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# White Space and Dark Matter: Prying Open the Black Box of STS

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## Abstract

To a packed audience in Clark Hall, Sheila Jasanoff, a distinguished scholar and former president of the Society for Social Studies of Science (4S), gave the plenary address for “Where has STS Traveled,” a commemorative gathering of the fortieth anniversary of the inaugural meeting of the 4S. Not only was this meeting located in the very same (renovated) room as the first gathering, but also many of the original members had traveled from far and wide to Cornell University to reminisce and reflect on the academic field they had established, as well as imagine the possibilities of the next forty years. In response to a question about the direction of STS, Professor Jasanoff suggested that the 4S had not turned its reflective gaze inward to examine the politics of its own society, nor had it spent much effort interrogating the society’s contribution to social policy or enduring social problems. As I heard Jasanoff speak about our collective need for reflection and reflexivity, I had to wonder whether, and to what extent, we were ready to reflect on the subject matter of race and racism in this mostly color-blind field of inquiry.

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**Keywords**

white space, dark matter, race and racism, institutional diversity

To a packed audience in Clark Hall, Sheila Jasanoff, a distinguished scholar and former president of the Society for Social Studies of Science (4S), gave the plenary address for “Where has STS Traveled,” a commemorative gathering of the fortieth anniversary of the inaugural meeting of the 4S. Not only was this meeting located in the very same (renovated) room as the first gathering, but also many of the original members had traveled from far and wide to Cornell University to reminisce and reflect on the academic field they had established, as well as imagine the possibilities of the next forty years. In response to a question about the direction of STS, Professor Jasanoff suggested that the 4S had not turned its reflective gaze inward to examine the politics of its own society, nor had it spent much effort interrogating the society’s contribution to social policy or enduring social problems. This idea of a “reflective turn” generated much animated discussion and became a focal point for many at this important institutional meeting. I was asked by the conference organizers to talk about the matter of race and racism in STS. As I prepared to speak, I wondered whether, and to what extent, we were ready to reflect on race and racism and why they remain unstudied topics in STS.

Sociologist Winant (2015, 1) termed race and racism the “‘dark matter’ of the modern epoch” because, like its namesake in astrophysics, dark matter makes up much of the universe but remains invisible and not well understood. From this perspective, race and racism are as much a part of modern science and technology as they were of the rise of capitalism itself. Colonialism, slavery, nationalism, eugenics, and even the rise of the enlightenment culture were all premised on genocide, ethnocide, and benign neglect of the darker races (Winant 2015). With few notable exceptions (Bliss 2012; Braun 2014; Browne 2015; Hogarth 2017; Zimring 2016), race and racism have not been given serious attention in STS, despite their central role in producing and shaping technological change (Fouché 2003; Roberts 2011) and in marginalizing and discriminating against people of color (Benjamin 2016; Morning 2011; Roberts 1997). As STS has elevated the importance of context in both theory and practice, it has ignored how race and racism have influenced and continue to shape the social, cultural, and political fabric of modern capitalism.

## The Elephant in the Laboratory

STS scholars have helped to elucidate how science, nature, and knowledge travel under the deceptively simple banner of the “social” (Haraway 1997; Latour 1987; Nelkin 1995; Sismundo 1993). “Today,” Trevor Pinch asserted, “STS has arrived,” because the acronym no longer requires clarification. Moreover, STS scholars have contributed to a growing body of literature that argues that the category of race must be understood and studied as a political, social, and cultural construct (Fujimura and Rajagopalan 2011; Rajagopalan, Nelson, and Fujimura 2017). Despite such accomplishments, STS has remained noncommittal when it comes to the racial discord that divides US cities, suburbs, streets, and campuses.

Moreover, given the popularity of color-blind explanations, which posit “contemporary racial inequality as the outcome of nonracial dynamics” (Bonilla-Silva 2010, 2), institutional and systemic racism, settler colonialism, and white supremacy continue to be the dark matter of contemporary race relations—external to the structure of society. Shielded by color blindness, “Whites can express resentment toward minorities; criticize their morality, values, and work ethic; and even claim to be the victims of ‘reverse racism’” (Bonilla-Silva 2010, 4). In effect, safeguard their racial interests without sounding “racist.” Yet race remains the most important single variable determining opportunities and life chances in the United States and elsewhere around the globe. People of color face discrimination in employment, education, and housing; the health-care system; the criminal justice system; and the banking system, which skew opportunities and life chances along racial lines (Lipsitz 2011). In effect, much remains to be known about how racial oppression actually works in contemporary society (Alexander 2012; Benjamin 2016; Blackmon 2008; Lipsitz 2011; Mascarenhas 2012; Roberts 1997; Zimring 2016). Color blindness represents, among other things, a real reluctance to debate and theorize contemporary forms of racism, and this reticence has morphed into silence and denial. “Our” contribution to this white space is that those able to influence the direction of scholarship, funding, and curricula have continued to ignore the significance of race and racism in questions of STS. This special perspective piece explores the black box of race and racism within STS in an effort to generate further discussion and debate among us.

## The White Space

In this article, I use what sociologist Anderson (2011, 2015) has labeled “the white space” to describe the discipline of STS. For people of color in

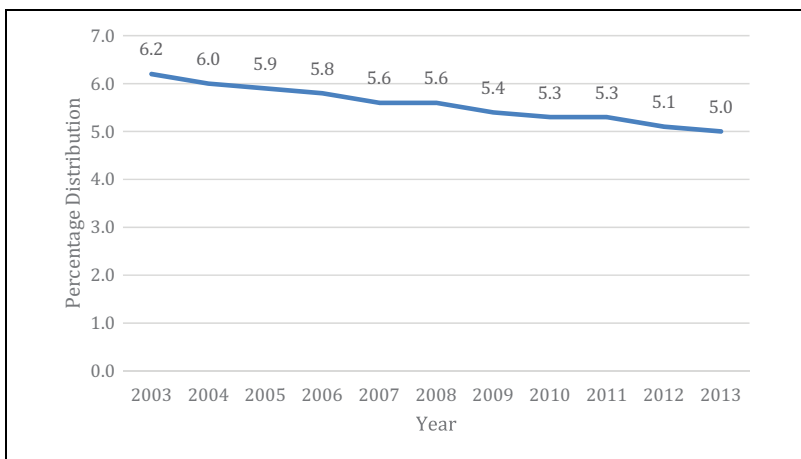
particular, white spaces vary in kind, but their most visible and distinctive feature is the overwhelming presence of white people and the absence of people of color (Anderson 2015). Whites' spaces are not just about counting but rather *accounting* for the ways that the dominant culture adopts a *white habitus* that is stratified by color (Anderson 2015). This white space is reproduced when STS students read the treatises of Karl Marx instead of W. E. B. Du Bois—both theorize the relations between capitalism, democracy, and inequality<sup>1</sup>—or when STS scholars study white laboratories and pay scant attention to how normalized racial hierarchies are embedded in both the technologies and knowledge production of normal science (Benjamin 2016). For example, Weheliye's (2014) recent book, *Habeas Viscus*, argues that theories of biopolitics and bare life exemplified in the works of Foucault (1980, 1997, 2008) and Agamben (1998, 2005) underestimate the significance of race in constructions of what is human. This body of literature, often employed in STS research and teaching, Weheliye (2014) posits, is plagued by a strong "anti-identity politics" strain in the Anglo-American academy, which epistemologically constrains what materializes as the object of knowledge. This intellectual oeuvre, which patiently attends to the ways in which white, male, and Western conceptions of what it means to be human, curtails alternative models of being and modes of knowledge construction liminal to the Western order (McKittrick 2015; Weheliye 2014). I am not suggesting that in this reflective moment we remake STS into something it is not, but rather that we take a stand(point) and acknowledge the persistence of legacies of white male supremacy and Eurocentrism in the work of even progressive STS scholars (Harding 2008, 2009). Such a stand(point) would pay close attention to the changing forms of racialization embedded in the construct of undone science, which, in turn, reproduces STS education and inquiry as a white space.

Historians, Fouché (2003, 2) argues, "have ignored technology as an institutionalized force that marginalizes Black people within American society and culture." This white space was reproduced most recently when the scientific community, which is largely white, heterosexual, cisgender, able-bodied, and male, marched in April 2017 in more than 350 cities across the United States against budget cuts to science-related federal agencies such as the National Science Foundation (NSF) and the National Institutes of Health (NIH). Yet that same scientific community competes for science-related funding that helps to design weapons and more intrusive forms of surveillance that are ultimately used to dispossess and annihilate mostly people of color all over the world. These largely white, heterosexual, cisgender, able-bodied, and male scientists are also the professors at academic

institutions and national laboratories, white spaces that continue to remain segregated, many of them increasingly hostile places for students, staff, and faculty of color (FOC; Feagin, Vera, and Imana 1996; Mascarenhas, Mena, and Sodolo 2016). For example, in the fall of 2013, a black student at San Jose State University had a bicycle lock cinched around his neck by white students from his dormitory, who took to calling him “three-fifths,” while hanging a Confederate flag and Nazi symbols in the dormitory room. At Yale University, a fraternity turned away black guests at a Halloween party, announcing that only white women would be admitted. At the University of Mississippi, a noose and a Confederate flag were draped on a statue of James Meredith, the University’s first black student. Racist graffiti has been found on the campuses of Wayne State University, Eastern Michigan, and University of Michigan, and in November 2015, chilling racist death threats posted to an online forum were made to all students at Howard University, a traditionally black college.

However, reducing campus racism to hostile acts alone obscures the role of more pervasive and subtle forms of institutional racism that also occur everyday in the lives of students of color (in classroom interactions, during group work, and at social events, in admission policies, to name a few spaces). These multiple and intersecting forms of systemic discrimination are in part responsible for the maintenance, normalization, and in some instances widening of the racial achievement gap in postsecondary education, and in science, technology, engineering, and math (STEM) fields, in particular. For example, recent efforts by the NIH and NSF to focus on the retention of women and students of color have been unable to stem the tide of a steady decline of African American students in engineering programs over the last decade (NSF 2017; see Figure 1).

We can see a similar color line in many STS departments and programs in the United States. Some have only one FOC (see Table 1). Moreover, in thinking about white spaces, it is important to note that what many whites see as “diverse,” people of color may perceive as homogeneously white and relatively privileged (Anderson 2015). For example, recent diversity efforts have focused on targeted recruitment of underrepresented faculty of color (UFOC) with little attention to changing the environment—personally, intellectually, theoretically, or institutionally—they enter. McIntosh (1988) defines white privilege as unearned race advantage and conferred dominance. White privilege, Pulido (2000) argues, thrives in highly racialized societies that espouse racial equality, but in which whites will not tolerate either being inconvenienced in order to achieve racial equality or be denied the full benefits of their whiteness. In other words, white privilege is



**Figure 1.** Black undergraduate enrollment in engineering programs (2003-2013).

deeply hegemonic because it works through consent and not force (Gramsci 1971, [1935] 2000). For example, in her recent book *Poison in the Ivy: Race Relations and the Reproduction of Inequality on Elite College Campuses*, Byrd (2017) finds that students at elite colleges are blind to the structural inequalities limiting people's access to the same educational spaces—white spaces—that they seem to “naturally” fit in, effectively rationalizing their position in elite spaces with color-blind conceptions of merit and individualism.

Institutionalized white supremacy is not new to academia. For example, elite white universities at the turn of the twentieth century did not hire nor were interested in collaborating with black scholars, even the brilliant W. E. B. Du Bois (Morris 2015). Moreover, white scholars were not interested in producing a scientific body of knowledge to combat scientific racism. This idea about black inferiority and inequality was later embraced by the Chicago School of Sociology in the 1920s. Du Bois's *The Philadelphia Negro* was largely ignored for decades by Robert Parks, Ernest Burgess, and other white sociologists at Chicago. This white space of elite intellectual networks and schools of thought effectively ignored the contribution of a generation of black scholars. Culminating in the fact that today, the Chicago School of Sociology is still considered the birthplace of American sociology, while the Du Bois–Atlanta School of Sociology is most often ignored in questions regarding the epistemic and institutional practices of science and technology (Morris 2015).

**Table 1.** Gender and Race of Some STS Departments and STS Programs in the United States.

Institution	Faculty	Gender				Race			
		M	F	%F	FOC	%FOC	UFOC	%UFOC	
Arizona State (STS Program)	44	23	21	48	6	14	2	5	
Bard College (STS Program)	16	9	7	44	2	13	0	0	
Brown (STS Program)	41	19	22	54	4	10	2	5	
Cornell (STS)	19	9	10	53	2	11	1	5	
Drexel (STS) <sup>a</sup>	27	18	9	33	1	4	0	0	
Harvard (STS)	42	28	14	33	5	12	0	0	
John Hopkins History of Science & Technology	17	10	7	41	0	0	0	0	
MIT (STS)	15	10	5	33	2	13	1	7	
Princeton (STEP)	21	17	3	14	1	5	0	0	
Rensselaer Polytechnic Institute <sup>a</sup>	15	11	4	27	2	13	0	0	
Stanford (STS Program)	39	25	14	36	12	31	2	5	
UC Berkeley (STS Program)	79	35	44	56	4	5	1	1	
UC Davis (STS)	22	14	8	36	4	18	2	9	
UC San Diego Science Studies Program	23	10	13	57	2	9	1	4	
University of Chicago at Illinois	38	24	14	37	2	5	1	3	
U Michigan (STS)	44	21	23	52	6	14	2	5	
History and Sociology of Science	40	26	14	35	1	3	1	3	
U Virginia (STS Program)	11	7	4	57					
U Wisconsin (STS)	69	38	31	45	7	10	1	1	
Vassar (STS)	18	8	10	56	0	0	0	0	
Virginia Tech (STS)	39	19	20	51	1	3	1	3	
Worcester Polytechnic Institute Social Science & Policy Studies <sup>b</sup>	18	9	9	50	3	17	2	11	
Yale History of Science and Medicine	10	5	5	50	1	10	0	0	

Note: FOC = faculty of color; UFOC = underrepresented faculty of color (Hispanic, Latino, African America, Native American, and Pacific Islander).

<sup>a</sup>Very white and male.

<sup>b</sup>UFOC disproportionately located at the contract side of the academy.



Feminist perspectives and theories, in particular, have been at the forefront of efforts to expand the scope of STS theory and research and offer a model for how STS scholarship that is more attentive to race and racism may have a transformative effect on the field. Haraway (1997, 35) maintains that “either critical scholars in antiracist, feminist cultural studies of science and technology have not been clear enough about racial formation, gender-in-the-making, the forging of class, and the discursive production of sexuality *through the constitutive practices of technoscience production themselves*, or the science studies scholars aren’t listening—or both.” *Standpoint theories* (Hartsock 1983; Longino 1994), *strong objectivity* (Harding 1991, 1993, 1998; Hartsock 1983; Longino 1994), and *situated knowledges* (Haraway 1991, 1997) argue for a politics and epistemology of location, position, and situation, where partiality and feminist standpoints, and not universality, are the precondition for knowledge-making politics. More recently, a special issue of *Science, Technology, & Human Values* (Pollock and Subramaniam 2016) explores the importance of feminist post-colonial STS to our understandings of technoscience, especially how power matters for epistemology and justice.

Today, STS scholars and departments have cultivated robust interdisciplinary networks, disciplines, and programs. For example, many departments have developed curricula and hired faculty in sustainability studies and STS. The same can be said for big data, digital humanities, science fiction, design, and medicine. The military, space, women’s studies, and even food and animal production have become popular subject matters and fields of inquiry among STS scholars. But race and racism continue to remain a dark matter of STS inquiry, as STS scholars rarely enter the deep waters of black studies or black feminism. We study normal, undone, and street science; artifacts, boundary objects, trading zones, and laboratories fascinate us at a time when knowledge is increasingly being produced outside of laboratories by street scientists, many of them people of color. We also include primates, scallops, dinosaurs, and sheep in our analysis. Yet we rarely engage the critical insights and rigorous scholarship of black studies or other forms of critical ethnic studies in our multisited, multi-sighted, and multispecies discipline. This omission continues at a time when research indicates that minorities (students, faculty, and staff) in racially isolated educational settings are at risk of significant harm including stereotyping and discrimination that can undermine their academic aspirations and scholarly achievement. This is particularly the case in STEM where minority numbers are especially low and the norms and behaviors of majority groups dominate (Steele and Aronson 1995, Steele 2008, Steele,

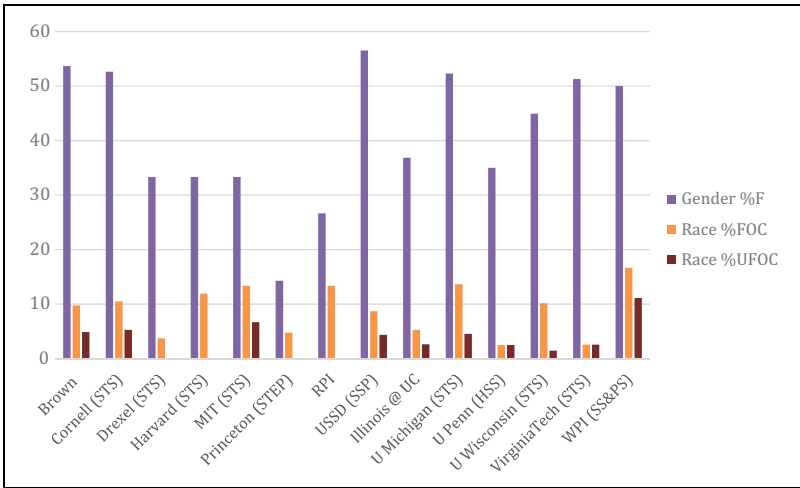


Figure 2. Gender and race of some STS departments in the United States.

Spencer, and Aronson 2002). As a consequence, we continue to write people of color out of this intellectual community and disciplinary field, ensuring its changing but the same characteristic as a white space.

### A “Changing Same” Character

Race, according to British sociologist Gilroy (1993), has a changing same character. It is in constant flux and continuously remade by social processes, and I want to point out a few examples of this white space in the networks and institutions of STS today. However, before we examine these white spaces, I want to acknowledge the US-centric focus of this analysis, right down to the various (explicit and implicit) definitions of minorities. The 4S is, and always has been, an international society. A similar project vis-à-vis racialization and the white space from a European perspective would look to other historical and racial legacies that have been discriminatory to other minority groups, such as the Turks in Germany or Pakistanis in England.

We can look at US STS departments and programs to get a sense of their homogeneity. Institutions were selected based on Internet searches of association websites, publication portals, and academic institutions. The list is not meant to be exhaustive, and STS programs, such as those at Berkeley, Stanford, and ASU, comprise faculty with differing responsibilities and tenure homes across the institution. Lastly, the gender and race of STS

**Table 2.** Past Presidents of 4S.

Decade	#	M	F	%F	FOC	%FOC	UFOC	%UFOC
1975-1985	6	5	1	17	0	0	0	0
1986-1995	5	4	1	20	0	0	0	0
1996-2005	5	4	1	20	1	20	0	0
2006-2015	5	3	2	40	0	0	0	0

Note: FOC = faculty of color; UFOC = underrepresented faculty of color (Hispanic, Latino, African America, Native American, and Pacific Islander); 4S = Society for Social Studies of Science.

**Table 3.** Past Council Members (per Decade).

Decade	#	M	F	%F	FOC	%FOC	UFOC	%UFOC
1975-1985	33	27	6	18		0.0		0.0
1986-1995	30	15	15	50	1	3.3		0.0
1996-2005	26	10	16	62	1	3.8	1	3.8
2006-2015	30	15	15	50	6	20.0	1	3.3

Note: FOC = faculty of color; UFOC = underrepresented faculty of color (Hispanic, Latino, African America, Native American, and Pacific Islander).

faculty were identified by the analysis of department, program, and personal webpages during the fall of 2016 and spring of 2017.

Table 1 and Figure 2 illustrate the gender and race composition of some of the largest STS departments and programs in the United States. Some programs have made important gains in terms of gender balance. For example, in the Science, Technology and Society Programs at the University of California, Berkeley, the University of Michigan, and Brown University, women outnumber men. Yet this is the exception as most STS programs and departments are still male dominant. The STS program at Stanford and Departments at RPI and Drexel are particularly homogeneous. It is also worth noting that society leadership (Table 2) has seldom been female, even though council membership (Table 3) over the last decade is at parity by gender. This institutional glass ceiling is analogous to the difference between becoming CEO and serving on the board of directors.

We see significant disparities in FOC and major gaps in UFOC—Hispanic, Latino, African Americans, Native American, and Pacific Islander—at these elite institutions. In fact, many STS departments have no UFOC at all. Moreover, while some places like WPI may seem diverse, most FOC at WPI and other academic institutions do not hold privileged

tenure-track positions like their white colleagues. In effect, UFOC are disproportionately employed on the margins of the academy as instructors, adjuncts, research scientists, assistant teaching professors, and professors of practice. As a consequence, leadership of STS departments and programs in the United States remains a privilege of the white race. Moreover, while the analysis is written in percentages, we are often talking about one person of color in a department, and in this sense creating a *microminority* environment, where acts of discrimination from overt racism to microaggressions are normalized and infrequently challenged (Mascarenhas and Grindstaff under review).

I was struck by the candid response of Marybeth Gasman, the professor of Higher Education in the Graduate School of Education at the University of Pennsylvania, to a question pertaining to the lack of FOC in higher education, especially elite institutions. Her reply was simply “we don’t want them.” She then went on to cite five reasons why the academy remains a white space. These reasons included quality, quantity (there is not enough of us), playing by the rules, fit, and, I think the most important reason, no will. The word “quality,” Gasman (2016) notes, is often used by white faculty when talking about increased diversity. Typically, quality means that the potential candidate didn’t go to an elite institution for their PhD or wasn’t mentored by a prominent person in the field. Gasman argues that most of us are aware of this social problem but rarely do something to diversify our department or institution’s faculty. “Having a diverse faculty—in terms of race, ethnicity, gender, sexuality, religion—adds greatly to the experiences of students in the classroom” (Gasman 2016, 1). It challenges them to think differently about who produces knowledge, a subject matter at the core of STS. “It also challenges them to move away from a “White-centered” approach to one that is inclusive of many different voices and perspectives” (Gasman 2016, 1).

We can look more broadly at 4S in light of Gasman’s observations. Table 2 identifies the gender and race composition of our Society’s past presidents. During its forty-year history, members have elected one president of color—Sheila Jasanoff. Similarly, we can also reflect on the lack of diversity among our past council members over the last four decades. Of the 119 past council members, 8 have been FOC and 2 have been UFOC (Table 3). We can also examine Program Highlights from the 2015 4S Conference, which included a Presidential Plenary in which eight scholars reflected once again on important issues to STS. The panel included five women and three men but zero underrepresented scholars, and the three panelists from the United States were predictable white. These esteemed scholars talked about democracy, design, digital technologies, and even environmental pollution,

but not one of them talked about matters of diversity, race, or racism. In the 269 panels that constituted the 2015 annual meeting, the word “race” was found in six titles and racism in two. At a time when, as Davis (2016, 17) points out, “racism can be discovered at every level in every major institution—including the military, the health care system, and the police”—when racism should be front and center in our scholarship, only 8 of the 1,489 panelists thought it important enough to do so.

Lastly, I want to suggest that this white space is not limited to number of faculty, presiders, and presenters at our annual meetings. Nor is this white space limited to the explicit and implicit curricula we teach in our classrooms. It also includes the journals we publish in whose topics and editorial boards also constitute white spaces. The same may be said of our national funding agencies, such as the NSF and NIH in the United States, and other funding agencies, whose program officers and review panels remain predominantly white. Moreover, in the United States, decades-long attempts to broaden participation of underrepresented groups by the NSF and other federal granting agencies have often been challenged by lawmakers and others who feel that such initiatives are a form of reverse discrimination. My recent experience as the only reviewer of color on a recent NSF review panel was equally discouraging and indicative of the gap that divides effort from will. All of this together—curricula, composition of faculty and administration, granting institutions and editorial bodies, and disciplinary leadership and scholarly content—constitute the changing same white space of STS.

We have maintained this white space while racism on American campuses (where many of us work) remains a national concern. Racist graffiti painted on the side of a women’s center on the Eastern Michigan University campus is the latest case. There have been similar incidents at Yale, University of Missouri, University of Oklahoma, University of Michigan, Wayne State University, and San Jose State University and death threats at Howard University, a traditionally black college. Rensselaer Polytechnic Institute is not without its incidents either, as demonstrated by a noose hung from a tree, and a post in Reddit warning white students to “never relax around blacks.” Yet racism, sexism, homophobia, islamophobia, and xenophobia are not limited to college campuses, as egregious and everyday examples are increasingly displayed on our streets, screens, and tweets. Moreover, recent court challenges to affirmative action policies have all but insured that students of color will continue to lose ground in educational achievement in the United States. For example, a 1998 policy study examining the effect of recent affirmative action bans conducted by the American Association for the Advancement of Science reported a precipitous one-year drop of over 20 percent from 1996 to

1997 for first-year graduate enrollments of African Americans in all science and engineering fields. The decline for Latino/Latina Americans entering graduate studies was equally dramatic, falling 16.2 percent between 1996 and 1997 for all science and engineering fields, after three prior consecutive years of gains (Malcom et al. 1998).

Today, our academic institutions remain a white space at a time when the nonwhite students have outnumbered the white students in the US K-12 student population (Gasman 2016; Mitchell 2016). And this is particularly true in the STEM disciplines, the research and teaching sites for many of us in STS. In 2014, for example, 9,568 doctorates were awarded in engineering, many of them going on to be future faculty and leaders of industry and government—the same government that funds our research. Only (167 or) 1.7 percent of these doctorates were awarded to African Americans and (243 or) 2.5 percent to Hispanics. Similarly, for every 100 students matriculated in medical schools, only 15 are students of color (American Educational Research Association 2015). In 2012, a total of 1,690 doctorates were awarded in computer science, 39 were awarded to blacks (2 percent), 26 to Hispanics (1.5 percent), and 2 to American Indians (0.1 percent; American Educational Research Association 2015). Moreover, only one in three African American men admitted to college will graduate with a college degree (American Educational Research Association 2015). These institutions are not simply white in number, they are white in culture, and it is this culture of white privilege that ensures that college life and achievement remain separate and unequal. In my recent ethnographic research with students of color, many of them expressed being severely stigmatized and segregated on college campus. I can't imagine they are alone in their experience (Mascarenhas, Mena, and Sodolo 2016). Similar findings are described in *the Agony of Education. Black Students at White Colleges and Universities* (Feagin, Vera, and Imana 1996).

How is it possible to have this tremendous degree of racial inequality in a country where some state governments and popular referenda, typified in the actions of the Fifth Circuit Court (Louisiana, Texas, and Mississippi) in *Hopwood v. The State of Texas* and Proposition 209 in California, have abolished affirmative action arguing it is no longer necessary? Such policies have led to greater declines in both college attendance and graduation rates for underrepresented students of color in various graduate fields of study including engineering and the natural sciences (Garces 2015; Hinrichs 2012; Malcom et al. 1998). This color-blind perspective to science, technology, and society proliferates at a time when *neoliberal racism* (Mascarenhas 2012) fuses technologies of conduct and governance with racial domination. Science and technology continue to direct the processes by

which racial categories are reasoned, created, transformed, and legitimized. Uncovering the mechanisms and practices that continuously reproduce Western conceptions of what it means to be human is an important first step (Said 1979; Weheliye 2014), but we also have to cultivate the will to change this distinctive racial formation of modern America.

## **STS and White Privilege**

It is time that our institutions, their faculty, and administrators recognize that science and technology are both constitutive of racial hierarchies and informed by them, continually contributing to the material and discursive formations of new racialized regimes from incarceration and education to toxic waste and ill-health (Alexander 2012; Brown 2007; Bullard 1990; Bullard et al. 2008; Mascarenhas 2012; Sze 2007; Zimring 2016). Thinking about the next forty years should begin by asking ourselves what will happen to the field of STS if it continues to be a white space? Alternatively, can we conjure a vision and solidify a mission to diversify our departments, our institution's faculty, the curricula we teach, our discipline, and our students? Deeply rooted patterns of prejudice and discrimination will require both the will of the intellect and the appropriate institutional resources to unsettle and undo the white space of STS.

STS, of course, is not alone in creating, maintaining, and condoning white privilege and white supremacy. Distinguished professor of education Yvonna Lincoln (Lincoln and Guba 1987) has observed that the social sciences should pay more attention to a person's social location within constructed contexts. This reflection, Lincoln argues, is true for the people and objects we study, as it is for ourselves. Sociologist Duneier (1992) has taken a more direct tone, asserting that the ethnographic tradition has created an industry out of confirming inaccurate stereotypes about black men that would be unacceptable if made about white ethnic groups.

STS curricula must include race and racism as core concepts; we must actively recruit and support students, staff, and FOC; we must have gender and race equity on committees, review panels, and editorial boards. It is no longer acceptable to have panels of esteemed colleagues expound about future directions without the participation of people of color, and theirs cannot be token participation. We must guard against white fragility and increasingly popularized forms of white supremacy and recognize that something is lost in white society when it does not acknowledge its "dark matter" (Winant 2015). This knowledge will not be cultivated by simply adding more people of color to the mix, white students, white staff, and

white faculty have indispensable roles to play. At a time when we are urged to settle for fast solutions, make policy via Twitter, look for easy answers, and formulaic resolutions, we must find the wherewithal to confront racism and awaken people to the urgency of building antiracist movements (Davis 2016).

This diversity of people, ideas, and politics will expand our “problem choices” and turn our attention to the uncomfortable silences of our field, such as who is participating, who is affected, and how policy promotes or hinders such efforts. Culturally appropriate teaching and learning tools and pedagogy are imperative to advance such efforts (Tatum 1997; Eglash et al. 2016; Freire 2011; Gay 2010). This much-needed social movement can only be realized if we take these concerns seriously, build political coalitions between groups that are differently targeted within white supremacy, and find the collective will to think about this intellectual and political moment much more broadly.

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### **Note**

1. Some might suggest that Du Bois’s notion of two proletarians—white and black—provides a more robust paradigm for thinking about capitalism than the class structures put forward by both Marx and Weber.



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