Swimming Upstream

Theory and Methodology in Race Research

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Race is perhaps the most salient representation of inequality in the Western world. The persistent, significant racial disparities in education, earnings, wealth, health, mortality, and other indicators of social well-being confirm this assertion (Blau 2003; Conley 1999; Grodsky and Pager 2001; Hayward and Heron 1999; McCall 2001; Oliver and Shapiro 1995; Williams 1999). Over the past century countless scholars analyzed the aforementioned racial outcome disparities in an effort to find the source(s) of racial inequality—the mechanisms of racial privilege. Recent research suggests that a variety of countervailing factors such as genetics (Bamshad 2005; Burchard et al. 2003; Karter 2003), hidden racism (Bobo, Kluegel, and Smith 1997; Bonilla-Silva 2003), cognitive skills (Farkas and Vicknair 1996; Neal and Johnson 1996; O’Neill 1990) and an oppositional culture among minorities (Fryer and Torelli 2005; Ogbu and Davis 2003) contribute to the observed racial outcome disparities.

In quantitative research on race, where conclusions on the source(s) of racial inequality enlist mathematical objectivity as a shroud, the debate on the factors responsible for racial inequality remains highly contested. Quantitative articles on racial inequality are often followed by critical commentary on the other factors responsible for the racial outcome disparities under consideration (see Cancio, Evans and Maume 1996). These ongoing quantitative debates on racial inequality, though, revolve around a conventional, regression-based methodology that is used to identify the source(s) of inequality. This methodology employs individual- and community-level variable-based data to identify the source(s) of
A social scientist studying mortality, for example, models racial disparities in dying (i.e., the dependent variable) as a function of education, occupation, age, wealth, and many other "independent variables" known to covary with mortality (Collins and Williams 1999; Gornick et al. 1998; Menchik 1993; Rogers 1992). The goal of this general analysis is the isolation of the variable set that explains racial mortality disparities—the source(s) of inequality.

In what follows, I show that two regression-based quantitative techniques used to identify the factor(s) responsible for racial outcome disparities—variable and comparative analysis—overlook the interactive processes that create and maintain racial inequality. Schwalbe et al. (2000) noted that "to explain inequality requires attention to the [interactive] processes that produce and perpetuate it." (420). Research on race must recognize that observed racial inequalities are the culmination of countless—and often modest—social interactions where actors' characteristics are translated into opportunities and rewards (Bonilla-Silva 1997; Emirbayer 1997; Reskin 2003; Schwalbe et al. 2000; Tilly 1998; West and Fenstermaker 1995). Quantitative research on race largely overlooks the interactive processes behind racial inequality and, as a result, is hampered two dilemmas: (1) interpreting variables that explain the race effect as the source of racial outcome disparities, and (2) interpreting the unique characteristics of outliers as the keys to racial uplift. These issues have received little attention (Bonilla-Silva [1997], Bonilla-Silva and Baiocchi [2001], Reskin [2003], and Zubiri [2000] partially address these issues). I critically analyze these issues and advance the idea that research on race can overcome them by critically analyzing social interactions both within institutions and across social institutions.

In this chapter, I use a literary analysis technique—an allegory—to generate a framework that highlights the concept of race and, consequently, the limitations of the conventional quantitative research methods. The allegory centers on two swim teams that race in a river each week. The meets are structured such that one team swims downstream and the other swims upstream. These structured interactions—competitive swim meets—that result in swim times represent the social interactions and unequal outcomes that occur in modern society. Hence, an analysis of the allegory promises to shed light on race in general, and the methods used to study racial inequality in particular.

BACKGROUND

A review of recent quantitative research reveals two predominant techniques of identifying the source(s) of racial inequality. Blumer (1969) defined the first method, variable analysis, as "the scheme of sociological analysis which seeks to reduce human group life to variables and their interactions" (127; see also Abbot [1999] and Emirbayer [1997]). Indeed, there are many statistical methods used in the variable analytic tradition. Emirbayer (1997) wrote that variable analysts "employ a variety of quantitative methods . . . including multiple regression, factor analysis, and event history approaches" (286). Regardless of the method, though, variable analyses of race aim to identify the factors that reduce the coefficient on the race variable, or explain the "race effect." In variable analysis, we interpret the independent variables that explain the race effect as the source of racial disparities in an outcome (Reskin 2003).

The second technique used to identify the source(s) of racial inequality is comparative analysis. In comparative analyses, scholars compare two or more similar groups to identify the factor(s) responsible for group disparities in success/failure. The most popular examples of the method are comparisons of West Indian immigrants and African Americans (Dodoo 1997; Katende 1994; Sowell 1978, 1983; Waters 1999). These type of analyses seek to pinpoint the variable set that distinguishes more successful West Indians from less successful African Americans, and, subsequently, interpret this variable set as the source(s) of racial inequality—the mechanisms for racial uplift.

While variable and comparative analyses of race pursue the variable set responsible for racial outcome disparities, recent research locates the source of inequality in everyday social interactions (Reskin 2003; Schwalbe et al. 2000; Tilly 1998). Emirbayer (1997, 292), for example, noted that defining inequality as a matter of variations in the possession of "human capital" or other "goods" is in error. He writes, "Unfolding social transactions, not preconstituted attributes, are what most effectively explain equality and inequality" (Emirbayer 1997, 293). In line with Emirbayer, West and Fenstermaker (1995) wrote: "[R]ace is not simply an individual characteristic or trait but something that is accomplished in interaction with others." (23). Thus, recent research suggests that racial inequality is created in countless social interactions taking place at various levels (e.g., organizational) and locations in society. These interactions represent the social space where actors' characteristics, such as race, are converted into rewards and opportunities—that are often modest in size—and, in turn, observed racial inequalities are created and maintained.

The conventional practice of modeling racial outcome disparities strictly focuses on the identification of explanatory factors—factors that covary with racial disparities in a specific outcome. This practice does not recognize or analyze the multitude of social interactions that create and maintain racial inequality (Abbot 1999; Blumer 1969; Emirbayer 1997). For this reason, Tilly (1998) wrote:

[1] Individualistic analyses of inequality have all the attractions of neoclassical economics . . . confronted with unequal outcomes, their user searches the
past for individual differences in skill, knowledge... that must explain differences in rewards. These analyses fail, however, to the extent that essential causal business takes place not inside individual heads but within social relations among persons and sets of persons. That extent is, I claim, very large (33; emphasis added).

Quantitative research on race must unveil the interactive processes that create racial inequality to identify the source(s) of inequality and, in turn, advise policy designed to alleviate existing racial outcome disparities. I now turn to the allegory of the swim meet to shed new light on the limitations of conventional quantitative research on race and develop a research program to identify the source(s) of racial inequality.

THE ALLEGORY OF THE SWIM MEET

The Allegory

There is an ongoing series of swim meets between two groups, the pros and cons. Each week the groups meet at a river to swim a uniform distance. Swimmers in each group are competing for the best time. An individual's status in the group, though, is related to his/her ability to beat competitors in the opposing group. Thus, swimmers in both groups want to post a better time than his/her teammates and the swimmers on the opposing team.

To conduct each swim meet match, officials place random swimmers from each group at opposite ends of a section of a river. The competitors begin swimming at the sound of a gun, pass each other swimming in opposite directions, then are timed as each passes his/her respective finish line. It is the swim meet tradition that one group of competitors—the pros—always swims downstream, and the other group—the cons—always swims upstream. This tradition began as it represented each team swimming toward their village. Swim meet officials initially presumed that these conditions were just and fair for each group.

Officials conducted the meets for several years in a variety of rivers of different speeds. Statistics indicate that pros swimmers have won every competition. In many of the meets, the officials noted that a few cons, swimming upstream, had better times than their competitors in the pros. They also noted, however, that the average time of the pros was significantly shorter than the cons average swim time in every meet. These events piqued officials' interest in the river speed at a recent meet and identify the factors responsible for group time disparities. They intend to use this information to equalize the meets.

MODELING GROUP DIFFERENCE

The allegory presents the problem of finding the source of group disparities. Below, I present a general theoretical solution to locating the source of group disparities. Then, I analyze two simple solutions using the general theoretical solution as a frame.

The General Solution

The source of group swim time disparities is swimming in different directions (i.e., the swim meet structure). Before the swim meets, the characteristics that influence swim times \(|X_{ik}|\) were normally distributed with equal means and variances in both populations. The structure of the swim meets led to group disparities in these factors and swim times. Thus, the analysis of group swim time disparities begins with recognizing the motivating role of the swim meet structure.

After recognizing the importance of the swim meet structure, we turn to the characteristics (i.e., factors) that influence swim times. Swim times are a function of the characteristics vector that, in turn, is a function of previous conditions faced. Characteristics, then, are the product of countless prior interactions between swimmers and rivers—river speed facilitated/impeded swimmers, and swimmers reacted. We write this functional relationship as:

\[
X_{ik} = f(\theta_{ij < k}, V_{j < k})
\]

where \(X_{ik}\) is the characteristics vector for individual \(i\) in swim meet \(k\), \(V_{j < k}\) is a vector of previous environmental conditions, and \(\theta_{ij < k}\) is a vector of swimmers' reactions to prior conditions. Group disparities in characteristics, then, are a product of prior conditions (e.g., swimming upstream) and reactions.
To solve the allegorical problem, we build on Eq. 1 to create a general model of swim times. The general model of swim times is

\[ T_{ik} = f(X_{ik}, V_j, \theta_k) \]  

where \( T_{ik} \) is the time of individual \( i \) in swim meet \( k \), \( X_{ik} \) is the characteristic vector for individual \( i \) in swim meet \( k \) (a function of prior conditions and reactions), \( V_j \) is the speed of river \( k \), and \( \theta_k \) refers to the reaction of individual \( i \) to conditions in river \( k \). Swimmers then, are a function of current characteristics, current/previous conditions, and current/previous reactions.

Two Simple Models

The general model of swim times (Eq. 2) is missing several key pieces of information. There are two ways, however, that we can use this information to estimate river speed and identify the sources of swim-time disparities. The first solution is to simplify the general model (i.e., variable analysis), while the second is to analyze the within-group disparities (i.e., comparative analysis).

For variable analysis, we assume that swimmers uniformly respond to environmental conditions \( \theta_k = c \), and that swimmers’ characteristic vectors are not related to the previous conditions \( X_{ik} \neq f(\theta_j < k, V_j, \text{prior}) \). The second assumption implies that disparities in characteristics are the product of unobserved exogenous factors—not the structure of the current swim meet.

A swimmer’s time, then, is a function of an independent set of characteristics and river speed (Eq. 3).

\[ T_{ik} = f(X_{ik}^{*}, V_k) \]  

We estimate this model by incorporating an error term and using regression.³ We write

\[ T_{ik} = \alpha_0 + \beta_0 \cdot G_i + \sum_{j=1}^{I} \gamma_{ij} X_{ik}^{*} + \epsilon_{ik} \]  

where \( G_i \) is a dummy variable for cons group membership (upstream), \( X_{ik}^{*} \) refers to characteristic \( j \) for person \( i \) in river \( k \), and \( \epsilon_{ik} \) is the error term. In this formulation, the \( \beta_0 \) parameter is the unstandardized estimate of river speed and the \( \gamma \)-parameters highlight the factors that are responsible for group swim-time disparities.⁴

Albeit simple and easy to interpret, the variable analytic solution does not account for current characteristics—dependence on prior conditions and reactions. If prior conditions or reactions are positively correlated with current characteristics (e.g., characteristics increase by swimming downstream), then we would underestimate river speed. The variable analytic solution, then, is not likely to produce unbiased estimates of river speed.⁵

In contrast to variable analysis, the comparative analytic solution focuses on within-group variation in swim times. We assume that variation in the characteristic vector \( X_{ik}^{*} \) is largely a function of swimmers’ reactions to prior conditions [e.g., \( \theta_k = \ldots \Theta_k \)], and that no cons swimmers would win in a fast river (i.e., current river speed is inconsequential)—the second assumption justifies the focus on within-group variance in swim time. Given these assumptions, we need only identify the characteristic(s) that distinguish successful cons swimmers \( X_{ik}^{*} \) where \( X_{ik}^{*} \subseteq X_{ik} \). We do this by running a within-group regression to identify the factors that covary with swimming success. And since we do not have reaction data, we hypothesize that a specific reaction (e.g., working harder) to prior conditions is the source of within-group variation in characteristics and times.

Like variable analysis, this solution does not account for current characteristics’ dependence on prior conditions and reactions. The solution gives primacy to current characteristics and unobserved—hypothetical—reactions to prior conditions. The solution also assumes that the unique characteristics of outliers are the source of disparities. Indeed, current characteristics are related to success. However, current characteristics are related to prior conditions, reactions, and chance as well. The disregard for other factors (e.g., prior conditions) in the model is inaccurate and biased.

Summary: Modeling Group Difference

The general model of swim-time disparities suggests three steps to identify the source of group disparities. Scholars should: (1) recognize the significance of the swim meet structure, (2) analyze the impact of prior conditions and reactions on characteristics, and (3) analyze the covariance between characteristics and swim times while accounting for prior conditions and reactions. The aforementioned simple solutions do not embrace these three steps. They fail to recognize the significance of the swim meet structure as well as the nuanced role of prior conditions/reactions in creating swim-time disparities. While the second solution is more problematic than the first (i.e., stricter assumptions), both solutions fail to see beyond the current characteristic vector.

RACIAL RIVERS

The General Model

The parallels between the allegory and race appear in Table 6.1. The first parallel is between the swim meet structure and racial ideology. Here, racial
Table 6.1. Corollaries between Allegory and Race

<table>
<thead>
<tr>
<th>Allegory</th>
<th>Interpretive Meaning</th>
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<tbody>
<tr>
<td>1) Swim Meet</td>
<td>1) Competition for Social Status and Resources</td>
</tr>
<tr>
<td>2) Rivers</td>
<td>2) Institutions</td>
</tr>
<tr>
<td>3) Structure of Swim Meet and Swimming Upstream</td>
<td>3) Racial Classification/Structure</td>
</tr>
<tr>
<td>4) Swimming Downstream</td>
<td>4) Confronting Racial Discrimination</td>
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<tr>
<td>5) Swim Times</td>
<td>5) Receiving Racial Privilege</td>
</tr>
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<td>6) Social Outcomes</td>
<td>6) Social Outcomes</td>
</tr>
<tr>
<td>7) Racial Disparities in Outcomes</td>
<td>7) Racial Disparities in Outcomes</td>
</tr>
<tr>
<td>8) Reactions to Environmental Conditions</td>
<td>8) Reactions to Racial Treatment</td>
</tr>
<tr>
<td>9) Relationship between Current and Prior Characteristics</td>
<td>9) Relationship between Racial Disparities across Institutional Contexts</td>
</tr>
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</table>

ideology refers to the belief that a person's racial classification covaries with his/her abilities, character, and culture (Drake 1987; Graves 2001). The swim meets are analogous to social interactions. The ideology of race, then, structures countless social interactions in a variety of institutions (i.e., rivers) operating at different levels and locations in society. Racial treatment refers to the use of race—in addition to other characteristics—in the social interaction space (i.e., mechanism) where characteristics are converted into opportunities and rewards. The reactions of swimmers in the allegory represent actors' reactions to perceived racial treatment. And the end product of countless social interactions structured by racial ideology is observed racial outcome disparities.

The parallels between the swim meet allegory and race highlight a general interactive model of racial inequality. This model suggests that racial outcome disparities are created in countless social interactions taking place in various locations and levels in society with the general form shown in Figure 6.1. As in the allegory, the model indicates that the racial ideology structures everyday social interactions. The first place this ideology structures the generic interaction, \( k \), is in the treatment function, \( \Lambda_k \). The treatment function is based on racial bias/nonbias \( [V_k] \) toward individual \( i \) in interaction \( k \) and the characteristics vector \( [X_k] \). Here, the treatment function indicates whether a person \( i \) is treated impartially or with bias.

After the treatment, a person perceives the treatment \( [P_k] \) as just/unjust based on past experiences and comparisons with similar others. If an actor perceives unjust treatment (i.e., discrimination), he/she may use an adaptive coping response \( [\Theta_k] \)—or reaction—to offset the related negative outcome. This adaptive coping response can vary from seeking social support to exercising to drinking, and, subsequently, lead to various outcomes \( [X_{ik} + i] \). If a person perceives just treatment, then the outcome vector is largely determined by the treatment function \( [\Lambda_k] \) (represented by a line between perception and outcomes in figure 6.1).

The interactive model of racial inequality in figure 6.1 embraces the lessons learned from the swim meet allegory. The model situates each interaction in the larger racial ideology (lesson 1). This model also highlights the importance of prior treatment and reactions on group characteristics/outcomes (lesson 2). Lastly, the model indicates that current social interactions are related to characteristics, and prior conditions and reactions (lesson 3).

Two Simple Solutions

As in the allegory, there are two simple solutions one can use to locate the source(s) of racial outcome disparities: variable and comparative analysis. Variable analyses examine the covariation between race, several variables of theoretical import, and an outcome variable. They most often take the form

\[
y_i = \beta_0 + \beta_1 \cdot R_i + \sum_{j=2}^{l} \beta_j \cdot C_{ij} + \epsilon_i
\]

where \( y_i \) refers to an outcome variable, \( R_i \) refers to the race dummy variable for person \( i \), \( C_{ij} \) refers to characteristic \( j \) for individual \( i \), and \( \epsilon_i \) is an error term. The goal of variable analyses of racial inequality is to identify the variable set that reduces the race coefficient \( \beta_1 \)—the race effect. We interpret the variable set that reduces the race effect as the source(s) of inequality and the residual race effect as a sign of equality/inequality (Reskin 2003).

Unfortunately, the conventional variable analytic model of racial inequality strictly focuses on the covariation between current characteristics...
and outcomes—not unfair treatment, perceptions, or coping responses (i.e., the interactive process). Given that this model overlooks the relationship between current characteristics and prior conditions/reactions, scholars are left to speculate about: (1) the source of the residual race effect (e.g., skills, racism), and (2) the role of other independent variables in the social interaction (e.g., factors employers use in hiring and wage determination).

An example of variable analytic speculation can be seen in research on racial wage inequality. Recent research indicates that controlling for background factors (e.g., years of education), work experience, and cognitive skills (as measured by the Armed Forces Qualifying Test) reduces the Black-White wage disparity to insignificance (Farkas and Vicknair 1996; Neal and Johnson 1996; O'Neill 1990). This work is often cited as evidence of race neutrality in the American labor market (D'Souza 1995a; Herrnstein and Murray 1994). The flaw of this popular interpretation lies in ignoring the complex social interactions that create racial wage inequality. More specifically, conventional wage analyses assume that employers use various measures of skill (e.g., education, work experience) and other productivity indices to determine the wage for an employee. Social scientists, consequently, control for various productivity-related factors argued to be related to earnings disparities. This technique yields an unbiased estimate of the average racial wage disparity in several categorical dimensions—the residual race coefficient. It does not, however, assess any of the actions that are essential to concluding that racism exists or does not exist in the American labor market—racial treatment by employers and coping responses of actors.

Like variable analysis, comparative analysis is often used to identify the source(s) of racial outcome disparities. The focus of comparative analyses, however, is the variable set that distinguishes successful minority actors from the unsuccessful mass. In comparative analysis, we assume that the distinct characteristics of successful actors—and the related hypothetical reactions—are the means for racial uplift (i.e., the source(s) of inequality). Sowell (1978), for example, used comparative analysis to identify the characteristic(s) that distinguish West Indian success, and, by default, the source(s) of native-born Blacks' low social outcomes. Similarly, Lieberson (1980) used comparative analysis to pinpoint the characteristics that distinguished the high social mobility of Southern, Central, and Eastern European immigrants and the source(s) of low social mobility among Blacks in the early twentieth century. Although comparative analytic research often fails to find the characteristic(s) that explains racial inequality (Lieberson 1980; Roediger 1993; Waters 1999), several popular scholars claim to have identified the essential traits that distinguish successful minority (or immigrant) groups and point to family structure, culture, and motivation as the primary culprits (McWhorter 2000; Ogbu 1974, 1978, 1983, 1987, 1990; Sowell 1978).

A critical issue with comparative analysis is that it often overlooks the dependence of current characteristics on prior treatment and reactions. As mentioned previously, the divergent outcomes of any two groups are related to variation in prior interactions. Waters's (1999) research supports this assertion—and is an exception in comparative analytic research. In her analysis of West Indians and African Americans, she found that Black immigrants’ background shaped their work orientation (i.e., willingness to accept lower wages) and perceptions of racism. These differences led to disparities in employment rates and slight differences in interpersonal relations with coworkers. Thus, Waters’s research reveals that the prior social interactions of Black immigrants and natives are related to the divergent group characteristics and interactions.

**QUANTITATIVE METHODOLOGY AND RACE RESEARCH**

For more than a century, scholars and policy makers alike have turned to quantitative research on race to locate the source(s) of racial inequality. The previous discussion highlights the limitations of two analytic techniques used in this body of research. In particular, the literary analysis highlights that identifying the source(s) of racial inequality by using the variables that explain the race effect in variable analytic models or by using the unique characteristics of outliers in comparative analytic models is in error. The analysis also revealed three lessons for scholars who aim to locate the source(s) of racial outcome disparities. Namely, future quantitative research on race should: (1) recognize the significance of the larger racial ideology; (2) assess the impact of prior treatment and reactions on group characteristics—the relationship between prior interactions across social institutions; and (3) analyze the relationship between current characteristics, reactions, and outcomes while accounting for prior interactions. This three-pronged research strategy is tantamount to a theoretical shift from variable-based models of difference to an interactive model of racial inequality.

At first take, these three lessons do not seem radically different from existing research on race. Indeed, there is a considerable amount of qualitative and sociohistorical research that highlights the relevance of the existing racial ideology, and the nuanced aspects of social interactions that create and maintain observed racial outcome disparities (Higginbotham 1978; Oliver and Shapiro 1995; Royster 2003; Waters 1999; Williams 1944). Much of this work, though, is subject to the limitations of qualitative and sociohistorical research; that is to say one cannot easily generalize the results or estimate the social significance of a particular interaction. These are the two benefits of quantitative research and reasons for their wide appeal among scholars and policy makers.
Thus, the question remains: *What do these three lessons mean for existing and future quantitative research on race?* Interestingly, the lessons suggest that prior quantitative research on racial inequality using variable and comparative analysis is not invalid. Rather, the conventional interpretation of prior quantitative research on race is flawed. Previous variable analytic research, for example, often uses multiple regression to identify the source(s) of racial inequality. Although interpreting the results of conventional variable analyses as the source of racial inequality is flawed, one can interpret the model as a standardization. In other words, the race effect in previous research is an estimate of the average racial outcome disparity between actors in similar categories. This type of interpretation of variable-based analyses reframes the results as standardized racial differences in a particular context rather than the source(s) of racial outcome disparities.

Although one can reinterpret much of the existing quantitative research on racial difference, there must be a theoretical shift in future quantitative research if we aim to locate the source(s) of racial inequality. On the basis of the aforementioned three lessons and the interactive model of racial inequality, I suggest a research program with two foci. First, *quantitative research on race must examine racial treatment in American institutions.* There are a few increasingly popular ways that scholars can examine racial treatment: (1) audit and vignette studies, (2) natural experiments, and (3) mixed-method research. Audit and vignette studies involve sending pairs of individuals (auditors) or records depicting individuals (vignettes) with different racial backgrounds who have the same characteristics otherwise (e.g., education, experience) into a particular interaction (e.g., applying for a job, mental health diagnosis). Social scientists then analyze the data to see whether persons from a particular racial group are treated differently in the interaction of interest (Bendick, Brown, and Wall 1999; Heckman and Siegelman 1993; Loring and Powell 1988; Pager 2003; Yinger 1993). These types of studies are increasingly popular in research on race, but the existing work largely centers on racial treatment in housing, employment, and health care. Future audit and vignette research should expand to include more social dimensions, cases, and information to further highlight the nature of social interactions in American institutions.

Natural experiments, on the other hand, involve using spatial/temporal variation in policies or environmental conditions as explanatory variables in variable analytic models (Marini and Singer 1988, 387–88). These types of studies allow scholars to assess the extent to which variation in a particular policy or condition—the mechanism—is related to racial disparities in a particular outcome (Bansak and Raphael 2001; Clay 1998). Unfortunately, natural experiments are quite limited because scholars can only analyze the factor(s) that vary across geographic, political, and temporal space.

Lastly, mixed-methods research designs are well suited to analyzing racial treatment in a particular domain. Mixed-methods studies have the benefits of unveiling the interactive processes inherent in racial inequality while empirically highlighting the degree to which this process affects outcomes. Oliver and Shapiro’s (1995) research on racial disparities in wealth, for example, used historical policy data, qualitative data, and quantitative panel data to shed light on how racial treatment—social policies in particular—helped create and maintain the current significant racial disparities in wealth.

As for the second focus, *future research on race must analyze the role of perceptions and coping responses in determining racial inequality.* Two methods that scholars can use to examine perceptions and coping responses are: (1) survey research on perceived discrimination, and (2) social psychological experiments. Recent survey research consistently shows that people who perceive high levels of discrimination have poor health outcomes (Kessler et al. 1999; Mossakowski 2004; Schulz et al. 2000; Williams 1999). Unfortunately, this result, and the growing body of survey research on the topic, is limited to medical sociology. Future research on perceptions and coping responses can build on this literature by analyzing perceived discrimination in an array of institutional contexts and myriad coping responses. The aim of this expansion is to shed light on the role of actors’ perceptions and coping responses in creating racial disparities in an array of outcomes.

Social psychological experiments also promise a better understanding of the role of perceptions and coping responses in racial inequality. Steele’s (2003) research on stereotype threat is a great example of how perceptions of inequality influence performance. This work, however, has been limited to controlled settings revolving around cognitive or physical ability. Future research in this area should expand to shed light on how perceptions and coping responses affect performance/habits for other outcomes such as teenage fertility and health.

The two proposed research foci underscore the need for quantitative research on race that unveils the process through which racial classification becomes observed inequality. *Future research, however, must also reveal the connectedness of social interactions—racial treatment, perceptions, and coping responses—across time and social space.* More specifically, future research should examine how the tenor of social interactions in one institution (e.g., education) at a particular time are either reinforced or weakened by the tone of social interactions in another institution (e.g., labor force)—or the same institution at a later time. Feedback effects in economic models of statistical discrimination offer one example of the covariation of interactions across institutions. These models suggest that minority students invest less in schooling in response to perceived discrimination in labor
force outcomes (Blau and Ferber 1987; Loury 1995; Darity 1982; Darity and Myers 1998; Gould 1992). Thus, social interactions in the labor force and educational settings may jointly operate to increase racial outcome disparities (e.g., wages). Another example of research on the connectedness of social interactions across time and space is seen in Waters’s (1999) research on West Indians and African Americans. As mentioned previously, this work highlighted how Black immigrants’ prior interactions (e.g., growing up in a predominantly Black developing country) affected their work orientation (i.e., willingness to accept lower wages) and perceptions of racial treatment. This research further underscores the need to account for the role of prior interactions in shaping the character and consequences of the social interactions of that appeal to scholars. Future research in the aforementioned areas should expand beyond the labor force and immigrants to include a broad array of populations and a variety of institutions (e.g., familial, health care, and residential).

CONCLUSION

The goal of this chapter is to highlight that modern social scientific discussions on racial inequality are largely constrained by a variable-based perspective that readily leads to debates about Sen’s (1992) original question, “Equality of what?” These debates become circular as scholars contest observed inequalities in a particular outcome with ethical claims of equality in another outcome (e.g., meritocracy, education). This debate leads to an endless pursuit of the variable set that explains the race effect. A shift in our theoretical perspective from variable-based to interactive leads to a shift in the focus of quantitative race research from “equality of what?” to “how do social interactions create and maintain observed racial inequalities?” By focusing on the creation and maintenance of racial inequality through a series of social interactions, participants in the current debate on “equality of what?” will be better equipped to test various theories on the source(s) of racial inequality. And, what is more important, research on race will take a large step forward in our goal of understanding and eradicating racial inequality.

NOTES

1. This type of literary technique often involves limitations. The ideology of the swim meet is limited in that it does not capture the historical dynamics of race. Specifically, the structure of the swim meets in the ideology is not attributable to a specific group. The ideology of race, on the other hand, was a purposive development by a specific group to increase Western trade and capitalist expansion, and satisfy the demand for labor in the New World (Drake 1987; Graves 2001; Williams 1944). The fact that the swim meet structure was not a purposive event designed to undermine one group’s performance does not limit the perspective gained for racial research. The ideology provides an accurate representation of the observed racial realities that social scientists aim to understand. Furthermore, the ideology provides an alternative frame through which I will critique recent racial research, and propose a program for future work on race.

2. To simplify the model, I assume that the factors that influence swim speed operate and develop independently to affect swim time in river k.

3. I specify a linear model only for ease of explanation. One can model this relationship as non-linear by specifying the parameters in another way. The purpose of this exercise, however, is not to hypothesize about the linear form of the model. Rather, the intent is to highlight the complexity in estimating river speed and adjusted swim times.

4. Specifically, $\beta_0$ is the residual difference between the groups that is not related to the vector of characteristics. To estimate river speed we divide the uniform distance swim in each of the meets, D, by our parameter estimate

$$\hat{\beta}_0 = \frac{\hat{\beta}_0}{D}$$

If we satisfy the assumptions of ordinary least squares estimation procedure, and our own modeling assumptions, then the above equation is an unbiased estimate of the river speed.

5. The role of reactions to environmental conditions is extremely important in models of group difference. We know that divergent environmental conditions are a determinant of group difference. Reactions to these conditions are often the mediating determinants of group difference. There exist an abundance of social psychological research on coping that theoretically and empirically supports this interactive model (Edwards 1992; Menaghan and Merves 1984; Nelson and Sutton 1990; Tillois 1995).

6. I will use the term “racial treatment” to refer to both racial discrimination and racial privilege.


9. This general model is a simple form of the cybernetic theory of coping model found in the medical sociology literature. See Edwards (1992), Menaghan and Merves (1984), Nelson and Sutton (1990), and Tillois (1995) for a more complete discussion of this model.
10. The perception of personal treatment is identical to the fairness evaluations that are widely discussed in the distributive justice and relative deprivation literature (Jasso and Resh 2002; Stewart 2006).


12. The fact that the current racially structured interaction is a function of prior interactions is seen in two places in figure 6.1. The first place is in the treatment function. Here, treatment \([A_b]\) is a function of characteristics \([X_a]\) and racial bias \([V_a]\). Since interactions are cumulative, the characteristics of individual \(i\) are a product of previous interactions. The second place that prior interactions are seen in figure 6.1 are in perceptions \([P_a]\) and coping responses \([\Theta_a]\).

13. See Blau and Ferber (1987), Farkas and Vicknair (1996), Neal and Johnson (1996), and O’Neill (1990) for examples of interpreting the residual race coefficient. Also see Bonilla-Silva (1997, 471) and Zuberi (2001a, chap. 7) for a discussion of interpreting residual race coefficients.

14. Arrow (1973) wrote of analyzing wage disparities:

The fact that different groups of workers . . . receive different wages invites the explanation that the different groups must differ according to some characteristic valued on the market. In standard economic theory, we think first of all of differences in productivity. (3)

Here, Arrow expressed the general theory that employers use measures of particular characteristics—related to productivity—in wage determination.

7

Deracializing Social Statistics

Problems in the Quantification of Race

Tukufu Zuberi

This study should seek to ascertain by the most approved methods of social measurement. . . .

—W. E. B. Du Bois, "The Study of The Negro Problems" (1899)

In scholarly circles, demographic and statistical interpretation of racial differences has taken on an almost sacred quality. As a result, demographers and other scholars have forgotten—or perhaps have never realized—that the social concept of race affects how we interpret quantitative representations of racial reality. Moreover, many quantitative studies of racial differences fail to place race within a social context, thus allowing the faulty assumption that the existence of race relations could be benign.

In the beginning of this century, empirical social scientists took a eugenic perspective toward race. Du Bois was an exception to the accepted view about race among empirical social scientists. Du Bois was of the opinion that the best minds should study the problem of race according to the best methods. He thought that statistical analysis could help us gain a concrete understanding of the social status of the African American population. He formulated the first empirical refutation of eugenic and social Darwinist thought. After conducting an empirical study of African American life in a modern city in The Philadelphia Negro, Du Bois illustrated how biological notions of African inferiority were grounded only in ideology. However, Du Bois’s contribution has been ignored by most sociologists, and its theoretical significance to understanding modern society continues to be underplayed. This chapter demonstrates the theoretical significance of Du
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