THE SUSTAINING RELEVANCE OF W. E. B. DU BOIS TO HEALTH DISPARITIES RESEARCH[1]

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Abstract

William Edward Burghardt Du Bois is considered one of the most prolific and brilliant scholars of our time. While his contributions to civil rights, sociology, history, African American studies, and urban studies are universally recognized, his legacy in the public health and epidemiology discourses is not as widely acknowledged by contemporary health researchers. His seminal work *The Philadelphia Negro: A Social Study* (1899) and his report "The Health and Physique of the Negro American" (1906) may be considered early harbingers in general of public health—and more specifically, social epidemiology—research. During the late nineteenth and early twentieth centuries, Black and White differences in mortality and morbidity were largely attributed to notions of biological racial inferiority. Efforts by Du Bois to challenge these predominant notions resulted in the systematic empirical investigation of social factors contributing to Black health risk and health disparities. More than one hundred years after Du Bois's pioneering scholarship, racial/ethnic and social disparities remain a central challenge for public health and medical professionals. Given the persistence of health disparities and the increasing focus on neighborhood social and physical environments as fundamental factors contributing to health inequalities, this paper seeks to historically situate Du Bois's scholarship, describe the methodological and conceptual significance of his seminal studies, and articulate the importance of incorporating Du Bois's legacy to advance the next generation of racial/ethnic health inequality research.

Keywords: Racial/Ethnic Health Disparities, Social Inequities, Social Determinants of Health, Public Health

Nevertheless here are social problems before us demanding careful study, questions awaiting answers. We must study, we must investigate, we must attempt to solve; and the utmost that the world can demand is, not lack of human interest and conviction, but rather the heart-quality of fairness, and an earnest desire for the truth.

—W. E. B. Du Bois, *The Philadelphia Negro: A Social Study* (1899, p. 3)

INTRODUCTION

W. E. B. Du Bois is among the most prolific and brilliant scholars, sociologists, civil rights activists, writers, historians, poets, and thinkers of our time. Du Bois gradu-

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ated from Fisk University, earned a master's and a doctoral degree from Harvard University, and completed the requirements to receive an additional doctorate from the University of Berlin, which was among the premiere academic centers of the period (Lewis 1993). During the course of his life, he wrote more than twenty books—*The Souls of Black Folk* (1903) among the most notable of them—and published over one hundred essays. Informed by his academic activism, he cofounded the National Association for the Advancement of Colored People (NAACP). Du Bois's combined scholarship and social activism has undoubtedly left an indelible mark and has contributed immensely to the progress towards understanding and addressing racial and social inequality.

Du Bois's research on racial inequalities in health is universally recognized and duly noted among sociologists and historians (Gamble 1989; Gamble and Stone, 2006; Katz and Sugrue, 1998; McBride 1991; Roberts 2009; Zuberi 2001). However, mention of Du Bois's contribution in this area has been largely absent from some of the major texts documenting the history of public health (Rosen 1993) and epidemiology (Hamlin 2006). Recent publications in health journals have made historical linkages between Du Bois's work and current racial/ethnic health inequality research (Brown and Fee, 2003; Krieger 2001; Thomas et al., 2006; Williams and Sternthal, 2010). This paper seeks to build upon the existing dialogue by connecting Du Bois's scholarship with the current landscape of racial/ethnic health inequalities. Toward this end, this brief paper (1) situates Du Bois's research among the first studies to empirically challenge racial biological inferiority as an explanation for the poorer health of Blacks, (2) describes the conceptual and methodological significance of Du Bois's work to the racial/ethnic health disparities discourse, and (3) articulates a research agenda which incorporates Du Bois's insights.

This essay specifically focuses on two select works by Du Bois: *The Philadelphia Negro: A Social Study* (1899) and *The Health and Physique of the Negro American* (1906). Although Du Bois (1932) published other essays related to health topics, a comprehensive discussion inclusive of these works is beyond the scope of this paper. Moreover, it is acknowledged that Du Bois's efforts to dismantle notions of racial inferiority were not isolated. Black physicians including John S. Rock, James McCune Smith, and C. V. Roman vociferously exposed the flaws of racist science and medical practice (Byrd and Clayton, 2000; Gamble 1989; Krieger 1987). However, the works by Du Bois reflect a systematic approach to investigating the underlying causes of poorer Black health when such methods were in their infancy and unprecedented in the United States.

BIOLOGICAL DETERMINISM AND THE "NEGRO PROBLEM"

Biological determinism—the assertion that behavioral norms of and biological differences between human groups, namely "races," are a consequence of inherited inborn distinctions—coupled with an ideology of racial inferiority, permeated scientific thought and inquiry and influenced the practice of medicine during the nineteenth and early twentieth centuries (Byrd and Clayton, 2000). These ideas were used to promote and justify racial and social hierarchies as well as to explain the "Negro" problem, and leading physicians and scientists subscribed to these notions "proved" by spurious studies. For example, craniometry correlated skull measurements with brain size, intelligence, and personality traits (Byrd and Clayton, 2000). Influenced by the evidence from the craniometric research, physician-scientist Samuel Cartwright used these findings to guide medical practice and support the premise that Blacks should be managed and treated differently from Whites.

Eugenics, the study of improving the population by controlling hereditary qualities (e.g., race) through reproduction and migration, further promulgated biological-deterministic theories and ideologies of racial dominance in health by espousing the biological superiority of Whites over other groups. Frederick L. Hoffman, one of the most prominent figures of the eugenics movement, authored *Race Traits and Tendencies of the American Negro* (1896). Hoffman examined a host of vital (i.e., birth, morbidity, and mortality) and social (e.g., employment and educational conditions) data to investigate the living conditions of Blacks. He observed higher death rates among the "colored race" in comparison to "whites" and surmised that the differences were attributable to "an inferior vital capacity" as opposed to "conditions of life," which would inevitably lead to the extinction of the "colored" race (Hoffman,1896, pp. 310–312). Hoffman's interpretation added to the dominant thought collective which essentially deemed "negroes" as unhealthy, immoral, and a "hindrance to the economic progress of the white race" (p. 329).

Among the earliest and most poignant rebuttals to Hoffman's work (Roberts 2009), were those by Kelly Miller (1897) and Du Bois (1896), who highlighted various fundamental flaws. Both critiques discerned egregious errors in Hoffman's sources and challenged the accuracy of the census and anthropological data used. For example, the mortality data Hoffman selected was based primarily on large cities, where Blacks represented only 12% of the population. Du Bois further compared the death rates of individuals in European countries with American Blacks to expose the fallacy of the racial extinction argument; he demonstrated that Whites residing in Germany, Naples, and Budapest had higher age-adjusted death rates than American Blacks. Du Bois ended the review stating that Hoffman's conclusions were of "doubtful value, on account of the character of the material, the extent of the field, and the unscientific use of the statistical method" (Du Bois 1896, p. 130).

CONCEPTUAL AND METHODOLOGIC SIGNIFICANCE

Du Bois's training in empirical sociology at the University of Berlin had a tremendous impact on the methods used in *The Philadelphia Negro* (1899). Berlin was well-known for its pioneering economic and sociological methods that utilized objective, empirical, and scientific principles to solve social problems (Lewis 1993). Strongly influenced by this praxis, Du Bois applied these methods to mitigate racial inequality. *The Philadelphia Negro* and *The Health and Physique of the Negro American* (1906) provided empirical data debunking dominant notions of racial inferiority and showed remarkable prescience in laying the foundations of current racial/ethnic health-disparities research.

The Philadelphia Negro (1899) was among the first major empirical works in American sociology. Modeled after Charles Booth's (1889–1891) ground-breaking *Life and Labour of the People in London* that examined the causes of poverty and class relations, *The Philadelphia Negro* was the first social-science study sampling Blacks and employing variegated yet complementary qualitative, semiquantitative, and quantitative research methods. Conducted between August 1896 and December 1897, the general scope of the study entailed the description, analysis, and interpretation of the life and conditions of Blacks. More specifically, the study investigated education and illiteracy, occupational status, social organizations, churches, businesses, housing, crime, suffrage issues, and health.

Du Bois was intimately involved with the collection of data, canvassing the neighborhood to conduct fieldwork, including extensive interviews with 2500 house-

holds. Information about individuals (e.g., occupation, educational level attained) and family structure was collected. Du Bois created a street schedule—a questionnaire for amassing information on the physical characteristics of neighborhoods—that allowed him to collect data on the "character of houses" and "cleanliness of streets" (1899, p. 408). He also enumerated the types of churches, businesses, stores, and organizations located throughout each neighborhood. Moreover, maps were used to depict the geographic distribution of individuals by race and economic status. Additionally, census data were used to empirically document the distribution of health status.

In Chapter Ten of *The Philadelphia Negro*, Du Bois sought to understand the death rate of Negroes in Philadelphia and provide a more accurate interpretation of the data—investigating whether higher mortality among Blacks reflected living conditions different from those of Whites. He compared all-cause and cause-specific (e.g., "consumption" [tuberculosis]) death rates between Blacks and Whites by gender, age, neighborhood of residence, and foreign-born status from 1884–1890. Du Bois demonstrated neighborhood variability where, in general, the death rates of Blacks were higher than those of Whites. For example, in Ward Six, Black mortality was 49.77 deaths per 1000 in comparison to 24.30 deaths per 1000 among Whites. Du Bois stated that the wards where Blacks had higher mortality "contain the worst slum districts and most unsanitary dwellings of the city" (1899, p. 154). Also, there were a few neighborhoods where the death rates of Blacks and Whites were similar. This point was illustrated in the fourteenth ward, where Blacks and Whites had comparable death rates—20.08 and 20.18 per 1000, respectively. Du Bois attributed this finding to his observation that the "best Negro families" resided in these areas (1899, p. 155). The statistics and comparisons made by Du Bois provided evidence exhibiting the primacy of living conditions and the role of socioeconomic status as factors contributing to higher death rates.

Moreover, Du Bois noted that the influence of negative racial attitudes on health outcomes was not limited to Blacks. For example, regarding consumption, the leading cause of death at that time, he stated that "negroes are not the first people who have been claimed as its peculiar victims; the Irish were once thought to be doomed by that disease—but that was when Irishmen were unpopular" (Du Bois 1899, p. 160). This statement reflects Du Bois's awareness of the differential susceptibility of various racial groups to disease. During the time when the concept of race and Whiteness was evolving, Du Bois recognized that consumption was strongly influenced by the magnitude of racial discrimination.

From a conceptual standpoint, Du Bois articulated alternative theories and mechanisms to explain Black health risk. Du Bois envisaged a broad framework of the environment—encompassing the social, physical, economic, and political circumstance of Blacks—which ultimately contributed to the poorer health outcomes observed. Although Du Bois acknowledged other factors, namely, "poor heredity," "ignoran[ce] of laws of health," and "neglect to take proper medical advice" as possible causes of the differential mortality patterns, he emphasized the role of social conditions (1899, pp. 160–163).

Du Bois (1906) further crystallized the conceptualization of social conditions as a cause of poor health status among Blacks in "The Health and Physique of the Negro American" which was published together with the Eleventh Atlanta University Conference Proceedings in a volume which he edited. These annual proceedings were a series of reports of the conditions of "Negro" life and fostered the linkage between research and social action, where topics such as economic organi-

zation (1899) and education (1900) were exhaustively investigated. The 1906 conference focused on health, physical conditions, and mortality.

Using data compiled from a multitude of sources, including the U.S. Census as well as reports from hospitals and physicians, a comprehensive view of health was documented. The monograph begins with an astute discussion of the historical origins and evolution of racial classifications and their relationship to the social conditions of Blacks. Moreover, Du Bois had refined—and structured more forcefully—the social condition argument. According to Du Bois, the relationship between "race" and mortality was confounded by social and economic conditions. Du Bois furnished stratified data showing that "if the population were divided as to social and economic conditions the matter of race would be almost entirely eliminated" (1906, p. 89). This point was elegantly illustrated when he demonstrated that consumption mortality for poor Whites residing in New York and Chicago was higher than that of Blacks residing in other sections of the respective cities.

DU BOIS'S LEGACY: ADVANCING RACIAL/ETHNIC HEALTH-INEQUALITY RESEARCH

The methods and conceptual principles that have emerged from the two seminal works have had profound implications for social science research. More importantly, this pioneering endeavor offers valuable lessons for shaping current public health research and creating policy that seeks to understand and eliminate racial/ethnic inequalities. Specifically, Du Bois's work pointed to the need for: (1) improved data collection and methodological sophistication of data by race, (2) a cautious interpretation of studies documenting racial differences, (3) the utilization of a multidisciplinary research approach, and (4) the translation of research into interventions and policies.

Du Bois was deeply concerned about the publication and availability of "reliable statistics" on Black health and well-being. He developed an ambitious program of inquiry for the Atlanta University conferences, where he envisioned conducting detailed studies of African Americans over a hundred-year period in ten-year cycles. The desired objectives included accumulating "valid and accurate data," "sharpening tools of investigation," and "perfecting methods" (Du Bois 2000, p. 64). Unfortunately, the implementation of this scientific enterprise lasted only thirteen years. Yet many of the challenges Du Bois sought to address remain relevant today. For example, the reliability of estimates based on large national health data sets may be limited by the small sample size of select racial groups (e.g., Asians, Native Americans, and Pacific Islanders) and specific ethnic subgroups within each of the official racial categories. The National Health Interview Survey, which provides national estimates instrumental to tracking health status and setting national health objectives, is not able to generate reliable estimates for within-group variation among Hispanics. The lack of sufficient data may inhibit the accurate documentation and estimation of health disparities.

Du Bois was a vociferous advocate for the use and development of rigorous methods to illuminate the causes of the "Negro problem," specifically as it related to the disproportionate burden of morbidity and mortality experience of Blacks. In *The Philadelphia Negro*, he stated that the death rates must be compared "with that of the communities in which they live and thus roughly measure the social differences between these neighboring groups" (1899, p. 148). Du Bois crudely characterized neighborhood environment by using color-coded maps to indicate the economic

class structure of Black households. Contemporary researchers show greater detail, and pinpoint the locations of the social, physical, and economic resources of neighborhoods. Spatial and analytical techniques such as geographic information systems (GIS) and multilevel modeling have enabled researchers to make significant progress in understanding the ramifications of neighborhoods on health, despite the very real challenges related to measuring, conceptualizing, and analyzing the relationship between them (Diez-Roux 2007; Oakes 2004). For example, GIS has been used to document spatial disparities in access to health care facilities and cancer diagnoses (Dai 2010).

The creation of "disciplines" and dogmas to advance arguments of racial inferiority was embedded in the social milieu of the nineteenth and early twentieth century. Du Bois, among many, challenged racial stratification theories and his work cautioned against the interpretation of data that facilitated the reification and perpetuation of dominant ideological paradigms around race, especially as it pertained to health. Although, contemporary debates regarding the sources of racial/ethnic health disparities have evolved, the underlying tenor has remained unchanged where genetic versus social causes continue to be at the core (Braun 2002; Burchard et al., 2003; Duster 2005; Krieger 2005; Risch et al., 2002), despite the falsification of race as a biological concept. The conceptualization of race, and by extension racial/ethnic health differences, has the capacity to shape the design and conduct of studies, the interpretation of research findings, the training of health practitioners as well as biomedical and public health researchers, and policies and interventions (Braun 2002). Thus, Du Bois's legacy is of particular import, because the methodological advancement and sophistication of genetic studies have retooled the debate. Recent papers seek to understand how distinctive social and physical environments are embodied through biological and physiological processes across the life course and ultimately contribute to racial/ethnic health disparities (Krieger 2004). Epigenetics is the study of mechanisms that modify gene expression in the absence of changes to the nucleotide base sequences of genes. Epigenetic frameworks have been developed to illustrate how the social environment can produce epigenetic changes and contribute to racial disparities in cardiovascular health (Kuzawa and Sweet, 2009).

Du Bois's texts inherently challenge contemporary researchers to utilize integrative approaches to tackle health disparities. He examined racial inequality across various aspects of life and demonstrated that health was at the nexus of other inequalities. It is possible that employing multidisciplinary research and policy approaches will further elucidate the etiology of health inequalities. This is significant since non-health-related policies may exacerbate health inequalities. For example, the health impact assessment (HIA) may be considered an example of a multidisciplinary research and policy tool to promote healthy and equitable development across communities. HIA procedures, methods, and tools can be used to assess the potential health impact of a proposed policy, program, or project (Kemm et al., 2004). Wier and colleagues (2009) demonstrated the utility of HIA to assess the effects of transportation planning decisions on traffic-related exposures and health conditions of nearby residents. Multidisciplinary partnerships between government agencies and various community coalitions in the San Francisco Bay Area have made significant progress towards establishing guidelines for conducting HIAs and reducing health inequalities (Corburn 2009).

Du Bois's legacy reminds us that public health has an underlying philosophy of social justice (Kreiger and Birn, 1998). Du Bois wanted valid science to be the catalyst for improved living conditions and "to serve as the basis of further study, and of practical reform" (Du Bois 1899, p. 4). This commitment to translating research

into practical interventions and policy is exhibited in the adoption of several resolutions at the conclusion of the Eleventh Atlanta Conference, including one recommending "the formation of local health leagues among colored people for the dissemination of better knowledge of sanitation and preventive medicine"(Du Bois 1906, p. 110). Although it is not required that every researcher become an activist, it is critical that research be used in a practical manner.

CONCLUSION

To discredit the pervasive theories of biological racial inferiority that had been used to explain racial differences in morbidity and mortality, Du Bois demonstrated the significance of social, physical, economic, and political factors in explaining the poorer health status and premature death of African Americans. However, Du Bois's work was not infallible. At points throughout his studies, he was critical and judgmental towards the study participants and his work lacked an effective critical engagement of his target community. Although he was limited in terms of the availability of analytical methods—i.e., not able to adjust for multiple confounders—modern research has confirmed the accuracy of his findings of poorer health among Blacks.

One hundred years later, Du Bois's work still proves useful in understanding racial/ethnic health inequalities. From a methodological standpoint, he integrated social science and empirically based methods to study the influence of social conditions on health. Conceptually, he articulated a broad consideration of the physical and social environment and provided a launching pad for contemporary public health research. As a scholar-activist, he advocated for intervention and policies to improve health and social conditions. Du Bois's contributions are a cornerstone of public health history and research because they provide a foundation to support the development of empirical research and policy-based solutions.

At the dawn of the last century Du Bois declared "the problem of the twentieth century is the problem of the color-line" (Du Bois 1903, p. 1). This oft-cited quote resonated then and continues to reverberate today with respect to the health status of specific racial/ethnic groups in the United States. As we continue to deal with problems that Du Bois identified and sought to redress more than a century ago, we embrace Du Bois's principles and his sustaining relevance with the great hope and expectation that we will not have to wait another hundred years to end racial/ethnic health inequities.

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NOTE

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