at times to be doing—then critical analysis is replaced by dogmatic cynicism.

Similarly, DiAngelo and Sensoy say that:

> [C]ritical pedagogues ... present curricular materials that offer alternative accounts of taken-for-granted historical events and new interpretations that challenge existing knowledge about such events (such as Christopher Columbus' 'discovery' of America). (p. 445)

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[42] In fairness to Kincheloe, he does give one other concrete example of what he claims is a false universalism:

> In pre-Einsteinian physics, for example, gravity was assumed to remain constant in all domains of the cosmos. Einstein's work in the General Theory of Relativity undermines the universality of gravity as it delineates special circumstances where Sir Issac Newton's notion of gravity does not work as he postulated—black holes, for example, where nothing can escape the depression in space caused by the concentrated mass of the black hole. (Kincheloe 2008: 23)

Pace Kincheloe, Einstein's general theory of relativity (1915) did *not* 'undermine the universality of gravity'. Rather, it showed simply that Newton's theory of gravitation (1687) is *not exactly correct*—though it is correct to a very high degree of approximation in many circumstances—and has to be replaced by the more accurate (and conceptually quite different) equations of general relativity. Furthermore, both of these facts about Newtonian mechanics are *universal* facts, in the sense that they apply in exactly the same form everywhere in the universe (to the best of our current knowledge). It goes without saying that, concerning the kind of universality that is ultimately of concern to Kincheloe, DiAngelo, and Sensoy—not validity on Andromeda galaxy, but cultural universality for humans—the laws of gravitation behave identically in Africa and in Europe, for blacks and for whites, for women and for men. Of course, Einstein's general relativity is itself almost surely not the last word; it will probably have to be replaced by an as yet-unknown theory of quantum gravity. But there is no reason to believe that this future theory will fail to be universal.

Once again, even a hard-headed philosophical realist would not quarrel with this; indeed, they would applaud it, provided that the 'alternative accounts' were based on solid historical evidence.

DiAngelo and Sensoy's radical claims about the nature of science and knowledge are repeated—and combined with other, equally dubious ones—in an article of Sensoy and DiAngelo (2017b) in the *Harvard Educational Review*:

> Another unnamed logic of Whiteness is the presumed neutrality of White European enlightenment epistemology. The modern university—in its knowledge generation, research, and social and material sciences and with its 'experts' and its privileging of particular forms of knowledge over others (e.g. written over oral, history over memory, rationalism over wisdom)—has played a key role in the spreading of colonial empire. In this way, the university has validated and elevated positivistic, White Eurocentric knowledge over non-White, Indigenous, and non-European knowledges (Battiste, Bell, and Findlay 2002; Mignolo 2002; Carvalho and Flórez-Flórez 2014; Grosfoguel, Hernández, and Velásques 2016). These knowledge forms 'inscribed a conceptualization of knowledge to a geopolitical space (Western Europe) and erased the possibility of even thinking about a conceptualization and distribution of knowledge "emanating" from other local histories (China, India, Islam, etc.)' (Grosfoguel et al. 2016: 59).[43] The decolonization of the academy requires, at minimum, an interrogation of not only the disciplinary fields and their borders but also the everyday commonsense practices of the institution itself. (p. 561)

Sensoy and DiAngelo give no specifics of the 'non-White, Indigenous, and non-European knowledges' that they say have been marginalized by 'positivistic, White Eurocentric knowledge'—much less any comparison, on epistemic grounds, of their reliability as accurate descriptions of the world (i.e. justified true belief).[44,45] Furthermore, the idea that modern science has 'erased the possibility of even thinking about a conceptualization and distribution of knowledge "emanating" from' non-European cultures is nonsense: for instance, every mathematician knows that the concept of zero as a number arose in India in the fifth century CE, and that algebra was developed by Islamic scholars starting around 800 CE, before being elaborated in Renaissance Europe; the early Chinese contributions to mathematics

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[43] The citation here to Grosfoguel et al. (2016: 59) is erroneous; the correct citation is to Mignolo (2002: 59). Also, the correct spelling of the third author's name in Grosfoguel et al. is 'Velásquez'.

[44] In fairness to Sensoy and DiAngelo, a few of their references do at least hint at the types of knowledge at issue, albeit without giving any specifics: for instance, 'all kinds of scientific, agricultural, technical and ecological knowledge, including cultigens, medicines and the rational use of flora and fauna' (Battiste, Bell, and Findlay 2002: 87); 'instinctual knowledge and other alternatives [*sic*] ways of knowing that could intensify transformation: writing, art-making, dancing, healing, teaching, meditation, and spiritual activism', as well as 'medicinal, environmental, architectural, and sociomusical knowledges', including 'medicinal and magical plants' (Carvalho and Flórez-Flórez 2014: 124, 132–3). It goes without saying that Indigenous cultures could well have obtained scientific, agricultural, technical, ecological, medicinal, environmental, architectural, and sociomusical knowledges (in the sense of justified true belief) that preceded, or indeed were unknown to, modern science; each such claim, once made precise, can be evaluated on its epistemic and historical merits.

See also the essays by Peat, Trefil, Gorelick, and Pigliucci in Widdowson (2021) for an enlightening debate concerning the epistemic status of 'Indigenous science'.

[45] See also Nanda (2003, Chapter 5) for a detailed critique of the postmodern/postcolonial denial of the objectivity and universality of modern science and its correlative elevation of 'local knowledges': a doctrine that she mordantly calls 'epistemic charity'.

are also well known.[46] Likewise for Islamic contributions to astronomy, physiology, and medicine, and Chinese contributions to numerous branches of technology. But even if the history of Indian, Islamic, and Chinese contributions to modern science had been thoroughly 'erased'—which is far from the case—what would this imply for the *epistemology*, as opposed to the *history*, of science? Sensoy and DiAngelo do not tell us; and neither do any of the references that they cite.

In fairness to Sensoy and DiAngelo, it should be noted that these claims play little or no role in their main argument, which concerns 'how faculty hiring committees reproduce Whiteness' together with 'practical suggestions for how they can change'.[47] Rather, this paragraph seems to be a ritual recitation, aimed at signaling the authors' ideological affiliation with the postmodernist left—this time not so 'lite'.

FLAWED PHILOSOPHY AS A JUSTIFICATION FOR FLAWED METHODOLOGY

The principal use to which DiAngelo puts flawed philosophy is as a rationalization for flawed methodology. As she explains at the beginning of her book,

> As a sociologist, I am quite comfortable generalizing; social life is patterned and predictable in measurable ways. (DiAngelo 2018: 12)

The latter statement is true enough; but as Church comments (2021: 72),

> There is … a jarring insouciance in this claim, given that social scientists are typically not 'comfortable' with generalizations. Social life has observable patterns that can be detected using techniques conducive to measurable predictions. These patterns, however, are hard to capture and must be interpreted with great care.

Let us examine, therefore, the epistemological and empirical bases of DiAngelo's generalizations.

DiAngelo's PhD thesis (2004) contains the customary chapter on Methodology (Chapter 2, pp. 23–52) and, within this, a subsection on Generalizability (pp. 46–9).

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[46] For instance, the Chu–Vandermonde identity—an important formula in enumerative combinatorics—was found by Chu Shih-Chieh (Zhū Shìjié, 朱世杰) sometime before 1303 (Zhū 2006); it was rediscovered four centuries later by Alexandre-Théophile Vandermonde (1772).

[47] These claims may play one small and indirect role (not explicitly noted by Sensoy and DiAngelo), as follows: Sensoy and DiAngelo argue for downplaying the importance of subject-matter expertise in the traditional sense ('Might we instead consider research that does not further the cause of racial justice to be, in fact, *lesser* quality research?', p. 575) and 'politiciz[ing] traditional canonic fields' ('Candidates must demonstrate an ability to situate knowledge in their field in a social (cultural, historical) context', p. 563). [Here I refer to subject-matter expertise 'in the traditional sense' because Sensoy and DiAngelo make the valid point that 'if a STEM education candidate is not able to articulate how STEM education can meet the needs of a diverse group of students, recognize that up until now it has not, and have some analysis of why that is and how it might be remedied, that candidate is not qualified in STEM education' (p. 575).] To the extent that subject-matter expertise in the traditional sense—for instance, for a candidate in science education, a deep understanding of Darwin's theory of biological evolution by natural and sexual selection—is also considered to be part and parcel of an 'unnamed logic of Whiteness' arising from 'the presumed neutrality of White European enlightenment epistemology', then Sensoy and DiAngelo's arguments concerning the hiring process have added force.

She begins this subsection by citing a few sentences from Campbell and Stanley's celebrated book (1963) on experimental and quasi-experimental design in the social sciences, concerning internal and external validity and generalizability; but after this nod to empirical social science and an unsubstantiated claim that 'these ways of conceptualizing generalizability are in keeping with discourse analysis' (her own chosen methodology, cf. pp. 23–5, 28–36), she then proceeds to make excuses:

> Generalizability is not constituted in discourse analysis by arguing that an analysis reflects reality and therefore can be generalized (Mishler 1990). Discourse analysts recognize that humans construct their social reality, although this construction interacts with and is constrained by physical reality. Discourse analysts also recognize that language is related to the situations that provide it with meaning. Similarly, discourse analysis is about the exploration of the interaction of 'language-plus-situation' (Gee 1999: p. 94). These points about language and meaning do not imply that discourse analysis is subjective or simply a function of opinion. Generalizability is important in discourse analysis. However generalizability functions differently within discourse analysis than in research methodologies that assume correspondence with an external reality as the primary standard. (p. 47; see also p. 42)

Having dispensed with 'correspondence with an external reality' as the primary standard for evaluating generalizations in social science, DiAngelo goes on to make a striking claim: that generalizability is primarily a matter of internal consistency and of consistency with prior work within the chosen ideological framework:

> [G]eneralizability is largely a function of convergence and agreement. Generalizability is measured by how well the semiotic, relational, political and institutional dimensions of the analysis relate to each other and are supported by the details of language use and if other native speakers and other scholars from a similar tradition agree with its function (Gee 1999). …
>
> I supported the generalizability of my study by using the considerable literature on what constitutes White privilege across a range of settings (Derman-Sparks and Phillips 1997; Dyer 1997; Ellsworth 1997; Fine 1997; Frankenberg 1997; Hooks 1992; Macedo and Bartolome 1999; Roedigar 1998; Sleeter 1996). I used that literature to develop a set of coding criteria. I had others review these criteria. I was also open to emergent strategies that I had not included in my coding. By starting with the Whiteness literature, and moving into a discourse analysis of a specific example, I tied the results of this study to the larger body of research on how Whiteness functions discursively. …
>
> … My primary measure of generalizability was my ability to tie the discourses documented in this study to the larger body of research in the Whiteness literature. The ways in which the discourses here fit within the literature of Whiteness indicates that this group was not idiosyncratic. The hegemony of these discourses is recognizable in multicultural education (Schofield 2003; Sleeter 1993; Tatum 2001). While on one level this was a 'local' study, the documentation of these discourses in the literature indicates generalizability and this study meets the primary criteria of generalizability in discourse analysis. (pp. 47–9)

To which she appends the concession that:

> future research is needed to document these patterns in other settings to meet a wider range of standards of generalizability. (p. 49)

Let it be noted that the generalizations about 'whiteness in racial dialogue' obtained in DiAngelo's PhD research were based on a single group of 13

volunteers—eight whites recruited from a teacher education program, five people of colour recruited from other university departments—to participate in a series of interracial dialogues on race (DiAngelo 2004: 26–7, 50–52). To be fair, DiAngelo does discuss briefly (pp. 37–9, 49) the issue of her sample, and she argues—somewhat convincingly in my view—that her eight white participants are probably fairly typical of white preservice teachers. (She does not consider whether they are representative of white Americans as a whole.) But the biggest drawback in her study, it seems to me, is methodological: precisely as promised, she interprets all interactions in her study through the lens of her chosen theoretical framework (Whiteness theory), and does not even consider alternative interpretations;[48] what results is a 150-page exercise in confirmation bias. For instance (pp. 103–9), when one of the facilitators, a biracial Native American/white woman (p. 50), makes a joke of dubious taste about white people during a break in the session, and one white female participant subsequently protests, DiAngelo observes that the white participant 'posits a number of claims in this statement, none of which account for differences in social power' (p. 104); DiAngelo goes on at length to link the participant's intervention to claims of 'reverse discrimination' (p. 105) and efforts 'to reestablish White dominance of the proceedings' (p. 108)—simply taking for granted that a white person has in all circumstances more social power than a person of colour, but not even noticing the obvious power differential between a facilitator and a participant.

Similarly, in a journal article recounting briefly the results of this dissertation research, DiAngelo and her co-author explain that:

> One of the ground rules stated at the first session was to use personalized knowledge. In other words, participants were asked to speak for themselves rather than make general statements for the entire group. … Several times throughout the dialogues, white participants ended a rebuttal statement with the disclaimer, 'That's just my personal experience'. When used at the end of a statement, this phrase claimed the experience as personal and therefore uncontestable, and thus precluded any question of the statement. (DiAngelo and Allen 2006: 8–9; see also DiAngelo 2004: 94–5)

Here DiAngelo and Allen impose their own chosen interpretation—'claim[ing] the experience as personal *and therefore uncontestable*'—and do not even consider the obvious alternative interpretation: namely, that the participant is faithfully following the session's ground rules and is observing, humbly, that other people's experiences may differ from her own.

The generalizations presented in *White Fragility*, by contrast, are based on DiAngelo's long personal experience as a diversity trainer. The subjects in these sessions were of two kinds: volunteers who were willing and able to pay a sometimes steep fee, and captive audiences of employees who were

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[48]   And this, despite her assertion, earlier in the thesis, that '[i]n discourse analysis the whole analysis is tested in terms of how much data it covers, how much agreement can be gathered from others, and *whether or not there are competing analyses that work better in any or all respects*' (pp. 47–8, emphasis mine; see also p. 42).

required to attend these trainings as a condition of their employment. DiAngelo does not seem to address, anywhere in her book, the unrepresentative nature of these samples or the special features of the social situations within which these interactions occurred.[49]

In view of DiAngelo's (correct) insistence that 'social life is patterned and predictable in *measurable* ways' (emphasis mine), it is startling that nowhere in her work is there any attempt at *measurement* of the phenomena she purports to describe. I do not claim, of course, that quantitative methods are the *only* valid methods in social science; that would be absurd. But it is surprising that a sociologist could be 'comfortable generalizing' without *any* attempt to formulate falsifiable predictions or to test them empirically (whether by quantitative methods or otherwise). In fact, I am not aware of any place in DiAngelo's œuvre where the *need* for, or even the *desirability* of, the formulation of falsifiable predictions or their empirical test is acknowledged.[50] This methodological attitude is, of course, fully consistent with—and from DiAngelo's point of view, fully justified by—her rejection of 'positivism'.

PSYCHOGENETIC FALLACY (BULVERISM) AND KAFKA TRAP

Finally, I would like to draw attention to a pair of logical/argumentative fallacies that arise at various places in DiAngelo's work: these are the psychogenetic fallacy and the Kafka trap.

Psychogenetic fallacy. The *psychogenetic fallacy* (also known as *Bulverism*) is an argumentative fallacy that consists of assuming without argument that one's opponent is wrong, and then explaining (or purporting to explain) why they came to make that mistake, most often by drawing attention to their real or alleged motivations. In the words of C.S. Lewis (an author with whom I am in radical disagreement in most respects):

> Suppose I think, after doing my accounts, that I have a large balance at the bank. And suppose you want to find out whether this belief of mine is 'wishful thinking'. You can

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[49] Foremost among these is the understandable resentment of employees forced to take part in a session that they may regard—perhaps justifiably, perhaps not—as indoctrination, and in which their performance may be subject to evaluation (and reward or punishment) by their bosses. For a detailed review of the evidence concerning the real-life effects of diversity training, see al-Gharbi (2020) and the references cited therein.

[50] Fortunately, a few other sociologists and psychologists have taken up this challenge. One early study tested empirically some predictions of Whiteness theory, with mixed results (Hartmann, Gerteis, and Croll 2009). Some more recent studies, working within DiAngelo's conceptual framework, have attempted to develop empirical measures of 'White fragility' (Hill, Mannheimer, and Roos 2021; Langrehr et al. 2021) and to examine their correlation with gender and socioeconomic status (Mannheimer et al. 2020). Other studies have attempted to test empirically some predictions of 'White fragility' theory (Ng, Sears, and Bakkaloglu 2021). For an extensive empirical analysis of white Americans' racial identity and its economic and political correlates, see Jardina (2019). An influential earlier study, based principally on in-depth interviews with a sample of white and black Americans, is Bonilla-Silva (2014).

never come to any conclusion by examining my psychological condition. Your only chance of finding out is to sit down and work through the sum yourself. When you have checked my figures, then, and then only, will you know whether I have that balance or not. If you find my arithmetic correct, then no amount of vapouring about my psychological condition can be anything but a waste of time. If you find my arithmetic wrong, then it may be relevant to explain psychologically how I came to be so bad at my arithmetic, and the doctrine of the concealed wish will become relevant—but only *after* you have yourself done the sum and discovered me to be wrong on purely arithmetical grounds. It is the same with all thinking and all systems of thought. If you try to find out which are tainted by speculating about the wishes of the thinkers, you are merely making a fool of yourself. You must first find out on purely logical grounds which of them do, in fact, break down as arguments. Afterwards, if you like, go on and discover the psychological causes of the error.

In other words, you must show *that* a man [*sic*] is wrong before you start explaining *why* he is wrong. The modern method is to assume without discussion *that* he is wrong and then distract his attention from this (the only real issue) by busily explaining how he became so silly. (Lewis 2014 [1941]: 300–1, emphasis in the original)

At the beginning of her seminal article on White Fragility (DiAngelo 2011), DiAngelo explains the concept as follows:

White people in North America live in a social environment that protects and insulates them from race-based stress. This insulated environment of racial protection builds white expectations for racial comfort while at the same time lowering the ability to tolerate racial stress, leading to what I refer to as White Fragility. White Fragility is a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves. These moves include the outward display of emotions such as anger, fear, and guilt, and *behaviors such as argumentation, silence, and leaving the stress-inducing situation*. These behaviors, in turn, function to reinstate white racial equilibrium. (DiAngelo 2011: 54, emphasis mine; similar text in DiAngelo 2018: 1–2 and 103)

There is undoubtedly much truth to this sociological and psychological analysis, which DiAngelo elaborates clearly and concisely in the journal article (DiAngelo 2011) and at greater length in her book (DiAngelo 2018). The issue to which I would like to draw attention here concerns the phrase 'behaviors such as *argumentation*, *silence*, and *leaving the stress-inducing situation*'. Is DiAngelo committing the psychogenetic fallacy?

Not necessarily. Let us start with 'argumentation'. Whenever DiAngelo gives specific examples of white people's argumentation—for instance, allegations of 'reverse discrimination'—*and* goes on to explain convincingly why those responses are empirically and/or normatively wrong, then *after doing so* she is perfectly within her rights to propose a psychological explanation of that behaviour. (It goes without saying, of course, that alternative explanations of the behaviour should also be considered and weighed; no one proposed explanation should be accepted prematurely. Furthermore, it should be remembered that no guess about another person's state of mind can ever be established with anything approaching certainty.) But when DiAngelo gives the psychological explanation *without* having addressed—

much less refuted—the substantive content of the argumentation, she is indeed committing the psychogenetic fallacy.[51]

A variant of these considerations applies to 'silence'.[52] Silence during group discussions can arise for at least four distinct reasons:

1) When a person is genuinely shy, particularly in an unfamiliar environment.
2) When a person is genuinely open to new ideas and perspectives, and prefers to listen—and then reflect slowly—rather than being forced to express an immediate opinion.
3) When a person is aware, at least subconsciously, that their arguments are flawed—and would be exposed as such were they to be openly expressed—but is not yet ready, psychologically, to change their mind, or at least to do so publicly.
4) When a person feels, rightly or wrongly, that their arguments would not be given, in the social situation at hand, fair consideration on their merits.

When DiAngelo jumps prematurely to explanation #3, without giving due consideration to the alternatives #1, #2, and #4, she is again committing the psychogenetic fallacy.

The option of 'leaving the stress-inducing situation' is a more extreme version of the option of silence. It can arise in situations #1 and #2 if the group dynamics have for some reason removed the option of silence, or in situation #3 when a person's arguments have *already* been exposed as flawed and the person is unwilling to recognize this publicly. But it can also arise in situation #4, usually when the person has *already* expressed their arguments and has repeatedly found that—at least in their own opinion—they have not been given fair consideration on their merits. Ironically, one way that this can happen is that other group members responded

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[51] An anonymous reviewer has raised an important objection, observing that DiAngelo (2018: 5) states forthrightly that 'This book does not … attempt to prove that racism [understood as a social system] exists; I start from that premise'. The reviewer then asks: 'If there are certain assertions about racism that she believes are demonstrably false but keep being raised despite the fact that people of colour and race scholars have been pointing out the falsity for years, does DiAngelo need to continue to try to demonstrate them to be false?' By way of analogy, I would observe that biologists do not ordinarily spend large amounts of time refuting, over and over again, the claims of fundamentalist Christians. Why should DiAngelo spend time refuting what she might regard as equally preposterous claims about racism? And if she declines on these grounds to engage in explicit refutation, is she still committing the psychogenetic fallacy?

It seems to me that the reviewer has a point: in this situation it would be fair to dismiss the indictment of psychogenetic fallacy and substitute a charge of dogmatism (also known as premature certainty). As the reviewer observes, 'the bigger issue [is] the question of what arguments (if any) in society have been so debunked that they are no longer worthy of debate, and who determines this'.

I would observe, however, that the four instances, cited below, of DiAngelo engaging in the psychogenetic fallacy do not concern specific claims about racism that DiAngelo believes to be false, but rather are *general schemata* aimed at disqualifying *any* objections that might be raised to her or her colleagues' views. These examples are, I think, correctly characterized as partaking of the psychogenetic fallacy.

[52] See DiAngelo (2012) and DiAngelo and Sensoy (2019) for DiAngelo's views on white silence.

to their arguments by committing the psychogenetic fallacy; and it can be particularly painful if a person in authority (e.g. the group facilitator or the employee's boss) has done so.

Unfortunately, numerous instances of the psychogenetic fallacy can be found in DiAngelo's work. For instance, she writes that:

> [The racial fragility of white men] most commonly shows up as varying forms of dominance and intimidation, including these:
>
> - …
> - Channel-switching ('The true oppression is class!')
> - 'Correcting' the racial analysis of people of color and white women
> - …
>
> All these moves push race off the table, help white men retain control of the discussion, end the challenge to their positions, and reassert their dominance. (DiAngelo 2018: 134–5)

Perhaps it is true that these 'moves' help white men to reassert their dominance; but this psychological/sociological analysis ignores the question of whether class oppression might *be* more fundamental than racial oppression, and whether particular analyses provided by people of colour or white women might *merit* some 'correction'. It is a perfect example of the psychogenetic fallacy.[53]

Along similar lines, Sensoy and DiAngelo write:

> Resistance to the presentation of alternative knowledges is often embedded in the demand for further, better, and more 'neutral' evidence. … [Students] may:
>
> - …
> - call for better or more data, expressing doubt at the small amount of evidence or isolated case presented. …
> - …
>
> These responses are not simply the result of a lack of enough information or critical thinking skills; they are specific discursive moves that function to counter the challenge to institutionalized relations of power. (Sensoy and DiAngelo 2014: 4; similar text in DiAngelo and Sensoy 2009: 449)

Once again, this analysis of students' 'discursive moves' may well be accurate sociologically, but it evades the question of whether the 'alternative knowledges' presented by the professor really *are* supported by adequate evidence. Indeed, these responses by students could represent, not a lack of critical-thinking skills, but their presence.

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[53] In fairness to DiAngelo, there is one other possibility: she might even *agree* that class oppression is more fundamental than racial oppression (cf. Sensoy and DiAngelo 2017a: 195) but nevertheless not want to discuss it at the moment—despite its being more fundamental—because the current topic of discussion is racial oppression and she wants to focus on that. That could be a legitimate pedagogical strategy, provided that she begins by acknowledging that the assertion is relevant and worthy of consideration, perhaps deferring its full discussion to another time. (This defence does not extend, however, to dismissing white men's disagreement with particular racial analyses provided by people of colour or white women.) I thank Jonathan Church for this observation.

At several points in her book, DiAngelo *explicitly* endorses the psychogenetic fallacy as a tool for antiracism trainers. For instance:

> In my work to unravel the dynamics of racism, I have found a question that never fails me. This question is *not* 'Is this claim true, or is it false?'; we will never come to an agreement on a question that sets up an either/or dichotomy on something as sensitive as racism. Instead I ask, 'How does this claim function in the conversation?' (DiAngelo 2018: 78, emphasis in the original)[54]

Here DiAngelo summarily discards the idea that an empirical or normative claim concerning 'something as sensitive as racism' could be rationally debated (whether or not the participants will eventually 'come to an agreement'). Instead, she moves preemptively to cut off any such discussion, and changes the focus to 'How does this claim function in the conversation?'—a move that helps her (unfailingly, she reports) 'to unravel the dynamics of racism'.

Similarly, while discussing guidelines for conducting antiracism workshops, DiAngelo says:

> We must distinguish between sharing your beliefs so that we can identify how they may be upholding racism and stating your beliefs as 'truths' that cannot be challenged. (DiAngelo 2018: 127)

This Manichean dichotomy ignores several other possibilities: that you could be stating your current beliefs as ideas that you *tentatively* believe to be true and which can be rationally critiqued and debated; that your ideas could be true or false (or partially true and partially false) without necessarily 'upholding racism'. Indeed, it appears from this passage that, for DiAngelo, the *only* valid reason for white people to share their beliefs about race is to allow the facilitator (or the group) to 'identify how they may be upholding racism'—it being declared *ex cathedra* that it is superfluous, or even counterproductive, to address and evaluate rationally the content of the belief.

Kafka trap. 'A Kafka trap is a fallacy where if someone denies being x it is taken as evidence that the person is x since someone who is x would deny being x.'[55] The classic example comes from the theory of resistance in Freudian psychoanalysis: If the patient agrees with the analyst's interpretation of some issue, that confirms the correctness of the analyst's interpretation; and if the patient disagrees with

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[54] See also DiAngelo (2021: 25) for a similar comment:

> There is a question that has never failed me in my efforts to determine whether a narrative and the actions it informs challenge or protect racism. That question isn't whether a particular narrative or behavior is right or wrong. That question is 'How does this function?'

[55] https://debate.fandom.com/wiki/Kafka_Trap Stated this way, it is clearly an instance of the logical fallacy of *affirming the consequent* (also known as the *fallacy of the converse*): namely, the conjunction of 'if *P*, then *Q*' and *Q* does *not* imply *P*. A slightly different definition of a Kafka trap is given at https://en.wiktionary.org/wiki/Kafkatrap: 'a sophistical rhetorical device in which any denial by an accused person serves as evidence of guilt'. Some amusing examples of Kafka traps can be found at https://www.reddit.com/r/whatstheword/comments/kwmdgl/wtw_for_this_common_logical_fallacy/

the analyst's interpretation, then the patient is exhibiting 'resistance', which also confirms the correctness of the analyst's interpretation. Obviously, this renders the analyst's interpretation—no matter what it may be—unfalsifiable.[56]

Many authors[57] have noted that DiAngelo's theory of White Fragility functions, in a completely analogous way, as a Kafka trap;[58] so I can be brief. Lozada (2020) says it clearly:

> As defined by DiAngelo, white fragility is irrefutable; any alternative perspective or counterargument is defeated by the concept itself. Either white people admit their inherent and unending racism and vow to work on their white fragility, in which case DiAngelo was correct in her assessment, or they resist such categorizations or question the interpretation of a particular incident, in which case they are only proving her point.

Owolade (2021) summarizes the logic even more concisely:

> The genius of DiAngelo's argument is that she can use any rejection of her thesis as evidence of its soundness.

It is instructive to observe how, in both the Freudian and the White Fragility cases, the Kafka trap and the psychogenetic fallacy work in tandem. On the one hand, the Kafka trap serves to justify the application of the psychogenetic fallacy: namely, to employ a psychological observation ('resistance') as an excuse for dismissing the content of an argument. On the other hand, each instance in which the theory of 'resistance' (Freudian or DiAngelian) can be applied is viewed, by its supporters, as additional confirming evidence in favour of that theory.[59]

A TENTATIVE CONCLUSION

I do not want this article to be misunderstood. It seems to me that DiAngelo has presented, in her article (2011) and subsequently in her book (2018), some highly thought-provoking—and *a priori* plausible—conjectures concerning the frequent behaviour of many white people, at least in the USA, in situations of 'racial stress'. My point is, rather, that these are *conjectures*, which need to be formulated as falsifiable propositions and then carefully tested, using standard quantitative and qualitative methods of social science; in the process, they may also need to be reformulated and refined. It disserves DiAngelo's ideas to present them as she

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[56]   The analyst could even offer, in succession, two different and *mutually contradictory* interpretations, each of which is denied by the patient. Then, according to the theory of resistance, two *logically incompatible* interpretations would have been confirmed.

[57]   Burke (2020), Lozada (2020), McWhorter (2020), Taibbi (2020), Church (2021), Owolade (2021), among others.

[58]   Even using the same word 'resistance' (or its verb form 'resist'): see DiAngelo and Sensoy 2009, pp. 443–4, 446–9, 453; DiAngelo 2011: 56, 58, 64; Sensoy and DiAngelo 2014: 4–6; DiAngelo 2016: 5, 190, 201, 216, 247–8, 285, 295; Sensoy and DiAngelo 2017a: 13, 28, 32, 39, 70, 110, 118, 147; DiAngelo 2018: 3, 11, 14, 32, 63, 108. See also Applebaum 2010: 28–9, 33, 40–3, 45–6, 104–6, 108–9, 125, 182.

[59]   These two aspects could be called, respectively, the 'first-order' and 'second-order' results of the Kafka trap.

does, prematurely, as established truths. After all, DiAngelo rightly urges white people to be humble when reflecting upon their own racial views; it is unfortunate that she fails to apply the same humility when considering her own theories.[60] She says:

> [W]hen we try to talk openly and honestly about race, white fragility quickly emerges as we are so often met with silence, defensiveness, argumentation, *certitude*, and other forms of pushback. (DiAngelo 2018: emphasis mine)

One may legitimately wonder whether the pot is here calling the kettle black.[61]

Furthermore, DiAngelo does herself no favour by linking her social and psychological conjectures to ill-formulated and badly argued philosophical positions concerning objectivity, neutrality, and universality—positions that moreover are completely unnecessary for the defence of her social, economic, and political theses, and which, if taken seriously and applied consistently, would in fact undermine her defence of those theses. Nor does she help her cause—at least in the long run—by engaging in the psychogenetic fallacy and setting up Kafka traps.

Let me conclude by giving the last word to Harvey Siegel, a noted advocate and defender of critical thinking in education. I, like Siegel, fully endorse the view:

> that education ought to respect all students/persons, regardless of their race, gender, class, sexual orientation, etc.; and moreover that education ought to be particularly, and scrupulously, sensitive to the needs and interests of minority and other 'marginalised' students. (Siegel 1995: 33)

Furthermore, I (perhaps also like Siegel, though he does not say so explicitly) share many (though not all) of Sensoy and DiAngelo's (2017a) analyses of social, economic, and political questions. But, as Siegel observed in this journal already a quarter-century ago,

> this moral/political perspective is often conjoined with a related epistemological perspective … that knowledge is culturally determined and/or relative; that different cultures endorse their own epistemologies, e.g. their own conceptions of truth and views of the nature or criteria of epistemic justification; that the obligation to respect cultural differences extends to respecting those alternative epistemologies as well; and so on. … I will argue not only that that perspective is of dubious epistemic merit, but, additionally, that honouring it has the unfortunate consequence of undermining the moral/political commitment to which it is routinely related. I will argue, in short, that defenders of the moral/political view undermine that view when they embrace the epistemological perspective that they frequently regard as its corollary; and that embrace of the moral/

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[60] Or as Taibbi (2021) says, rather more polemically: '[H]er books are filled with scenes of people recoiling from her teaching, which despite voluminous passages decrying the lack of "humility" of people who think they have the "answers" on race, she never takes as a hint.'

Likewise, McWhorter (2020) observes that:

> DiAngelo has spent a very long time conducting diversity seminars in which whites, exposed to her catechism, regularly tell her—many while crying, yelling, or storming toward the exit—that she's insulting them and being reductionist. Yet none of this seems to have led her to look inward. Rather, she sees herself as the bearer of an exalted wisdom that these objectors fail to perceive, blinded by their inner racism.

[61] See Turner (2002) for a fascinating discussion of the ubiquity of this proverb in African-American speech and writing; and see Waldman (2014) for further information on its origins.

political view requires the rejection of that supposed epistemological corollary. I will argue, that is, that liberal, leftist, and/or radical educational views require for their satisfactory articulation and defence a traditional, or 'conservative' underlying epistemology, which fully embraces and utilises traditional conceptions of truth, rationality, justification, and the like.

If I am right, then it is imperative that defenders of radical pedagogy distinguish their embrace of particular moral/political theses from untenable, allegedly related, epistemological ones. They must reject the latter for two reasons: first, the epistemological theses are false or unjustified; second, failure to reject them undermines any argumentative effort to defend the former. (Siegel 1995: 34)

ACKNOWLEDGMENTS

REFERENCES

al-Gharbi, Musa (2020) 'Research Shows Diversity Training Is Typically Ineffective'. *Real Clear Science*, 5 December 2020, https://www.realclearscience.com/articles/2020/12/05/research_shows_diversity_training_is_typically_ineffective_652014.html, accessed 22 June 2023.

al-Gharbi, Musa 2023 (forthcoming) *We Have Never Been Woke: Social Justice Discourse, Inequality and the Rise of a New Elite.* Princeton, NJ: Princeton University Press.

American Academy of Pediatrics, Section on Breastfeeding (2012) 'Policy Statement: Breastfeeding and the Use of Human Milk', *Pediatrics*, 129: e827–41.

Anyon, Jean (1981) 'Social Class and School Knowledge', *Curriculum Inquiry*, 11: 3–42.

Applebaum, Barbara (2010) *Being White, Being Good: White Complicity, White Moral Responsibility, and Social Justice Pedagogy.* Lanham, MD: Lexington Books.

Asher, Lyell (2018) 'How Ed Schools Became a Menace'. *Chronicle of Higher Education*, 8 April 2018, https://www.chronicle.com/article/how-ed-schools-became-a-menace Reprinted in *Quillette*, 6 March 2019, https://quillette.com/2019/03/06/how-ed-schools-became-a-menace-to-higher-education/, accessed 22 June 2023.

Baert, Stijn (2018) 'Hiring Discrimination: An Overview of (Almost) All Correspondence Experiments Since 2005', in S. Michael Gaddis (ed.) *Audit Studies: Behind the Scenes with Theory, Method, and Nuance*, pp. 63–77. Cham: Springer.

Ballard, Jamie (2020) 'Americans See Christopher Columbus as More of a Villain Than a Hero'. *YouGov America*, 12 October 2020, https://today.yougov.com/topics/politics/articles-reports/2020/10/12/christopher-columbus-hero-villain-poll-data and https://today.yougov.com/topics/international/survey-results/daily/2020/10/09/c9cf1/3, accessed 22 June 2023.

Banks, James A. (1993) 'The Canon Debate, Knowledge Construction, and Multicultural Education', *Educational Researcher*, 22: 4–14.

Banks, James A. (1998) 'The Lives and Values of Researchers: Implications for Educating Citizens in a Multicultural Society', *Educational Researcher*, 27: 4–17.

Barbujani, G., Ghirotto, S., and Tassi, F. (2013) 'Nine Things to Remember About Human Genome Diversity', *Tissue Antigens*, 82: 155–64.

Barnes, Barry and Bloor, David (1982) 'Relativism, Rationalism and the Sociology of Knowledge', in Martin Hollis and Steven Lukes (eds) *Rationality and Relativism*, pp. 21–47. Oxford: Blackwell.

Battiste, Marie, Bell, Lynne, and Findlay, L. M. (2002) 'Decolonizing Education in Canadian Universities: An Interdisciplinary, International, Indigenous Research Project', *Canadian Journal of Native Education*, 26: 82–95.

Bergner, Daniel (2020) '"White Fragility" Is Everywhere. But Does Antiracism Training Work?' *New York Times Magazine*, 15 July 2020, https://www.nytimes.com/2020/07/15/magazine/white-fragility-robin-diangelo.html, accessed 22 June 2023.

Bertrand, Marianne and Duflo, Esther (2017) 'Field Experiments on Discrimination', in Abhijit Vinayak Banerjee and Esther Duflo (eds) *Handbook of Economic Field Experiments*, 1, pp. 309–93. Amsterdam: Elsevier.

Bertrand, Marianne and Mullainathan, Sendhil (2004) 'Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination', *American Economic Review*, 94: 991–1013.

Bloor, David (1991) *Knowledge and Social Imagery*, 2nd edn. Chicago: University of Chicago Press.

Bonilla-Silva, Eduardo (2014) *Racism Without Racists: Color-Blind Racism and the Persistence of Racial Inequality in America*, 4th edn. Lanham, MD: Rowman & Littlefield.

Boustan, Leah Platt (2017) *Competition in the Promised Land: Black Migrants in Northern Cities and Labor Markets*. Princeton, NJ: Princeton University Press.

Bricmont, Jean (2000) 'Comment peut-on être 'positiviste'?', in Francis Martens (ed.) *Psychanalyse, Que Reste-t-il de nos Amours?* Bruxelles: ɣitions Complexes. Also available on-line at https://www.dogma.lu/txt/JB-Positiviste.htm

Bricmont, Jean (2005) 'Préface', in Alan Sokal (ed.) *Pseudosciences et Postmodernisme: Adversaires ou Compagnons de Route?*, pp. 7–38. Paris: Odile Jacob.

Brown, James Robert (2001) *Who Rules in Science? An Opinionated Guide to the Wars*. Cambridge, MA: Harvard University Press.

Burbules, Nicholas C. and Berk, Rupert (1999) 'Critical Thinking and Critical Pedagogy: Relations, Differences, and Limits', in Thomas S. Popkewitz and Lynn Fendler (eds) *Critical Theories in Education: Changing Terrains of Knowledge and Politics*, pp. 45–65. New York: Routledge.

Burke, David Edward (2020) 'The Intellectual Fraud of Robin DiAngelo's 'White Fragility'', 13 June 2020, https://thelogicalliberal.com/white-fragility/, accessed 22 June 2023.

Calme, Stephen R. (2020) 'White Fragility as White Epistemic Disorientation', *Journal of Moral Theology*, 9: 136–52.

Campbell, Donald T. and Stanley, Julian (1963) *Experimental and Quasi-Experimental Designs for Research*. Boston: Houghton Mifflin.

Carvalho, José Jorge de and Flórez-Flórez, Juliana (2014) 'The Meeting of Knowledges: A Project for the Decolonization of Universities in Latin America', *Postcolonial Studies*, 17: 122–39.

Chait, Jonathan (2020) 'Is the Anti-racism Training Industry Just Peddling White Supremacy?' *New York Magazine*, 16 July 2020, https://nymag.com/intelligencer/2020/07/antiracism-training-white-fragility-robin-diangelo-ibram-kendi.html, accessed 22 June 2023.

Chalmers, Iain (2001) 'Comparing Like With Like: Some Historical Milestones in the Evolution of Methods to Create Unbiased Comparison Groups in Therapeutic Experiments', *International Journal of Epidemiology*, 30: 1156–64.

Charles, Camille Zubrinsky (2003) 'The Dynamics of Racial Residential Segregation', *Annual Review of Sociology*, 29: 167–207.

Church, Jonathan D. (2021) *Reinventing Racism: Why 'White Fragility' Is the Wrong Way to Think About Racial Inequality*. Lanham, Maryland: Rowman & Littlefield.

Cisneros, Isabella (2020) 'From a White Perspective, "White Fragility" Is Fragile'. *Chicago Maroon*, 26 June 2020, https://chicagomaroon.com/article/2020/6/26/white-perspective-white-fragility-fragile/, accessed 22 June 2023.

DiAngelo, Robin J. (2004) *Whiteness in Racial Dialogue: A Discourse Analysis*. PhD Dissertation, College of Education, University of Washington. Available on-line at https://digital.lib.washington.edu/researchworks/handle/1773/7867, accessed 22 June 2023.

DiAngelo, Robin J. (2006) 'My Class Didn't Trump My Race: Using Oppression to Face Privilege', *Multicultural Perspectives*, 8: 51–6.

DiAngelo, Robin (2011) 'White Fragility', *International Journal of Critical Pedagogy*, 3: 54–70.

DiAngelo, Robin (2012) 'Nothing to Add: A Challenge to White Silence in Racial Discussions', *Understanding and Dismantling Privilege*, 2: 1–17.

DiAngelo, Robin (2016) *What Does It Mean to Be White?: Developing White Racial Literacy*. Counterpoints: Studies in the Postmodern Theory of Education #497. New York: Peter Lang.

DiAngelo, Robin (2018) *White Fragility: Why It's So Hard for White People to Talk About Racism*. Boston: Beacon Press. [Published in the UK by Allen Lane, 2019.].

DiAngelo, Robin (2021) *Nice Racism: How Progressive White People Perpetuate Racial Harm*. Boston: Beacon Press.

DiAngelo, Robin J. and Allen, David (2006) '"My Feelings Are Not About You": Personal Experience as a Move of Whiteness', *InterActions: UCLA Journal of Education and Information Studies*, 2: 21. Available on-line at https://escholarship.org/uc/item/6dk67960, accessed 22 June 2023.

DiAngelo, Robin and Sensoy, Özlem (2009) '"We Don't Want Your Opinion": Knowledge Construction and the Discourse of Opinion in the Equity Classroom', *Equity & Excellence in Education*, 42: 443–55.

DiAngelo, Robin and Sensoy, Özlem (2019) '"Yeah, But I'm Shy!": Classroom Participation as a Social Justice Issue', *Multicultural Learning and Teaching*, 2019: 20180002.

Dobbing, John, ed. (1988) *Infant Feeding: Anatomy of a Controversy 1973–1984*. Berlin–Heidelberg: Springer-Verlag.

Dreier, Peter (2021) '"White Fragility" Gets Jackie Robinson's Story Wrong'. *Boston Review*, 8 February 2021, https://www.bostonreview.net/articles/peter-dreier-getting-jackie-robinsons-story-wrong/, accessed 22 June 2023.

Duarte, José et al. (2015) 'Political Diversity Will Improve Social Psychological Science', *Behavioral and Brain Sciences*, 38: e130. [This paper is followed by 33 commentaries from a wide variety of viewpoints, and a response from the authors.]

Finkelstein, Norman X. (2023) *I'll Burn That Bridge When I Get to It: Heretical Thoughts on Identity Politics, Cancel Culture, and Academic Freedom*. Portland, OR: Sublation Press.

Foster, Morris W. (2009) 'Looking for Race in All the Wrong Places: Analyzing the Lack of Productivity in the Ongoing Debate About Race and Genetics', *Human Genetics*, 126: 355–62.

Frey, William R. (2020) 'Review of Robin DiAngelo, *White Fragility*', *Journal of Social Work*, 20: 123–5.

Gaddis, S. Michael (2017) 'How Black Are Lakisha and Jamal? Racial Perceptions From Names Used in Correspondence Audit Studies', *Sociological Science*, 4: 469–89.

Gettier, Edmund L. (1963) 'Is Justified True Belief Knowledge?', *Analysis*, 23: 121–3.

Godfrey-Smith, Peter (2003) *Theory and Reality: An Introduction to the Philosophy of Science*. Chicago: University of Chicago Press.

Goldacre, Ben (2012) *Bad Pharma: How Drug Companies Mislead Doctors and Harm Patients*. London: Fourth Estate. [Published in the USA by Faber and Faber, 2013.]

Graves, Joseph L. Jr. (2015) 'Great is Their Sin: Biological Determinism in the Age of Genomics', *Annals of the American Academy of Political and Social Science*, 661: 24–50.

Green, Alex (2020) 'Deep Catalogue on Race Fuels Boom at Beacon Press'. *Publishers Weekly*, 29 June 2020, https://www.publishersweekly.com/pw/by-topic/industry-news/publisher-news/article/83728-deep-catalogue-on-race-fuels-boom-at-beacon-press.html, accessed 22 June 2023.

Grosfoguel, Ramón, Hernández, Roberto, and Velásquez, Ernesto Rosen, eds. (2016) *Decolonizing the Westernized University: Interventions in Philosophy of Education from Within and Without*. Lanham, Maryland: Lexington Books.

Haack, Susan (1998) *Manifesto of a Passionate Moderate: Unfashionable Essays*. Chicago: University of Chicago Press.

Haidt, Jonathan (2012) *The Righteous Mind: Why Good People are Divided by Politics and Religion*. New York: Pantheon.

Halfpenny, Peter (1982) *Positivism and Sociology: Explaining Social Life*. London: George Allen and Unwin. [Reprinted by Routledge, 2015.]

Harding, Sandra (1986) *The Science Question in Feminism*. Ithaca: Cornell University Press.

Hartmann, Douglas, Gerteis, Joseph, and Croll, Paul R. (2009) 'An Empirical Assessment of Whiteness Theory: Hidden From How Many?', *Social Problems*, 56: 403–24.

Hill, Terrence, Mannheimer, Andrew, and Roos, J. Micah (2021) 'Measuring White Fragility', *Social Science Quarterly*, 102: 1812–29. https://doi.org/10.1111/ssqu.12985

Hollis, Martin and Lukes, Steven (eds) (1982) *Rationality and Relativism*. Oxford: Blackwell. [Republished by MIT Press, Cambridge MA, 1982]

Hughes, Coleman (2020) 'Black Fragility?' *City Journal* (Manhattan Institute for Policy Research), 29 November 2020, https://www.city-journal.org/white-fragility.

Jackson, Lauren Michele (2019) 'What's Missing From "White Fragility"'. *Slate*, 4 September 2019, https://slate.com/human-interest/2019/09/white-fragility-robin-diangelo-workshop.html, accessed 22 June 2023.

Jacquemet, Nicolas and Yannelis, Constantine (2012) 'Indiscriminate Discrimination: A Correspondence Test for Ethnic Homophily in the Chicago Labor Market', *Labour Economics*, 19: 824–32.

Jardina, Ashley (2019) *White Identity Politics*. Cambridge–New York: Cambridge University Press.

Kaptchuk, Ted J. (1998) 'Intentional Ignorance: A History of Blind Assessment and Placebo Controls in Medicine', *Bulletin of the History of Medicine*, 72: 389–433.

Kincheloe, Joe L. (2008) *Knowledge and Critical Pedagogy: An Introduction*. New York: Springer.

Kitcher, Philip (1993) *The Advancement of Science: Science Without Legend, Objectivity Without Illusions*. New York–Oxford: Oxford University Press.

Kling, Jennifer and Harper, Leland (2020) 'The Semantic Foundations of White Fragility and the Consequences for Justice', *Res Philosophica*, 97: 325–44.

Kramer, Michael S. and Ritsuko Kakuma (2012) 'Optimal Duration of Exclusive Breastfeeding'. *Cochrane Database of Systematic Reviews*, 15 August 2012, https://doi.org/10.1002/14651858.CD003517.pub2, accessed 22 June 2023.

Labinger, Jay A. and Harry Collins, eds. 2001. *The One Culture?: A Conversation About Science*. Chicago–London: University of Chicago Press.

Ladyman, James (2002) *Understanding Philosophy of Science*. London–New York: Routledge.

Langrehr, Kimberly J. et al. (2021) 'The Development and Initial Validation of the White Fragility Scale', *Journal of Counseling Psychology*, 68: 404–17.

Lewis, C. S. 2014 [1941]. '"Bulverism", or, the Foundation of 20th Century Thought', in Walter Hooper (ed.) *God in the Dock: Essays on Theology and Ethics*. Grand Rapids, MI: William B. Eerdmans. Also available on-line at http://www.barking-moonbat.com/God_in_the_Dock.html.

Longino, Helen E. (1990) *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry*. Princeton, NJ: Princeton University Press.

Lozada, Carlos (2020) 'White Fragility Is Real. But "White Fragility" Is Flawed'. *Washington Post*, 18 June 2020, https://www.washingtonpost.com/outlook/2020/06/18/white-fragility-is-real-white-fragility-is-flawed/, accessed 22 June 2023.

MacCoun, Robert and Perlmutter, Saul (2015) 'Blind Analysis: Hide Results to Seek the Truth', *Nature*, 526: 187–9.

Maglo, Koffi N., Mersha, Tesfaye B., and Martin, Lisa J. (2016) 'Population Genomics and the Statistical Values of Race: An Interdisciplinary Perspective on the Biological Classification of Human Populations and Implications for Clinical Genetic Epidemiological Research', *Frontiers in Genetics*, 7: 22.

Mannheimer, Andrew et al. (2020) 'Social Status and White Fragility: Gender and Socioeconomic Variations', in J. Kronenfeld (ed.) *Research in the Sociology of Health Care*, pp. 115–27. Castle Hill, NSW, Australia: Emerald Press.

Marshall, P. J. and Williams, Glyndwr (1982) *The Great Map of Mankind: British Perceptions of the World in the Age of Enlightenment*. London: J.M. Dent & Sons.

McIntyre, Lee (2019) *The Scientific Attitude: Defending Science from Denial, Fraud, and Pseudoscience*. Cambridge, MA: MIT Press.

McWhorter, John (2018) 'The Virtue Signalers Won't Change the World'. *The Atlantic*, 23 December 2018, https://www.theatlantic.com/ideas/archive/2018/12/why-third-wave-anti-racism-dead-end/578764/, accessed 22 June 2023.

McWhorter, John (2020) 'The Dehumanizing Condescension of *White Fragility*'. *The Atlantic*, 15 July 2020, https://www.theatlantic.com/ideas/archive/2020/07/dehumanizing-condescension-white-fragility/614146/, accessed 22 June 2023.

McWhorter, John (2021a) 'Black Fragility?' 27 January 2021, https://johnmcwhorter.substack.com/p/black-fragility, accessed 22 June 2023.

McWhorter, John (2021b) The Performative Antiracism of Black Students at the U. of Wisconsin. *New York Times*, 24 August 2021, https://www.nytimes.com/2021/08/24/opinion/antiracism-university-wisconsin-rock.html, accessed 22 June 2023.

McWhorter, John (2021c) *Woke Racism: How a New Religion Has Betrayed Black America.* New York: Portfolio.

Merton, Robert K. 1973 [1942] 'The Normative Structure of Science', in Robert K. Merton (ed.) *The Sociology of Science: Theoretical and Empirical Investigations*, edited and with an introduction by Norman W. Storer, pp. 267–78. Chicago–London: University of Chicago Press.

Mignolo, Walter D. (2002) 'The Geopolitics of Knowledge and the Colonial Difference', *South Atlantic Quarterly*, 101: 57–96.

Nanda, Meera (2003) *Prophets Facing Backward: Postmodern Critiques of Science and Hindu Nationalism in India.* New Brunswick, NJ: Rutgers University Press.

Neumark, David (2018) 'Experimental Research on Labor Market Discrimination', *Journal of Economic Literature*, 56: 799–866.

Neumark, David and Rich, Judith (2019) 'Do Field Experiments on Labor and Housing Markets Overstate Discrimination? A Re-Examination of the Evidence', *ILR Review*, 72: 223–52.

Ng, Eddy S., Sears, Greg J., and Bakkaloglu, Muge (2021) 'White and Minority Employee Reactions to Perceived Discrimination at Work: Evidence of White Fragility?', *International Journal of Manpower*, 42: 661–82.

O'Bannon, Brett (2021) 'Weaponized Epistemology in the Science Warriors' Embrace of Culture Wars: A Defense of White Fragility From a Methodological Pluralist'. Available on-line at https://www.researchgate.net/publication/350823442, accessed 22 June 2023.

Oreskes, Naomi (2019) *Why Trust Science?* Princeton, NJ: Princeton University Press.

Owolade, Tomiwa (2021) 'Antiracism Won't Save You'. *UnHerd*, 28 June 2021, https://unherd.com/2021/06/antiracism-wont-save-you/, accessed 22 June 2023.

Pager, Devah (2007) 'The Use of FIeld Experiments for Studies of Employment Discrimination: Contributions, Critiques, and Directions for the Future', *Annals of the American Academy of Political and Social Science*, 609: 104–33.

Pan, J.C. (2020) 'Why Diversity Training Isn't Enough'. *The New Republic*, 7 January 2020, https://newrepublic.com/article/156032/diversity-training-isnt-enough-pamela-newkirk-robin-diangelo-books-reviews, accessed 22 June 2023.

Paslay, Christopher (2021) *Exploring White Fragility: Debating the Effects of Whiteness Studies on America's Schools.* Lanham, Maryland: Rowman & Littlefield.

Pluckrose, Helen and Lindsay, James (2020) *Cynical Theories: How Activist Scholarship Made Everything About Race, Gender, and Identity – and Why This Harms Everybody.* Durham, NC: Pitchstone.

Quillian, Lincoln (2002) 'Why Is Black–White Residential Segregation So Persistent? Evidence on Three Theories From Migration Data', *Social Science Research*, 31: 197–229.

Quillian, Lincoln et al. (2017) 'Meta-analysis of Field Experiments Shows No Change in Racial Discrimination in Hiring Over Time', *Proceedings of the National Academy of Sciences*, 114: 10870–5.

Race, Ethnicity, and Genetics Working Group (2005) 'The Use of Racial, Ethnic, and Ancestral Categories in Human Genetics Research', *American Journal of Human Genetics*, 77: 519–32.

Rauch, Jonathan (2021) *The Constitution of Knowledge: A Defense of Truth.* Washington, DC: Brookings Institution Press.

Reilly, Wilfred C. (2020) 'A Fragile Argument'. *Commentary*, September 2020, pp. 59–61, https://www.commentary.org/articles/wilfred-reilly/white-fragility-fragile-racism-argument/, accessed 22 June 2023.

Roediger, David (2018) 'On the Defensive: Navigating White Advantage and White Fragility'. *Los Angeles Review of Books*, 6 September 2018, https://lareviewofbooks.org/article/on-the-defensive-navigating-white-advantage-and-white-fragility/, accessed 22 June 2023.

Sampson, Robert J. and Sharkey, Patrick (2008) 'Neighborhood Selection and the Social Reproduction of Concentrated Racial Inequality', *Demography*, 45: 1–29.

Sanneh, Kelefa (2019) 'The Fight to Redefine Racism'. *The New Yorker*, 19 August 2019, https://www.newyorker.com/magazine/2019/08/19/the-fight-to-redefine-racism, accessed 22 June 2023.

Santos, Ricardo Ventura et al. (2009) 'Color, Race, and Genomic Ancestry in Brazil: Dialogues Between Anthropology and Genetics', *Current Anthropology*, 50: 787–819. [This paper is followed by 12 commentaries from a wide variety of viewpoints, and a response from the authors.].

Sensoy, Özlem and DiAngelo, Robin (2014) 'Respect Differences? Challenging the Common Guidelines in Social Justice Education', *Democracy & Education*, 20: 1–10.

Sensoy, Özlem and DiAngelo, Robin (2017a) *Is Everyone Really Equal? An Introduction to Key Concepts in Social Justice Education*, 2nd ed. New York: Teachers College Press.

Sensoy, Özlem and DiAngelo, Robin (2017b) '"We Are All for Diversity, But …": How Faculty Hiring Committees Reproduce Whiteness and Practical Suggestions for How They Can Change', *Harvard Educational Review*, 87: 557–80.

Siegel, Harvey (1988) *Educating Reason: Rationality, Critical Thinking and Education*. New York–London: Routledge.

Siegel, Harvey (1995) '"Radical" Pedagogy Requires "Conservative" Epistemology', *Journal of Philosophy of Education*, 29: 33–46.

Simonsohn, Uri (2015) 'How to Study Discrimination (or anything) With Names; If You Must.' *Data Colada*, 23 April 2015, http://datacolada.org/36, accessed 22 June 2023.

Simonsohn, Uri (2016) 'Greg vs. Jamal: Why Didn't Bertrand and Mullainathan (2004) Replicate?' *Data Colada*, 6 September 2016, http://datacolada.org/51, accessed 22 June 2023.

Sokal, Alan and Bricmont, Jean (1998) *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science*. New York: Picador USA. [Published in the U.K. under the title *Intellectual Impostures: Postmodern Philosophers' Abuse of Science*. London: Profile Books, 1998. Originally published in French under the title *Impostures intellectuelles*. Paris: Odile Jacob, 1997.]

Solomon, Miriam (2001) *Social Empiricism*. Cambridge, MA: MIT Press.

Stannard, David E. (1992) *American Holocaust: The Conquest of the New World*. New York–Oxford: Oxford University Press.

Stanovich, Keith E. and Toplak, Maggie E. (2019) 'The Need for Intellectual Diversity in Psychological Science: Our Own Studies of Actively Open-Minded Thinking as a Case Study', *Cognition*, 187: 156–66.

Taibbi, Matt (2020) 'On "White Fragility"', 28 June 2020, https://taibbi.substack.com/p/on-white-fragility, accessed 22 June 2023.

Taibbi, Matt (2021) 'Our Endless Dinner With Robin DiAngelo', 30 June 2021, https://taibbi.substack.com/p/our-endless-dinner-with-robin-diangelo, accessed 22 June 2023.

Tang, Hua et al. (2005) 'Genetic Structure, Self-identified Race/Ethnicity, and Confounding in Case-Control Association Studies', *American Journal of Human Genetics*, 76: 268–75.

Thomas, Hugh (1997) *The Slave Trade: The Story of the Atlantic Slave Trade, 1440–1870*. New York: Simon and Schuster.

Thornton, Russell (1987) *American Indian Holocaust and Survival: A Population History Since 1492*. Norman, Oklahoma: University of Oklahoma Press.

Turner, Patricia A. (2002) 'Pots, Kettles, and Interpretations of Blackness', *Western Folklore*, 61: 5–19.

Vandermonde, Alexandre-Théophile (1772) 'Mémoire sur des Irrationnelles de Différens Ordres Avec une Application au Cercle', in *Mémoires de Mathématique et de Physique, Tirés des Registres de l'Académie Royale des Sciences*, 489–98.

Waldman, Katy (2014) 'Is It Kosher to Talk About the "Pot Calling the Kettle Black"'? *Slate*, 22 December 2014, https://slate.com/human-interest/2014/12/the-pot-calling-the-kettle-black-is-the-idiom-offensive-racist-or-fair-game.html, accessed 22 June 2023.

Widdowson, Frances (2021) *Indigenizing the University: Diverse Perspectives*. Winnipeg: Frontier Centre for Public Policy.

Wylie, Alison (2006) 'Special Issue: Epistemic Diversity and Dissent, Part 1', *Episteme: A Journal of Social Epistemology*, 3: 1–136.

Zhū Shìjié [=Chu Shih-chieh] 2006 [1303]. *Jade Mirror of the Four Unknowns*, Vols. I and II, Translated into Modern Chinese by Guo Shuchun, Translated into English by Ch'en Tsai Hsin, Revised and Supplemented by Guo Jinhai. Shenyang: Liaoning Education Press. [Originally published in Chinese at Yangzhou, 1303.]

Zschirnt, Eva and Ruedin, Didier (2016) 'Ethnic Discrimination in Hiring Decisions: A Meta-Analysis of Correspondence Tests 1990–2015', *Journal of Ethnic and Migration Studies*, 42: 1115–34.