

Full Length Research

Of races: From social constructionism to biological realism

COREY Barnes

Department of Philosophy, Faculty of Humanities, University of San Diego, United States

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Racial constructionists tend to make three claims about race: (1) races have their origin as social constructs—that races arise at a particular time in history; (2) races were either created with the purpose or have had the effect of creating hierarchies of power that require treating socially constructed groups in distinct ways; and (3) biological racial realism is false. These claims amount to the larger claim that because races have been (and are) social constructs, they must continue to be social constructs, and that as social constructs races cannot be (or become) biological. In this work, it is assumed the first two claims, and that the third and larger claims can be false. This work provides reasons for inferring possible conditions that would produce biologically real races from certain racial constructionists' claims, the tenability of epigenetics, culture and identity, and institutional racism.

Key words: Races, social constructionism, biological realism, epigenetics, power, politics, culture, identity, institutional racism.

INTRODUCTION

"We were all ranked together at the valuation. Men and women, old and young, married and single, were ranked with horses, sheep, and swine. There were horses and men, cattle and women, pigs and children, all holding the same rank in the scale of being, and were all subjected to the same narrow examination. Silvery-headed age and sprightly youth, maids and matrons, had to undergo the same indelicate inspection. At this moment, I saw more clearly than ever the brutalizing effects of slavery upon both slave and slaveholder."

—Frederick Douglass (*Narrative of the Life of Frederick Douglass*)

In current debates about the nature of race, (political) racial constructionists (as opposed to cultural racial constructionists) tend to make three claims about race, namely that: 1) races have their origin as social

constructs—that races arise at a particular time in modern history; 2) races were either created with the purpose or have had the effect of creating hierarchies of power that require treating socially constructed groups in distinct ways; and 3) biological racial realism is false. For a brief discussion of a few of these themes, see Andreasen (2000). These claims are made by philosophers, anthropologists, and sociologists such as: Omi and Winant (2015); Haney-Lopez (2006); Mills (1997); Sundstrom (2002); Taylor (2004); Root (2008); Haslanger (2012); Sussman (2014). Those who are committed to these claims tend to make the larger claim that because races have been (and are) social constructs, they must continue to be social constructs, and that as social constructs races cannot be (or become) biological; races can only be social constructs—no more, no less.

Further, in much of the current debate philosophers

E-mail: coreybarnes@sandiego.edu.

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tend to commit to an assumption about particular requirements of race if it is to be a biological concept. Philosophers of race tend to assume that groups thought to be races in accordance with everyday use must exhibit genetic distinctions if there are in fact biological races—that is, a biological notion of race only makes sense if there are genetic distinctions separating groups ordinarily thought to be races. So whether one is a contemporary racial skeptic (Appiah, 1985; Glasgow, 2009; 2019), a constructionist (Haslanger, 2012; 2019; Jeffers, 2019), or a biological realist (Kitcher, 1999; Andreasen, 2000; Spencer, 2019) there tends to be an underlying assumption that evidence of genetic distinctness is required in order for an adequate biological conception of race to exist.

However, let us assume both that races have their beginning in society and that they are currently socially constructed. From these assumptions, it is proposed the following. If it can be (1) supported that there are gene-expressional adaptations and inheritances that are caused by particular environmental stresses, (2) thought that responses to those stresses (through culture and the internalization of racial identities) could lead to gene-expressional adaptations and inheritances along socially constructed racial lines, and (3) that there is something like “institutional racism” (as a specific context that produces distinct cultures and the internalization of racial identities) that tends to affect distinct racial groups in specific ways, then we have reason to infer conditions for the possible emergence (or perhaps even reemergence) of biological (though non-genetic) races. And so this work aims at metaphysics, and not an ontology, of race. The latter is used to describe existing phenomena; it answers *what is*. The former describes conditions for the possible emergence of some phenomena; it answers what must be the case in order for *what is (or in my case—what might be)* to exist. This work describes conditions for the possible emergence of a biological (though non-genetic) notion of race. This notion of race would exist even if divisions were caused and are maintained by constructed categories. In fact, this biological notion would rely on the maintenance of the social categories. Further, this notion would challenge what is assumed in the debate about the nature of race, namely that what is required in order to have a biological notion of race is genetic differentiation—whether genetic essences, similarities, or clusters. The aim here is to present reasons for inferring possible conditions that would produce biologically real races from certain racial constructionists’ claims, the tenability of epigenetics, culture and identity, and institutional racism.

EPIGENETIC ADAPTATIONS AND INHERITANCES AS GROUNDS FOR BIOLOGICAL REALISM

Epigenetics is a theory about gene-expression. Definitionally: “Epigenetics refers to how genetic material

is activated or deactivated—that is, expressed—in different contexts or situations.” It “refers to interactions between DNA and other molecules in its local environment, interactions that influence gene expression” (Moore, 2015). The theory posits that for living organisms there are ranges of possible adaptations to environmental conditions within the range of species-specific genetic traits. Modifications may occur in some organism given environmental conditions without genes themselves being altered (Harper, 1989; 2005; 2013; Carey 2012). Rather, within a species-specific range, the manner in which genes are expressed get altered. These alterations can be cashed out in terms of phenotypic traits. Consequently, there are phenotypic alterations without genotypic modifications—phenotypic changes that do not involve changes to DNA sequences.

Epigenetic (gene-expressional) adaptations are implicated in at least two systems, namely methylation and histone modification. Methylation is a process wherein a compound known as methyl (CH_3) attaches to certain cytosine bases of DNA and acts as a binding site for other proteins. The more methyl attaches to DNA, the more gene-expression is inhibited (turned down) or becomes dormant (turned off). As such, methylation modifies the function of genes. Additionally, methylation “may also stop DNA transcription machinery from binding to the gene promoter, and this prevents mRNA messenger molecule from being produced” (Carey, 2012, 59). Here, mRNA cannot be copied from DNA because DNA becomes too tightly coiled to be read and thereby copied.

With regard to histone modification, certain proteins (called histones), around which DNA is wrapped, can be modified by methyl or acetyl attachments in a way that leads to either activating, turning up, turning down, or deactivating genes—that is, histones can become modified in a way that leads to varying degrees of gene-expression by affecting nearby genes (Carey, 2012; Moore, 2015). Histone acetylation is thought to have the reverse effect of DNA methylation. Whereas DNA methylation deactivates or turns down gene-expression, histone acetylation activates or turns gene expression up. Now the attachment of methyl and acetyl molecules to acids in histone bodies can, among other things, “alter the affinities to both DNA sequences and other proteins, thereby facilitating or inhibiting the likelihood of gene expression within a cell line” (Harper, 2013, 330). Here the spacial conformation of chromatin is modified.

Though both of these systems affect gene-expression, they differ in an important respect. Methylation “is a very stable epigenetic change” (Carey, 2012, 72). Once a cytosine base becomes methylated, it tends to stay methylated. Histone modifications are different. “Most histone modifications are much more plastic than this. A specific modification can be put on a histone at a particular gene, removed and then put back on again” (Ibid). Insulin, estrogen, addictive drugs, fatty acids in

intestines all modify histones in a way that can be re-modified. And so for epigeneticists the process through which genes are expressed is an interplay between pre-given biological inheritances and environmental conditions, and these adaptations in gene-expression can impact an organism for the entirety of its life.

Many epigeneticists also theorize that organisms can pass on patterns of gene-expression to offspring. Now it is important to note that epigenetic inheritance, as processes of the transmission of epigenetic effects from ancestors to descendants, is much more controversial than epigenetic adaptations, and there is widespread disagreement as to whether and how much it occurs. To avoid controversy, this study takes Moore (2015)'s understanding of inheritance, wherein "a phenotype 'inherited 'as long as it is reproduced reliably in successive generations" (165). Epigenetic inheritance can occur in one of two separable (but perhaps connected) ways. First, an organism is deeply affected during fetal development in the organism's mother's uterus, which we might take to be an "internal environment." This internal environment is theorized to reflect the mother's social environment—the "external environment"—wherein it takes shape. An organism's mother's hormones can be said to inform the maturing fetus of probable stresses and other environmental conditions that the organism will face. "[T]he pregnant mother's responses to factors in her immediate surroundings, such as the availability of nutrients, may transmit signals to her developing offspring impacting their later metabolic responses, food preferences, and neural development" (Harper, 2013, 334-335). And further, environmental conditions affecting the organism's father can also affect the organism's fetal development (Harper, 2013, 335; Carey 2012, 104-105). The father's "gamete, sperm, can transmit a signal to nutrient quality experienced by a previous generation" (Harper, 2013, 335).

Second, patterns of methylation and modifications to histone can themselves be replicated in offspring. Here, patterns get passed on from parent to offspring by a pattern known as reprogramming, where epigenetic modifications from parents that were stripped when male and female pronuclei are fused to form a zygote become installed in the early development of the zygote (Carey 2012, 121-126). These inheritances may occur even absent the environmental conditions that produced the gene-expressions responsible for altered phenotypic traits in parents.

So as opposed to genetic inheritances, which are taken to be invariable and static, epigenetic inheritances are thought to be more malleable but can become stable, particularly given stability in environments—that is, stability in the experiences and surroundings of offsprings' ancestors (Harper, 2005, 344; Carey, 2012, 106). Given transmissions of signals and direct patterns of epigenetic modifications, organisms are thought to

develop certain dispositions, preferences, and phenotypic traits in accordance with many of his/her/its parents' experiences even before entering a world wherein he/she/it is cultured.

Evidence of gene-expressions (epigenetic adaptations) and inherited patterns of gene-expressions (epigenetic inheritances) is quite numerous (Harper, 2013; Pembrey et al., 2005; Carey, 2012; Stringhini and Vineis, 2018; Szyf and Bick, 2012). And in addition to citing purely physiological expressions and transmissions, scholars note psycho-behavioral adaptations and inheritances (Weaver et al., 2004; Moore, 2015; Harper, 2013; Carey, 2012; Essex et al., 2011). And so, organisms' genes only tell us a part of the story of the organisms' physiology and psycho-behavior. To get a more accurate picture, we must consider environments wherein organisms' and their ancestors' experiences occur, insofar as these help to explain why certain of the offspring's genes get expressed in certain ways (Harper, 2013, 332).

Now many epigenetic adaptations are thought to be the result of pressures placed on organisms, which suggests that they better satisfy the demands of survival (Harper, 2013, 344-345). This suggests that they are the result of a biological response to dealing with stress in environments. As it relates to humans, it is first theorized that limitations in food supply is a condition that causes adaptations and inheritances (Harper, 2013, 345). Second, "the occurrence of migration and/or invasion, often leading to the enslavement of the vanquished peoples for multiple generations" is thought to cause adaptations and inheritances (Harper, 2013, 345-346). Third, limitations in resources are thought to have an effect on neural development, such that organisms become less able to "think outside of the box"—to conceptualize new ways to solve problems or propose new materials (Harper, 2013, 346).

Two questions can be raised about these conditions in thinking about a biological notion of race. First, why think that these kinds of stress are the only ones that cause adaptations? Might we not think that excessive access to food, conquest, and voracious access to resources produce adaptations? As is implicated in Sullivan (2014)'s work, there is no reason to exclude these from being possible causes of adaptations and inheritances.

Second, why think that problem-solving mechanisms or innovative response-preserving adaptations are blocked given limitations in resources? One might acknowledge that certain environments place restrictions on agents' ability to "think outside of the box" in conventionally ways. However, what if humans have a basic drive to solve problems or imagine possible futures and to innovate? And what if there are always responses that preserve this ability? In fact cultures and culture-products might be explained by a drive to preserve these abilities while surviving in certain environments.

Consider Ellison (1999)'s description of the blues: "The blues is an impulse to keep the painful details and

episodes of a brutal experience alive in one's aching consciousness, to finger its jagged grain, and to transcend it, not by the consolation of philosophy, but by squeezing from it a near-tragic, near-comic lyricism" (264). Ellison describes the blues as an innovative survival tool that a group creates and embraces wherein members realize that they cannot escape the pain of life, but must face it, and that facing it requires smiling and sharing a laugh. His implicit point is that blues is a creative problem-solving culture-product that derives from and is embraced within a particular set of environmental stresses to which must be adapted so that people survive.

CULTURE, RACIAL IDENTITY, AND EPIGENETIC ADAPTATIONS

Now culture should neither be overlooked nor underestimated in a discussion about epigenetics and race. One might imagine that culture—which entails producing a certain style of beauty, customs, technological advances, and other survival/non-survival related modes of interaction, as a response to certain environmental factors—could cause epigenetic adaptations and inheritances. Additionally, culture is important for our discussion of epigenetics because of its effect on identity, specifically given how identity influences and constrains humans' strivings in ways that may cause epigenetic adaptations.

One might think that environmental factors such as particular stresses that socially constructed groups face cause certain cultures to become attributable to or characteristic of them given stereotypes and endorsements by group-members. And so one might think that certain culture-types become endorsed by members of socially constructed groups. Members form their identities around them, thereby defining themselves and "legitimate" members of groups by acceptance, and an "acting out" or "acting from within" them. Here, agents are legitimate members of some group G to the extent that they accept and act out or from within traits $t_1, t_2, t_3, \dots, t_n$. Endorsing certain traits and forming identities around them could participate in members of socially constructed races exhibiting similarities in gene-expressions, thus contributing to the emergence of a biological conception of race. This is fleshed out by appeal to claims made about culture and identity by a few philosophers of race.

Locke (2012) attempts to answer a longstanding impasse regarding the relationship between races and cultures. On one side anthropologists took culture to depend on race such that different races invariably (perhaps by nature) produce different cultures. On the other side anthropologists denied any relationship between race and culture. Locke's goal is to refute both, and to explain that races are social phenomena deriving

from cultures, thereby illustrating some stable, though unnecessary link between them.

For Locke races develop historically and socially. Historical and social conditions section off people in certain sorts of ways that tend to produce a varying degree of proclivities towards certain values, ways of seeing the world, modes of expression, etc. These conditions lead people to produce varying styles of beauty, customs, technological advances, and other survival/non-survival related modes of interaction as specific traits of culture-types. What binds members of groups together is a likeness in culture-types, as a somewhat stable though malleable set of culture-traits. Race, then, becomes the idea (a sort of name under which groups understand themselves) that better binds the group-members together, and thereby becomes a value that further unifies culture-traits by causing a robust sense of solidarity among those who understand themselves as a unified group with a specific culture-type (Locke, 2012, 274). It is culture-heredity, and "[i]nstead therefore of regarding culture as expressive of race, race by this interpretation is regarded as itself a culture product" (Locke, 2012, 273). Here, Locke seems committed to a type of racial category constructionism, where the creation and persistence of race is brought about by cultural practices that represent a certain race as the particular one that it is.

At least in this particular article, the type of racial category construction to which Locke seems committed is something of a performative theory of race, where race exists and operates within a matrix of preferring certain culture-traits of a type and performing certain social roles related to some specified culture-type that, when performed make one a member of this race. "Race operates as tradition, as preferred traits and values.... Race, then...seems to lie in that peculiar selective preference for certain culture-traits and resistance to certain others..." (Locke, 2012, 274). A member of $Race_R$ is a member of $Race_R$ because and to the extent that he/she prefers (and seemingly performs from his/her preference) culture-traits $(v_1, v_2, v_3, \dots, v_n)$ that are accepted as being the content of culture-type- T . It would appear that performance is necessary because the member of $Race_R$ understands (identifies) him/herself as a member of $Race_R$ in solidarity with others, which requires a public embrace or expression—an acting out—of culture-traits $(v_1, v_2, v_3, \dots, v_n)$.

Let us say that race operates as tradition, particularly as a name for preferring and performing from certain culture-traits. (Now it is important to note that one need not think that there must always be conscious and intentional preferences or performances from preferred culture-traits, and thus that every trait of a type is either understood or consciously valued. In preferring trait $_x$ one might indirectly, that is, unconsciously or unintentionally, prefer or perform from some $-y$. A member of $Race_R$ might desire to mate with another member of the same

race, and in so doing, indirectly prefer and perform culture-trait, because of that desire, failing to either understand or consciously endorse the preference.) However, groups construct certain culture-types and begin to express preferences for these types. Members of groups understand themselves in relation to the traits of the types, such that there is a strong connection between their identities and these types. Members come to value themselves, others with whom they see themselves in solidarity, and the racial group as a name for their culture-type, all in a certain sort of way. It seems at least plausible that similarities in gene-expressions among members might emerge given a strong association between members and types.

Consider very basic culture-products such as food-preferences, cuisine, and eating habits. We know that these cause epigenetic adaptations, as methylation is affected by diet (Carey, 2012, 110-113). And we know that certain foods more attributable to certain cultural cuisines assist or inhibit methylation or acetylation (Moore, 2015). Further, we know that “human food preferences can be transmitted across generations via substances that an embryo, fetus, or infant detects in its mother’s womb or breast milk, or that an infant detects in either parent’s saliva or scent.” In fact: “This is how early experiences with particular flavors could contribute to the perpetuation across generations of different ethnic and cultural cuisine preferences” (Ibid). If there is both a sharp distinction separating races and similarity between racial group-members, then (given other environmental factors/stresses) it seems that distinct epigenetic adaptations along socially constructed racial lines is possible. This would be stronger if members begin to value certain aesthetic features that are considered attractive in potential mating partners who also prefer and perform from the same type. And because racial group-members view race as a value, preferring certain culture-traits of a type, it seems to follow that they would more likely create consistent environments that make inheritances more stable. All of this is to say that socially constructed races that create and demonstrate a preference for certain cultures might be thought to have the reflexive effect of fixing gene-expressions along racial lines that have been socially constructed.

Now culture is much more than cuisine, food-choice, and certain features that make persons more attractive as mating partners. I think that a stronger case can be made for similarities in racial group-members’ gene-expressions if we consider cultures’ effects on identities. Identities have psychological and social effects. They shape the ways people conceive of themselves and their projects. People begin to see and interact with the world in particular ways, construct and engage in language-practices in certain sorts of ways, take on goals in accordance with standards dictated by identities, and conceptualize good lives in the backdrop of them. As we construct cultural identities, they construct us. And these

have implications for neurological activity that controls processes of thought, which are known to result in epigenetic adaptations.

Consider an insight provided by Ian Hacking (2007), namely “making up people” and its effect on identities. “Making up people” refers to the “ways in which a new scientific classification may bring into being a new kind of person, conceived of and experienced as a way to be a person (285).” It can be cashed out with a five-step framework, according to which there is 1) classification of 2) individuals and peoples into kinds within, and supported by, 3) institutions where 4) knowledge about kinds of people is produced by 5) experts. Classification tends to invite stereotypes that need to be internalized by classified groups in order for them to be “made up.”

At least in the article from which this language was taken, Hacking does not apply these ideas directly to race. Hacking (2007) is “interested in classifications that are studied in the sciences, where knowledge is not simply instrumental” (290). Like many social constructionist ideas about race, Hacking takes race to have been constructed for a particular purpose, namely the suppression of certain groups. However, as Hacking himself suspects, his framework can be applied to race. So let’s apply this process to some socially constructed racial group “blacks,” and provide further specificity—“American”—that regards the nationality of this group, such that “black Americans” are a subset of “blacks” grouped together by some location and history. Here 1) “black” is attributed to 2) certain agents, American born, possessing presumed physiological and psychological traits, who are (at first glance) thought to derive some of their ancestry from those subjected to African chattel slavery and who have a particular social value within, and supported by, 3) American legal, medical, educational/academic, psychological, and various social institutions where 4) particular knowledge, such as susceptibility to poverty, criminal behavior, some range of intelligence, biological or genetic capacity, musical or sports-related ability, etc. about the social kind “black Americans” has been produced by 5) sociologists, medical practitioners, cognitive scientists, philosophers of biology, psychologists, etc. Classification, and thus what is “known” (falsely believed) about “black Americans,” invites stereotypes that are internalized and responded to by this group. If Hacking’s framework is both tenable and applicable to race, being a “black American” becomes a new kind of person, particularly given the production and internalization of knowledge produced about and by this group.

Production and internalization of knowledge causes “black Americans” to construct lives in the backdrop of certain traits; they take on or act out the traits, which direct possible futures for their lives. In so doing they craft a culture and thus cultural identities around certain traits. Under certain (perhaps rather austere) conditions, they find certain activities intellectually or physically

stimulating, certain pursuits suitable, praiseworthy, worthwhile, and authentic given both the value placed on the traits, and (if Locke is correct) their desired solidarity with others classified under the same term. Other activities and pursuits are found lacking worth or inauthentic. In the process of valuing certain pursuits and living certain lives, they cultivate certain traits. Others are neglected. By implication of cultivating certain traits they may cultivate certain expressions that control hormones and other biomolecules, along with neurological pathways.

So if some constructed group, say “black Americans,” has been created by new experiences of being raced in accordance with the above framework (where so much “knowledge” impacts them, their environment, and others with whom they engage), and epigenetic adaptations follow, then epigenetic adaptations may manifest in this racial group *qua* its being a racial group. And if different races are categorized in different ways, such that internalization (and treatment) are at least generally distinct, then one might expect general differences in epigenetic adaptations along racial lines. And finally, if epigenetic adaptations can be carved up along racial lines, then we have a biological notion of race.

Categorizing groups also shapes responses from automatic cognitive processes by and toward people who are represented as belonging to categories, and guides behaviors that shape and reshape environments wherein they live (Mallon, 2018). In so doing, it provides a basis for treating group-members in certain ways. So say that “knowledge” produced about members of some race is that they “lack talent in the area of mathematics,” or “have a proclivity toward criminal behavior.” Without doubt, this “knowledge” motivates automatic cognitive processes. Members of the race, along with their behaviors, appear *with* this “knowledge.” Consider Allport et al. (2014)’s claims that: “Nothing that strikes our eyes or ears conveys its message directly to us. We always *select* and *interpret* our impressions of the surrounding world. Some message is brought to us by the ‘light without’ but the meaning and significance we give to it are largely added by the ‘light within’” (165). In perceiving something—in this case the actions of some racialized agent—the perceiver supplies an interpretation of actions that can diverge given prejudices of the perceiver. The “light from without” may affect our perceptive faculties, providing us with content that allows an interpretation. However it is the “light from within” that gives meaning to the content.

Now insofar as members and their behaviors appear with “knowledge,” members and their behaviors confirm the “knowledge.” A seeming innocuous action like “running in the park,” for members who are “susceptible to criminal behavior” can be perceived as “running away from a crime committed.” Criminality is perceived with or belonging to the act of “running in the park.” Mistakes on a mathematics exam, for members who “lack talent in the

area of mathematics,” are perceived as “incapable of performing mathematical calculations.” In perceiving a world of racialized actors we very often perceive our own biases and act thereupon. This affects legal-, medical-, housing-, immigration-, and job-related fields, structuring social environments in ways thought to produce epigenetic adaptations. See: Stringhini and Vineis (2018); Kuzawa and Sweet (2009); Choi et al. (2009); and Parent et al. (2012) for healthy discussions of the ways in which these produce epigenetic adaptations.

There is an important potential objection that needs to be addressed. One might appeal to the complexity of identities within any particular racial identity, and accuse me of oversimplifying racial identities. The connection between race, culture, identity, and epigenetics seems to suggest that all members of racial groups act and experience the world in some one way. However when we factor in class, the range of members’ interests within constructed races, the overlap of members’ interests across constructed races, professions and other social roles influencing identities, etc., it seems hard to believe that there can ever be anything consistent about epigenetic adaptations along racial lines. So the question is whether the complexity of racial identities negates the possibility of stability and consistency in adaptations and inheritances along socially constructed racial lines.

There is evidence of epigenetic adaptations and inheritances that track along racial lines even given the multifariousness of individuals’ identities. For a good source of this evidence, see Sullivan (2015). While Sullivan focuses on a couple of cases that are helpful for race, namely the stories of Kim Anderson and Brittney, she also provides citations for a multiplicity of studies on race (and sex) and epigenetics. It cannot be discussed here, but will offer explanations for it. This evidence can be explained in at least three ways. First, certain identities within a web of identities have unequal weight. Second, certain identities pervade or exhaust other identities. Third, there is interconnectivity in performing particular identities from prescriptions for an overarching socially constructed type.

First, the uneven weight of identities within a complex web. It is undoubtedly true that every individual is a complex web of identities. However, in social networks, as in society at large, certain identities seem to carry more weight. Certain identities within the web are more meaningful more often, in a greater number of social settings and with greater regularity than others. So, I may be a philosophy professor. Yet more often in social settings and with greater regularity, the fact that I am a philosophy professor is either irrelevant or significantly less relevant than other identities within my web. There are times and settings wherein certain identities take precedence, and are ones that always seem relevant. There are identities within my web with which I always wake, of which I am constantly reminded, in light of which I am constantly approached and engaged, and are more

consequential in determining certain forms of treatment. I am unable to hide or downplay certain identities when they are disadvantageous or dangerous. Racial identities are “weightier” than others, both in terms of significance and regularity.

Secondly, the permeation or exhaustion of particular identities within a web. Beyond inequality in weight, certain identities seem to pervade and can exhaust others. It is true that I am an American, a professor, a man, of a certain age, etc. Still, something like race seems to pervade these. I am a *black* American, a *black* professor, a *black* man, of a certain age, etc. Kim Anderson (to use a case discussed by Sullivan (2015)) is a *black* lawyer, a *black* mother, a *black* woman, of a certain age, etc. And the addition of race as a qualifier for these identities is meaningful both psychologically and socially. Racial identities are “deeper” than other (though perhaps not all) identities, insofar as it pervades them. Insofar as racial identities pervade others, the others are experienced in light of race.

Lastly, the interconnectivity in performing particular identities from prescriptions for an overarching socially constructed type. Undoubtedly there are different ways to be within some identity, even “weightier” and “deeper” ones such as race. However, I think that there are overarching connections between the different members of a constructed type. Let’s see this with a non-racial example and then connect it with race.

There are many differences among students. However, there are certain prescribed conventions that structure: 1) how students understand the identity performed; 2) their identity’s relationship to others’ performed identities; and 3) the meaning of certain objects occupying spaces in contexts wherein they perform their student-identity. Given the student’s understanding of the objects in my office, certain conventions surrounding what it means to be a student, what their relationship is to me as a professor (and assuming that I open the door and enter after the student, thereby not limiting the student’s options) the student will not walk to the big chair that is behind the desk and in front of the computer. The student understands the meaning of objects in the context of the space that we occupy, what identity he/she is performing, the relationship between him/her as “student” and me as “professor,” and seats him/herself in one of the “guest” or “student” chairs. If he/she seated him/herself in my chair, I would question whether the student has misunderstood either “1,” “2,” or “3.” Why has this expectation of *all* students? Even though students are very different—having different personalities, proclivities, etc.—there are certain prescribed conventions that govern the behavior of those performing these socially constructed types. And thus there are higher-order similarities connecting diverse agents, even given the lower-level differences separating them.

Now race. again, there are many different ways to be a member of some race. However, my claim is that there

are higher-order connections between members who perform their specific racial identities because there are certain prescribed conventions for members performing racial identities. These conventions structure how members of races understand the identities that they perform, their racial identities’ relationship to other races, and the meaning of certain objects occupying social spaces in contexts wherein they perform racial identities. These allow for efficient coordination or navigation. And social penalties are the result of violating these conventions. Though not explicitly stated, in the case of students the strength of the connection between individual members of the types will depend on the austerity of penalties for breaking conventions surrounding performing the identity. And like students (and professors), there will be a very strong overarching connection between members of a race if there are austere penalties for disregarding conventions surrounding performing some racial identity. The degree of strength higher-order connections between members of socially constructed Identity₁ depends on the austerity of penalties for disregarding conventions prescribed for performing socially constructed Identity₁. And my suspicion is that these can be asymmetrical, either as they regard professor/students or Race₁/Race₂.

To use American race-relations throughout much of the 1900’s as an example, there are certain ways that blacks and whites understood themselves—that is, the identity that they performed. Further, there were certain ways that blacks and whites were expected to perform their racial identities in relation to each other, given this understanding. When a black and a white were both walking on the sidewalk, it was prescribed that the black step off of the sidewalk, and to walk with his/her head lowered. And when spoken to, the black must say “sir” or “ma’am,” but must never meet the gaze of the white. Moreover, “white-only” and “colored” water fountains and segregated buses, etc. served as objects occupying spaces in contexts wherein they perform their racial identity that structured their identity-performances.

Consider Du Bois (2003)’ claim that black Americans have a peculiar double-consciousness. For Du Bois, being black in America meant measuring one’s worth— aesthetically, culturally, artistically, morally, and even as a human being—like and in relation to those who doubted that there was any worth or value in black humanity (9). This double-consciousness was the product of living in America, where belief that one is a worthy human being with self-respect could neither develop nor flourish due to conventions surrounding acting as a “black.” It seems that Du Bois thought that being black in American required one conform to prescribed conventions to think and act in a self-hating way that validated ideals and standards that questioned or denied black humanity. Being “black” required internalizing many of the inferior stereotypes as “knowledge” produced by experts in the way that Hacking describes. Violation of these

conventions came at the cost of being penalized in very austere ways, particularly given slavery's recent end and the beginning of what has been termed black Americans' nadir (Logan, 1997). And for Du Bois, being black in this way pervaded the many individual differences separating black Americans. Double-consciousness was interwoven throughout black American history, and links the black artisan, minister, and savant.

Certainly Du Bois—having published this work in 1903—lived in a different world. However, one might think that there are still or could reemerge prescribed conventions surrounding performing the identity “black,” with rather austere penalties for violations. So one might think there are or could reemerge overarching connections between the black professor and comedian, ball-player and astronaut, singer and groundskeeper. So for example, when walking into a classroom as a “black” professor, one may be expected to be “comical,” “jovial,” or “cool”, or perhaps deliver a lecture in more of a “prophetic” “energetic” or “preacher-esque” tone.

To conclude this section, what the author has tried to provide so far are reasons why we might think that a biological notion of race could derive from socially constructed races given the truth of epigenetics, cultures, and racial identities. Still, culture and racial identities respond in part to social environments; social environments help to provide explanations for why certain cultures and racial identities are constructed and become rather “thick.” And thus a discussion of social environments is needed. The kind of environment would tend to affect distinct socially constructed racial groups in very specific ways, and would provide an explanation for the thickness of cultures and racial identities, prescribed conventions, and penalties for disregarding them. I will call this environment “institutionally racist.”

INSTITUTIONAL RACISM AND EPIGENETIC ADAPTATIONS

There are a number of accounts of racism, both individual and institutional (For an overall sketch of views, see Anderson (2015).) I construct “something of” an account that concerns institutions. What I propose is more of a name given to a particular environment than a definition or complete description of institutional racism. One may call it “institutionally racist” insofar as I construct it from considerations of institutional racism. This environment allows us to think that distinct cultures and racial identities, along with prescribed conventions and penalties, would consistently govern racial group-members' lives. And so it provides an environment wherein epigenetic adaptations and inheritances *thickly* occur along racial lines.

The term “institutional racism” was first used by Carmichael et al. (1992) to mean “the predication of decisions and policies on considerations of race for the purpose of *subordinating* a racial group and maintaining

control over that group” (3). It is thought to rely “on active and pervasive operation of anti-black attitudes and practices” (Carmichael et al., 1992). Here institutional racism requires *beliefs*—“whites are ‘better’ than blacks; and therefore blacks should be subordinated to whites,” attitudes—*ill-will* towards blacks by whites, *actions*—in terms of policies that both intend and actually do subordinate blacks, and *pervasiveness*—the permeation of beliefs and attitudes that (with institutionalized policies) structure society in a certain sort of way that systemically aims to work against, disenfranchise, and therefore subordinate blacks. Subordinative policies thereby form a “white power structure;” they take political, economic, and social decisions about the shape of both American life generally and black American life specifically out of black Americans' hands (Carmichael et al., 1992). So Carmichael et al. (1992) understand an institutionally racist environment as one wherein *there are certain beliefs about the superiority of certain races over others that, along with ill-will towards the perceived inferior race, motivate actions that affect the perceived inferior race in critical aspects of American life, thereby taking political, economic, and social decisions out of their hands.*

In this environment there are few political protections for black Americans and no ability to gain protections because of both individual acts and institutional policies/practices that support these acts, along with blacks' inability to affect their own lives through political decision-making. Lacking political decisions directly relates to and affects economic and social matters. Because of a lack of political protection and decision-making, black Americans suffer income inequality, pervasive unemployment, outright exploitation given exorbitant prices and excessive interest-rates charged on poor goods, failed promises for black veterans, and difficulty procuring FHA loans when black Americans do qualify for them. As a result of a number of policies that work together to oppress them, black Americans are forced to live in dilapidated neighborhoods, often without adequate food-sources and -qualities, and are “treated as a lowly animal, not to be housed properly, or given adequate medical services, and by no means a decent education” (Carmichael et al., 1992).

Given what has been argued about epigenetic adaptations, cultures, and identities (with conventions and penalties for violations), such an environment is certainly one that might lead to epigenetic adaptations and inheritances along racial lines. It would appear that different socially constructed races—at least whites and blacks—are treated in distinct and specific ways that leads to “something of” a racial hierarchy. Socially constructed races are segregated. Segregated races are exposed to different environments with diverging access to education, food-choices and -qualities, medical treatment, and environmental conditions such as exposure to pollutions. Further, mothers of different races would certainly have differing access to certain food

sources in key moments during pregnancy-which we know causes epigenetic adaptations and inheritances (Carey, 2012). These conditions alone are likely to lead to epigenetic adaptations along racial lines.

If Carmichael et al. (1992), are correct in their description of institutional racism, then this environment seems to be a kind that would produce diverging cultures and racial identities that are quite thick. Members are treated in certain ways because of their race. In fact entire groups of people are affected in very specific ways by policies and practices aimed either at disparaging or overvaluing them. Further policies, beliefs, and attitudes inform how members of different races perform their identities, particularly if they are tied to one's employment or social acceptability. In this environment we might expect there to be conventions around speech and action, with austere or at least very costly penalties that result if conventions are violated. Speaking in certain ways is both expected and required, not merely in terms of dialect but also in terms of content. Validating and aspiring to certain standards of beauty are normalized while others are taboo. These all inform internalization, automatic responses, and treatment of others in accordance with the stereotypes of socially constructed races.

So certainly this environment explains how distinct cultures and racial identities exist, why prescribed conventions are created and performed, and how/why penalties follow from breaking conventions. And further, this environment provides something of a social hierarchy wherein social status can cause adaptations and inheritances stratified along the social groups of the hierarchy. This can be found in cases involving animals. For example, Moore (2015) discusses experiments wherein rhesus monkeys were placed in socially stratified hierarchies, after which researchers recorded their DNA methylation patterns. It was found that there were differences in DNA methylation patterns of high versus low-ranking monkeys and similarities within the two groups. Moore concludes that "if this is true for monkeys, it is probably true for human beings as well" (pg. 97). The claim is uncertain because, as is obvious, certain kinds of experiments required for definitive proof cannot ethically be conducted on humans. The question is whether we want to endorse this account as the only or best type of environment that would satisfy this criteria for the emergence of biological races.

Though it is clear that Carmichael et al., are responding to race in America at a particular time in history, one need not think that "institutional racism" requires either the subordination of blacks or that whites be the subordinating group. So, let's represent Carmichael et al's conception with the following form:

Institutional racism requires both (1) beliefs(x_1, x_2, \dots, x_n) about the inferiority of some racial group_R and ill-will towards racial group_R, and (2) conscious unity with persons who endorse beliefs (x_1, x_2, \dots, x_n) and ill-will

towards racial group_R for the purpose of maintaining privilege that motivate policies(p_1, p_2, \dots, p_n) and other practices(m_1, m_2, \dots, m_n) as actions that, because they are endorsed pervasively, intentionally structure society in a certain sort of way that systemically work against, disenfranchise, and therefore subordinate racial group_R.

Seemingly, the environment need not be as thick as this account. If this form accurately represents Carmichael et al's institutionally racist environment, then it seems to rely on motivation by individual-actors, endorsement from explicit beliefs and ill-will, and actions in the form of policies being made in order to satisfy explicit beliefs and attitudes. However, why think that this type of environment requires beliefs and attitudes, that either beliefs, attitudes, and privilege be the motivation for commitment to certain policies, or that these policies be institutionalized or supported to maintain the superior/inferior relationships between racial groups? One might think that a failure to appropriately correct policies that were institutionalized to create or maintain superior/inferior relationships between socially constructed races is enough to be preserve or create an environment wherein epigenetic adaptations exist along racial lines.

Moreover, if our goal is to have a description of the type of environment wherein epigenetic adaptations and inheritances emerge along racial lines, then what seems necessary is an environment with a more defined hierarchy than Carmichael et al's conception provides. What is required are policies and practices that place some race at the top of the hierarchy, some race at the bottom, and other races more clearly rank-ordered between the two in order to capture a more complete range of biological races that matches socially constructed ones.

So while Carmichael et al's conception illustrates an environment wherein we might think epigenetic adaptations along socially constructed racial lines can occur, it might not be the only or best conception. I revise Carmichael et al's conception in the following way. An "institutionally racist" environment wherein epigenetic adaptations and inheritances along socially constructed racial lines can stably emerge, minimally requires pervasive conformity to policies(p_1, p_2, \dots, p_n) and other practices (m_1, m_2, \dots, m_n) as actions that structure society in a certain sort of way that systemically affect all socially constructed racial groups, but that work against, disenfranchise, and therefore subordinate racial groups(_{R, S, T, \dots, X}) in dissimilar and distinct ways that rank-order them under a racial group(_Q) because they are members of racial groups(_{R, S, T, \dots, X}).

This conception gives us the pervasive effects of policies and practices discussed by Carmichael et al without having them motivated by beliefs, attitudes, and benefit. Endorsement of policies and practices due to beliefs and attitudes may make an institutionally racist environment more consistent, and thus may be an

environment that produces epigenetic adaptations along racial lines more consistently. However, I do not take beliefs, attitudes, and benefits to be necessary for policies and practices that subordinate, and that ultimately cause people to live, experience the world, and be treated by others in distinct and dissimilar ways that produce epigenetic adaptations. And further, this conception provides a clearer rank-order amongst the socially constructed races. If we are concerned to have a biological conception of race that matches socially constructed ones, and this relies on a type of environment, then we would need policies and practices that would dissimilarly and distinctly affect all socially constructed races.

CONCLUSION

So, we seem able to infer the possible emergence of biological (though non-genetic) races, even if we accept that races have their origins as social constructs. The movement here is from epigenetic adaptations and inheritances to the rather obvious point that culture is implicated in the production of epigenetic adaptations and inheritances, to racial cultures and performative racial identities, to an “institutionally racist” environment that would thicken commitment to racial cultures and performative racial identities—all the while treating different socially constructed races in very particular ways that would *thicken* adaptations and inheritances along socially constructed racial lines.

Now to conclude, I would like to take a moment to clarify what is not being proposed in this article. I am not proposing that biological races exist. I have argued that given social constructionist claims and certain phenomena (epigenetics, culture and rather thick racial identities, and “institutional racism”) races *can* emerge—or perhaps reemerge—in a biological way. Further, I am not proposing that races, in an American sense, will or need exhibit the same adaptations or inheritances as races writ large. Moreover, I am not proposing that proclivities towards criminality, susceptibility to moral behavior, racist attitudes, lack of freewill, or intellectual differences would result if a biological notion of race emerged from socially constructed races. With intellectual differences I, like Kitcher (1999), take Block (1974a, b, 1995) to have produced a damaging refutation to intellectual differences in races. Additionally, I have doubts about our ability to define or measure intelligence, let alone capture it with some unbiased test. There seems to be many different ways to think or work through problems, organize or structure life in a beneficial way, act prudently, etc.

This leads me to the only normative statement that I am prepared to make at this point. A worthwhile normative proposal is that we work to eliminate social categorizations of race. Let us assume that what political racial constructionists tend to claim about race and

hierarchies are correct. Race seems to *require* treating groups in certain ways that benefit some and harm others comparatively. Let us say further that this does in fact cause adaptations and inheritances within all groups. My intuition—without any evidence to support the intuition—is that all groups would adapt in dehumanizing and destructive ways. And so as Boxill (2004) argues, racial categorizations are harmful. And it is based on this harm that one might recommend their elimination. Just as Douglass 1994, thought in his reflections on slavery (recall the epigraph), one might think that if biological races emerge, socially constructed races are dehumanizing and destructive because of the brutalizing biological effects that they would have on *all* humans involved, with its real harm being what it does to our posterity. A forthcoming article will address and defend normative eliminativism.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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