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Teaching Race and Racial Justice: Developing Students' Cognitive and Affective Understanding

ABSTRACT

Effectively addressing both cognitive and affective dimensions of learning is one of the greatest obstacles to teaching race and racial justice in higher education. In this article, we first explore the need to integrate attention to cognitive and affective development, along with evidence-based strategies for doing so. We then provide a case study of an undergraduate sociology course on environmental justice in which the instructor intentionally adopted holistic pedagogical principles of teaching race. Analyzing student responses from a pre- and post- course survey, course assignments, and instructor observations of student participation, we find that both white students and students of color experienced significant growth in their cognitive and affective understanding of the complexities of race and work toward racial justice. However, results also show how challenging it can be to create the conditions for productive multiracial dialogues that produce extensive affective development, particularly interpersonal skills of racial reconciliation. Reflecting on the limitations of the case, we conclude that more holistic teaching approaches are necessary to develop both students' cognitive and affective abilities to navigate race and work against racism, and we make suggestions for faculty development and administrative support.

Teaching race and racial justice is one of the more challenging endeavors in higher education. It requires us to hold a mirror to our complex histories and inequalities, revealing scars that are deep, traumatic, and not healed easily. A robust literature on critical race theory and education grapples with the complexities of teaching race and offers instructors pedagogical techniques to address these challenges (Dixson and Rousseau 2005; Leonardo and Porter 2010; Matias and Mackey 2015). For the most part, this work urges scholars to face these challenges directly by disrupting students' taken-for-granted assumptions about race through course design and engagement strategies, for example through the use of diverse scholarly voices or modeling racial reflexivity. Instructors are responding to the call. Across disciplines, a movement for social justice education aims to equip students to understand and intervene in systems of oppression; to decolonize education; and advance equity in society, particularly pertaining to race (see Harbin, Thurber, and Bandy 2019).

This study adds to the growing body of contextually grounded case studies related to teaching race (e.g., George and Williams 2018; Housee 2008; Leibowitz, et al. 2010) in its focus on integrating

the cognitive and affective. Bridging theory and practice, we answer the call for "concrete strategies for supporting students engaging the dialectic, for ethically sitting with tensions that press against our identities, our histories, power, and privilege...for minimizing harm to all students, for fostering dialogue and reflexivity in the college classroom" (Lichty and Palamaro-Munsell 2017, 9). We first explore the evidence suggesting that transformative, anti-racist education requires instructors to address both students' *cognitive* and *affective* development, and review pedagogical principles for doing so that were derived in a recent systematic review of the anti-racist education literature (Harbin, Thurber, and Bandy 2019).

Using an undergraduate sociology course on U.S.-focused racial systems and environmental justice movements taught by one of the authors as a case study, we then discern how these strategies work in practice, yielding critiques and indicating directions for future research. Of course, students were subject to external influences besides the teaching practices used in this course; however, we find that both white students and students of color experienced significant growth in their cognitive and affective abilities to understand the complexities of race and work toward racial justice. Indeed, both white students and students of color developed more elaborate, complicated, and nuanced understandings of the histories and structures of racial formations, as well as strategies for creating greater racial equality. More, they experienced emotional development, particularly their ability to engage one another productively, and empathize and articulate increasingly complex understandings of environmental injustice and environmental racism (a term for the political, economic, and cultural processes that produce [racially] unequal burdens of environmental risk and harm). Nevertheless, our case study demonstrates how challenging it can be to create the conditions for productive multiracial dialogues that produce both extensive cognitive and affective development, particularly interpersonal skills of racial reconciliation.

THE TWO DIMENSIONS OF STUDENTS' DEVELOPMENT RELATED TO RACE

There are two central dimensions of all learning, including understandings of race, racism, and racial justice: cognitive and affective (Lichty and Palamaro-Munsell 2017; Smele, et al. 2017; Zembylas 2012). Students' cognitive development vis-à-vis race refers to their comprehension of race-related concepts and their ability to formulate arguments that acknowledge the social, structural, and historical forces of race and racial inequality. Students' affective development around race refers to the social-emotional processes influencing students' judgment and actions related to race, including their emotional capacity to engage course topics and participate in interpersonal exchanges with others in multiracial settings.

For the most part, the pedagogical training offered during graduate school focuses on assessing undergraduate students' cognitive development (Lichty and Palamaro-Munsell 2017). Yet we know that topics related to race, racism, and racial justice often require emotional capacity and interpersonal skills that are just as important to the learning process. Indeed, affective learning goals related to race point to an entirely different set of skills that must be acquired, including emotional self-awareness and regulation, intercultural communication, effective listening, and empathic understanding. In this way, acknowledging both the cognitive and affective dimensions of students' development does not come at the expense of cognitive learning objectives. Rather, engaging the affective dimensions of race likely *enhances* students' cognitive understanding of the topic.

Immordino-Yang and Damasio argue that the cognitive development we wish to foster—learning, attention, memory, decision making, and social reasoning—"are profoundly affected by and subsumed within the processes of emotion" (2007, 3) and the social systems structuring them (2007, 4). As they see it, "the physiology of emotion and its consequent process of feeling have enormous repercussions for the way we learn and for the way we consolidate and access knowledge" (2007, 3), leading them to conclude that "[w]hen we educators fail to appreciate the importance of students' emotions, we fail to appreciate a critical force in students' learning. One could argue, in fact, that we fail to appreciate the very reason that students learn at all" (2007, 9). Further, neglecting social-emotional dimensions of learning can restrict educators' understandings of the affective investments they themselves make in their disciplines, research, and interactions with students (Melo, Caňada, and Mellado 2017). Hence, it is of utmost importance that we as educators strive to include both cognitive and affective dimensions of learning in our courses and programs.

TEACHING THE AFFECTIVE AND COGNITIVE DIMENSIONS OF RACE

In a recent review of scholarship related to anti-racist education in higher education, Harbin, Thurber, and Bandy (2019) synthesize a number of course planning principles for engaging students cognitively and affectively around race and racial justice. First, they suggest that instructors anticipate misconceptions about the course content, and intentionally plan to resolve these through curated course content and active learning strategies (Maybin, Mercer, and Stierer 1992). Second, they encourage instructors to incorporate multiple modes of content into syllabi—such as theatre, memoir, advertisements, and music—specifically because of their capacity to help students feel, as well as to think, differently about race and racism (Bozalek, et al. 2010; Matias and Mackey 2015; Sutherland 2013). Third, they describe adopting a concept-centered approach to racial justice education, rather than a group-centered one, to avoid tourist or exoticized discussions of various Others (Downey and Torrecilha 1994). Finally, they suggest that instructors vary assessments of learning and incorporate autobiographical reflections, video blogs, or role plays to uncover racial assumptions and unlearn internalized racisms (Danowitz and Tuitt 2011; Matias and Mackey 2015; Winans 2005). Taken together, the authors argue that these principles can shape a curriculum that develops students' conceptual understandings while also deepening their awareness of the emotional dimensions of race and racism—for themselves, for others, and for society at large.

In addition to course design, Harbin, Thurber, and Bandy (2019) highlight five guiding pedagogical principles for teaching race, with both cognitive and affective elements. First, instructors can model and motivate racial reflexivity, or the process by which one evaluates the ways race shapes our knowledge of ourselves and others, as well as our biases and our beliefs (Delano-Oriaran and Parks 2015; Matias and Mackey 2015; Rothschild 2003; Smele et al. 2017). Second, instructors can help students prepare for and welcome difficulty, encouraging students to embrace discomforting and interpersonally challenging discussions about race and racism as part of a transformative learning experience, and to practice critical reflection on the process in writing and classroom discussions (Estrada and Matthews 2016; Kumashiro 2000; Leonardo and Porter 2010; Rothschild 2003; Thurber and DiAngelo 2018). Third, instructors can meet students where they are by anticipating or surveying their varied misconceptions (Kandaswamy 2007), and scaffolding lessons and assignments to enhance knowledge and skills (Leonardo and Porter 2010; Lichty and Palamaro-Munsell 2017; Zembylas 2012). Applebaum advises faculty to respect and attend to the needs of marginalized, not merely "systematically

privileged" students, noting that "trying to challenge [the] beliefs [of systematically privileged students] comes at a cost to marginalized students whose experiences [are being] dismissed" (2007, 339). Fourth, developing students' capacities to critically evaluate racial issues and to practice a politics of solidarity in responding to racism requires one to build learning communities in which students embrace a *radical honesty* (Williams 2016); work collaboratively; and practice vulnerability, forgiveness, and trust (Leonardo and Porter 2010; Suoranta and Moisio 2006). Lastly, as noted above, instructors can intentionally engage affective and embodied dimensions of learning. Doing so can fundamentally empower race education since it enables instructors to attend to the experience, memory, feeling, motivation, value, trauma, and resistance that facilitate or disrupt student learning. Reducing race education to the cognitive domain—if this is even possible—risks minimizing experiential dimensions of race and, in the words of Leonardo and Porter (2010, 149), "turn[s] racism into an intellectualist problem, rather than a lived one." Instead, attending to affect can enable white students to have a personal engagement with race issues, ensuring an acknowledgement and deeper understanding of race in their lives and society, while supporting students of color in their work to articulate experiences or collective memories of racial marginalization.

Taken together, Harbin, Thurber and Bandy's (2019) review calls for a heightened attention to the pedagogical principles, cognitive and affective, that inform our teaching practices. As they note, however, a constellation of factors influence how those practices will be received, including the institutional context, instructor positionality, and student experiences or attitudes. For instance, the authors of this article are a white man, Black woman, and white woman—with varying years of teaching experience—employed by both research-intensive and liberal arts institutions in different geographic regions. Given that instructors' race and ethnicity influence students' perceptions of instructors' competency, interpersonal skills, and legitimacy (Bavishi, Madera and Hebl 2010, Easton 2012; Smith and Hawkins 2011), we naturally consider how our social identities shape how we are perceived by students. While all faculty teaching race-based courses may find their student evaluations affected by students' discomfort (Nast 1999), women and faculty of color are uniquely vulnerable to student backlash and bias (Anderson and Smith 2005; Bavishi, Madera, and Hebl 2010; Closson, Bowman, and Merriweather 2014; Sampaio 2006; Smith and Hawkins 2011), which in turn can become an obstacle to successful merit reviews, promotion, and tenure. Thus, despite our shared commitment to anti-racist education, we face overlapping, yet distinct obstacles in developing and maintaining productive classroom dynamics. As such, while there is value in drawing out best practices, it is also critical to explore how these practices and the interactional dimensions of teaching and learning are constituted by educational contexts defined by their cultural histories and administrative policies.

TEACHING THE AFFECTIVE AND COGNITIVE DIMENSIONS OF RACE: A CASE STUDY

Our research uses an in-depth course case study to assess how employing pedagogical principles for teaching race influenced students' cognitive and affective development. The study centers on a semester-long undergraduate environmental justice course entitled "Environmental Inequality and Justice" that was taught by Joe Bandy, who designed the course to highlight issues of race and racial justice. It is worth noting that the course not only took place in the United States with predominantly U.S. citizens, but also focused largely, although not exclusively, on racial formations and environmental justice movements in the U.S. The case study methods were in accordance with established protections

for student privacy, confidentiality, and informed consent, with full Institutional Review Board approval.[1]

The course is best described by its four learning objectives, which have largely cognitive, but also significant affective elements: First, help students understand how social and historical forces of race, gender, class, and nation shape environmental inequality and injustice, and the movements seeking to remedy them. Second, develop students' critical thinking skills including conceptualizing, applying, and evaluating information gleaned from direct observation, personal experience, reflection, or communication with others (Scriven and Paul 1987), particularly in their efforts to better understand social inequalities. Third, enhance students' abilities to address public issues of environmental inequality and injustice as community leaders and young professionals through debating skills, moral reasoning, and collective problem-solving. Finally, empower students' understanding of self, context, and competencies of coalition-building and conflict negotiation, especially in inter-racial dialogue.

Research site
The course took place at Vanderbilt University, a private, research-intensive institution located in Nashville, Tennessee, U.S., with a full-time undergraduate enrollment of 6,886 and 6,245 full-time graduate and professional students (2019–20) (Vanderbilt University 2019). In the Fall of 2019, 41.5 percent of Vanderbilt's student body identified as white, 15.3 percent as Asian or Pacific Islander, 11.7 percent as African American, 9.7 percent as Hispanic, 11.8 percent as International, 5.0 percent as multi-racial, .4 percent as Native American, and 4.5 percent as unknown (Vanderbilt University 2019). The diversity of Vanderbilt's faculty, curriculum, or programs is expanding, and its leadership have taken strides to transform the institution toward greater diversity, inclusion, and community (CCDIC 2016), especially in its teaching mission. Nonetheless, social histories of racial inequality and injustice have a momentum of their own, and Vanderbilt is not unlike many U.S. institutions of higher education in confronting their effects on campus life. Given that it shares many features with other predominantly white, reformist institutions in U.S. higher education and beyond—an increasingly diverse faculty and student body, a growing curriculum on race and racial inequality, active efforts to create a more inclusive and equitable campus community, as well as difficulties inherited from a profoundly unequal society— Vanderbilt is a site affording qualified generalizations and an in-depth qualitative assessment of both the challenges and possibilities of teaching race.

Study data
There are three sources of data in our study. First, we analyze student responses to an author-designed survey (available upon request) that was administered at the beginning and end of the semester. The pre-course survey probed students' demographic characteristics, prior preparation, cognitive understanding of race and related concepts, and measured students' affective development regarding issues of race, including self-reports of openness with regard to engaging with others around issues of race, willingness to empathize with others, interracial reconciliation, and coalition-building skills. The end-of-course survey repeated the cognitive and affective measures. Participation in both surveys was voluntary, and students were assured that their individual responses would remain confidential. It also is worth noting that student self-reports of learning and change can be notoriously unreliable, if not invalid, since honest self-evaluation may be impeded by faulty memory, expectancy biases, or social desirability biases, among others. Therefore, we also rely upon other sources of data.

Second, we use participant observer notes as part of an autoethnographic approach to analyze Bandy's pedagogy and teaching practice, particularly the instructor's notes on in-class dialogues. Finally, and more importantly, we conducted a thematic content analysis of student writing assignments to scrutinize the complexity of students' understanding of race and racial justice over the course of the semester. Assignments included weekly blog posts, short papers, and the culminating assignment for the course: a 20-page research paper.

Student and instructor characteristics

Twenty-six students enrolled in the course. According to the pre-course survey, 12 students self-identified as non-Hispanic[2] white women—two reported coming from low-income households, five from middle-income backgrounds, and four from high-income families. Four students in the class self-identified as non-Hispanic white men—one reported coming from a middle-income family and two from high-income households. One student did not provide information about her family's socioeconomic status.[3] To protect the identities of students of color, we group African American, Asian, American Indian or Alaskan Native, and Native Hawaiian students together as underrepresented students (or students of color) in our study. Of these students, most self-identified as women. Six reported coming from middle-income families and one from a high-income household. Both white students and students of color were evenly distributed across first-, second-, third-, and fourth-year undergraduate cohorts.

Bandy, the course instructor, is a U.S.-born, middle-aged, white, professional middle class, and cis-gendered man with 25 years of experience in three institutions teaching sociology, particularly courses related to environmental justice, economic inequality, social movements, and the social psychology of identity. In addition, he has helped lead faculty and staff efforts to create a more diverse, inclusive, and equitable campus. Bandy was assisted by a Teaching Assistant in sociology who identifies as a U.S.-born, young, white, middle-class, cis-gendered woman. He anticipated their privileged identities would impact the course negatively as privileged students might feel greater belonging and entitlement than others, elevating their own voices and limiting a diverse and critical dialogue. He responded to these concerns with two broad approaches: 1) a disciplined reliance on content that privileged voices of color (among other marginalized groups) as representatives of their own scholarship and experiences, and 2) a critical pedagogy through which students and instructors worked collaboratively to interrogate and debate their identities and the course materials.

Measures of students' cognitive understanding of race

In order to assess students' cognitive development over the course, we analyzed student responses to pre- and post-course survey data, in addition to students' written work and participant-observer notes on in-class dialogue by the instructor. When analyzing the surveys we looked particularly at understandings of a) definitions of race, b) explanations of racism, and c) definitions and discussions of privilege.

When analyzing students' definitions of race, we drew on research suggesting that simplistic understandings of race assume homogeneity among groups, ignore structural or material inequalities, reduce race to biology or ethnicity, traffick in-common stereotypes of various Others, and posit that the United States has achieved a multicultural democracy (Bonilla-Silva 2017; Lentin 2014). Further, we classified students' definitions of race as rudimentary if they characterized race as genetically

transmitted, a fixed trait that does not vary over time or across spatial boundaries, or if it was seen independently of intersecting identities (e.g., gender, class) that reflect a broader interlocking system of privilege and oppression (Crenshaw 1988). On the other hand, we categorized as advanced definitions those that characterized race as a historical and social construct that varies across contexts, and as intersectionally related to other differences and inequalities.

We also tracked students' explanations of racism in the survey over the course of the semester. Rudimentary explanations of racism highlight egregious individual acts such as hate crimes, slurs, and particularly abhorrent jokes, and therefore often assume concerns about racism are overwrought (Bonilla-Silva 2017; Lentin 2014). These explanations, insofar as they neglect structural or institutional racism, tend to accompany assertions of an end to racism and the creation of a multicultural, colorblind society (Williams 1998). Advanced explanations, on the other hand, recount racial power structures and the stereotypes and prejudices on which they depend, particularly how racial hierarchies of power, despite reform, are maintained by existing laws and other social institutions (Bonilla-Silva 1997).

Finally, we analyzed students' definitions and discussions of privilege. Rudimentary definitions of privilege were either empty responses, or those that denied or downplayed the role of one's family structure, racial background, gender identity and expression, class background, neighborhood, or residential context in one's life outcomes. Advanced definitions, on the other hand, discussed how one or more of these historical or structural factors affected life chances.

Measures of students' affective understanding of race

To assess students' affective development, in the ethnographic tradition, Bandy observed and created notes about students' emotional state and body language during classroom discussions. We used these notes to assess students' willingness to remain open and engaged despite discomfort, and challenge themselves with honesty and generosity. In addition, we used a series of survey questions to measure students' perceptions of their own affective abilities on a five-point scale ranging from 1 ("I have a lot of room to grow") to 5 ("I have high abilities in this area"). Statements related to students' willingness to remain open and engaged included "Understanding my own biases and limitations" and "Understanding my own privileges and challenges." Statements related to students' intercultural and communication skills include "Making contact with people from different backgrounds," "Talking openly and effectively about issues of difference (i.e. race, class, gender, sexuality) with others," "Empathizing with people of different backgrounds," "Communicating effectively with others," and "Understanding cultural norms and rules." Finally, we included a series of questions tracking students' ability to work collaboratively toward anti-racist transformations of self and society. Specifically, we asked students to evaluate themselves on the following statements: "Getting involved in my community," "Leading an organization or movement," and "Resolving conflict with others." As above, these statements were answered on a five-point scale ranging from 1 ("I have a lot of room to grow") to 5 "I have high abilities in this area").

Supporting students' cognitive understanding of race through course design

To support the course learning goals related to students' *cognitive* development around race and racism, Bandy incorporated the aforementioned teaching principles. First, he anticipated student misunderstandings of race. The course, especially its first weeks, involved students in subaltern histories of environmental thought and movements (histories told from the perspectives of those on the

margins), recovering lost voices (e.g., African-American environmental thought or an environmentalism of the poor), debating the exclusions of dominant environmental discourse (e.g., the marginalization of diverse voices by conservationist or preservationist movements), and analyzing causes of structural, social, and environmental inequalities (e.g., particularly "environmental racism" [Bullard et al. 2007]). It also engaged students in readings and discussions that defined the complexities of race and addressed structures of racial inequality and white supremacy, among other systems, as well as whiteness, both in our broader society, and in class dialogue itself (e.g., DiAngelo and Sensoy 2014).

Second, Bandy incorporated diverse voices into the syllabus, especially those of women, people of color, indigenous activists, and people from the developing world. These diverse voices also came in a variety of forms, from subaltern histories to autobiographical testimonials, quantitative analyses to ethnographic case studies. This offered students opportunities to see marginalized voices as legitimate, authoritative, and scholarly, not merely on issues affecting their groups, but also on broad issues in the field. For more privileged students, it was intended to help them develop empathy and insights into social-environmental injustices. This provided these students with, as Chick, Karis, and Kernahan argue, an "even deeper appreciation of the personal and contextual influences of race, gender, nationality, ethnicity, and socioeconomic class" (2009, 34), an empathy that Williams regards as a "secret weapon" against racism (1994, 175). For less privileged students with diverse backgrounds and epistemic orientations, Bandy hoped these readings would make the course accessible, informative, and empowering. More, all students were given opportunities to understand how knowledge is contested and constructed, both in academic research (Kishimoto 2018) and in the social movement organizations shaping the history of environmental justice.

Third, Bandy adopted a primarily concept-centered approach that introduced students to the development of environmental justice scholarship and movements chronologically. This approach laid a foundation of threshold concepts (e.g., environmental racism) and cases (e.g., Love Canal) before introducing contemporary, critical, and global analyses of environmental inequality. Students also became versed in principles of intersectionality (Crenshaw 1988), intended to shed light on the differences and multiplicity of voices within racial groups, and the complexities of how social-environmental histories affect different positionalities (e.g., the environmental burdens of African-American women relative to men).

Finally, Bandy incorporated diverse forms of assessment to be inclusive of diverse aptitudes, ways of knowing, and interests. Students could demonstrate their knowledge through in-class participation in a variety of debates to assess understanding and presentation skills, short essays in the form of blogposts designed to assess comprehension and critical reflection, an autobiographical essay to assess students' "sociological imagination" (their abilities to draw connections between their personal biographies and social history [Mills 1959]), and a longer project on coalitional environmental justice movements to assess their ability to synthesize course themes. In the context of an undergraduate elective that fulfills requirements for multiple majors, the assignments balanced an effort to hold students accountable to a rigorous sociological comprehension of environmental injustices and movements, while affording students autonomy to select the most engaging and motivating issues.

Supporting students' affective understanding of race through course design

Bandy also incorporated the aforementioned teaching principles to support the course learning goals related to students' *affective* development around race and racism. Here we will discuss the

instructor's intentions, to be followed later by an assessment of the resulting student engagement and learning. The instructor encouraged racial reflexivity by incorporating an autobiographical writing assignment. The assignment asked students to reflect on their social-environmental biography and how it could be informed by discussions of difference, power, and inequality in order to encourage social-emotional learning, facilitate greater self-awareness, and informed interpersonal dialogue among students about course content and personal experience. This writing was the subject of in-class dialogues during and after submission when students shared their intellectual and emotional reflections on their communities, their (lack of) privilege, and what it meant for them. He also assigned readings and discussions designed to have students interrogate the many ways racial (and other) forces shaped students' life experiences and thus their perspectives on environmental justice issues. For example, one formative assessment asked students to complete a "positionality montage" (Levine-Rasky 2015). Through free writing, students reflected upon seven dimensions of their own social position (race, gender, class, age, etc.), attending to which had greater salience or invisibility, and how (using models in the readings) these shaped their identities of place and social-environmental issues. They then composed a montage of text, art, or photos and shared elements with the class.

Bandy also modeled racial reflexivity in several ways. He discussed his own positionality as an instructor who occupies various subject positions of privilege and marginality that have both constrained and enabled his teaching of these topics. Throughout the class, he also discussed his own social-environmental history, for instance his childhood experiences in suburban and pastoral areas relatively free from environmental or social harm, and his adult experiences participating in environmental justice movements and researching polluted communities in the U.S. and Mexico. In doing so, he discussed a variety of emotions related to social inequalities referenced in the course material (e.g., frustration, anger, sorrow) and invited students to question how this might shape discussions of topics such as environmental racism, as well as what voices might best supplement his own and how they should feel emboldened to question his instruction. This was intended to normalize humility and uncomfortable self-reflection, model rigorous analysis, and make the class into a shared endeavor of knowledge co-creation.

As it relates to preparing for and welcoming difficulty, Bandy encouraged students to embrace discomfort in the syllabus and during class. The syllabus included an explicit statement about the importance of engaging the course with a critical yet open mind, and without fear of personal judgment. In addition, he collaborated with students during the first week of class to develop a set of norms for civil and critical dialogue about difficult issues, yielding student requests for fair-mindedness, charitable listening, and non-reactive conflict negotiation in the event of microaggressions or ideological debates. Further, he encouraged students to welcome the challenging aspects of discussing differences of identity, power, and privilege with their peers, and embrace the growth opportunities it presented. He emphasized how conflict—both internal and social—are elemental to learning and growth. He also asked them to reflect on the challenging dimensions of class readings in discussions and blogs, as well as debating DiAngelo's and Sensoy's (2014) guide for engagement with social justice content. This said, he also encouraged embracing discomfort in the context of a respectful and physically safe learning environment where all members acknowledged one another's humanity and disavowed bullying, threats, abuse, or violence. He also endeavored to be highly responsive to the uncomfortable and conflictual dialogue to facilitate questioning and reflection, bridge understandings, and when necessary, help repair ruptures in relationships among students (Thurber and DiAngelo 2018).

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The instructor also met students where they were at the beginning of the semester. Many arrived in class with varied experiences, interests, and identifications with issues of race. He used several techniques to engage and develop all students. First, he disseminated a pre-class survey to learn about students' backgrounds, prior educational experience, and understanding of course concepts. He also built a common foundation for dialogue by exploring threshold concepts in the sociology of environment, movements, identity, and inequality, and providing instruction on norms for discussing difference and power, particularly race. Third, he encouraged all students with personal and subject-matter expertise to share it, when relevant, and thereby help to guide dialogue toward greater intellectual and social-emotional growth. Finally, he allowed students to exercise significant autonomy to shape both assessments and in-class dialogue. He organized dialogue around student questions, interests, and challenges derived from students' weekly blogpost responses, or from student-led discussions of course material. Further, written assignments were structured around student-selected questions, critiques, and interests, and in the case of the final projects, their preferred format (e.g., a paper, podcast, or film).

To further engage the affective dimensions of learning, Bandy attended to how students *received* course content and *responded* with attention and motivation (Krathwohl, Bloom, and Masia 1973). To do this, via blogposts and in-class prompts, he encouraged students to reflect openly, not only on what they thought of the material, but also how they felt about it, particularly if they experienced strong reactions that motivated or distracted them from their learning. He nudged students toward deeper emotional self-reflection to enhance their metacognition and capacities to self-regulate, therefore enabling them to better cope with discomfort and productively engage with their peers (Chick, Karis, and Kernahan 2009). He also selected course materials to teach empathy for (and challenge negative feelings toward [Batson et al. 1997]) marginalized and oppressed groups experiencing environmental injustice and racism. Like Deepak and Biggs's (2011) use of "intimate technology," the content presented the experiences of marginalized groups in emotionally intensive and accessible ways. Furthermore, he encouraged students to offer one another understanding and support for emotional challenges in the material, including sharing feelings of guilt, anger, sadness, fear, anxiety, hopelessness, and isolation, which are common in courses addressing (environmental) injustices (Chick, Karis, and Kernahan 2009). In turn, students practiced skills of social-emotional dialogue in class, especially the communication of compassion, empathy, and support—hopefully fostering greater trust. Finally, with the goal of developing students' skills of citizenship and social problem solving, he encouraged students to reflect on and develop their value systems. He asked students to articulate and question their values, placing them in dialogue with those of the readings/films and their peers, especially in case debates.

Lastly, to build a learning community, Bandy designed the course to create a culture of convivial learning. During class meetings, he cultivated a culture of respect and community by giving opportunities for students to get to know one another, openly valuing student contributions, modeling appreciation for diverse perspectives, and demonstrating an ethic of care for student emotional and cognitive needs. With students, he developed a set of norms to guide class participation and debate, with special attention to issues of race, and granted students autonomy to help guide discussions and writing assignments. Finally, he created regular opportunities for peer-to-peer learning via small-group discussion and problem solving. For example, he used three case study simulations with assigned role-playing: the Woburn Toxic Trial (Blair and Svitana 2017), an instructor-developed case on labor-environmental coalitions, and the World Climate Simulation (Jones et al. 2018). Taken together, these techniques were meant to equip students with tools to transform conflicts into collaboration and

provide some basis for trust, thus replicating in class the processes of movement solidarity and coalition they were studying.

EVALUATING SHIFTS IN STUDENTS' COGNITIVE UNDERSTANDING OF RACE

Students' written work and in-class dialogues demonstrated that all but two students experienced significant cognitive development, particularly in their understanding of the histories of diverse racial groups, the construction of racial privilege and marginalization, legacies of institutional racism, and methods necessary to foster greater racial justice. There are, of course, many potential intervening factors to explain this beyond the many teaching strategies implemented in this course—for instance other coursework or independent learning—but growth was observable. In the beginning, for example in the third week's blogposts on environmental racism, white students typically offered only minimal commentary, avoiding a more complex and personal engagement with the material. Most, particularly younger white students, expressed naivete about the existence of environmental racism, denounced it, and shared vague (if not cynical) claims about the need for solutions. As one student stated, "Before reading this piece, it was unclear to me just how much environmental racism was prevalent throughout America. It did a really good job at educating me personally on the issues that minorities still face. However, there is little to no solution offered for these problems."

In class, as expected, some white students were open about how the readings challenged their individualistic and ahistorical notions of racism in ways that were confounding. One white student remarked, "I thought this [environmental inequality] was only because people of color chose to live in unhealthy neighborhoods. I didn't think about the history of segregation," clearly revealing a naïve presumption of racial individualism and less awareness of institutional racism. Only the older white students discussed their own racial privileges, structural or historical forces of racial inequality, and movements for creating change. Students of color uniformly voiced these more critical insights and a familiarity with environmental racism, as well as open references to white supremacy and a need for racial justice. One student of color stated:

> Our history textbooks, if they cover racism at all, will speak of deliberate, malicious actions individuals take against a certain group of people. We are given examples of the terrorism of the KKK or police brutality during civil rights protests. We have current societal expectations in place which discourage us (well, most of us) from using racially-charged language or judging people based on the color of their skin. The problem with this individualized focus on racism is that it ignores the systems and institutions that have impoverished people of color. It allows us to ignore policies of redlining, harmful experimentation on black bodies, and the slave-based structure of our criminal justice system.

Despite the difference in students' levels of understanding coming into the class, most students demonstrated growth by the midsemester autobiography. Students began to analyze their home communities, from Cairo to Chicago, and the ways racial and other histories of environmental inequality shaped them. White students reflected on the way racial and other differences shaped privileges such as environmental health or green space, and some offered critiques of the white homogeneity of traditional conservation and wilderness movements. Students of color, meanwhile, discussed mixed experiences of privilege (e.g., class or gender) and powerlessness, environmental burdens due to legacies of racialized residential segregation, white flight, and more limited political power. In these assignments, students

displayed aptitude in analyzing how race (and other factors) affected taken-for-granted dimensions of their social and natural environments, and began positing social structures that shaped their experiences and identities.

By the end of the semester, blogposts, in-class dialogue, and final project writing revealed that both students of color and their white peers had experienced even greater cognitive growth. For example, in the blogposts on Cooperation Jackson, a movement for environmental sustainability and racial/economic self-determination in Jackson, Mississippi, all students had developed a larger vocabulary of racial difference and abilities to deploy critical race theory toward environmental injustice and movements. White students, while sometimes skeptical of Cooperation Jackson's ideological orientation, demonstrated a clear and nuanced understanding of environmental racism, structural dimensions of white privilege, and challenges of racial justice movements. Students of color, while more nuanced and supportive of the movement, grew as well in their articulation of environmental forms of racism and racial justice strategies. For example, one white student captured the growth well as she synthesized insights from throughout the semester and thus came to recognize the deep imbrication of racial inequality within multiple systems of injustice:

> *The movement [for racial empowerment] in Jackson truly represents environmental justice as it brings all kinds of justice issues together under the idea of sustainability, envisioning a truly democratic and sustainable society.…. I believe that the Jackson case presented in this week's readings perfectly exemplifies this Schlosberg quote: "More broadly, what the environmental justice movement demonstrates is the possibility of addressing different conceptions of justice simultaneously, and bring numerous notions of justice into a singular political project." The Jackson movement represents justice as distribution through its goals for a social solidarity economy and more power in the hands of those currently powerless, justice as recognition through its focus on normally "invisible" groups and their specific needs, and procedural justice through its vision of highly democratic and community-oriented development. This type of movement is beautiful because so many different types of people with different specific concerns can come together behind it to overall support justice, sustainability, and equity [emphasis added].*

This cognitive development was also evident in students' final projects where they exhibited more sophisticated analysis of various histories of environmental racism and the movements that sought to address it. For example, one white student focused on reproductive health movements of women in the Asian-American and Pacific Islander community in northern California, including an analysis of racialized health risks for immigrant women and the communities' efforts to build coalitions across language, class, immigration status, and gender politics to support reproductive health. All students displayed marked growth in their ability to understand and analyze historical and social forces constituting environmental racism, as well as racial justice movements, using sociological theories.

 The pre- and post-class surveys confirmed this conclusion. In response to definitional questions, all but three of the 26 students gave more advanced conceptualizations of race, as well as environment, environmental justice, coalition building, and privilege. Regarding definitions of race, all students shifted overwhelmingly from definitions that focused on individual traits and interpersonal differences, and instead highlighted historical and structural forces of inequality. Students also offered deeper analyses of the relationships between social forces and environmental conditions, particularly race, class, gender,

and nation. Notably, ten students in the pre-class survey defined environment largely as a set of unpeopled ecosystems or resources; in the post-class survey all but one expanded this to include the built environment and human communities.

Students' perceptions of their intellectual development also confirmed significant intellectual growth. In the pre-course survey, half of students reported that they possessed "High" or "Very Good" abilities to understand social and environmental problems, but in the post-course survey this grew to all but three students. Likewise, the number of students reporting "High" or "Very Good" abilities to solve social and environmental rose from four to 10, while those reporting abilities to engage in their community grew from 11 to 17. These results are consistent with observations in the instructor's class notes as well.

EVALUATING SHIFTS IN STUDENTS' AFFECTIVE UNDERSTANDING OF RACE

Students also exhibited significant affective development over the course of the semester. In the beginning, it was common for students of color to express prior awareness of environmental racism and other injustices, delving into stories of personal experiences with them and consistently stating a need for greater social justice efforts. They tended to reflect on their frustrations with racial segregation (e.g., redlining) and inequality (e.g., green space access), in addition to struggles, if not exhaustion, with efforts to find justice. Therefore they ventured further up the affective taxonomy (of receiving, responding, valuing, organizing, and internalizing) than their white peers by expressing greater empathy for the victims of environmental injustice, by revealing organized and internalized values, and by discussing goals for change (e.g., environmental justice education) (Krathwohl, Bloom, Masia 1973).

Meanwhile, white students expressed a combination of emotions: incredulity at injustice; guilt for being relatively privileged; grief for an unjust society; hopelessness at the prospects for structural change; and for at least two students, broad moral claims that our society is in need of a fairer criminal justice system and greater racial equality. For instance, in an early blogpost on environmental racism, which included a case of well-water toxicity and discriminatory protection that led to an African-American cancer cluster in Dickson, Tennessee, one student wrote:

> This week's readings really made me stop and think about my own privilege as a white person…. Reading about the case of Dickson, TN and hearing the heartbreaking story from Sheila [Holt] herself were also good reminders for me of how much of a role race plays in environmental justice. I absolutely can't believe that the government was more concerned with preventing dogs from drinking the well water than notifying the Holt family that it wasn't safe. Overall, these readings were a good reminder for me of how lucky I am that if I'm ever faced with an environmental inequality it will be much easier for me to seek justice just because I'm white, and how disturbing it is that someone can be born into that type of privilege.

Like several white peers, she admitted an ignorance and shock at environmental racism, and a profound combination of relief and guilt at her own racial privilege. This occurred in white students' autobiographical assignments as well, especially when discussing their ambivalence about their relative comfort in systems of inequality.

By comparison, the midsemester autobiographies and the late-semester blogposts, final projects, and in-class dialogues show white students expressing less shock at environmental injustice and more

empathy for its victims. In the autobiographies, there was greater openness and motivation to learn from others, and some students showed significant interest in interracial dialogue about racial justice. By the end of the semester, white students expressed in their final projects and in-class dialogue far less hopelessness and a greater sense of empowerment as they internalized and debated various environmental policies and movements for environmental justice. They also articulated a greater awareness of political, if not emotional, coping and empowerment strategies. Meanwhile, students of color moved from articulations of frustration and internalized values to formulating analyses, policy solutions, and strategies for collective action, including coalition building with other racial groups and movements.

Moreover, all students gravitated from emotional language to dialogue focused on dynamics of movement politics, coalition building, and policy. For instance, the same student above who expressed surprise at the continuing influence of racial segregation and the vague moral ideal of racial justice debated with himself later in the semester in a blog response. He questioned whether Cooperation Jackson is the most effective, generalizable movement for ending environmental injustice and racism nationally, given, on the one hand, its holistic and coalitional approach to mobilization, and on the other, its idiosyncratic urban politics and radically socialist principles. Indeed, course assessments revealed they were continually examining models of social-environmental change, weighing different ethics and strategies for policy and movement building, evaluating the consequences of environmental policies for different populations, and discussing the many ways that a diversity of marginal voices may coalesce and build power. During in-class dialogue, students encountered a few instances when they disagreed based on ideological or perspectival (racial, gendered, etc.) differences, but resolved them through either a formal structure of debate and collaborative problem solving, or through informal discussions that exhibited empathy and trust-building.

Pre-/post-course survey comparisons provide similar evidence of students' affective development, particularly their self-awareness, empathy, and intercultural skills. As mentioned earlier, self-reports can be hindered by limitations of memory and various biases, but nonetheless they may help to triangulate the impact of such pedagogies, and their data confirm the growth identified in their writing and dialogue throughout the course. In the pre-course survey, 17 students reported that they possessed a "High" or "Very Good" ability to understand their own biases and limitations, and to empathize with others. In the post-course survey this grew to 22. While only 11 students in the pre-course survey reported that they possessed "High" or "Very Good" ability to make contact with people from different backgrounds, this rose to 18 in the post-course survey. Only 9 students reported that "High" or "Very Good" abilities to resolve conflict with others before the class; 15 reported this by semester's end. In the open-ended survey responses, students reported better awareness of self and greater understanding of the environmental injustices experienced by marginalized groups. For example, one student explained:

> *I feel that I was previously and am still a bit comfortable with my social, race, gender status in the world. This is because I grew up lucky with privilege. Though I could understand other acts of injustices around me, I previously had difficulty identifying my own biases and placing equality above my own success or privilege. This class just opened the door to greater self-understanding and reflection, which I hope will aid in greater self-growth in the future.*

Even though it is clear there is much room to grow in the confrontation of social systems of inequality, a few white peers made similar statements acknowledging that the course opened them to this confrontation and helped them begin to engage in an ethic of racial solidarity and social change.

Despite these indications of student affective growth, we cannot help being skeptical about whether the course did as well as it could to meet its goals. This skepticism comes from the limitations of self-reports, but also the class notes, where it becomes obvious that a majority of students did not engage in personal and affective in-class dialogues about race and racism, preferring to limit their explorations of racial identity and content-inspired emotional reactions to the written assignments. More, while students' writing explored policies and ethics for greater racial equality, personal or affective commitments to a racial politics of solidarity were typically vague or limited in substantive action. That is, it was commonplace for students to write eloquently about the need for social movements and policies that would create greater racial justice, but say nothing about the personal relevance of, much less their commitments to, such social change work, despite the instructor's repeated encouragement to synthesize the political and the personal. For instance, one student, who was particularly active in campus organizations representing Native American and other students of color, insightfully discussed water contamination in the Navajo (Dine) Nation and the movements and policies that could alleviate it, but chose to write in the voice of the neutral narrator and not discuss emotional or value-based concerns. Most of this students' peers wrote similarly, regardless of their race. In short, despite using many techniques to build a critical and open learning community, and despite some revealing and insightful conversations, the class fell short of its goal of creating opportunities for open self-examination and interpersonal dialogue about race and racial justice. Some explanations for this are discussed further below.

DISCUSSION

The case study demonstrates that the literature on race pedagogy offers effective strategies for overcoming intellectual barriers to understanding race and racism. With careful implementation, white students grew beyond individualistic, ahistorical, stereotypical Othering, or post-racial misconceptions. Meanwhile, both white students and students of color developed more elaborate, complicated, and nuanced understandings of the histories and structures of racial formations, as well as strategies for creating greater racial equality. Additionally, they experienced some emotional development, particularly their ability to engage one another productively around differences, empathize with experiences of racism, and articulate increasingly complex emotional and value-based understandings of racial justice that involved interracial solidarity.

Which teaching techniques made the most difference? Most of the data allow little causal analysis of individual techniques; however student writing and ethnographic notes from the instructor reveal that student comprehension and empathy grew most quickly in response to the inclusion of diverse voices, particularly critical race scholars (e.g., Pellow 2017) and members of historic movements (e.g., Bullard et al. 2007) who challenged student misconceptions and provided models for understanding and responding to racial injustice. Intellectual development and analytical skill also developed with greater engagement in readings and critical reflection upon them in blog posts and in in-class discussions, particularly case-based analyses, role plays, and simulations. Further, the blogs and autobiographical assignments, in combination with in-class exercises, demonstrated significant emotionally focused reflection and self-critique, shifting the classroom culture toward one with greater

interpersonal trust between students and the instructor. In-class dialogue and blogposts revealed growth in student abilities to discuss biased or limited preconceptions, their experiences (and complicity) with racism, and their desires to live in a racially just world.

However, the case study also reveals the challenges of creating experimental, radically honest spaces that engage students in both the deep, uncomfortable introspection about their participation in racist institutions, and in defining what forms of racial reconciliation and solidarity are necessary for a racial justice. Why was this so challenging? There are several proximate explanations. First, course content demands left little time for the slow, trust-building dialogue that racial reconciliation requires. Satisfying requirements for multiple majors and minors, the course needed to engage students from many backgrounds in diverse subjects, not just race, leaving too little time for deeper introspection. Second, students frequently shied away from such discussions, preferring more intellectualized and less emotionally engaged dialogue. For white students, it was clear they held apprehensions at offending their peers or creating conflict, and thus, as Leonardo and Porter argue (2010, 149), fell into a tendency to intellectualize racial justice. For students of color, these anxieties seemed less common than others: fatigue with educating their white peers about race, wariness about becoming a class authority on race and racism, or alternatively, fears of white peers discounting their views. Perhaps the instructors' whiteness activated anxieties for students of color, if not also white students—at least until greater trust was built—but this was not a subject of critique in the post-class survey or course evaluations. Further, for the two international students in the course, the class not only employed more affective dialogue than was common in courses in their home countries, but also it was focused predominantly on U.S. racial formations and histories of U.S.-based environmental justice movements, limiting engagement. Third, despite 25 years of teaching on such topics, Bandy sensed student anxiety and feared pushing students too far, too quickly, potentially provoking unproductive reactions that would diminish trust and engagement. More, he did not want students (white *and* non-white) to feel compelled to perform confessions of racism, disclose trauma or fear, or prompt a rushed, superficial reconciliation. While some students of varied racial backgrounds seemed willing, others clearly were resistant and could have soured the classroom with passive disengagement or worse.

This suggests shortcomings to our study and directions for future research. First, the course could have been designed to focus more exclusively on race and the facilitation of interracial reconciliation (potentially with experiential assignments [e.g., Loya and Cuevas 2010]), possibly yielding greater affective development and insights into the techniques empowering it. Second, more research is needed to collect and assess evidence of affective learning, particularly since much of it is hidden in our students' interior lives, actions outside of class, or in growth that occurs long after courses are over. In this case study, the coursework and the pre-/post-survey could have incorporated more thorough measures of students' affective development, particularly students' value frameworks and racial reconciliation or justice work outside of class, or after the course was complete. Third, because teaching practice is complex and context dependent, our teaching techniques may have different results when applied in other courses, disciplines, or institutional locations, or when taught by faculty with a different subjectivity.

The race pedagogy literature suggests that this case study, however, is likely not unique in confronting significant challenges in cultivating students' affective development related to race. Indeed, this work suggests that there are less proximate institutional and social factors at work in shaping both student, faculty, and administrative expectations about teaching race. We believe these challenges raise

critical questions for higher education as a whole, particularly in its preoccupation with a form of race education that neglects affective development at the expense of cognitive growth. There are likely many causes of this: curricula across the disciplines that focus on technical training or a rational form of professionalization; systems of promotion and tenure that condition us to attend to intellectual scholarship and shy away from controversial affective subjects; faculty development processes that fail to prepare us to teach about emotionally challenging subjects like racial identity and inequality; the growth of campus mental health services and student affairs offices that (sometimes justly) alleviate faculty of the work of affective dialogue with students; and administrative and public pressures on faculty to embrace value neutrality and thus avoid political or activist controversies, not to mention the hegemonic political ideologies and cultural practices (in K-12 education, political discourse, media…) that fail to ask the public to engage in the deep work of affective dialogue around race privilege, racism, and reconciliation, among other factors.

It therefore should not be surprising that across higher education faculty and students arrive at classrooms often ill-equipped to engage productively in affective dialogues, particularly about contentious subjects such as structural racism and methods of social change. Yet, cognitive development about race and racism, not to mention other injustices, is stunted without attention to affective learning. More, we become complicit with these systems of injustice if we tacitly affirm (white) fragility and if we do not create spaces for all of us to engage in transformative dialogues that, however difficult, hone the skills for creating a racially just society (Berlak 1999; DiAngelo 2011; Ford 2012).

In the end, the case demonstrates that students need more than scholarly readings and discussions, however vital; they need opportunities to develop the skills and understandings for creating racial justice that come from a more holistic approach to cognitive and affective development. What might a holistic approach be? It could take many forms, but would involve focusing on intellectual *and* personal development, on rational *and* affective dimensions of learning, on theory *and* application, and on individual *and* social transformation. With each, students would have opportunities to develop a knowledge base, but also reflexive self-awareness, interpersonal and intercultural skills, and capacities to navigate complex problems in a diverse and conflictual world. If faculty are to provide them, we will, in turn, require more support from our disciplines and institutions including new models of instructional and faculty development, coordinated and innovative curriculum design, and more supportive processes of reappointment and tenure, not to mention a clear commitment to a model of higher education that helps address the world's many racial and other injustices.

CONCLUSION

Through our literature review and case study, it is clear that teaching race and racial justice in higher education can challenge even the most experienced and conscientious faculty. Faculty typically do not receive pedagogical training to teach holistically and facilitate the interpersonal and emotional growth of their students, and even when they do, it is hard work. There are valuable guiding principles and strategies that can help faculty and students engage in more transformative race dialogue, yet even thoroughgoing and critical pedagogues encounter profound difficulties putting these into practice. Overcoming these requires careful planning and integration with all dimensions of course development and implementation, as well as institutional, curricular, and instructional support. Transformative race dialogue requires more than intellectual or cognitive engagement with students. To be sure, the intellectual components of race education are imperative for student cognitive and emotional

development since the complex histories and social theories surrounding critical race studies can transform student thinking. In doing so, this opens the door to greater empathy, self-reflection, and anti-racist value commitments.

However, in the dialectic of cognitive and affective development, the reverse is also true: affective self-reflection and empathetic dialogues about race not only clear defenses that inhibit deeper cognitive growth, including understandings of the hegemonies of racial formations and what is required to transform them, but also help to promote the social-emotional maturation necessary for interracial reconciliation and solidarity. Therefore, it is crucial to explore with care and fearlessness the cognitive and affective pedagogies that can better support students' social and emotional growth. More, it is imperative that we encourage our institutions to aid in this work by dismantling some of the barriers—professional, curricular, administrative, political—to a more holistic and transformative education about racial and other injustices. While these many barriers may seem to protect us from controversy and conflict, these are the same boundaries that can keep all of us complacent and complicit, since they hinder the development of the understandings and practices necessary for a more just world.

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NOTES
1. Internal Review Board #181836
2. Derived from not unproblematic language used in the U.S. Census, this term distinguishes between those self-identified white respondents who may or may not identify also as Hispanic.
3. Because class self-identification is prone to problems of validity and reliability, we identified class using standard proxy measures of parental occupation and education. We categorized students as high-income if their parents or guardians held advanced degrees and high earnings in positions such as corporate management and finance, middle income if they held college degrees and managerial positions, or professional degrees and careers, and low-income if they had high school degrees or less and worked in working class occupations performing manual or service labor.

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