THE (MIS)USES OF RACE IN RESEARCH ON COLLEGE STUDENTS: A SYSTEMATIC REVIEW

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Race has been one of the most controversial subjects studied by scholars across a wide range of disciplines as they debate whether races actually exist and whether race matters in determining life, social, and educational outcomes. Missing from the literature are investigations into various ways race gets applied in research, especially in higher education and student affairs. This review explores how scholars use race in their framing, operationalizing, and interpreting of research on college students. Through a systematic content analysis of three higher education journals over five years, this review elucidates scholars' varied racial applications as well as potential implicit and explicit messages about race being sent by those applications and inconsistencies within articles. By better understanding how race is used in higher education and student affairs research, scholars can be more purposeful in their applications to reduce problematic messages about the essentialist nature of race and deficit framing of certain racial groups.

Disparities across racial and ethnic groups continue to be a central finding in scholarship on access to and achievement in U.S. higher education (Allen, Kimura-Walsh, & Griffin, 2009; Alon & Tienda, 2007; Harper, Patton, & Wooden, 2009; Museus, Ledesma, & Parker, 2015; Solórzano, Villalpando, & Oseguera, 2005; Teranishi, 2010). Moreover, the centrality of research on college students (Gildersleeve, 2014), and their racial and ethnic identity development in particular (Evans, Forney, Guido, Patton, & Renn, 2010; Torres, Jones, & Renn, 2009), within higher education scholarship suggests that race and ethnicity still matter greatly for understanding the experiences and outcomes of college students. However, others have demonstrated a racelessness in college student development theories and common concepts (e.g., student engagement) applied to college students (Patton, McEwen, Rendón, & Howard-

Hamilton, 2007). A lack of attention to race may perpetuate Whiteness as the unmarked

norm (Frankenberg, 1993), yet it is unclear just how much research on college students

might be raceless or perpetuate White normality since previous reviews have not had

this focus.

Within much scholarship, the terms *race*, *ethnicity*, and *culture* tend to be

conflated or used without clear definitions, potentially leading to conceptual confusion

related to racial constructs (Moya & Markus, 2010). For instance, despite common

scholarly claims of an interdisciplinary consensus that race is a social construct, recent

research has shown that many scientists (e.g., anthropologists, biologists) disagree

about the nature of race (Morning, 2011) and that without an explicit definition, race is

often implicitly understood as something innate and essential (Strom, Lee, Trahan,

Kaufman, & Pritchett, 2009). Indeed, psychological evidence demonstrates that

essentialism is a cognitive bias, meaning viewing groups as certain kinds with

underlying essences takes less cognitive energy and is therefore often the default mode

of seeing the world (Donovan, 2015; Gelman, 2003). Donovan (2015) convincingly

argued that "psychological essentialism is a cognitive bias that facilitates social

stratification based on race, because it causes individuals to categorically differentiate

humans into discrete races" (p. 67).

When racial groups are essentialized, they are viewed as having a uniting

essence that is unchangeable, inborn, natural, discrete, and informative about the

people within that group (Haslam, Bastian, Bain, & Kashima, 2006; Jayaratne et al.,

2006; Williams & Eberhardt, 2008). These essentialist views often result in or correlate

with a higher amount of stereotype endorsement and prejudice than non-essentialist

views (Prentice & Miller, 2007; Williams & Eberhardt, 2008). Given that this type of racial thinking served as a foundation for scientific racism and atrocities associated with the pseudoscience of eugenics (Zuberi, 2001), it seems important to consider how research on college students may promote (implicitly or explicitly) problematic notions of race and racial groups.

Therefore, the purpose of this review is to explore how scholars operationalize and interpret racial constructs in their research on college students and how these applications may reify race and promote racially essentialist views of college students, given the cognitive bias toward racial essentialism (Donovan, 2015). To that end, I conducted a content analysis (Krippendorff, 2012; Weber, 1990) of three peer-reviewed higher education journals, reviewing all articles that included racial constructs (e.g., race, ethnicity, specific population/group names) in empirical studies of college students over the years 2007-2011, toward better understanding how race (in its multiple forms) gets used and misused in research on college students.

Racial Applications in Research on College Students

Although research on college students often takes a raceless stance (Patton et al., 2007), it is clear that race plays a critical role in American higher education (Museus et al., 2015). Much of the recent higher education scholarship around race has focused on the premise that students' experiences with diversity provide educational benefits (Hurtado, Dey, Gurin, & Gurin, 2003; Milem, 2003). For instance, experiences with racial diversity have been shown to reduce prejudice among college students (e.g., Denson & Chang, 2009).

Although this body of literature on racial diversity is vast and compelling, it is not without critique. In a review of the study of diversity, Baez (2004) posited that there is a problematic "underlying narrative" on studies that measure the benefits of diversity:

> The underlying narrative in these studies seems to be that individuals are *racially different*, and after accepting that *fact*, researchers then figure out how to measure that *fact*. Because these studies focus on what can be measured, they fail to explain what *race* is in its irreducible complexity, what produces and sustains it, and why (and in what ways) it has come to be taken as *fact* (p. 290, emphasis in original).

As Baez suggested, continuing to conduct research from a viewpoint that races are real and measurable limits our understanding of the complexities associated with race itself. It is important to explore the concept of race and how it is potentially maintained through the ways research on race is conducted.

Using Race in Research or Studying Race

Focusing on race in college student research is especially important given the ways in which racial applications in education research may perpetuate stereotypes related to intelligence and race (e.g., Herrnstein & Murray, 1994). Part of the negative perpetuation may align with how Angela James (2001) distinguished between different types of researchers who employ race in their research: those who *study* race vs. those who *use* race. The former views race as "a profoundly social characteristic" whereby "the dynamism and fluidity of race is often used to better understand related social processes" (James, 2001, p. 244). The latter who just use race "tend to treat it as a primordial, or fixed characteristic" and in particular, "most studies using race in quantitative analysis treat race as a function of fixed differences between 'populations'" (p. 244). Within education research, Allen, Suh, Gonzalez, and Yang (2008) reminded readers that "a significant body of work promotes, directly or indirectly, theoretical

explanations of the racial achievement gap that are biased, racist, and ultimately dehumanizing" (p. 217). The authors argued for the importance of research interpretations that "do not reify racial groups as static 'things' that produce 'causal effects'" (p. 234). Despite their argument, this level of racial theorizing seems largely absent, potentially limiting both scholars' and practitioners' scope of how education can and should be improved to eliminate racial disparities.

Although some recent scholarly advances have been made in critical perspectives on race and equity in higher education (see Martínez Alemán, Pusser, & Bensimon, 2015; Stage, 2007), others argue that even scholarship using critical race theory (CRT), an increasingly important lens to analyze racism in higher education (Harper, 2012; Solórzano et al., 2005), still lacks racial theory (e.g., Cabrera, in press). Two previous systematic reviews of higher education and student affairs research help to frame the current review. First, Banning, Ahuna, and Hughes' (2000) 30-year review of the *Journal of Student Affairs Research & Practice* (formerly *NASPA Journal*) included an analysis of 72 race-focused articles (23% of all published articles). The authors found changing trends regarding which topics were focused upon (e.g., concerns about minority student problems to views on changing environments and more complex perspectives of diverse students) while the focus remained consistently on African Americans. Harper's (2012) systematic review of seven journals over ten years (1999-2009) analyzed 255 race-focused articles (those that had race in the title or abstract; no percentage of all studies provided), finding that authors tended to interpret racial findings through "anything but racism" (p. 16). Instead, scholars minimized racism as a potential explanation for racial differences in their findings.

Both of these reviews shed much light on the uses of race in college student research, but since they each only analyzed studies that explicitly focused on race and/or ethnicity (e.g., had race in their titles), the reviews only capture what race looks like for those who *study* race, and not for scholars who may just *use* race in their research (James, 2001). There is a missing piece of the puzzle regarding what race looks like for studies/articles that are not race-focused. Therefore, the current review focuses on the various ways a broader range of scholars apply race in research on college students, enabling a better understanding of how pervasive racelessness may be in the literature review (Patton et al., 2007). In examining empirical research articles across five years, I ask broadly, how is race used in research on college students? To answer this question, this review includes a content analysis of empirical research published in three prominent higher education and student affairs journals. The review closely follows the methods from Harper's (2012) analysis of race-focused research in higher education. However, the present review examines all empirical articles on college students (whether or not race-focused) that included race anywhere in the entire article, from five years and three journals, in order to examine the applications (i.e., operationalization and interpretation) of race within higher education research through two research questions: (1) What are the applications of race within higher education research on college students? And (2) What implicit or explicit messages may these applications be sending?

Methods

This systematic review is a content analysis of race-related research on college students. According to Krippendorff (2012), "content analysis is a research technique for

making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (p. 24). Given that the goal of this review is to assess the state of race-related research on U.S. college students, using content analysis as a guiding methodology seemed logical given the large number of articles to be analyzed and guidelines regarding validity and replicability in the analytical procedures. When conducting a content analysis, Weber (1990) outlined the importance of decision making around (a) selection of content; and (b) coding procedures in order to achieve reliability in the form of reproducibility.

Content

To examine the applications of race in research on college students, I selected three prominent U.S. higher education research journals: *The Review of Higher Education (TRHE)*, published quarterly, the *Journal of Higher Education (JHE)*, published six times a year, and the *Journal of College Student Development (JCSD)*, published six times a year. I selected these journals to reflect a broad area of research on college students (broadly defined – including students at 2-year and 4-years institutions, incoming college students, recent graduates, and graduate students). They are not meant to be exhaustive nor comprehensive of the entire fields of higher education and student affairs, yet they are part of what has been considered the "core" higher education journals with relatively high prestige and utilization (Bray & Major, 2011; Hutchinson & Lovell, 2004; Silverman, 1987). All three journals had relatively similar 5-year impact factors (*JHE*: 1.926, *JCSD*: 1.277, *TRHE*: 1.186) in the 2010 *Journal Citation Report* (Institute for Scientific Information, 2010).

The exploratory nature of the current review suggested that a cross-sectional approach to reviewing the articles would be sufficient to meet the review's goals. I included all research articles (not including editor's notes, ASHE presidential addresses, or review articles) appearing in the three journals between 2007 and 2011 (*TRHE* Volume 30, Number 2 through Volume 35, Number 1; *JHE* Volumes 78-82; *JCSD* Volumes 48-52). My interest was in gauging where scholars are in terms of applying and interpreting racial constructs in their research on college students and not necessarily with trends over time. Therefore, the five-recent-year constraint seemed appropriate, especially since other reviews have demonstrated the stability of methodological approaches within a five-year span (e.g., Goodwin & Goodwin, 1985; Hutchinson & Lovell, 2004).

Procedures

The coding of articles consisted of two parts: initial coding for inclusion in the review, and content analysis coding. First, I reviewed all of the published articles in each of the three journals within the five years and coded for the following inclusion criteria: (a) empirical (meaning article used data), (b) included individual-level student data (e.g., had students as participants, used students as the unit of analysis); and (c) included race (or a race-related construct) in its framing, analyses, or interpretation. Since race is most often defined as a descriptive characteristic of persons or groups of people, the second inclusion criterion was an important consideration for being able to examine whether and how race was used. Moreover, as I coded for whether race was included, I used memoing to create an initial list of potential codes to be used in the second round of coding related to racial applications.

In total, I reviewed 423 published articles for the initial criteria for inclusion in the review, with 49.6% (*n* = 210) from *JCSD*, 30.5% (*n* = 129) from *JHE*, and 19.9% (*n* = 84) from *TRHE*. Of these, 61.7% (*n* = 261) fit all the necessary criteria (described above) for inclusion in this review and were subsequently coded for applications and meanings of race (see Table 1). In terms of methodologies, of the 261 articles, 161 (61.7%) incorporated quantitative methodologies, while 93 (35.6%) were qualitative, and 7 (2.7%) were mixed methods studies.

After inclusion criteria coding, a second round of coding commenced, where I used a combination of methods, including using computer aided autocoding (Krippendorff, 2012) in HyperRESEARCH 3.0.2 and open coding techniques (Strauss & Corbin, 2008), to create an initial codebook that reflected the following aspects of each article: (a) how the article applied race in its methods (i.e., operationalization) and (b) how race was interpreted. Each article also received a holistic code for whether there seemed to be consistency between the framing, operationalization, and interpretation of race. Furthermore, I coded for how each article used the terms "race" and "ethnicity," included or excluded certain groups, and collected racial and/or ethnic information. This coding happened through several iterative processes. The initial list of codes from the first round of coding for inclusion criteria helped to frame the types of information I was looking for as I entered into open coding with a subset of 10% of the articles taken from all three journals. Instead of using a strictly *a priori* coding scheme, I focused on gathering a wide variety of potential codes on racial uses throughout the articles, memoing extensively throughout the process. After this initial subset coding, I had a list of over 100 codes across various groups of codes (e.g., operationalizations,

interpretations). Revisiting my memos and comparing different types of codes, along with peer debriefing, allowed me to consolidate and group the codes into a final codebook, which I used to code all articles.

Limitations

Before outlining this review's findings, there are several limitations that should be considered when interpreting the review's claims. First, I want to acknowledge my own positionality and standpoint and how that undoubtedly colors my interpretations within a content analysis study (Krippendorff, 2012). As a multiracially-identified male and emerging scholar, I recognize how my own identities may have influenced what I found to be interesting points to focus upon in my initial coding. For instance, I have encountered dilemmas like being forced to choose one racial category on demographic forms, and therefore I was likely more sensitive to issues regarding data collection and transparency. Second, I did not have an additional coder to assess inter-rater reliability, which adds another limitation to this review. However, I felt confident addressing this limitation by adhering to the methodological guidelines of content analysis and incorporating other forms of trustworthiness (e.g., peer debriefing, computer autocoding). Third, without access to steps in the peer review process that each article endured, some of my claims about authors' decisions and interpretations may more accurately reflect reviewers' and/or editors' requirements, and therefore much of my implications refer to this level of analysis (e.g., the culture of peer review).

Review Findings

This review sought to better understand how racial constructs are applied in research on college students and the potential meanings and messages these applications may (intentionally or unintentionally) be sending to readers.

How are Racial Constructs Applied?

Coding of the 261 articles demonstrated a wide variety of general applications of race (and, at times, ethnicity) in research on college students. Table 2 outlines these applications, which mostly included using race and/or ethnicity to enumerate samples or describe the demographic contexts of studies.

Enumeration and demographics. Overall, the applications centered around enumerating samples by race and/or ethnicity. Over three-quarters of the articles applied race in this way, with 18 (9.0%) of these articles having enumeration as the only racial application and another 22 articles (10.9%) only applying race to enumerate along with demographic context (i.e., race was not operationalized or interpreted in findings). The enumeration largely reflected racial and ethnic categories found on the U.S. Census, with Hispanic/Latino being weighted the same as other Census-recognized racial groups rather than an ethnicity. Despite the changing demographics within the U.S. (evidenced in the separation of Native Hawaiian and Other Pacific Islander as its own racial group since the 2000 U.S. Census), these racial classification schemes researchers used mirror what Hollinger (1995) described as the "ethnoracial pentagon" that reflects an antiquated notion of just five broad categorical groups corresponding to the racialized labels of black (African American), brown (Latina/o), red (Native American/American Indian), white (European American), and yellow (Asian American).

For example, only eight (3.1 %) of the 261 articles mentioned Pacific Islanders as a racial group distinct from Asian Americans.

Similarly, race and/or ethnicity were often applied (*n* = 85, 32.6% of articles) when describing the demographic context in which the study took place. This description included such items as the demographic profile of the region, state, institution (sometimes as simple as stating it was a "Predominantly White Institution"), or a particular program (e.g., if sample was recruited from a program). For example, Fries-Britt and Griffin (2007) described multiple levels of racial demographic context:

> Census data indicates that in 2000, there were over 5 million residents in the state in which the university is located, and the state's racial/ethnic composition was 64% White, 28% Black, 4% Latino, 4% Asian, and .3% Native American (U.S. Census Bureau, 2000). State University enrolls approximately 35,000 students (25,000 are undergraduates), and just over 75% of undergraduates are in-state residents. Although not completely proportional, the undergraduate enrollment of State University somewhat mirrors the wider state population: 68.0% of undergraduates are White and 32.0% are minorities. Specifically, 12.0% of undergraduate students are Black, 14.0% are Asian American, 6.0% are Latino/Hispanic, and 0.3% are Native American (p. 152).

The level of detail for both the state and institutional-level racial and ethnic demographics provides important information for understanding the context of their study. However, despite using data from the U.S. Census, there is no mention of Pacific Islanders (nor individuals who selected two or more racial categories), which speaks to the flexibility that researchers have in interpreting and reporting out demographics.

Another common application of race related to enumeration was using race to focus the study on a specified racial and/or ethnic population (23.4%). Over half (55.7%) of these were qualitative studies that sought to explore more in-depth the lived experiences of the specified student group. An interesting point is the distribution of groups which were the topic of focus within these specified studies. Twenty-eight

(46.0% of the specified populations application of race) studies specifically focused on

African American and/or black students, 14 (23.0%) on Latina/o or Hispanic students,

eight (13.1%) on Asian/Pacific Islander Americans (none specifically on Pacific

Islanders), six (9.8%) on White students, four (6.6%) on Native American/American

Indian students, and two[1] (3.3%) on multiracial or multiethnic students.

Race in analyses. Another prominent application of race and ethnicity was that

of an analytic variable (88 articles or 33.7%), which had several different applications.

Of these 88 articles, 46 (52.3%) included race as a variable in order to explicitly

compare different racial and/or ethnic groups within analyses (e.g., Engberg & Hurtado,

2011). These studies were often quantitative and used large datasets that could

separate the data into different groups for separate analyses (e.g., Park, 2009).

However, the comparisons could also be made by operationalizing race as a variable in

different ways. Table 3 outlines the various operationalizations of race as an analytical

variable (i.e., used as a comparative, independent, or control variable).

As outlined in Table 3, when researchers desired to include race as an analytic

variable to compare different groups, the separate racial groups that were enumerated

in descriptive analysis of the sample could be collapsed together in different ways.

Operationalizations included having White vs. collapsed Student of Color comparisons

due to wanting to maintain relatively similar sample sizes for statistical power, as this

study noted:

> To increase the power for these analyses, we also collapsed race into two
> groups so that we could compare students of color and White students. Students
> of color (including students who identified as more than one race/ethnicity) were

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[1] Note: One study focused on multiraciality but was not included in this count since the study's sample included non-multiracial students and staff.

> assigned a value of 0 and White students were assigned as value of 1.
> (Langhout, Rosselli, & Feinstein, 2007, pp. 163–164)

Interesting to note is that this study included "17 race/ethnicity options" for participants

to self-identify, yet the collapsing does not seem to honor such self-identification,

especially since some students who mark more than one category may not always

identify with the Students of Color label (King, 2011). In addition to the desire for

statistical power, it may be that 17 different groups would be unrealistic to compare,

especially considering how institutional review boards may require collapsing of very

small groups to protect participants' anonymity. Still, scholars can further consider the

labels they use in grouping different students.

When studies did not group their sample into this binary use of race, they often

included dummy codes for each group. However, this operationalization could result in

excluding or dropping certain groups from the statistical analyses due to small sample

sizes (e.g., Crisp, 2010). Out of the 17 studies that described dropping certain groups

from analyses, Native Americans were excluded in 11 of these articles, mixed race or

multiracial students were excluded in five, while broadly defined Asian students and

African American/black students were each excluded twice. Examining these instances

further, out of the 17 articles, 11 excluded groups because of the methods utilized (e.g.,

needing to drop groups from the sample due to small cell sizes), three studies did so

due to the focus of the study, and three others did not explain why certain groups were

excluded. For instance, one study that excluded multiracial students wanted "to focus

exclusively on Native American students" and therefore "those who indicated another

racial/ethnic affiliation in addition to their Native American race/ethnicity were not

included in the analysis" (Lundberg, 2007, p. 408). Excluding students who selected

more than Native American on their demographic forms may send an implicit message that students who are mixed Native American are not truly Native American.

Why are Racial Constructs Applied?

Part of better understanding the applications of race included getting a sense of why researchers applied race in their research, which aligned with authors' rationales or frames for incorporating racial constructs. Four major reasons emerged from the coding, including 171 articles (65.5%) that reviewed literature suggesting that race and/or ethnicity should be applied, 98 articles (37.5%) where race and/or ethnicity were the main focus or purpose of the study, 63 articles (24.1%) where the theoretical or conceptual framework used in the study suggested (or required) the inclusion of race and/or ethnicity, and lastly, 13 studies (5.0%) where race and/or ethnicity were included because the researchers conducted purposeful sampling in order to diversify their sample by race and/or ethnicity. However, there were 59 articles (22.6%) that applied race but did not offer rationale for why.

How are Racial Applications Interpreted?

In order to answer the second research question, I examined authors' interpretations (or lack thereof) of race as well as the implicit messages attached to different levels of consistency, transparency, and language usage around race.

Authors' implicit and explicit interpretations. In addition to analyzing the ways articles were framed to understand why race was applied, analysis of the findings, discussion, and limitations sections of the articles allowed for better understanding if and how authors were interpreting their applications of race. As outlined in Table 4,

there were wide variations in how the applications of race were in turn interpreted by the authors (if at all).

Although almost a third (31.8%) of these studies attributed racial differences to environmental or contextual factors, more often studies did not discuss or explicitly interpret racial findings at all (33.7%). By not explicitly interpreting racial applications, authors leave this up to individual interpretation and, as James (2001) argued, "using race as an independent variable without any contextualization or explanation implies that the causes for the social differences under study exist within the populations defined by the various categories" (p. 245). For instance, one study that used race as a control variable described differences among the sample by stating, "The GPAs of African American students were lower by .5 points on a 4-point scale than participants from other racial and ethnic backgrounds" (Brockelman, 2009, p. 278). Yet, no discussion was offered as to why this difference existed (e.g., due to environmental factors or racism), leaving open a potential implicit interpretation that racial groups are inherently different/deficient.

This implicit essentialization due to a lack of interpretation could also be witnessed in qualitative studies. For instance, one study of high-risk students enumerated the sample by race with rationale, but in reporting of participant quotes, only one participant gets described racially:

> For instance, an African American student at a large public university said of her professional academic advisor: "She, like, remembers me. Wow, she knows me! There are a lot of people here… To know that she's trying to know my name and not brush me off as another student [is important]" (Schreiner, Noel, Anderson, & Cantwell, 2011, p. 327).

Although one other participant is described generically as a student of color, all other participants become raceless. Are we to assume that all other quoted participants are White? Given that none of the discussion includes any attention to race, there may be an implicit message being given that essentializes and otherizes Students of Color who have to be named while Whites are normalized.

Another example includes a potentially more explicit and deficit oriented interpretation of findings. In an article that includes in its title "they need help" in its title, comparisons across racial groups are found across the initial statistical models that included limited controls. The author notes, "Hispanic students no longer appear less likely than White students to obtain a bachelor's degree when the final GPA and the amount of Pell grants are controlled" (Li, 2010, p. 231). This explaining away of race with other variables helps to de-essentialize racial disparities. However, the discussion does not interpret this finding, focusing instead on one of the earlier models, stating, "This study also shows that Hispanic students are 11% less likely to obtain their bachelor's degree within six years, regardless of their educational pathways" (p. 234). In this example, the claim that educational pathways do not help explain Hispanic students' decreased likelihood of obtaining their degrees (in comparison to White students) may send the message that there is something "wrong" with Hispanic students and that they "need" additional help.

On the other end of the spectrum of racial interpretations were those that explicitly interpreted their uses of race, often attributing racial differences to environmental factors (31.8%). In this example, racial differences are interpreted up front without essentializing racial groups as inherently different:

> At the outset, it is clear that any racial disparities in mathematics preparation and achievement may be attributed to a number of well-documented expressions of socioeconomic inequality, such as academic tracking, lower levels of parental capital, and the poorer quality of primary and secondary schools in neighborhoods characterized by a high percentage of minorities... Thus, race itself is not a cause of the disparities; rather, it is the many correlated facets of inequality that lead to lower preparation and achievement among historically disadvantaged racial groups. (Bahr, 2010, p. 212)

This example and others explicitly interpreted that differences between groups or experiences within groups may be due to inequality and oppression related to race and/or ethnicity (16.7%). Important to note is that interpretations including environmental factors were not necessarily dependent on authors' explicit inclusion of terms such as "racism" and "racist." In total, 22.2% of the 261 articles included the terms "racism" or "racist." I found these terms used in different places within the articles (e.g., in the literature reviewed) with only 37 (14.2%) specifically including racism in interpretations of findings (e.g., Martínez Alemán, 2010). Why would authors include racism in the literature reviewed and not in the discussion? This discrepancy relates to the types of inconsistencies of race found within individual articles.

Inconsistencies of race. Another form of how race could send implicit messages within the studies related to how consistent authors were between framing/rationales, operationalizations, and interpretations of race in their research. If inconsistently applying race across one study, authors may be unintentionally confusing racial concepts or explanations for why race matters or does not matter in their research. Although not one of the research questions, one pattern that emerged from the "inconsistent" studies occurred when the only application of race was sample enumeration, yet there was no rationale given for why (e.g., no literature reviewed said race might be important to answering the research questions). Although some (19.2%)

of the studies that enumerated their samples by race and /or ethnicity briefly mentioned

that the sample was roughly representative of the institution, the majority did not provide

much rationale for why they enumerated by race or ethnicity. Knowing the sample

demographics seems helpful, but without proper rationale, it may also send an implicit

message that perpetuates the idea that students of different racial/ethnic backgrounds

are essentially or inherently different (Baez, 2004). Providing rationale for enumeration

could be a way to limit misconceptions of race as a fixed characteristic of students that

must always be noted and controlled for when possible.

Another pattern was a lack of transparency in how studies collected racial and/or

ethnic data. For instance, of the 201 studies that included race and/or ethnicity when

enumerating samples, 82 (40.8%) did not mention how the demographic information

was collected (see Table 5). Very few studies (6.5% of the studies that enumerated

race) offered a level of transparency explicitly describing how racial data were collected,

for example:

> Information on race was collected using a multiple response category asking
> students, "How do you identify yourself racially/ethnically?" Students were asked
> to respond to this question using the following response categories: 1 = African-
> American/Black, 2 = Asian/Pacific Islander (includes the Indian subcontinent), 3 =
> Hispanic/Latino/Chicano, 4 = Native American/American Indian/Alaskan Native, 5
> = White/Caucasian (persons having origins in Europe, North Africa, or the Middle
> East). Students who circled more than one response category were labeled as
> "Biracial" for analyses. Those who provided no information concerning race or
> ethnic identification were classified as "No Race Given" (Mayhew & Engberg,
> 2010, p. 471).

By offering this level of transparency, researchers add to the trustworthiness and

replicability of their studies. The finding that 40.8% of the studies that enumerated race

were not transparent in how this racial data were collected may be due to the fact that

many of these studies used national datasets (e.g., from the National Center for

Education Statistics) with surveys that could be accessed by readers. However, this

additional step puts the onus on readers rather than explicitly noting whether and how

race may have been "self-identified" rather than something essentialist or static.

The final pattern within inconsistent articles related to inconsistent usage of racial

terminology. Although many studies used a conflated "race/ethnicity" term within their

studies, there were more inconsistencies in usage of racial terminology than

consistencies (see Table 6). Although the conflation of "race/ethnicity" may be used to

reflect the inclusion of "Hispanic" as a Census ethnic (non-racial) category, articles

might use "race/ethnicity" in certain parts of the article but not others (with no apparent

reason for the different usages). There were wide variations in terminology, especially in

relation to the terms race and ethnicity. Even when these terms were used within a

single article, they did not seem to be used consistently. For example, the previous

example from Mayhew and Engberg (2010) mentioned collecting "race" information, yet

the authors' survey actually asked students to respond to a conflated racial/ethnic

identity question. Some consistently used race and racial, others consistently used

ethnicity and ethnic, while the majority used these interchangeably or inconsistently,

often conflating race/ethnicity at some points, while using singular terms in others with

no clear indication why. This type of inconsistency in racial terminology could be

avoided by explicitly acknowledging the complexity associated with nuanced racial

terminology or defining the terms in a footnote as Stewart (2009) did in this example:

> The terms *Black* and *African American* are used together in this article when
> describing the racial/ethnic composition of the study participants in the manner in
> which they described themselves. The questionnaire each participant completed
> prior to being interviewed asked them to self-identify their race and ethnicity.
> Participants could write in whatever descriptor they preferred; no preset list of
> choices was given to them. In response, some students chose to respond Black

> for both race and ethnicity, others chose African American for either or both
> descriptors, and still others responded Black for race and African American for
> ethnicity… Therefore, when referring to the racial and ethnic composition of the
> students who participated in this study, they are referred to as *Black and African
> American* (p. 235, emphasis in original).

Acknowledging this complexity seems important for disrupting status quo notions of

race and ethnicity. However, it was clear from my review that the majority of studies did

not offer these types of nuanced views of race and ethnicity reinforcing inconsistencies

in racial terminology.

Discussion

This review investigated how scholars apply racial constructs in their research on

college students and how the potential messages of these applications may promote

racially essentialist views of college students. Given the historical legacy of how

research methods have been used to categorize and subsequently oppress certain

groups of people (Zuberi, 2001; Zuberi & Bonilla-Silva, 2008), examining the various

ways race gets applied seemed important for getting a sense as to whether or not

scholars contribute to this type of racial essentialism through their research.

Incorporating studies that were not race-focused, yet still included race, elucidates the

ways race has potentially become an essentialized category of difference, commonly

used in research (even non race-specific), yet not well-described in transparent and

nuanced ways. In reviewing the inclusion criteria steps, out of the 299 articles that were

empirical and included college students, only 38 (12.7%) did not include race in some

way. This evidence suggests that the empirical research on college students is not as

raceless as some might conclude by the lack of attention to race in student

development theory and concepts (Patton et al., 2007). Yet the additional findings from

this study that 40 (15.3%) of the 261 articles only included race when enumerating a sample or mentioning demographic context of the study, and 59 (22.6%) did not provide any rationale for the inclusion of race, suggest that some include race without much attention to why or how it may be interpreted. This inclusion of race without explicit attention to race and racism may still perpetuate a sense of racelessness and centering of white normality.

Applications of race in research on college students seem to vary greatly across the studies analyzed, while enumeration of samples by race and/or ethnicity was a central application of race common across a majority of studies (77.0%). Fewer studies included demographic contexts along with the enumeration. It seems as though part of the rationale for enumerating by race is to be able to compare (e.g., assess representativeness of sample) the racial composition of the sample to the racial composition of the population as a form of context. Being explicit about the role of context is imperative for combating essentialist notions that students of different races are innately different and therefore need to be counted (outside of context) (Baez, 2004; Zuberi, 2001). Including an understanding of the demographic contexts in which a study takes place seems especially important for considering how race might matter differently in each particular context, adding to the potential for disrupting essentialist and static notions of race.

Moreover, this enumeration may perpetuate antiquated notions or race and stagnant categories, such as the ethnoracial pentagon offered by Hollinger (1995). By providing more nuanced notions of race and ethnicity and including interpretations of racial findings, scholars can help to send a message that race is not only socially

constructed, but explicitly a function of power and oppression, and therefore limit the type of essentialist thinking around race that can be found in much of the historical research in education (Selden, 1999; Winfield, 2007; Zuberi, 2001). Unfortunately, the findings also demonstrate that these types of nuanced applications of race do not seem common. Scholars' lack of explicit interpretations of why race mattered in their studies left the potential for implicit interpretations that there is something inherently or essentially different between racial groups, which is what could be attributed to the cause of significant racial differences found in their studies. Even when race was not significant, the inclusion of race as a variable without rationale (e.g., not in literature reviewed, not in conceptual framework) also contributes to an implicit interpretation that race is an essential characteristic of college students that must be controlled for in analyses.

What might be needed for the field are new ways of thinking about race that will hopefully extend into the ways scholars conduct research, including how they conceptualize, collect, operationalize, and interpret race. One way ahead relates to the finding that almost a third of the studies interpreted racial findings to be related (in part or in full) to environmental factors, demonstrating a de-essentialized explanation of racial differences (Zuberi, 2001). However, the finding that this explanation was only present in less than a third of the studies is also concerning, since de-essentialized interpretations should be more prevalent among student affairs and related fields where social justice is a central tenet. As James (2010) outlined, this might mean more scholars need to move to the camp who *study* race, rather than just *use* race.

Although Harper (2012) argued the importance of scholars interpreting race-related findings through the lens of racism, this review demonstrates how the methodological decisions scholars make may actually be racist. Examining two sets of findings related to Native American students may help to elucidate these issues. Out of the 61 studies that specifically focused on certain populations, only four (6.6%) were on Native American students. On the other hand, out of the 17 studies that excluded/dropped certain groups from analyses, 11 (65.7%) excluded Native Americans. This common exclusion of Native Americans, who are already a largely invisible population in education research (Brayboy, 2005), should be a major concern for scholars. Such invisibility not only hampers understanding their needs, but also perpetuates stereotypes and misconceptions of Native American students as existing only in the past or through mascot imagery, which have detrimental effects on Native American students (Fryberg, Markus, Oyserman, & Stone, 2008; Shotton, Lowe, & Waterman, 2013). This form of racism (i.e., making certain racial groups invisible) is something that seems entirely within the control of researchers and must be considered further in methodological decisions. It is imperative, now more than ever, that smaller populations like Native American students do not get overlooked.

This study also demonstrates that the power of language and scholars' language choices can change how their findings are interpreted. For instance, when dummy coding race as a variable in regression analyses, a group needs to be left out against which to test hypotheses, which generally defaults to White students as this referent group, as stated in the Mayhew and Engberg (2010) example about transparency. However, the language choice could very well say Whites where the "omitted" group,

rather than the referent group. Although it is the exact same technique, the meanings seem to shift. "Referent" signals the status quo dominant group and perpetuates White normality, while "omitted" may send a different message still in line with what the statistical analysis. Yet, the fact remains that in either case, the group that hypotheses are being tested against (the comparative group) are White students, continuing to perpetuate them as the norm in which other racial groups should be compared. Mayhew and Simonoff (2015) proposed using effect coding to limit this perpetuation of White normality.

Implications & Conclusion

This content analysis of scholars' applications of race offers several implications for both conducting future research as well as teaching about race and research methods. Since enumeration of study samples by race and/or ethnicity was a central application, more attention needs to be given to why. If scholars just enumerate by race (and usually gender) without rationale, what message might this send about these already essentialized categories? The findings demonstrate that racial enumeration without rationale may be sending a message about the fixedness and innateness of race. In future research, authors should be more explicit about why they are including race in their studies. Moreover, it would be a false argument to suggest that articles do not need to enumerate by race. Even if an author tried this approach (with rationale of not wanting to essentialize race), reviewers and journal editors would likely require this information. Requiring racial information without accompanying rationale may unintentionally contradict the importance for including this information in the first place

(e.g., perpetuating essentialist notions of race while trying to ameliorate racial disparities).

Incorporating the potential perspectives of peer-reviewers and journal editors adds another important piece of making sense of racial applications in higher education research on college students. In addition to reviewers potentially requiring the enumeration of samples by race and ethnicity, they should also ensure that scholars do a good enough job combing the literature in order to include rationale for why race would be important to know within their samples. Without this framing, race may be maintained as an essentialized characteristic of college students that must be identified (and potentially controlled for). This is not to argue against enumeration or quantitative studies that use race, but rather to call for higher education and student affairs scholars to further consider the essentializing implications of our research. Therefore, we need new methods and orientations that allow for more nuances of race (i.e., studying race) to be further valued and legitimized.

If scholars publishing in the fields of higher education and student affairs are to become more complex in their applications of race that are more nuanced yet consistent, there likely needs to be a culture change within the way the fields conduct research. This change includes how graduate students are taught about race and research methods as well as how they are socialized into the field. Perhaps part of the limited attention and depth being paid to race within many of these studies could be attributed to a lack of attention to teaching about race and racism within higher education and student affairs graduate programs overall and within methods courses in particular. This gap may be left up to editors and review boards for journals through the

peer-review process. Review board orientation and training for journals (even if not focused on race or other aspects of diversity) should include a layer of review for determining the appropriateness of the authors' applications and interpretations of race. Furthermore, journal editors should pay attention to the language of race and/or ethnicity and the inconsistencies apparent within articles. Asking scholars to define the terms they use and how they collect and operationalize race in their studies may help limit these inconsistencies and also provide an opportunity to limit the essentialization of racial categories used in their studies. Journal editors should expect this type of transparency among all studies that both study race or use race.

Overall, this review provides a foundation for further exploration by outlining how race is currently applied in published articles over a five-year period. Explicit interpretations of racial differences as being a function of racism occurring in the environment is one way to reduce any "status quo" understandings of race and related disparities and experiences with discrimination, especially if an underlying interpretation of race may imply essentialist notions of racial groups. This review calls for new methods for capturing, interpreting, and reporting the constant, yet ever-changing, racial issues affecting college students. Moreover, these studies seem to be just breaking the surface of the field of higher education's shared knowledge on the utility and meanings of race, and the need for more research that specifically examines the complexities of race for different constituents and across multiple functions. For instance, future research could investigate which disciplinary perspectives or canons of race scholars incorporate into their research on race, or could more explicitly investigate the connections between how research tends to manufacture race through statistical

categories (Zuberi, 2001) with understandings of race being manufactured by politics/power in a sociohistorical moment (Omi & Winant, 1994).

Table 1

Distribution of Research Articles on Students Using Race and/or Ethnicity (*N=423*)

Journal	Total Articles Reviewed*	# Empirical Articles	# with individual student-level	# with student-level and race	% Included of Total
Journal of College Student Development (JCSD)	210	206	194	172	81.9
Journal of Higher Education (JHE)	129	116	62	50	38.8
The Review of Higher Education (TRHE)	84	69	43	39	46.4
Total	423	391	299	261	61.7

*Note: Total does not include editor's notes, ASHE presidential addresses, book reviews, nor *JCSD*'s special 50th Anniversary issue

Table 2
General Applications of Race (*n*=261)

Application	Description	#	%
Sample Enumeration	Study used race and/or ethnicity to describe sample (or population) characteristics	201	77.0
Demographic Context	Study used to describe the demographic profile of the state, institution, program, etc.	85	32.6
Specified Population	Study focused on a specific racial and/or ethnic population	61	23.4
Author positionality/reflexivity	Author(s) includes how own race and/or ethnicity may influence study	18	6.9
Weighting Responses	Weighting some groups or taking a random sample of one group to match sizes	11	4.2
Identifying participants by race	Study only includes race by identifying quoted participants by their race	8	3.1
Analytic Variable – Construct	Study included a race-related construct (e.g., campus racial climate) within analysis	49	18.8
Analytic Variable – Comparative	Study focused on comparing different racial and/or ethnic groups within the sample	46	17.6
Analytic Variable – Independent Variable/Background Characteristic	Study included race and/or ethnicity as an individual characteristic of sample	45	17.2
Analytic Variable – Control	Study used race and/or ethnicity as a "control" in statistical analysis	34	13.0

Note: percentages do not total 100 since a single article could have had several different usages. For instance, controlling for race often meant enumerating what those racial characteristics were in the first place.

Table 3

Interpretations of Race and/or Ethnicity

Interpretation and description *(n = 261)*	#	%
Environmental factors Interpretation included how environment contributed to race-related outcomes	83	31.8
Limitations based on race Author(s) included race when describing limitations of the study	71	27.2
Significant racial and/or ethnic group differences Study found significant difference between racial and/or ethnic groups	57	21.8
Group heterogeneity Study allowed for interpretations of or explicitly described within racial group diversity	50	19.2
Inequality/Oppression as interpretation Inequality and/or oppression related to race and/or ethnicity (e.g., racism, discrimination) referenced	44	16.7
No racial differences found Study found no differences among racial and/or ethnic groups	29	11.1
Cultural differences Interpretation referred to cultural differences as potential influences	26	10.0
Not interpreted/discussed Study included race, yet did not include in discussions or limitations	88	33.7

Note: percentages do not total 100 since a single article could have had several different interpretations.

Table 4

Usage of Racial and Ethnic Terminology

Terminology Usage (*n*=261)	#	%
Race and Ethnicity are used inconsistently	82	31.4
Race and Ethnicity are used in nuanced ways throughout article (e.g., "race and/or ethnicity" used to reflect "Hispanic" as a Census ethnic [non-racial] category)	56	21.5
Race and Racial used consistently	36	13.8
Race and Ethnicity are conflated (i.e., "race/ethnicity") consistently	33	12.6
Ethnicity and Ethnic used consistently	31	11.9
Group names used only	17	6.5
Minority or "of Color" used only	6	2.3

References

Allen, W. R., Kimura-Walsh, E., & Griffin, K. A. (Eds.). (2009). *Towards a brighter tomorrow: The college barriers, hopes and plans of Black, Latino/a and Asian American students in California*. Charlotte, NC: Information Age Publishing.

Allen, W. R., Suh, S. A., Gonzalez, G., & Yang, J. (2008). Qui bono? Explaining – or defending – winners and losers in the competition for educational achievement. In T. Zuberi & E. Bonilla-Silva (Eds.), *White logic, white methods: Racism and methodology* (pp. 217–237). Lanham, MD: Rowman & Littlefield.

Alon, S., & Tienda, M. (2007). Diversity, opportunity, and the shifting meritocracy in higher education. *American Sociological Review*, *72*(4), 487–511. doi:10.1177/000312240707200401

Baez, B. (2004). The study of diversity: The "knowledge of difference" and the limits of science. *Journal of Higher Education*, *75*(3), 285–306. doi:10.1353/jhe.2004.0011

Bahr, P. R. (2010). Preparing the underprepared: An analysis of racial disparities in postsecondary mathematics remediation. *The Journal of Higher Education*, *81*(2), 209–237. doi:10.1353/jhe.0.0086

Banning, J. H., Ahuna, L. M., & Hughes, B. M. (2000). A study of the NASPA journal (1967-1996): A 30-year reflection of scholarship in student affairs focusing on race and ethnicity. *Journal of Student Affairs Research and Practice*, *38*(1), 14–25. doi:10.2202/1949-6605.1121

Bray, N. J., & Major, C. H. (2011). Status of journals in the field of higher education. *The Journal of Higher Education*, *82*(4), 479–503. doi:10.1353/jhe.2011.0020

Brayboy, B. M. J. (2005). Transformational resistance and social justice: American Indians in ivy league universities. *Anthropology & Education Quarterly*, *36*(3), 193–211. doi:10.1525/aeq.2005.36.3.193

Brockelman, K. F. (2009). The interrelationship of self-determination, mental illness, and grades among university students. *Journal of College Student Development*, *50*(3), 271–286. doi:10.1353/csd.0.0068

Cabrera, N. L. (in press). *Is Critical Race Theory actually theory?: A constructive criticism of the Crits*. The Review of Higher Education.

Crisp, G. (2010). The impact of mentoring on the success of community college students. *The Review of Higher Education*, *34*(1), 39–60. doi:10.1353/rhe.2010.0003

Denson, N., & Chang, M. J. (2009). Racial diversity matters: The impact of diversity-related student engagement and institutional context. *American Educational Research Journal*, *46*(2), 322–353. doi:10.3102/0002831208323278

Donovan, B. M. (2015). Putting humanity back into the teaching of human biology. *Studies in History and Philosophy of Biological and Biomedical Sciences*, *52*, 65–75. doi:10.1016/j.shpsc.2015.01.011

Engberg, M. E., & Hurtado, S. (2011). Developing pluralistic skills and dispositions in college: Examining racial/ethnic group differences. *The Journal of Higher Education*, *82*(4), 416–443. doi:10.1353/jhe.2011.0025

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). *Student development in college: Theory, research, and practice* (2nd ed.). San Francisco, CA: Jossey Bass.

Frankenberg, R. (1993). *White women, race matters: The social construction of whiteness*. Minneapolis, MN: University of Minnesota Press.

Fries-Britt, S., & Griffin, K. (2007). The black box: How high-achieving blacks resist stereotypes about black Americans. *Journal of College Student Development*, *48*(5), 509–524. doi:10.1353/csd.2007.0048

Fryberg, S. A., Markus, H. R., Oyserman, D., & Stone, J. M. (2008). Of warrior chiefs and Indian princesses: The psychological consequences of American Indian mascots. *Basic and Applied Social Psychology*, *30*(3), 208–218. doi:10.1080/01973530802375003

Gelman, S. A. (2003). *The essential child: Origins of essentialism in everyday thought*. New York, NY: Oxford University Press.

Gildersleeve, R. E. (2014, January 16). A community of higher ed scholars: Building a research program of consequence in the study of higher education (or, thinking beyond student-focused research). Retrieved from http://aeradivisionj.blogspot.com/2014/01/building-research-program-of.html

Goodwin, L. D., & Goodwin, W. L. (1985). Statistical techniques in AERJ articles, 1979–1983: The preparation of graduate students to read the educational research literature. *Educational Researcher*, *14*(2), 5–11. doi:10.3102/0013189X014002005

Harper, S. R. (2012). Race without racism: How higher education researchers minimize racist institutional norms. *The Review of Higher Education*, *36*(1), 9–29. doi:10.1353/rhe.2012.0047

Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American students in higher education: A critical race historical analysis of policy efforts. *Journal of Higher Education*, *80*(4), 389–414. doi:10.1353/jhe.0.0052

Haslam, N., Bastian, B., Bain, P., & Kashima, Y. (2006). Psychological essentialism, implicit theories, and intergroup relations. *Group Processes & Intergroup Relations*, *9*(1), 63–76. doi:10.1177/1368430206059861

Herrnstein, R. J., & Murray, C. A. (1994). *The bell curve: Intelligence and class structure in American life*. Boston, MA: Free Press.

Hollinger, D. A. (1995). *Postethnic America: Beyond multiculturalism*. New York, NY: Basic Books.

Hurtado, S., Dey, E. L., Gurin, P. Y., & Gurin, G. (2003). College environments, diversity, and student learning. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research* (pp. 145–189). United Kingdom: Kluwer Academic Publishers.

Hutchinson, S. R., & Lovell, C. D. (2004). A review of methodological characteristics of research published in key journals in higher education: Implications for graduate research training. *Research in Higher Education*, *45*(4), 383–403.

Institute for Scientific Information (ISI). (2010). *2010 Journal Citation Reports Social Sciences Edition*. Retrieved from www.webofknowledge.com

James, A. (2001). Making sense of race and racial classification. *Race and Society*, *4*(2), 235–247. doi:10.1016/S1090-9524(03)00012-3

Jayaratne, T. E., Ybarra, O., Sheldon, J. P., Brown, T. N., Feldbaum, M., Pfeffer, C. A., & Petty, E. M. (2006). White Americans' genetic lay theories of race differences and sexual orientation: Their relationship with prejudice toward blacks, and gay men and lesbians. *Group Processes & Intergroup Relations*, *9*(1), 77–94. doi:10.1177/1368430206059863

King, A. R. (2011). Environmental influences on the development of female college students who identify as multiracial/biracial-bisexual/pansexual. *Journal of College Student Development*, *52*(4), 440–455. doi:10.1353/csd.2011.0050

Krippendorff, K. (2012). *Content analysis: An introduction to its methodology* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Langhout, R. D., Rosselli, F., & Feinstein, J. (2007). Assessing classism in academic settings. *The Review of Higher Education*, *30*(2), 145–184. doi:10.1353/rhe.2006.0073

Li, D. (2010). They need help: Transfer students from four-year to four-year institutions. *The Review of Higher Education*, *33*(2), 207–238. doi:10.1353/rhe.0.0131

Lundberg, C. A. (2007). Student involvement and institutional commitment to diversity as predictors of Native American student learning. *Journal of College Student Development*, *48*(4), 405–416. doi:10.1353/csd.2007.0039

Martínez Alemán, A. M. (2010). College women's female friendships: A longitudinal view. *The Journal of Higher Education*, *81*(5), 553–582. doi:10.1353/jhe.2010.0004

Martínez Alemán, A. M., Pusser, B., & Bensimon, E. M. (2015). *Critical approaches to the study of higher education: A practical introduction*. Baltimore, MD: Johns Hopkins University Press.

Mayhew, M. J., & Engberg, M. E. (2010). Diversity and moral reasoning: How negative diverse peer interactions affect the development of moral reasoning in undergraduate students. *The Journal of Higher Education*, *81*(4), 459–488. doi:10.1353/jhe.0.0104

Mayhew, M. J., & Simonoff, J. S. (2015). Non-white, no more: Effect coding as an alternative to dummy coding with implications for higher education researchers. *Journal of College Student Development*, *56*(2), 170–175. doi:10.1353/csd.2015.0019

Milem, J. F. (2003). The educational benefits of diversity: Evidence from multiple sectors. In M. J. Chang, D. Witt, & K. Hakuta (Eds.), *Compelling interest: Examining the evidence on racial dynamics in colleges and universities* (pp. 126–169). Palo Alto, CA: Stanford University Press.

Morning, A. (2011). *The nature of race: How scientists think and teach about human difference*. Berkeley, CA: University of California Press.

Moya, P. M. L., & Markus, H. R. (2010). Doing race: An introduction. In H. R. Markus & P. M. L. Moya (Eds.), *Doing race: 21 essays for the 21st century* (pp. 1–101). New York, NY: W. W. Norton & Company, Inc.

Museus, S. D., Ledesma, M. C., & Parker, T. L. (2015). Racism and racial equity in higher education. *ASHE Higher Education Report*, *42*(1), 1–112. doi:10.1002/aehe.20067

Park, J. J. (2009). Are we satisfied?: A look at student satisfaction with diversity at traditionally white institutions. *The Review of Higher Education*, *32*(3), 291–320. doi:10.1353/rhe.0.0071

Patton, L. D., McEwen, M. K., Rendón, L., & Howard-Hamilton, M. F. (2007). Critical race perspectives on theory in student affairs. *New Directions for Student Services*, *2007*(120), 39–53.

Prentice, D. A., & Miller, D. T. (2007). Psychological essentialism of human categories. *Current Directions in Psychological Science*, *16*(4), 202–206.

Schreiner, L. A., Noel, P., Anderson, E. C., & Cantwell, L. (2011). The impact of faculty and staff on high-risk college student persistence. *Journal of College Student Development*, *52*(3), 321–338. doi:10.1353/csd.2011.0044

Selden, S. (1999). *Inheriting shame: The story of eugenics and racism in America*. New York, NY: Teachers College Press.

Shotton, H., Lowe, S. C., & Waterman, S. J. (Eds.). (2013). *Beyond the asterisk: Understanding Native students in higher education*. Herndon, VA: Stylus.

Silverman, R. J. (1987). How we know what we know: A study of higher education journal articles. *Review of Higher Education*, *11*(1), 39–59.

Solórzano, D. G., Villalpando, O., & Oseguera, L. (2005). Educational inequities and Latina/o undergraduate students in the United States: A critical race analysis of their educational progress. *Journal of Hispanic Higher Education*, *4*(3), 272–294. doi:10.1177/1538192705276550

Stage, F. K. (2007). Answering critical questions using quantitative data. *New Directions for Institutional Research*, *2007*(133), 5–16. doi:10.1002/ir.200

Stewart, D.-L. (2009). Perceptions of multiple identities among Black college students. *Journal of College Student Development*, *50*(3), 253–270. doi:10.1353/csd.0.0075

Strauss, A., & Corbin, J. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd Ed.). Thousand Oaks, CA: Sage Publications.

Strom, T. Q., Lee, D. J., Trahan, E., Kaufman, A., & Pritchett, T. (2009). The use of race-related variables in counseling research. *Measurement and Evaluation in Counseling and Development*, *42*(2), 121–133. doi:10.1177/0748175609336864

Teranishi, R. T. (2010). *Asians in the ivory tower: Dilemmas of racial inequality in American higher education*. New York, NY: Teachers College Press.

Torres, V., Jones, S. R., & Renn, K. A. (2009). Identity development theories in student affairs: Origins, current status, and new approaches. *Journal of College Student Development*, *50*(6), 577–596. doi:10.1353/csd.0.0102

Weber, R. P. (1990). *Basic content analysis*. Beverly Hills, CA: Sage Publications.

Williams, M. J., & Eberhardt, J. L. (2008). Biological conceptions of race and the motivation to cross racial boundaries. *Journal of Personality and Social Psychology*, *94*(6), 1033–1047.

Winfield, A. G. (2007). *Eugenics and education in America: Institutionalized racism and the implications of history, ideology, and memory*. New York, NY: Peter Lang.

Zuberi, T. (2001). *Thicker than blood: How racial statistics lie*. Minneapolis, MN: University of Minnesota Press.

Zuberi, T., & Bonilla-Silva, E. (Eds.). (2008). *White logic, white methods: Racism and methodology*. Lanham, MD: Rowman & Littlefield.