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Countering Deficit Narratives in Quantitative Educational Research

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The deficit narrative is a critical component of the white racial frame and attributes disparate outcomes to the racialized groups themselves rather than the policies and actions that create conditions that produce these disparities. Educational research that employs racialized groups as a variable in quantitative research holds potential to contribute to deficit narratives by attributing differences in educational outcomes to racialized groups rather than the educational interventions and/or systems under study. This paper examines the extent to which research published over a ten-year period presents findings in a manner that contributes to deficit narratives. The findings indicate nearly sixty percent of manuscripts employed language that creates or perpetuates deficit narratives specific to educational outcomes about people of Black African descent. Suggestions are presented for how findings can be presented in a manner that avoids deficit narratives and instead produce an anti-racist narrative.

Keywords: Quantitative Research, Race/Racism, White Racial Frame, Deficit Narratives, Anti-Racism, Educational Research

The Deficit Narrative

Over the past 20 years, increasing concern has focused on the use of deficit language and deficit narratives when discussing educational outcomes. A search of google scholar using the term “deficit narratives in education” returns dozens of articles published since 2000 that explore various facets of deficit language. Although many of these articles address concern about the use of a deficit lens and accompanying deficit language for the general population of students, a sub-set of manuscripts focuses more narrowly on race-based deficit narratives (Davis & Museus, 2019; Dudley-Marling, 2015; Brooms, 2015; Harper, 2012; Howard et al., 2017; Ladson-Billings, 2007; Solorzano & Yosso, 2001).

Race-based deficit narratives are created to serve three primary functions.

First, race-based deficit narratives denigrate people membered into one race or ethnic-background and in turn, elevate people of a dominant race. In the United States, the group always elevated by a deficit narrative is of White European descent, although the status of additional racialized groups may also be elevated through a given deficit narrative about another racialized group (DiAngelo, 2018; Oluo, 2018). Groups that are typically the target of race-based deficit narratives include people with dark skin of African descent, people whose ancestry is indigenous to North America, people of Latine descent, and people of Asian descent, among others.

Second, the deficit narrative serves to justify the oppression of a focal group by people of White European descent. The justification typically takes two forms. In some cases, the narrative attributes a deficit to the focal group and uses that deficit to justify a given treatment of people who are deemed members of that group. As an example, between the mid-1600s and through the Civil War, one deficit narrative presented people of African descent as lazy, incapable of making complex decisions, and directionless, and thus was used to justify enslavement which was said to provide structure, guidance, and purpose (Kendi, 2017). In other cases, the deficit narrative is presented to explain the conditions in which the denigrated group of people encounter. As an example, a current narrative presents men who identify as Black as not valuing family, sexually promiscuous, and dangerous; a story line that is used to both explain challenges children identified as Black encounter with respect to health, education, and life outcomes, while also justifying disproportionately high prison rates of men identified as Black (Alexander, 2012; Butler, 2018).

Third, the deficit narrative serves to maintain the power of an "elite" sub-group of people. In the United States, the "elite" sub-group of people elevated by deficit narratives is always of White European descent. However, deficit narratives are also employed by members of one racialized group against another racialized group to similarly elevate their status and power. In effect, by denigrating groups and using this denigration to justify treatment and the resulting undesirable conditions lived by people of a given racialized group, the elite group deflects attention from their unjust treatment of the racialized group and from the policies and practices the oppressors inflict on the oppressed, and instead places blame for this treatment and conditions on the oppressed (Feagin, 2013; Kendi, 2017).

As Kendi (2017), Feagin (2013), Mills (2014), and many other authors argue, the creation of the deficit narrative is intentional. Moreover, by conveying the narrative through political speeches, media outlets, images, movies, television shows, and educational learning materials, the narrative is socialized and becomes social knowledge that it is passed from generation to generation (Stanfield, 2011; Van Dijk, 2008). As Feagin (2013) theorizes, these deficit narratives also back a White Racial Frame that

functions as an ideology that shapes our understanding of our world and, specifically, people membered into specific racialized groups, maintaining as superior the culture, behavior, knowledge, and ways of gaining knowledge associated with people membered White.

As Dixon-Roman (2017) observes, "Who we are and how we have come to know, understand, and interact in the world was constructed for us in and through the symbolic systems of the world" (p. 8). The many depictions conveyed through deficit narratives produce conceptions that construct and reinforce the superiority of White culture, White values, White family structures, White discourse, White ways of knowing, and White people more generally (Feagin, 2013; Elias & Feagin, 2016; Scheurich & Young, 1997). "The dominant racial frame becomes implanted in the neural linkages...by the process of constant repetition of its elements...For most whites the dominant frame has become so fundamental that few are able to see it or assess it critically" (Feagin, 2013, p. 15). Spread throughout society by the media, politicians, school curricular materials, and other outlets, the White Racial Frame and its associated deficit narratives impact all members of society. For people membered White, the White Racial Frame operates through tacit consent, near invisibility, and without coercion to preserve social, political, and economic advantages. Through its operation, the racialized ideology that is the White Racial Frame produces profound negative effects for people membered non-White (Bonilla-Silva, 1996). Although people membered non-White have "less vested interest in internalizing the white racial frame sincerely and fully...[they] are coerced to adopt [its] dominant logics for survival and access to societal resources" (Bracey et al., 2017, p. 62). It is to these ends that members of one racialized group may use a deficit narrative to gain status and power above that of a racialized group denigrated through that narrative. The White Racial Frame is reinforced everywhere and impacts nearly all members of our society regardless of their racialized membering. In effect, the diverse communication of the narrative and generational spread of that narrative supports a White Racial Frame that impacts social policies, research agendas, the interpretation of research findings, media reports of findings, and actions based on findings (Feagin, 2013).

The Deficit Narrative and Educational Research

Race-based narratives in education serve the three functions stated above (Davis & Museus, 2019). The group elevated by a deficit narrative is always of White European descent while People of Color and students with learning differences are denigrated (Dudley-Marling, 2015). As an example, the White racial myth states that White males naturally excel in math (Stinson, 2013) while boys identified as Black are problematized (Brooms, 2016) and, more often than not, research focuses on the failures and shortcomings of males who are Black as opposed to their successes and positive attributes (Brooms, 2015; Harper, 2014; Howard et al., 2017). Educational statistics on persons identified as Black emphasize "trends of disengagement, lack of access and enrollment, failing graduation rates, and declining rates of retention and persistence" (Bates, 2017, p. 9). This emphasis associates undesirable outcomes with People of Color and places focus on the people as the cause of the issue rather than on the institutions, policies, and practices that contribute to these outcomes. These many poor educational outcomes are attributed to race-based and cultural deficits (Clark, 2017). "Situat[ing] school failure in the minds, bodies, communities, and culture of students" (Dudley-Marling, 2015, p. 1) positions the oppressive group to justify differential treatment of students of color.

For example, in educational settings a deficit narrative alleging students identified as Black have cognitive and motivational deficits is used to justify differential treatment such as academic tracking based on test scores (Goings, 2016). In addition, labels derived from test scores, such as "below basic," are disproportionately correlated with racialized labels such as Black. This labeling is oppressive to people identified as Black because "below basic" is associated with "beyond help," and teachers give up on students who are "beyond help" (Carey, 2014). When students identified as Black are labeled as "beyond help" they are placed in low level courses that focus on the development of "basic" skills. Meanwhile, their peers who are identified as White are placed in higher tracks and afforded a more challenging and engaging curriculum (Dudley-Marling, 2015). This differential treatment limits students identified as Black access to rich learning opportunities.

Concerns regarding the prevalence of deficit-oriented narratives in educational research are not new. In 2001, Solorzano and Yosso traced the evolution of language employed to describe academic ability/achievement of students of color. Their analysis shows that, although the terms used to characterize students of color has changed over time, the negative connotations persist. Similarly, Ladson-Billings (2007) argues that "although the specific language of cultural deficit is no longer used, the thinking behind such language continues to linger" (p. 318). She lists several commonly heard explanations for "students' of color school failure" among which were "parents just don't care...these children aren't ready for school...their families don't value education...[and] they are coming from a 'culture of poverty'" (p. 318). Applying the lens of Critical Race Theory, Dumas (2016) raises concern with theorizing in which "Black [is] constructed as *problem* for White people, for the public (good), for the nation-state" (p. 12). Instead, Dumas calls for a reframing that both "takes antiblackness for granted" and advocates that "any racial disparity in education should be assumed to be facilitated, or at least exacerbated, by disdain and disregard for the Black" (p. 17). Cabrera (2019) notes there is some evidence this shift away from framing people membered Black as the problematic and instead focusing on systemic functions as causal is occurring: "There are some who explain Black student academic underperformance on the 'burden of acting White' (Ogbu, 2004), while others take a Critical Race Theory (CRT) lens to directly claim it is a function of systemic White supremacy (Ladson-Billings & Tate, 1995)" (p. 47).

Analyses focused closely on the language used to present findings from educational research, however, suggest that this shift from denigrating People of Color, particularly those who identify as Black, versus acknowledging the role systemic racism plays in producing disparate outcomes, is limited. Focusing narrowly on the language used when presenting findings from statistical models in which race was included, Specter and Brannick (2010) found several authors present findings in a manner that stated race "affected", "influenced", "impacted", or "explained" the outcome variable. In some cases, authors described using race as a control variable. Specter and Brannick also note that in all but one paper, "there was little or no evidence provided that the control variables played the role suggested" (p. 289). Although Specter and

Brannick do not focus specifically on deficit narratives, they raise concerns with attributing effects to the implicit deficits associated with non-White racialized groups and using demographic characteristics, such as racialized identity, as a proxy for other constructs, such as racism.

Examining a broader body of literature focused on higher education research, Harper (2012) analyzed each sentence in which the term "race" or "racism" was employed in the discussion and implication sections of 255 articles published in any of seven peer-reviewed journals. For this analysis, Harper employed Bonilla-Silva's (2009) minimization of racism frame to examine the extent to which authors present findings in a manner that "suggests that discrimination [racism] is no longer a central factor affecting minorities' life chances" (p. 12, quoting Bonilla-Silva, p. 29). Harper's analysis revealed that, when disparate outcomes across racialized groups were reported, racism was rarely discussed as a possible cause of those outcomes. Instead, the hardships experienced by People of Color were presented as a possible factor that contributed to a disparate outcome. Although hardships may in fact contribute, what Harper identifies as missing from the authors' speculations is the role racism plays in causing hardships. As one example, Harper notes that "reported in several articles were results that showed how persons of color perceived and experienced campus racial climate differently than their White counterparts. Few [articles], however, considered structural/institutional racism as a logical explanation for such differences" (p. 17). Similarly, Harper quotes a study that recommended institutional researchers identify students at high-risk of not completing course-work and target support services to those students. He then observes, "such recommendations seemed to suggest that only individuals, not racialized campus environment, were in need of institutional attention" (p. 18). Harper attributes the lack of engagement with racism, both individual and institutional, as a cause of outcomes or a need for redress to, what he terms, an uncritical race theory in the framing and conduct of most higher education research.

Although the focus of their analyses differ, both Harper (2012) and Spector and Brannick (2010) unveil ways in which the language authors use when presenting and discussing findings from quantitative research hold potential to (re)produce deficit narratives

and fail to attribute disparate outcomes as products of racism. The study presented here extends this prior work by focusing specifically on the ways in which and the extent to which quantitative research results are framed in a manner that either contributes to or counters deficit narratives specific to people who identify as Black or African American.

Critical Race Theory and QuantCrit

The study presented here was conducted through the lens of Critical Race Theory (CRT) and Quantitative Critical Race Theory (QuantCrit) (Delgado & Stefancic, 2017; Gillborn et al., 2018; Lopez et al. 2018). CRT is an anti-racist theoretical frame through which historical and current policies, actions, and events are examined. CRT was first introduced through the legal scholarship of Derrick Bell and was initially applied to uncover the racist underpinnings of influential laws and legal decisions (Delgado & Stefancic, 2017). CRT frames "racism as not the acts of individuals, but the larger, systemic, structural conventions and customs that uphold and sustain oppressive group relationships, status, income, and educational attainment" (Taylor, 2006, p. 73). CRT provides "a counterscript to the mainstream accounts of their realities" (Howard, 2008, p. 956). Consistent with Mills's (2014) concept of the racial contract, CRT views racism as "ordinary," and the "way society does business" (Delgado & Stefancic, 2017, p. 7).

The foundational and ordinary nature of racism in US law and society is obvious to People of Color due to their lived experiences. Yet for people of White European descent the effects of racism lived by their "non-White" fellow citizens are often unnoticed due to their position of power and privilege within society (Taylor, 2006). In addition, the role racism plays in maintaining the power of one racialized group over all others serves to dis-incentivize people of White European descent from actively combatting racism. While CRT acknowledges that some advances in the rights of people of African descent have occurred over the past 150 years, efforts to reduce racist policies and actions occur only when they align with the interests of elites of White European descent (Bell, 1980).

QuantCrit applies the tenets of CRT to quantitatively-oriented social science research. QuantCrit is an emerging sub-field of Critical Race

Theory that embraces the criticisms presented by Zuberi (2001) and Dixon-Román (2017), among others, and which aims to engage in research that considers contextual factors to understand the causes of differential outcomes and counter race-based deficit narratives. Among the several arguments presented by Dixon-Roman, one is particularly relevant to the study presented here: Failure to consider the many social, economic, legal, and health-related factors that impact educational achievement, and which vary systematically across racialized categorizations of students (Dixon-Román, 2017). This shortcoming in quantitative studies used to inform educational policies and practices (re)produces narratives that falsely attribute “race-based” differences to the members of a racialized group rather than to the racialized social and institutional structures that produced advantage for people membered White and disadvantage for people membered into all other racialized groups. Instead, quantitative findings “need to be more critically interpreted as intra-actively enacted from the relation and connections of the sociocultural and historical conditions of the structural relations of measurement” (Dixon-Román, 2017, p. 89).

Put simply, Holland (2008) asserts that quantitative studies in which racialized categorizations are employed as a predictor variable for a given outcome are fundamentally flawed for the simple reason that a causal interpretation cannot be attributed to a non-random categorical variable. Rather than racialized categories causing an outcome, it is the effect of race-based bias, discrimination, and oppression that produces effects. As Zuberi (2001) states, “interpreting the results of statistical analysis should be connected to an underlying causal theory” (p. 104). If a “race effect” is to be reported, then a theory that explains why an outcome is a product of racialized classifications is necessary. Yet, “the basis for racial[ized] classification has been skin color” for which there is no known biological or genetic “mode of inheritance” (Zuberi, 2001, p. 107). In fact, a key finding of the human genome project was the inability to identify any genetic marker for current “race-based classification” (Roberts, 2011). Instead of being biologically or genetically based, racialized classifications are culturally determined such that “whether two individuals regard themselves as of the same or of different race depends not on the degree of similarity of their genetic material

but on whether history, tradition, and personal training and experiences have brought them to regard themselves as belonging to the same group or to a different group” (King (1981) as cited in in Zuberi 2001 p. 107).

The non-biological foundation of race-based classifications is well documented by many anti-racist scholars (Kendi, 2017; Lopez, 2006; Painter, 2010; Roberts, 2011). Nonetheless, defining race-based groups based on physical characteristics, such as skin color, hair, and facial features confuses phenotypical characteristics of people with biological characteristics (which more recently is further confused with genetics) (Roberts, 2011). Nonetheless, the use of race-based classifications of people as a variable in quantitative studies aimed at identifying causes for outcomes that differ across racialized groupings serves to suggest that race is both an inherent property of a person and that race produces differences in outcomes. Compounding the problem, interpretation of weights (e.g., regression coefficients) produced by statistical analyses suggests a racial cause which in turn produces and reproduces stereotypes, bias, and, when those biases are acted upon, discrimination that results in disparate impacts and outcomes for people classified into different racial groups (Dixon-Román, 2017).

CRT recognizes that “racism and discrimination are matters of thinking, mental categorizations, attitude, and discourse” (Delgado & Stefancic, 2017, p. 21). The tenets of QuantCrit similarly acknowledge the centrality of racism and recognize that numbers are not neutral, that data cannot speak for itself and instead require interpretive narratives, and that socially constructed categories are neither natural nor given; hence when engaging in research that includes race as a variable, one should consider race a proxy for the impacts of racism (Gillborn et al, 2018). Given these tenets of CRT and QuantCrit, an essential component to undoing racism is to combat directly and seek to change how people of White European descent think and talk about race. While such efforts do not address the economic and power issues that are produced and reproduced by racist policies and actions, changing the language and ideas conveyed through language is essential for countering the deficit narrative that is used to justify those policies and actions. It is to this end that the study presented here was undertaken.

Methodology

The study presented here examined the prevalence of deficit language in the presentation of quantitative results in educational research published in ten peer-reviewed journals that include racialized categories that separate students identified as Black/African American from other racialized groups of students as a variable in quantitative analyses. This study builds on Harper's (2012) analysis of deficit narratives in higher education in three ways. First, it shifts the focus from research specific to higher education to research focused more broadly on educational outcomes. Second, it focuses narrowly on research that employs quantitative methods in which "race" is included as a variable in the analyses. Third, whereas Harper (2012) employed a qualitative "line-by-line" analysis of the discourse employed in the Discussion and Implications section, we developed a coding guide that focused on two aspects of deficit narratives (see below) and employed a consensus approach to code each sentence in which quantitative findings that focused specifically on a racialized group were presented.

Two assumptions guided our study. First, we believe that a study that presents findings in a manner that attributes outcomes to racialized groups has potential to be used to support a deficit narrative. Second, a study that presents findings in a factual manner that makes clear the findings are based on data provided by an instrument employed by the study and which presents numerical information is less likely to support a deficit narrative than a study that presents findings in general terms, without specific reference to the data collection instrument employed by the study, and which does not present the actual numerical results for racialized groups. Of core interest to us is the impact that the presentation of findings might have on a reader if a sentence in which findings specific to people of black African descent was directly quoted by the press or in a subsequent scholarly article.

To conduct our study, we performed four steps which included collecting articles for examination, developing a coding guide specific to deficit narrative contribution, coding sentences contained in qualifying articles, and analyzing the resulting codes.

Below, each of these steps is described in detail.

Article Selection

The study began by identifying ten journals that published educational research that employ quantitative methods (see Figure 1) over a ten-year period spanning 2008 and 2018. The journals reviewed were selected because they regularly publish articles that present findings from quantitative studies focused on interventions designed to improve educational outcomes. We acknowledge that there is a broader array of journals published world-wide that publish articles on this topic but believe this sub-set of journals was sufficient for providing insight into the ways in which deficit and anti-racist narratives are employed by authors when presenting findings from quantitative analyses of educational outcomes. More specifically, we were interested in the use of language when presenting findings from quantitative analyses for students identified as Black or African American. To this end, we employed a method similar to Harper (2012) in which we searched for the term "Black" and "African American" in the Results/Findings and Discussion sections of each article. This search resulted in 163 articles. The final inclusion criteria focused on whether the article reported or discussed findings specific to a student educational outcome variable separately for Black/African American students or whether these terms appear only when describing the demographic characteristics of the study's sample. This search procedure identified a total of 83 articles that presented findings from a quantitative analysis specific to an outcome variable separately for students identified as Black or African American. It should be noted that 22 of these articles included a variable representing a student's racially stratified identity in the quantitative analyses as a covariate, but did not discuss findings for this variable in the narrative portion of the Results/Finding or Discussion sections. As a result, these articles were excluded from our analysis and our analysis focused on the remaining 61 articles.

Again similar to Harper (2012), within each of the 61 articles identified, we extracted all sentences in the Results/Findings and Discussion sections that contained the keywords "Black" or "African American." This search identified a total of 637 sentences.

Figure 1. Journals Examined

American Educational Research Journal
Educational Evaluation and Policy Analysis
Educational Researcher
Journal of Research on Educational Effectiveness
Journal of Educational Research
Journal for Research in Mathematics Education
Journal of the Learning Sciences
Journal of Teacher Education
Science Education
Scientific Studies of Reading

Coding Guide

The coding guide was designed to guide the classification of sentences based on the use of language that presents or summarizes findings from quantitative studies specific to students identified as Black or African American using language that attributes outcomes, effects or results to the racialized group or the intervention or system under study. A key feature of the deficit narrative is the attribution of a condition or outcome to oppressed people. As an example, in the sentence that follows higher performance is attributed to a racialized group rather than to the efficacy of the intervention: “Asian students earned higher scores than did students who were Black or Latinx.” A key feature of anti-racist counter narratives is attribution of a condition or outcome to historical and/or current policies, practices and/or actions, or at a minimum recognizing the role that historical and current policies and actions play in impacting the lives of members of an oppressed people (Harper, 2012). As an example, in the sentence that follows the intervention is specifically mentioned as the primary cause for disparate outcomes: “The new math curriculum had a smaller impact on the achievement of Black students than for all other racialized groups of students.” For this study, a specific intervention, instructional practice, or educational policy was considered a current policy or action.

A second feature considered in the coding guide focused on the level of generalization with which data specific to a group was presented, regardless of attribution. In the coding guide, three categories of data generalization were distinguished. The first

category focused on the factual presentation of findings such that both the specific instrument or data source used as the outcome variable is named or referenced and numerical values for that variable are presented. As an example, in the sentence that follows, actual differences in mean scores for a named instrument or data source are presented: “Mean scores on the MCAS math test differed by 5 points between group X and group Y.” The second category also requires the data instrument or variable to be named or referenced but presentation of findings specific to that variable are described narratively absent numerical values. As an example, the sentence that follows mentions the data collection instrument but describes differences in scores using a general term: “The mean MCAS math test scores were higher for group X than group Y.” The final category includes summary or descriptive statements about a general trait represented or associated with the data collection instrument or outcome variable. As an example, in a study that employed MCAS mathematics test scores as an outcome variable, the test score is generalized as representing “achievement”: “Achievement for group X was lower than group Y.”

The coding guide yielded two pieces of information about the narrative conveyed by a sentence: a) whether attribution for an “effect” is made to the group or the intervention/system; and b) the extent to which the findings are presented in a factual or generalized manner.

The two attribution categories and three levels of description of findings were developed to represent different levels of threat to presenting findings in a manner that may contribute to a deficit narrative or which may create a counter narrative. It is our position that sentences that attribute outcomes to the group rather than the effect of the intervention or of the broader system in which the intervention was implemented have greater threat of contributing to the deficit narrative. And, when group attribution is made, further threat of contributing to the deficit narrative occurs as the presentation of findings becomes more general.

Coding Process

The coding process was performed independently by two coders, both of whom were involved in the development of the coding guide and had an understanding of deficit language. Following independent coding of the 637 sentences, the codes

assigned by the two coders were compared. When discrepancies occurred, the two coders discussed their differences and arrived at a consensus code. In this way, the findings reported below are based on consensus judgments by the two coders. When independently coding each sentence, the coders employed the following 4-step process.

Step 1: The outcome variable(s) for each study was identified and agreed upon by the two reviewers. The types of reported outcomes and characteristics included but were not limited to test scores, grades, course taking, admissions, completion, attitudes, beliefs, and behaviors (often subjected to disciplinary action).

Step 2: The second step confirmed that the identified sentence was in fact applicable for analysis. To be applicable, a sentence had to present or summarize findings for one or more outcome variables that was the focus of the article and make reference to people identified as African American or Black. This review aimed to separate sentences appearing in the Results/Findings and/or Discussion sections that focused on an outcome variable from those that: a) presented descriptive demographic data; b) described differences in input variables; c) referenced findings from another study without also discussing findings specific to the outcome variable of the study presented in the article; d) took the form of a footnote that clarified content in a table or graph; or e) described the statistical model itself without presenting findings from that model. In effect, this review identified sentences that were not applicable to our analysis because the sentence did not present or discuss findings specific to an outcome variable separately for Black/African American students. This review removed 267 sentences, leaving 370 sentences that were forwarded to Step 3.

Step 3: The third step determined whether the outcome of interest was attributed to a specific racial group, the intervention under study (e.g., new mathematics curriculum, a pedagogical strategy, a new approach to grouping students, etc.) or a system more

generally (e.g., school(s), higher education). If an intervention was mentioned when presenting outcome data, then the sentence was classified as "intervention attribution." An example of a sentence with an intervention was "these variables were then entered into regression analyses, and it was found that all types of parental involvement had statistically the same effect on outcomes for Black and non-Black students as well as for male and female students."¹ Here, parental involvement was the "intervention," and the outcomes are attributed to that intervention. In contrast, the following sentence attributed outcomes to specific racial groups without mention of the intervention that was the focus of the study: "Science achievement differences based on race/ethnicity were evident in Grade 3, with Caucasian students outperforming Asian American, Hispanic, and African American students." In this case, science achievement is the outcome and performance on the implied, but unstated, measure of science achievement is attributed to the racialized groups - that is Caucasian students outperformed - without any reference to the intervention or system under study. Examples of interventions included but were not limited to an experimental intervention, the school system, a college's selectivity, participation, parental involvement, and increased access to more advanced and rigorous coursework.

It should be noted that some sentences referenced both the intervention and the outcome variable, but without clearly attributing outcomes to either the group or the intervention. These sentences were coded as "Neutral." This step resulted in each sentence being categorized as either "intervention attribution," "group attribution," or "neutral." All sentences were forwarded to Step 4.

Step 4: The fourth step determined whether the outcome is described with: a) specific reference to the data source and the numerical values for the outcome; b) reference to the data source but with a general narrative summary of the finding; or c) the trait represented or associated with the data source

¹ In presenting examples of sentences published in the articles we examined, we do not mean to criticize or shame the authors. Nor do we infer that the authors intended to produce a deficit narrative or otherwise denigrate a racialized group of people. For this reason, when presenting the sentences, we have opted not to cite the author(s)

referenced. This analysis resulted in a sentence being coded into one of three levels.

Level 1: Numerical data is presented and the source of the variable/construct is specified (e.g., mathematical test scores, reported level of satisfaction, drop-out rate, etc.). This level may use terminology to characterize the magnitude of differences but also includes numerical data that specifies the magnitude of the difference (e.g., "mathematics test scores for African Americans were higher by .25 standard deviations" or "African Americans outperformed other groups of students by 3 to 8 score points").

Level 2: Findings are described in a more general manner that may reference the construct represented by the measure rather than the measure itself (e.g., "Math achievement was about half a standard deviation higher for African Americans"). Or when describing outcomes for the measure itself, numerical data is not presented and instead an adjective or a verb is used to describe the outcome measure (e.g., "MCAS math scores were higher for African Americans than for students identified as White").

Level 3: Neither the data source nor numerical data is presented. Instead, the construct or trait represented by the data source is referenced and an adjective and/or verb is used to describe results (e.g., "African American achievement was higher than any other group").

In addition to the three codes above, any sentence that employed language that clearly presents a deficit narrative was flagged (e.g., "Black students failed to keep pace with other groups of students").

A Note on Intent

The analysis of sentences and application of the coding guide was performed through the lens of New Criticism. New Criticism is a literary theory that focuses "attention on the literary work as the sole source of evidence for interpreting it" (Tyson 2014, p. 131). From this perspective, a text stands on its own to create meaning regardless of the author's intent. Sometimes a text does not live up to an author's intent, sometimes it is more meaningful, and sometimes it is simply different. In applying the lens of New Criticism to analyze the influence word choice has on the formation of a deficit narrative, we acknowledge that the meaning described in this manuscript may differ from that what was intended by the author. However, the literal reading of each author's text is appropriate

for understanding how word choice may contribute to (re)production of deficit narratives and anti-racist narratives.

Positionality

The authors of this paper are White, two females and two males, each of whom was raised in affluent suburban towns in New England and upstate New York. Each of us was exposed to liberal perspectives and, if completing a survey regarding our political and world views, would describe ourselves as holding liberal views. Throughout our adult lives, we have been *aware of* but did not deeply *understand* our nation's racist past, the lasting impact of that history, and the historical and present racism that occurs in our nation. For much of our lives, we have viewed racism as the product of individual thoughts, biases, and prejudices, often influenced by family members, friends, and our community. Until relatively recently, we have not thought deeply about the structure of racism nor studied it in a meaningful manner, nor did we understand it as an intentional, systematic, institutional problem. In this way, we were like the vast majority of U.S. citizens of White European descent (DiAngelo, 2018).

Our work confronting our Whiteness and deepening our understanding of individual and systemic racism unmasked the myth of objectivity in quantitative methods promulgated in the literature and our graduate training. While the calculations performed in quantitative analyses are not influenced by personal or institutional bias, the questions posed, data collected, and interpretations given to output from these calculations are inherently impacted by bias, often that produced by a White Racial Frame (Feagin, 2013). The White Racial Frame through which research questions are crafted, and the language used to present findings are influenced, most often unintentionally, by racist notions and perpetuate racist ideas promulgated by the deficit narrative. To be clear, when we initiated this study, we believed that our field did contribute to the perpetuation of the deficit narrative. However, we did not know the extent of the problem, and it was exploring the extent of the problem that motivated the study. We also intended this work to provide a vehicle for creating awareness and advocating for conscientious linguistic choices that emphasize the

systematic, institutional foundation of racism and racially-stratified-based impacts.

We acknowledge that we initiated this study with a bias that assumed a problem existed. Throughout our processes, we kept this bias in mind as we made decisions about the criteria employed to guide our categorizations, selected texts for our analyses, applied our criteria to categorize those texts, and interpreted our findings. To the extent possible, we also attempted to avoid reading and interpreting text from a White Racial Frame, and instead attempted to employ an anti-racist frame that honored the guiding tenets of Critical Race Theory and QuantCrit. Given our background and biases, however, we recognize that our work is inevitably impacted by the White Racial Frame that has been instilled in us and by the underlying assumption regarding our field's contribution to the deficit narrative that we held when we initiated this study.

Findings

The purpose of this study was to explore the extent to which findings from education studies in which race is included as a variable in quantitative analyses are presented in a manner that represents a White Racial Frame that contributes to the deficit narrative or employs an anti-racist frame that counters the deficit perspective. The study focused on a sample of 370 sentences found in 61 articles published between 2008 and 2018 that presented findings from quantitative analyses in which race was a variable. Each sentence in which findings were presented specific to students identified as Black or African American was coded with respect to: a) attribution of the outcome to either the intervention (or system more generally) or to racial groups; and b) the level of specificity with which findings were described. By examining individual sentences, the study effectively explored the extent to which a direct quotation of a sentence taken out of the context of the full details of the study contributes to a deficit narrative or presents a counter narrative.

The resulting codes were analyzed in two ways. First, summary statistics were calculated to allow for the comparison of the percentage of sentences classified into each of the six categories. Second, given the variability in the number of sentences selected from each article, findings were summarized at the article level to provide a sense of the percentage of articles that contained one or more sentences that fell into each

category. Third, patterns in attribution and specificity were compared between sentences that appeared in the results/findings section with those in the discussion section.

Table 1 provides descriptive statistics regarding the articles and coded sentences. The number of sentences per article varied widely from one to thirty-six with a mean of 4.4, median of 3.5 and standard deviation of 8.2. The distribution of sentences per article was positively skewed such that 70% of the articles contained six or fewer sentences. Across all articles, approximately two-thirds of the sentences appeared in the results/findings section while the balance appeared in the discussion section.

Table 1. Sentences Per Article Descriptive Statistics

	N	%
Sentences Coded	370	
Results/Findings	247	66.8
Discussion	123	33.2
Min per Article	1	
Max per Article	36	
Mean per Article	64.4	
Median per Article	3.5	
Standard Deviation	8.2	

Table 2 shows the number and percent of attribution codes assigned to each sentence. Of the 370 sentences that reported or discussed an outcome separately for students identified as Black or African American, 209 (56.5%) attributed the outcome to the racialized group and 112 (30.3%) attributed the outcome to the intervention or larger system. Approximately 13% presented or discussed findings in neutral manner.

Table 2. Summary of Attribution Codes

	N	%
Group Attribution	209	56.5
Intervention Attribution	112	30.3
Neutral	49	13.2
Total	370	

Table 3 summarizes the number and percent of sentences coded based on the level of specificity with which outcome results were presented. Of the 370 sentences, 91 (24.6%) described outcomes for racialized groups in a fully factual manner such that the outcome variable was named or clearly referenced and numerical data was presented. One-hundred and four (28.1%) of the sentences presented outcomes for racialized groups in a manner that referenced the outcome variable but used narrative descriptions rather than numerical data to describe the outcome for a racialized group. One-hundred and seventy-five (47.3%) of the sentences presented outcomes for a racialized group in a general manner such that the trait or construct represented by or similar to the outcome variable was referenced and narrative descriptions absent numerical data described the outcome.

Table 3. Summary of Specificity Codes

	N	%
Level 1 - Fully Factual	91	24.6
Level 2 - Partially Factual	104	28.1
Level 3 - Generalization	175	47.3

Given the variation in the number of sentences coded per article, Table 4 reports the number and percent of articles that contained at least one sentence coded in various ways. As shown in Table 4, 36 (59.0%) of the articles contained at least one sentence that attributed the outcome to a racialized group and 34 (55.7%) contained at least one sentence that attributed the outcome to the intervention. Given that both percentages are greater than half, this indicates that some studies structured a sub-set of sentences to provide group attribution while structuring other sentences to attribute outcomes to the intervention. Table 4 also shows that 16 studies contained sentences that fell into only the group attribution category while 17 studies only contained sentences that fell into the intervention attribution category.

Table 5 shows the distribution of attribution codes separately for sentences appearing in the results/findings section and the discussion section. As seen in Table 5, 247 of the coded sentences were located in the results section and 123 sentences were located in the discussion section. Of the sentences

located in the results section, 156 (63.2%) provided group attribution and 52 (21.1%) attributed the outcome to the intervention while the remaining (15.8%) presented attribution in a neutral manner. In the discussion section, 53 (43.1%) of the sentences provided group attribution, 60 (48.7%) attributed outcomes to the intervention, and 10 (8.1%) were neutral in their attribution.

Table 4. Summary of Sentences Containing Attribution Codes

	N	%
# Studies containing at least One Group Attribution	36	59.0
# Studies containing at least One Intervention Attribution	34	55.7
# Studies Containing Only Group Attribution	16	26.2
# Studies Containing Only Intervention Attribution	17	27.9

Table 5. Distribution of Attribution Codes by Section

Section	Attribution	N	Percentage
Results	Group	156	63.2
	Intervention	52	21.1
	Neutral	39	15.8
		247	
Discuss	Group	53	43.1
	Intervention	60	48.7
	Neutral	10	8.1
		123	

Table 6 shows the distribution of specificity codes separately for sentences appearing in the results/findings section and the discussion section. As seen in Table 6, the percentage of sentences located in the results/findings sections coded by specificity was evenly distributed across the three levels such that 35.2% were fully factual, 27.1% were partially factual and 37.7% were general. In the discussion section, however, the distribution of codes differed noticeably such that only 3.3% were fully factual, 30.1% were partially factual, and 66.7% were general.

Table 6. Distribution of Specificity Codes by Section

Section	Specificity	N	Percentage
Results	Fully Factual	87	35.2
	Partially Factual	67	27.1
	Neutral	93	37.7
		247	
Discussion	Fully Factual	4	3.3
	Partially Factual	37	30.1
	Neutral	82	66.7
		123	

Discussion

Okan (2019) states plainly, "Language matters" (p. 2). Language is more than a vehicle for communication, it is a tool of domination (Habermas, 1967). Dominant groups use language "in such a way that, as a result, the knowledge, attitudes, norms, values and ideologies of recipients are - more or less indirectly affected - in the interest of the dominant group" (Van Dijk, 2008, p. 66). In the United States, White domination employs deficit narratives to problematize the people they oppress and define them in negative terms (Brooms, 2015). Deficit narratives are key components of the White Racial Frame and are employed to denigrate members of oppressed racialized groups. In turn, this denigration is used to both "explain" outcomes and conditions and to justify actions that differ across racialized groups. For people of White European descent, deficit narratives support the White Racial Frame by obscuring the many ways in which racism impacts the opportunities, outcomes, and daily experiences of people who are members of oppressed racialized groups.

The study presented here was undertaken to examine the extent to which the presentation of findings from quantitative educational research studies is framed in a manner that may perpetuate the deficit narrative or which directly combats that narrative. Put simply, this study asked whether findings from such studies are presented in a manner that might allow one to directly quote a sentence in which findings are presented to create or support a deficit narrative specific to people of black African descent.

To address this question, we analyzed a sample of 61 articles published between 2008 and 2018 in which racially stratified identity (specifically Black/African American) was included as a variable in quantitative analyses. Sentences in which findings were presented with specific reference to participants identified as Black and/or African American were analyzed. For each selected sentence, we also examined the level of specificity with which data-based findings were presented.

The underlying assumption guiding our study was two-fold. First, we believe that a study that presents findings in a manner that attributes outcomes to racialized groups has potential to be quoted to support a deficit narrative. Second, we believe that a study that presents findings in a factual manner that makes clear the findings are based on data provided by an instrument employed by the study and which presents numerical information is less likely to support a deficit narrative than a study that presents findings in general terms.

As shown in Table 4, our analysis indicates that 59% of the studies identified as presenting results of quantitative analyses separately for participants identified as Black and/or African American did so in a manner that could be used to support a deficit narrative. Of the studies that attributed outcomes to racialized groups, about one third (30%) presented findings with a data collection instrument named, but absent numerical data to describe the results. Approximately two-thirds (65%) summarized findings without reference to the data collection instruments but instead referenced the construct measured by the instrument or a trait that was broader than what was actually measured by the data collection instrument (e.g., achievement rather than mathematics achievement measured by a grade level state test). From our perspective, it is these 65% of the sentences that attribute outcomes to racialized groups that are most in danger of being used to perpetuate a deficit narrative.

Findings from the study presented here are consistent with findings from other recent analyses of deficit framing in educational research and quantitative analyses in social science research. Similar to Harper (2012), who found several studies focused on higher education failed to acknowledge the role institutional and structural racism play in impacting the lived

experiences of higher education students, our analyses indicate that a substantial percentage of quantitative studies focused on student outcomes focuses attribution on racialized groups rather than on the intervention or broader educational system. And similar to observations made by Spector and Brannick (2011), our analyses found that the presentation and discussion of coefficients for variables representing racialized group membership often implied causality of racialized group membership rather than the intervention itself. It should be noted, however, that although more than half of the sentences analyzed contribute to race-based deficit discourse production, approximately one-third of the sentences reflect an anti-racist framing.

Limitations

This study examined a sample of articles selected from a limited set of journals that publish research specific to the impacts of educational interventions. The sampling approach was not designed to support generalization of the findings across all educational research. Rather, the primary purpose of the analysis was to gain a general sense of whether deficit narratives and anti-racist narratives are communicated in the presentation of findings from quantitative educational research. The study also aimed to provide insight into alternate ways in which findings might be presented to minimize the (re)production of deficit narratives and support the production of anti-racist narratives. If further research aims to provide a more generalizable statement about the frequency with which deficit narratives are produced by educational research, a more robust and systematic approach to sampling journals and articles within journals is recommended.

This study was also limited to quantitative research focused on educational outcomes. A much broader set of educational research exists, much of which focuses on findings from qualitative and mixed method approaches to data collection. In addition, a substantial body of educational research focuses on topics other than outcomes, including processes, policies, and practices. It is reasonable to assume that research on these topics may also be presented in ways that (re)produce deficit narratives. As such, there may be utility in examining this broader body of research to develop a deeper and more complete understanding of

the various ways in which educational research contributes to deficit and anti-racist narratives.

Finally, this study limited its focus to narratives specific to students identified as Black and/or African American. Deficit narratives are employed to denigrate all racialized groups of people excluded from White membership. To develop a fuller understanding of deficit and anti-racist discourse in educational research, future analyses should expand the racialized groups included in the analyses.

Implications

Findings from this study suggest several ways in which authors of quantitative research may modify the language employed when presenting findings to minimize (re)production of deficit narratives and instead support the formation of anti-racist narratives that focus attention on the disparate impacts produced by policy and practices. To provide a sense of how such sentences could be employed to support a race-based deficit narrative, we present three examples identified in our analyses. We also show how these sentences can be rewritten to support an anti-racist narrative. As Feagin (2013) describes, the White Racial Frame is instilled in people of White European descent from a very early age and often operates without conscious knowledge of an individual who is of such descent. In the vast majority of cases, a person operating with a White Racial Frame does not act or communicate intentionally to produce deficit narratives. Thus, in presenting these examples, in no way are we suggesting that the authors intended to contribute to the deficit narrative or to in any way disparage a racialized group.

Example 1: “On the other hand, we found test score disparities across race/ethnic lines during the kindergarten school year, with Black students’ school-year gains lagging behind those of White students.” This is an example of group attribution because the sentence presents the gains as an attribute of the Black and White students as compared to a product of the intervention under study. This example makes clear reference to the data source, in this case test scores, but describes the data in general terms, that is one group’s gains “lagging behind” another group’s gains.

There is an additional aspects of this sentence that is of note. The use of the term “lagging behind” is problematic because it conveys the perception that one

group is inferior to another. This “less than” characterization has long been a foundational element of deficit narratives. Terms such as “lag,” “gap,” “trail,” and “disparities” increase the risk of perpetuating a deficit narrative.

To avoid potential contribution to the deficit narrative, this sentence could be rewritten as “On the other hand, the gains in test scores across school years documented for students identified as Black were [x] points lower, on average, than the gains documented for students identified as White.” In doing so, potentially demeaning terms like “lag” are removed and the focus is placed on a difference in gains, with the magnitude of the difference stated in numerical terms. Nonetheless, even this modified version attributes gains to the groups rather than the intervention. To avoid this, a phrase that directly references the intervention under study could be added to the sentence so that it reads: “On the other hand, the [intervention] produced gains in test scores across school years that were [x] points lower, on average, for students identified as Black than the gains documented for students identified as White.” In this rephrasing, attribution of gains is assigned to the intervention rather than the racialized groups and thus avoids a characterization of one group being “less than” another while also clearly attributing the difference in gains on a shortcoming of the intervention rather than one racialized group.

A further modification might highlight the effects of the privilege granted by our systems to people of White European descent. To do so, the last clause might be reversed to focus on the larger effect produced by the intervention for students identified as White compared to students identified as Black: “...the [intervention] produced gains in test scores across school years that were [x] points higher, on average, for students identified as White than the gains documented for students identified as Black.”

Example 2: “Even after accounting for children’s reading skills at the start of kindergarten, African American ethnicity continued to affect the average rate of growth.” This sentence was categorized as group attribution because the rate of growth is presented as a characteristic of African Americans. In this sentence a measure of growth is implied, but the specific indicator of growth (e.g., test score or grades) is not stated nor are numerical values for the rate of growth presented.

Of particular interest in this sentence is how ethnicity is presented as affecting growth. This phrasing and resulting assignment of responsibility for growth on ethnicity treat ethnicity as a causal variable and places responsibility for growth on group membership rather than on the intervention under study and/or on the individuals who are identified as members of the group. As Holland (2008) argues, demographic group membership such as racialized groups, ethnicity, and gender are not causal variables, and therefore, group membership itself cannot impact outcomes. Rather, it is differences in system-level treatment (e.g., policy, practices, and resulting actions) that differs across demographic group membership that causes different outcomes.

To avoid potential contribution to the deficit narrative, this second example could be rewritten as “Even after accounting for children’s reading skills at the start of kindergarten, the rate of growth in [outcome variable name] produced by [schools or the specific intervention] differed, on average by [x] to [y] points, for African American students compared to other racial groups.” In this rephrasing, attribution of growth is again placed on the intervention rather than on the group, the data source used to estimate growth is named, and the magnitude of the difference in growth produced by the intervention across racialized groups is stated.

Example 3: “The race/ethnic gap indicated that the Black–White gap was typically as large as the SES gap and in many grades significant, which suggested that Black students trailed their White peers in mathematics and reading scores by and large.” This sentence was categorized as group attribution for two reasons. First, the “gap” referenced in the first clause is presented as a characteristic of racialized groups. Second, by using the verb “trailed” with the subject “Black students,” responsibility for differences in mathematics and reading scores is assigned to the racialized group rather than to the school systems that serve students and/or to societal factors that differentially impact the educational opportunities and outcomes of members of racialized groups. This sentence references the specific data (scores) from data collection instruments (mathematics and reading tests), but it did not present differences numerically. If quoted out of the context of the study, this sentence, particularly the second clause, could be used to convey a narrative that people of one

racialized group “trail” behind or, in other words, are less than people of another racialized group.

To avoid potential contribution to the deficit narrative, this sentence could be rewritten as follows: “The analyses provide evidence that the difference in schools’ effectiveness in impacting achievement, as measured by mathematics and reading test scores, of students identified as Black or White was as large (x to y points, on average) as differences in schools’ effectiveness in supporting achievement, as measured by [name instrument] of students whose SES status differ (a to b points on average).” In this sentence, attribution for the outcomes is attributed to schools rather than to the groups. In addition, the magnitude of the differences is made clear by the numerical data and the source of that data is named.

Drawing on these three examples, Figure 2 presents six guidelines authors should consider when crafting sentences that present or discuss findings from quantitative studies that separate impacts of interventions by racialized groups. First, avoid using terms such as “lag,” “gap,” and “trail” when describing differences in the outcomes produced by the intervention. Second, make the intervention under study, or the system itself, the subject of the sentence. Doing so attributes any effects or differences in effectiveness to the intervention or system itself rather than to members of the groups being compared. In addition, assuring the intervention or system under study is the subject of the sentence avoids implying that a demographic variable is causal.

Figure 2: Guidelines for Avoiding Deficit Narratives

1. Avoid terms and phrases such as:
 - effect of race/racialized group
 - lag/lagged/lagging
 - gap
 - trail/trailed/trailing
2. Attribute the cause of the outcome on the intervention, policy, or educational system more broadly rather than to individual students or racialized groups of students.

Example: “the intervention had a larger impact on mathematic test scores for group X compared to group Y” rather than “Group Y earned lower scores than Group Y”
3. Reference the data source when presenting or discussing findings and avoid discussing a more general or broadly defined construct associated with the data source.

Example: fifth grade MCAS mathematics test score rather than math achievement.
4. Reference the specific scores or quantified data rather than using general descriptions of patterns in the data.

Example: “produced scores 10 points higher/.25 standard deviations higher” rather than “scored higher/lower”.
5. When an intervention is more effective for students membered White, place emphasis on the advantage provided to students membered White rather than the disadvantage/disparity produced for non-White racialized groups.

Example: “the [intervention name] produced an increase in mathematics test scores that was .25 standard deviations higher for students membered White compared to students membered Black” rather than “...25 standard deviations lower for students membered Black compared to students membered White.”
6. When describing coefficients for a racialized, gendered, or ethnic demographic variable produced by a regression function or other statistical model, avoid referring to the coefficient as an indication of an “effect,” “impact,” “explanation,” or other term that implies a demographic characteristic is causal.

Third, referencing the source of data rather than talking more generally about the construct or trait measured by the instrument helps limit the focus of a narrative about the effects of the intervention to what is measured by the instrument itself rather than the broader term used to express the construct. This is particularly important because the terms used to represent constructs may take on a different meaning, and sometimes broader meaning, by different readers. As an example, “math achievement” may be interpreted by some readers as learning that occurs in the classroom as reflected by grades on assignments or for a course of study. Others, however, may view math achievement as the ability to perform mathematics. Still, others may perceive it as a natural ability to perform mathematics. While these interpretations may overlap to some extent, they are different, and are certainly different than a score on a standardized test.

Fourth, accompany a description of findings with numerical data so that the magnitude of any differences can be assessed by the reader. This is particularly important when a sentence is taken out of the context of the larger study and used to support another person’s position. Inclusion of numerical data with qualitative descriptions of findings holds potential to limit misrepresentation of findings.

Fifth, when an intervention is more effective for students identified as White, place emphasis on the advantage produced by the intervention for students membered White rather than on the disadvantage produced for students membered into other racialized groups. Focusing on advantage produced for students membered White is useful for reminding readers that racialized oppression is designed to produce advantage for the dominant racialized group through the oppression of non-dominant racialized groups.

Finally, when presenting or describing coefficients produced by a static model for a variable representing a racialized, gender, ethnic, or other socially-constructed demographic group, avoid referring to the coefficient as an indication of “effect,” “impact,” “explanation,” or other term that implies a demographic characteristic is causal.

We maintain that presenting research findings such that the intervention or system under study is the grammatical subject of the sentence avoids contribution to the deficit narrative. Just as importantly, presenting findings in this manner shifts

focus from groups to interventions and systems, and makes clear that when outcomes occur that differ across racialized (or any demographic) groups, then it is the intervention or system that produces such effects that needs modification. In effect, this shift in focus from the group to the intervention/system produces an anti-racist narrative that recognizes the role institutions, such as schools, publishers of curriculum material, professional development providers, and governmental agencies that create and maintain educational programs, have in creating outcomes that favor one group over others.

Many leaders within oppressed groups have long taken anti-racist stances that produce narratives that counter the White framed racial deficit perspective. In *The Racial Contract*, Mills (2014) argues that such stances should not be limited to the oppressed but must also be embraced by members of groups possessing power. Authors and editors of published research are one example of a group possessing power; power to communicate findings in a manner designed to influence policy makers and the public’s understanding of issues and shape the focus of solutions and future research. The analyses presented here suggest that, at least during the period spanning 2008-2018, a substantial percentage (59%) of authors published in peer-reviewed journals that were the focus of this study employed language that could be directly quoted to support a White racially framed deficit narrative. As we show through concrete examples, this contribution can be avoided by consciously crafting sentences to attribute effects to interventions rather than racialized groups and by presenting findings in a factual manner that limits interpretation to the data collected rather than broader constructs and traits. While this action is only one small step toward developing an anti-racist counter to the deficit narrative, it is a step that all authors have the power to take and all editors to demand.

References

- Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness*. The New Press.
- Bates, R. (2017). *Black Male Collegian’s Perceptions of Student Success at Historically White Institutions*. University of Oklahoma.

- Bell Jr, D. A. (1980). Brown v. Board of Education and the interest-convergence dilemma. *Harvard Law Review*, 518–533.
- Bonilla-Silva, E. (2009). *Racism without racists: Color-blind racism and the persistence of racial inequality in the United States* (3rd ed.). Rowman & Littlefield Publishers.
- Bracey, G., Chambers, C., Lavelle, K., & Mueller, J. C. (2017). The white racial frame: A roundtable discussion. In *Systemic Racism* (pp. 41-75). Palgrave Macmillan, New York.
- Brooms, D. R. (2015). Nuancing the Experiences of Black Males and Males of Color in Education: A Review of Tyrone Howard's Black Male(d) and Rodney A. Williams's Men of Color in Higher Education. *Urban Education*, 53(5), 697–705. <https://doi.org/10.1177/0042085915618727>
- Butler, P. (2018). *Chokehold: Policing black men*. The New Press.
- Cabrera, N. L. (2019). Critical race theory v. deficit models. *Equity & Excellence in Education*, 52(1), 47–54.
- Carey, R. L. (2014). A Cultural Analysis of the Achievement Gap Discourse: Challenging the Language and Labels Used in the Work of School Reform. *Urban Education*, 49(4), 440–468. <https://doi.org/10.1177/0042085913507459>
- Clark, J. S. (2017). *This is a black-White conversation: navigating race, class, and gender at an urban school*. <https://doi.org/10.18297/etd/2625>
- Davis, L. P., & Museus, S. D. (2019). What is deficit thinking? An analysis of conceptualizations of deficit thinking and implications for scholarly research. *NCID Currents*, 1(1).
- Delgado, R., & Stefancic, J. (2017). *Critical race theory: An introduction*. NYU Press.
- DiAngelo, R. (2018). *White fragility: Why it's so hard for White people to talk about racism*. Beacon Press.
- Dixon-Román, E. J. (2017). *Inheriting possibility: Social reproduction and quantification in education*. U of Minnesota Press.
- Dudley-Marling, C. (2015). The Resilience Of Deficit Thinking. In *JOURNAL OF TEACHING AND LEARNING* (Vol. 10).
- Dumas, M. J. (2016). Against the dark: Antiblackness in education policy and discourse. *Theory Into Practice*, 55(1), 11-19.
- Elias, S., & Feagin, J. R. (2016). *Racial theories in social science: A systemic racism critique*. Routledge.
- Feagin, J. R. (2013). *The White Racial Frame: centuries of racial framing and counter-framing*. Routledge.
- García, N. M., López, N., & Vélez, V. N. (2018). QuantCrit: Rectifying quantitative methods through critical race theory. *Race Ethnicity and Education*, 21(2), 149-157.
- Gillborn, D., Warmington, P., & Demack, S. (2018). QuantCrit: education, policy, 'Big Data' and principles for a critical race theory of statistics. *Race Ethnicity and Education*, 21(2), 158-179.
- Goings, R. B. (2016). (Re)defining the Narrative: High-Achieving Nontraditional Black Male Undergraduates at a Historically Black College and University. *Adult Education Quarterly*, 66(3), 237–253. <https://doi.org/10.1177/0741713616644776>
- Gutiérrez, R. (2008). A " Gap-Gazing " Fetish in Mathematics Education ? Problematizing Research on the Achievement. *Journal for Research in Mathematics Education*, 39(4), 357–364.
- Habermas, J. (1967). Zur Logik der Sozialwissenschaften. Translated by NicholSEN, S. W., & Stark, J. A. (1991). On the Logic of the Social Sciences.
- Harper, S. R. (2012). Race without racism: How higher education researchers minimize racist institutional norms. *The Review of Higher Education*, 36(1), 9-29.
- Harper, S. R. (2014). *Succeeding in the City: A report from the New York Black and Latino Male High School Achievement Study*. New York, NY.
- Holland, P. W. (2008). Causation and race. In *White logic, White methods: Racism and methodology* (pp. 93–109).
- Howard, T. C. (2008). Who really cares? The disenfranchisement of African American males in preK-12 schools: A critical race theory perspective. *Teachers College Record*, 110(5), 954–985.
- Howard, T., Huerta, A. H., Wood, B., Navarro, O., & Terry, L. (2017). *The Counter Narrative: Reframing*

Success of High Achieving Black and Latino Males in Los Angeles County. Los Angeles.

- Kendi, I. X. (2017). *Stamped from the beginning: The definitive history of racist ideas in America*. Random House.
- Ladson-Billings, G. (2007). Pushing past the achievement gap: An essay on the language of deficit. *The Journal of Negro Education*, 316-323.
- Ladson-Billings, G., & Tate, W. F. (1995). Toward a Critical Race Theory of Education. *Teachers College Record*, 97(1). Retrieved from <https://www.researchgate.net/publication/279676094>
- Mills, C. W. (2014). *The Racial Contract*. Cornell University Press.
- Oakes, J. (2005). *Keeping track: How schools structure inequality*. Yale University Press.
- Ogbu, J. U. (2004). Collective identity and the burden of “acting White” in Black history, community, and education. *The Urban Review*, 36(1), 1-35.
- Okan, Z. (2020). Language and Social Justice. *Handbook on Promoting Social Justice in Education*, 267-282.
- Oluo, I. (2018). *So you want to talk about race*. Hachette UK.
- Painter, N. I. (2010). *The history of White people*. WW Norton & Company.
- Scheurich, J. J., & Young, M. D. (1997). Coloring epistemologies: Are our research epistemologies racially biased?. *Educational researcher*, 26(4), 4-16.
- Solorzano, D. G., & Yosso, T. J. (2001). From racial stereotyping and deficit discourse toward a critical race theory in teacher education. *Multicultural education*, 9(1), 2.
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14(2), 287-305.
- Stinson, D. W. (2013). Negotiating the “White Male Math Myth”: African American Male Students and Success in School Mathematics. *Journal for Research in Mathematics Education*, 44(1), 69. <https://doi.org/10.5951/jresmetheduc.44.1.0069>
- Taylor, E. (2006). A critical race analysis of the achievement gap in the United States: Politics, reality, and hope. *Leadership and Policy in Schools*, 5(1), 71-87.
- Tyson, L. (2014). *Critical theory today: A user-friendly guide*. Routledge
- Van Dijk, T. A. (2008). *Discourse and power*. Macmillan International Higher Education.
- Zuberi, T. (2001). *Thicker than blood: How racial statistics lie*. University of Minnesota Press.

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