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JOHN HENRYISM AND THE HEALTH OF AFRICAN-AMERICANS*

INTRODUCTION

In this presentation, I will discuss how "John Henryism" – a strong behavioral predisposition to cope actively with psychosocial environmental stressors – interacts with low socioeconomic status to influence the health of African-Americans. Hypertension, a leading cause of disability and premature death among African-Americans, will be the focal health problem, although much of what I will say has implications for understanding other "stress-related" health problems that affect African-Americans disproportionately. Early on, I will describe the scientific and folkloric background of the "John Henryism Hypothesis," after which I will summarize the empirical data produced thus far by our group testing the validity of the hypothesis. In the concluding section of the paper, I will explore the deeper *cultural* meaning of John Henryism for African-Americans (both men and women), arguing that the concept of John Henryism may have something important to tell us about the relationship between African-Americans and selected core values of American culture. I shall begin with a word about the magnitude of the problem of hypertension in Black¹ Americans, then move quickly into a discussion of the circumstances that gave rise to the John Henryism Hypothesis.

HYPERTENSION IN BLACK AMERICANS: THE MAGNITUDE OF THE PROBLEM

Hypertension remains one of the most important health problems affecting African-Americans, in both rural and urban settings. Depending on the clinical cutpoints used to define the disorder, Blacks in the U.S. are 2–4 times more likely than whites to develop hypertension by age 50 (Roberts and Rowland 1981). Largely because of their greater risk for hypertension, Blacks are 3–4 times more likely than Whites to suffer a stroke (Hildreth and Saunders 1991) and 2–5 times more likely to develop end stage kidney disease (Lopes *et al.* 1993). The reasons for the excess risk and greater clinical severity of hypertension in African-Americans are not known. Hypotheses abound, however; and, in

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the main, focus on (unspecified) *genetic* factors presumed to be linked in some way to African ancestry, and on *environmental* factors such as diet, high levels of psychosocial stress, and poor access to medical care (Tyroler 1986).

While the relative contribution of genetic and environmental factors to the well documented excess risk for hypertension in African-Americans is still a matter of debate (Saunders 1991), one fact is clear and universally accepted: socioeconomic status (whether measured by education, occupation, or income) and hypertension tend to be *inversely* associated, for both Blacks and Whites (Tyroler 1986); that is, as the education, income, or occupation of an individual *increases*, his or her overall risk for hypertension *decreases*.

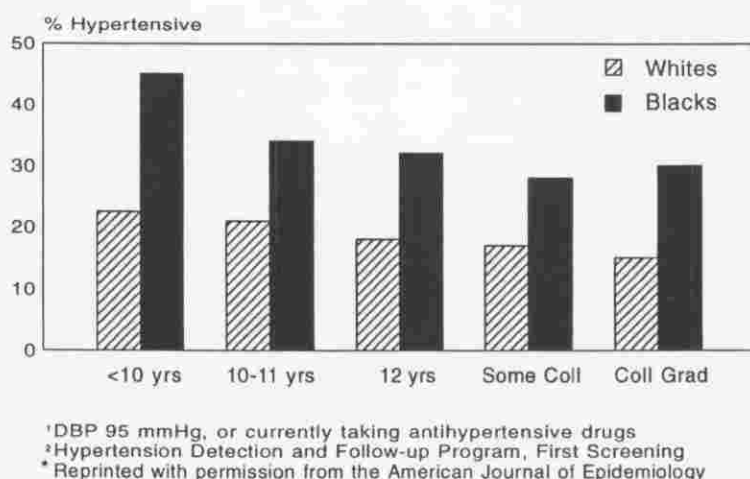


Fig. 1. Prevalence of hypertension¹ by level of education, Whites and Blacks in the HDFFP² study, 1977.

Using education to indicate socioeconomic status, Figure 1 provides a good illustration of both the magnitude of the Black/White differences in hypertension typically observed in (community-based) studies and the aforementioned inverse association between hypertension and socioeconomic status. The data are from the Hypertension Detection and Follow-Up Program (HDFFP 1977), a large multi-community study conducted in the U.S. in the 1970s to assess the effectiveness of "stepped-care" anti-hypertensive drug therapy in preventing heart attacks and strokes among women and men with established hypertension. Figure 1 shows the relationship between years of education completed (less than 10 to college graduates), and the prevalence of hypertension (mean diastolic blood pressure ≥ 95 mmHg, or treated) among the 159,000 middle-aged Blacks and Whites who underwent eligibility screening in their homes. Approximately 45% of African-Americans with less than 10 years of formal schooling were hypertensive, compared to 22% of Whites. This excess prevalence of hyperten-

sion among Blacks varied between 1 1/2 to 2-fold for each of the remaining education categories. Equally apparent for both Blacks and Whites, however, was a step-wise decrease in the prevalence of hypertension with increasing levels of education. This pattern of a strong *differential* risk for hypertension by socioeconomic status, and by race, remained even after taking into account the age and body weight of study participants (HDFP 1977).

While the nearly 2-fold excess risk for hypertension among African-Americans across *all* educational categories is compatible with the hypothesis that hypertension in Blacks has a genetic basis, these data are equally compatible with the hypothesis that unrelieved psychosocial stress – generated by environments in which African Americans live and work – is primarily responsible for their heightened susceptibility to this disorder. In addition, proponents of the psychosocial perspective (see Williams 1992) argue that a similar level of education for Blacks and Whites – whether at the high or low end of the scale – does not mean that the day to day psychosocial stressors (or the problem-solving resources to combat such stressors) are equal for the two groups. Thus, taken alone, education may be a seriously misleading indicator of the comparability of socioeconomic status for Blacks and Whites.

JOHN HENRYISM: THE SCIENTIFIC AND FOLKLORIC BACKGROUND

In the early/mid 1970s, several provocative papers were published which demonstrated that “high effort” coping (i.e., sustained cognitive and emotional engagement) with difficult psychosocial stressors produce substantial increases in heart rate and systolic blood pressure, increases which persist as long as individuals *actively* work at trying to eliminate the stressor. Some of these studies were controlled laboratory experiments (see Obrist *et al.* 1978) and some were field-based studies (see Kasl and Cobb 1970; Cobb and Rose 1973; and Harburg *et al.* 1973) of “real life” stressors. In the laboratory, a prototypical stressor – one which rarely failed to induce large increases in heart rate and systolic blood pressure – was the threat of electric shock. To avoid receiving the shock, individuals (typically healthy male undergraduates) had to perform some specified behavior very quickly following the unpredictable appearance of a light. While the field-based studies were less well controlled than the laboratory studies, they were also less artificial. In one study (Kasl and Cobb 1970), for example, researchers monitored changes in the blood pressure of male, blue-collar factory workers whose plant was about to be closed permanently. Blood pressures of the men increased as the plant closing date approached, and remained elevated over baseline values until the men found new employment or, alternatively, gave up their *active* search for new jobs.

In another study by Harburg *et al.* (1973), conducted in Detroit, the blood pressures of Blacks and Whites were measured to determine if individuals residing in "high stress" neighborhoods – that is, neighborhoods characterized by high unemployment, high crime, high residential mobility, etc. – had higher blood pressure on average than individuals residing in "low stress" neighborhoods. No differences in mean blood pressure by residential area were observed for Whites, but average blood pressures as well as the prevalence of hypertension were higher for Blacks who resided in "high stress" neighborhoods versus those in "low stress" neighborhoods. Interestingly, these effects were greater for men than for women. Moreover, subsequent analyses revealed that the above effects were actually limited to men under 40 years of age. This latter finding led the investigators to speculate that the younger Black men – in contrast to their older counterparts – may still have been trying to deal in a very *active* manner with the difficult psychosocial stressors they confronted daily. Such "high effort" coping, the investigators reasoned, could be accompanied by sharp elevations in heart rate and blood pressure throughout each day, forming a pattern of sympathetic arousal which, over the course of years, could dysregulate basic blood pressure control mechanisms and lead to established hypertension (Harburg *et al.* 1973).

In a perceptive commentary on the above body of research, Syme (1979) observed that persons of lower socioeconomic status (especially Blacks in these positions) by definition face more difficult psychosocial environmental stressors than more economically privileged individuals. He then advanced the intriguing hypothesis that *prolonged, high effort coping* with difficult psychosocial stressors could be the most parsimonious explanation of both the inverse association between socioeconomic status and hypertension typically observed in U.S. communities and the increased risk for this disorder in Black Americans.

It was my good fortune to come across this literature, and Syme's (1979) commentary, shortly after I had met a fascinating, retired Black farmer named John Henry Martin. His name could hardly have been more appropriate, since his life story (James 1993) contained a number of features that evoked the legend of John Henry, the "*steel-driving man*." The legend is familiar to most Americans of a "certain" age; but in brief, John Henry, the steel-driving man, was known far and wide among late 19th century railroad and tunnel workers (Williams 1983) for the remarkable physical strength and endurance he displayed in his work. It was at the mouth of the Big Bend tunnel in West Virginia, in the early 1870s, so the story goes (Johnson 1927; Williams 1983), that John Henry beat a mechanical steam drill in a famous "steel-driving" contest pitting "man against machine." The race was extremely close throughout but, with a series of powerful blows from his 9 lb hammer in the closing seconds of the race, John Henry emerged the victor. Moments after the contest ended, however, John Henry dropped dead from complete physical and mental exhaustion

(Johnson 1927; Williams 1983).

John Henry Martin, the retired Black farmer, also won an epic battle against "the machine." In his case, however, the "machine" was the ruthlessly exploitative sharecropping system of the rural South. Mr. Martin was born into an extremely poor, sharecropping family in 1907, in the Upper Piedmont region of the state of North Carolina. As a child, he was not able to attend school beyond the second grade; but, as an adult, he somehow taught himself to read and write. Even more impressively, however, through unrelenting hard work and determination (i.e., *effortful active coping*), John Henry Martin – against tremendous odds – freed himself and his offspring from the debt bondage of the sharecropper system. Specifically, by the time he was 40 years of age, he owned 75 acres of fertile North Carolina farmland. Like the legendary "steel driver," however, John Henry Martin also paid a price for his victory. By his late 50s, he suffered from hypertension, arthritis, and a case of peptic ulcer disease so severe that 40% of his stomach had to be removed (James 1993).

The connection between the life story of John Henry Martin and the scientific literature (especially Syme's commentary), on how prolonged, high effort coping with psychosocial stressors over many years might increase risk for hypertension was, for me, instantaneous. Not only was John Henry Martin's life an example par excellence of such coping, it was emblematic, I believed, of the larger protracted struggle of African-American men and women (especially those in the working classes) to free themselves from pervasive and deeply entrenched systems of social and economic oppression. Intrigued by the connections that the scientific works by Obrist, Harburg, Syme and others had helped me to see, I resolved to pursue the "active coping/hypertension" hypothesis, with special emphasis on African-Americans. Furthermore, in tribute to John Henry Martin, and the larger historical drama that I believe his life story represents, I decided to provide a context – cultural as well as historical – for the active coping hypothesis by referring to it in my own work as the "John Henryism Hypothesis." Thus, "John Henryism" is a synonym for prolonged, high-effort coping with difficult psychosocial environmental stressors.

THE JOHN HENRYISM HYPOTHESIS

The John Henryism hypothesis assumes that lower socioeconomic status individuals in general, and African-Americans in particular, are routinely exposed to psychosocial stressors (e.g., chronic financial strain, job insecurity, and subtle or perhaps not so subtle social insults linked to race or social class) that require them to use considerable energy each day to manage the psychological stress generated by these conditions. However, the hypothesis also assumes

that not all individuals so exposed will respond to these noxious conditions with high-effort coping. Some will, while others will not; or, perhaps, more accurately, some will respond with effortful active coping for a time, and then give up, while others – encouraged by their success – will persist. The John Henryism hypothesis predicts that it is the latter group – those lower socioeconomic status individuals who persist with effortful active coping *under difficult conditions* who “drive up” the overall prevalence of hypertension in lower socioeconomic groups. By this logic, if we were to categorize individuals into two broad groups – those strongly predisposed to cope actively with psychosocial stressors (i.e., a “high” John Henryism group and those less predisposed to do so (i.e., a “low” John Henryism group) – we would expect to see the highest mean blood pressure level in those individuals who are simultaneously characterized by low socioeconomic status and high John Henryism. Figure 2 summarizes the above expectations: among low socioeconomic status individuals with high levels of John Henryism, the strong sympathetic nervous system arousal induced by frequent high-effort coping is expected to result, over time, in the highest mean blood pressure levels of any group. For individuals categorized as low in John Henryism, and for whom strong sympathetic nervous system arousal is presumed to occur less frequently, mean blood pressure levels are expected to differ little by socioeconomic status. In formal terms, the John Henryism hypothesis is summarized as follows:

The inverse association between socioeconomic status and blood pressure will be much more pronounced (i.e., more striking) for individuals who score high on John Henryism than for those who score low.

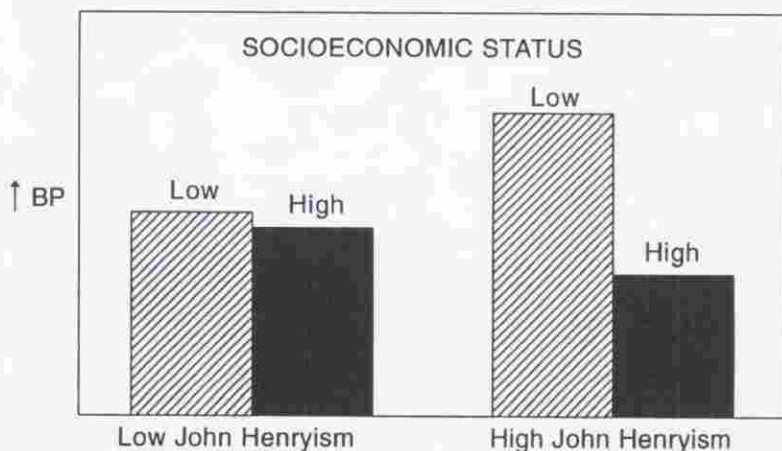


Fig. 2. Theoretical Expectations.

THE MEASUREMENT OF JOHN HENRYISM

John Henryism is measured by a 12 item scale² called "The John Henryism Scale for Active Coping," or the JHAC12. Questions for the JHAC12 were developed by this author following a close reading of several scholarly works (e.g., Johnson 1927; Levine 1977; and Williams 1983) on the legend of John Henry. Three mutually reinforcing themes emerged as important to capture in any empirical measure of John Henryism: (1) efficacious mental and physical vigor; (2) a strong commitment to hard work; and (3) a single-minded determination to succeed. Each of the 12 questions, in varying degrees,³ reflects these three themes. Three sample items from the JHAC12 are:

- (1) I've always felt that I could make of my life pretty much what I wanted to make of it;
- (2) Once I make up my mind to something, I stay with it until the job is completely done;
- (3) When things don't go the way I want them to, that just makes me work even harder.

A "completely true" response to any question results in a score of 5 for that question; a "completely false" response results in a score of 1. Thus, for the scale as a whole, John Henryism scores can range from a low of 12 to a high of 60. For hypothesis testing, individuals are classified as "high" in John Henryism if they score above the sample median and "low" in John Henryism if they score at or below the median.

THE RESEARCH SETTING

To date, three independent, cross-sectional investigations of the John Henryism hypothesis have been conducted by our group (James *et al.* 1983, 1987, 1992). Each study was conducted in North Carolina, specifically in the Coastal Plains region of that state where death rates due to stroke and heart disease are among the highest in the country (Mason *et al.* 1981). The first two studies (1983, 1987) were conducted in Edgecombe County and the third (1992) in Pitt County. Both communities are predominantly rural; however, Pitt County has experienced more rapid urbanization and economic diversification than Edgecombe County in recent decades. Because of the more diversified economy in Pitt County (where our work continues), we were able to include a reasonably large number of professional, middle-class Blacks in our sample.

For simplicity, the following summary of research findings from these three studies presents data for diastolic blood pressure and/or the prevalence of

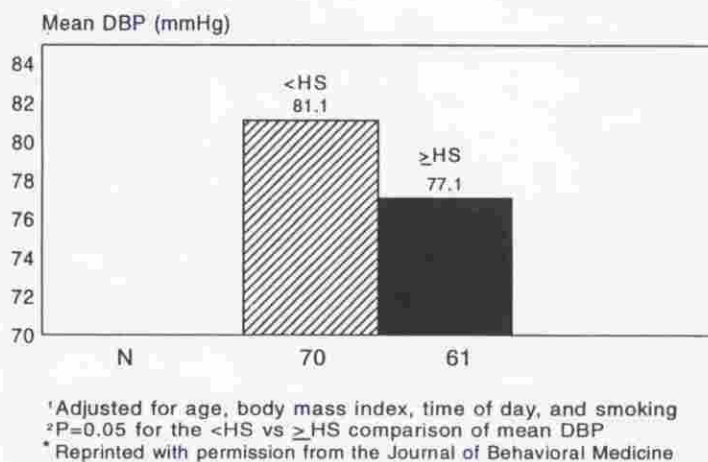


Fig. 3. Mean¹ diastolic blood pressure (mmHg)
 By level of education The Pilot Study, 1983.

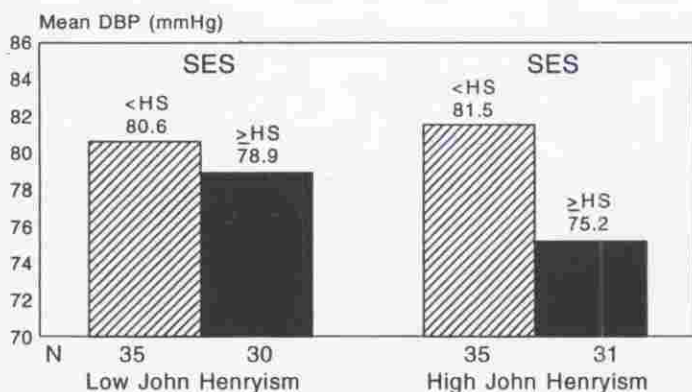
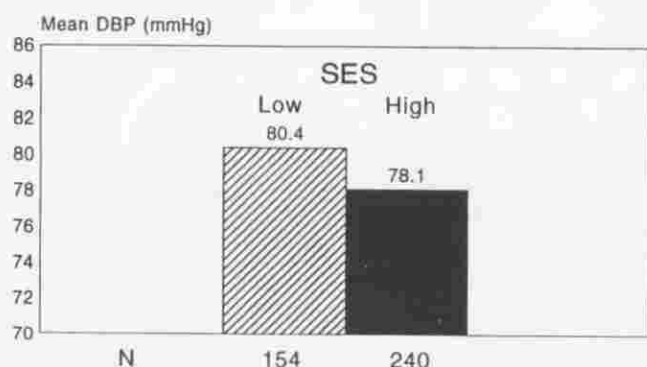


Fig. 4. Mean¹ diastolic blood pressures (mmHg)
 for the four Education - John Henryism Groups The Pilot Study, 1983.

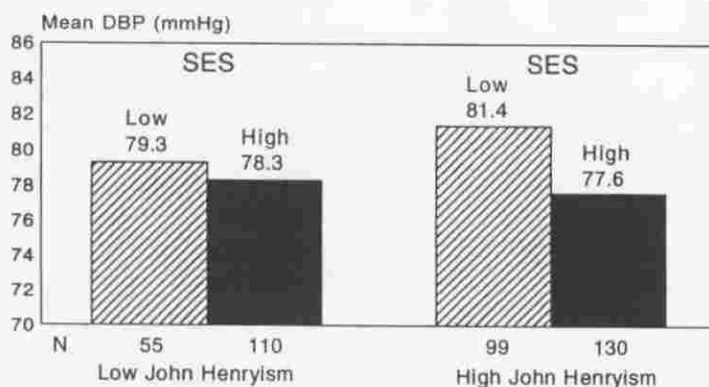


¹ Adjusted for age, sex, age x sex interaction, and body mass index

² $P=0.06$ for the association between SES and mean DBP

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Fig. 5. Mean¹ diastolic blood pressure (mmHg)
By socioeconomic status Edgecombe County, NC, 1987.

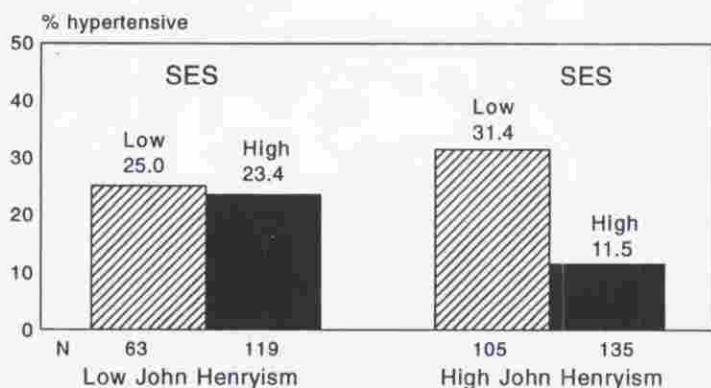


¹ Adjusted for age, sex, age x sex interaction, and body mass index

² $P=NS$ for the test of the SES x John Henryism regression interaction term

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Fig. 6. Mean¹ diastolic blood pressures (mmHg)
for SES - John Henryism Groups Edgecombe County, NC, 1987.



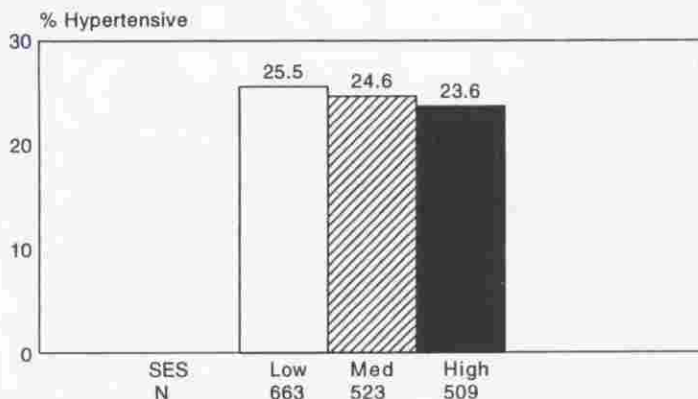
¹ Adjusted for age, sex, age x sex interaction, and body mass index

² DBP 90, or currently taking anti-hypertensive medication

³ P=0.02 for the test of the SES x John Henryism logistic regression interaction term

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Fig. 7. Adjusted¹ prevalence of hypertension² in Blacks for the four SES – John Henryism Groups Edgecombe County, NC, 1987.



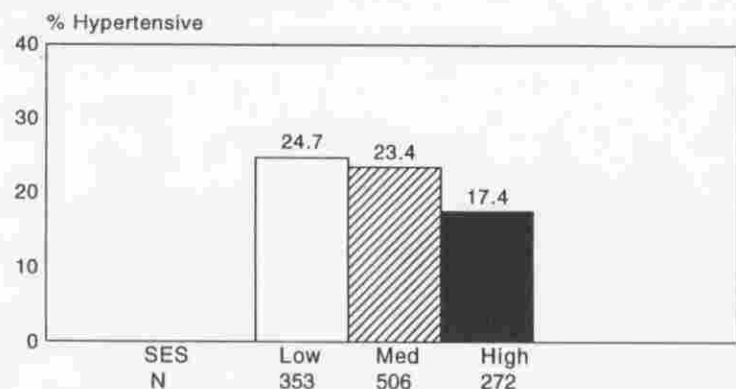
¹ Adjusted for age, sex, age x sex, BMI, waist/hip ratio, and physical activity

² DBP ≥ 90 mmHg, or currently taking anti-hypertensive medication

p=NS for the test of the association between Socioeconomic Status (SES) and hypertension prevalence

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Fig. 8. Adjusted¹ prevalence of Hypertension² in Black Adults Aged 25–50 Years, By Socioeconomic Status Pitt County, 1992.

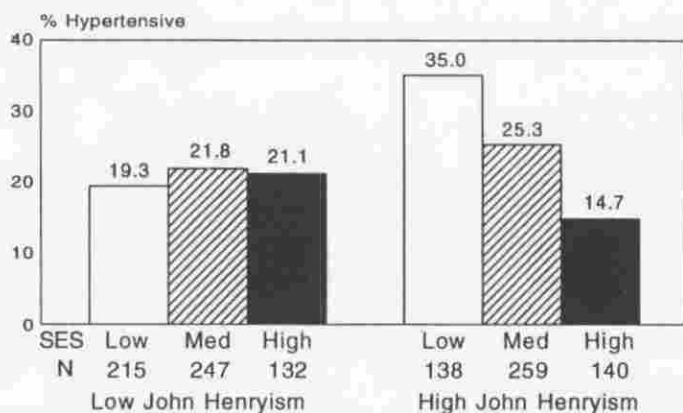


¹ Adjusted for age, sex, age x sex, BMI, waist/hip ratio, alcohol consumption and physical activity

² Respondents (N=556) discordant on SES and Perceived Stress are excluded

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Fig. 9. Adjusted¹ prevalence of hypertension in Black Adults² Aged 25–50 Years, By Socioeconomic Status (SES) Pitt County, 1992.



¹ Respondents (N=556) discordant on SES and Perceived Stress are excluded

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Fig. 10. Adjusted prevalence of Hypertension in Black Adults¹ Aged 25–50 Years, By Socioeconomic Status and Level of John Henryism: Pitt County, NC, 1992.

hypertension only. The findings for systolic blood pressure were uniformly similar to those for diastolic pressure.

SUMMARY OF RESEARCH FINDINGS

The first study (1983) was a pilot, designed in part to field test the original version of the John Henryism Scale. A random, household sample of 132 working-class Black men, ages 17–60, were interviewed and their blood pressures measured. A 91% response rate was achieved. As in the HDPF study (1977), socioeconomic status in this pilot investigation was measured by years of formal education: men who had completed high school were assigned to the “high” socioeconomic status category, and those who had not to the “low” category.

Consistent with most other published studies, non-high school graduates in the pilot study had higher ($p \leq .05$) adjusted diastolic blood pressures than high school graduates: 81.1 mmHg versus 77.1 mmHg (see Figure 3). However, in keeping with our theoretical expectations, when the men were divided into “high” and “low” John Henryism groups, the difference in mean blood pressure for high school graduates versus non-graduates in the low John Henryism group was very small – 1.7 mmHg; whereas, in the high John Henryism group the observed difference was considerably larger – 6.3 mmHg (see Figure 4).

Our second study (1987) provided an opportunity to test the John Henryism hypothesis for the first time in Whites (N men=195, and N women=203) and in a larger sample of Blacks that included both men (N =190) and women (N =232). Study participants were again selected at random (90% response rate) from households in the community. The sample of Whites consisted largely of skilled, blue-collar and lower mid-level white collar workers, while the sample of Blacks consisted primarily of unskilled and semi-skilled workers. To test the John Henryism hypothesis, participants were restricted to persons between 21–50 years of age. All analyses were initially race and sex specific; however, since the sex-specific analyses produced similar results for men and women, data for the two sexes were pooled within race, in order to increase statistical power. The findings were thus reported for Whites and Blacks, separately, without regard to gender.

Contrary to most published studies, education – as an indicator of socioeconomic status – was not inversely associated with blood pressure in this second study (1987). This was true for both Whites and Blacks. While an alternative measure, for Blacks,⁴ of socioeconomic status which combined respondent information on education and occupation was inversely associated with blood pressure, a similarly constructed composite indicator for Whites⁵ did

not alter the original null findings for Whites. Subdividing Whites into high and low John Henryism subgroups also produced null findings (i.e., findings which did not conform to our theoretical expectations as depicted in Figure 2).

Blacks with better occupations (e.g., higher level, blue-collar jobs) and at least some high school – the “high” socioeconomic status group in Figure 5 – had a lower ($p \leq .06$) mean diastolic blood pressure than Blacks with low level occupations and similarly low levels of education (80.4 mmHg versus 78.1 mmHg). When subsequently divided into high and low John Henryism subgroups (Figure 6), however, the difference in blood pressure by level of socioeconomic status was much larger for persons scoring high on John Henryism (3.8 mmHg) than for those scoring low on John Henryism (1 mmHg).

The results were even more striking when prevalence of hypertension (Figure 7) was the outcome. Differences in hypertension prevalence by socioeconomic status were very small for Blacks scoring low on John Henryism (25% versus 23.4%); but for those scoring high on John Henryism, hypertension prevalence was almost *three* times greater for persons in the lower socioeconomic status group (31.4%) versus those in the higher group (11.5%). Indeed, the 11.5% prevalence of hypertension in the high socioeconomic status/high John Henryism subgroup is unusually low for any group of adult Blacks. This suggests that the combination of high socioeconomic status and high John Henryism could be *protective* against hypertension for Black adults, a possibility that deserves further study.

Because of the apparent greater sensitivity of our theoretical model for Blacks, as well as the greater magnitude and severity of the problem of hypertension in Blacks, we decided to focus on African-Americans exclusively in our third study (1992). In Pitt County, we interviewed 1,784 individuals (80% response rate), all of whom were between 25–50 years of age in 1988.⁶ Socioeconomic status was again measured by a combination of education and occupation, however the larger sample size, along with a deliberate oversampling of Blacks in middle-class neighborhoods, made it possible to create three as opposed to two socioeconomic status groups. The lowest socioeconomic category consisted of non-high school graduates who were also unskilled workers; the medium category consisted of semi-skilled and skilled, blue-collar workers, most of whom had finished high school; and the highest category was composed of skilled blue-collar and white-collar workers, all of whom had either post-high school technical training or college degrees. In the following summary, only the findings for hypertension prevalence will be discussed; the conclusions reached also apply to systolic and diastolic blood pressure.

Figure 8 summarizes the prevalence of hypertension for the three socioeconomic categories described above. Data for men and women were again

combined. A very modest and nonstatistically significant ($p \geq .05$) inverse association between socioeconomic status and hypertension prevalence was observed: 25.5%, 24.6%, and 23.6% for the low, medium, and high socioeconomic groups, respectively. Division of the sample into high and low John Henryism subgroups produced similarly unimpressive gradients (data not shown). Thus, despite the greater socioeconomic heterogeneity of the study population in Pitt County, and our efforts to capture this heterogeneity in a sensitive manner, the findings failed to support our a priori predictions. In an attempt to understand why this occurred, we decided to concentrate our attention on the high socioeconomic status group whose surprisingly high 23.6% hypertension prevalence was, at least to us, an anomaly.

The exploratory analyses which followed revealed that self-reported psychological stress⁷ was quite high among managerial level, white-collar workers, especially men. Since psychological stress scores were positively and significantly ($p \leq .05$) associated with mean blood pressures for both men and women in the Pitt County study population, these elevated stress scores for male, white-collar workers raised the prevalence of hypertension to a surprisingly high level for the high socioeconomic status group as a whole.

Interestingly, the above insight strengthens the argument that chronic psychological stress plays a significant role in creating and maintaining the well known inverse association between socioeconomic status and hypertension. The argument can be summarized as follows: when chronic psychological stress is *higher* among lower socioeconomic status groups than among groups of higher socioeconomic status (and this is the usual case), the inverse association between socioeconomic status and blood pressure will be strong. However, when this is not the case – when chronic psychological stress does not vary in expected ways with socioeconomic status – the anticipated inverse association between socioeconomic status and blood pressure will be weak or perhaps nonexistent. We reasoned that the latter circumstance occurred in the Pitt County study.

To test the merits of this alternative explanation, we conducted a special post hoc test of the John Henryism hypothesis with full appreciation, of course, of the scientific limitations of this post hoc analysis. First, we excluded all high socioeconomic status persons ($N=234$) whose psychological stress scores were above the sample median. We then excluded all low socioeconomic status persons ($N=322$) whose stress scores were below the sample median. These exclusions resulted in a strong (but theoretically expected) inverse association between socioeconomic status and psychological stress for the remaining members ($N=1,131$) of the study sample.

How did the study findings change as a result of excluding individuals who

were "discordant" on socioeconomic status and perceived stress? As shown in Figure 9, the inverse association between socioeconomic status and hypertension prevalence was considerably stronger: 24.7%, 23.4%, and 17.4% for the low, medium and high socioeconomic categories, respectively. Moreover, Figure 10 shows what occurred when these same respondents were subdivided into high and low John Henryism groups. Note that hypertension prevalence varied little by socioeconomic status in the low John Henryism group, but a strong (and theoretically expected) *inverse* association was observed in the high John Henryism group. In relative terms, the 35% hypertension prevalence in the low socioeconomic status/high John Henryism group is quite striking. We can be fairly certain, however, that it is not high psychological stress, per se, that so dramatically increased risk for hypertension in this group.⁸ Rather, the *combination* of high stress (now significantly correlated with low socioeconomic status) and prolonged, high-effort coping with such stress is probably responsible for this strong elevation in risk and for the resulting strong, inverse *social* gradient in risk observed for persons scoring high on John Henryism.

No cross-sectional study, regardless of how intriguing the findings might be, can provide definitive evidence for cause and effect relationships. Our three cross-sectional studies (1983, 1987, 1992), as summarized above, are no exception. To provide a more convincing case for the validity of the John Henryism hypothesis, we must demonstrate that the combination of low socioeconomic status and high John Henryism at one point in time contributes to an accelerated increase in blood pressure by some well defined, second point in time. As noted elsewhere,⁶ this is a major research objective of our ongoing work in Pitt County. If average increases in blood pressure (e.g., from 1988 to 1993), follow the same pattern as shown in Figure 10, this would provide much more persuasive scientific evidence that prolonged, high-effort coping with chronic psychological stress that is structurally linked to low socioeconomic status is causally related to increased risk for hypertension in African-Americans. Such findings, if observed, would have major societal, public health, and clinical importance.

I wish now to offer some speculations on the possible deeper cultural meaning of John Henryism for African-Americans. This discussion is motivated by a long-standing interest of mine in the origins of John Henryism in Black Americans, an interest which was deepened and challenged by the opportunity this lecture afforded to link John Henryism to certain core values of American culture.

JOHN HENRYISM, AFRICAN-AMERICANS, AND AMERICAN CULTURE

Perhaps the first issue to be addressed when considering the meaning of John Henryism for African-Americans is the role of gender. The masculine imagery in the legend of John Henry (see Johnson 1927; and, especially, Levine 1977) is indeed quite strong. Hence, it is understandable that many individuals automatically assume that the John Henryism hypothesis, and its larger implications, apply exclusively to Black men. This is not the case. The scientific findings produced thus far apply equally to Black men and Black women. Moreover, Black men and Black women – unlike their White counterparts – score virtually identically on the JHAC12. In the Edgecombe County study (1987), for example, Blacks – both men and women – had significantly higher ($p \leq .01$) age-adjusted John Henryism scores than Whites.⁹ The rank order of mean John Henryism scores by race-sex was Black men (53.3), Black women (53.1), White men (51.5) and White women (50.1). Race-sex specific information on John Henryism scores from settings outside the rural South are still quite limited, but at least two other studies (Weinrich *et al.* 1988; McKetney 1991), both conducted in urban settings, reported the same rank order of scores by race-sex observed in Edgecombe County.

Collectively, these findings suggest that John Henryism in African-Americans has a cultural as well as an economic basis. The economic basis is fairly easy to discern. African-Americans clearly face more economic hardships than do Whites; and, unlike Whites, most Blacks in the U.S. are routinely exposed to a most pernicious psychosocial stressor – racial discrimination – which further erodes their economic security and psychological well being. Because Black men and Black women are more or less equally exposed to economic hardship linked to racial discrimination, the necessity that both groups might feel to cope in an effortful, active manner with these conditions undoubtedly contributes to the similarity in their John Henryism scores.¹⁰

Having said this, we must now try to go beyond a purely economic perspective if we are to achieve a deeper, richer understanding of the “origins” and meaning of John Henryism for African-Americans. Let me now propose the idea that John Henryism emerged as a widespread behavioral phenomenon among Black Americans in the years/decades immediately following the Civil War; that it was in effect a strategy, a cultural adaptation, if you will, on the part of a newly freed people faced with the daunting task of creating for themselves an *American* identity. To be authentic that identity had to, first of all, acknowledge and find meaning in their past enslavement. Second, it had to make possible a culturally coherent (for Blacks themselves) expression of core American values such as “hard work,” “self-reliance,” and “freedom.” And, finally, it had to provide a pragmatic (i.e., peaceful and effective) means to resist the new forms of oppression to which they, even as “freed” people, were being increasingly

subjected. With its strong, explicit emphasis on hard work and self-reliance, and its equally strong but more implicit emphasis on resistance to environmental forces that arbitrarily constrain personal freedom, the concept of "John Henryism" embodies, albeit imperfectly, all of the above.

I believe that two powerful currents of socialization converged in the lives of the Freedmen during this critical period to form a cultural crucible within which a viable African-American identity could be forged. The first, as suggested in the important scholarship by Blassingame (1979), Gutman (1976), and Berlin *et al.* (1992), among others, was the heroic work of slave families over generations to maintain the self-esteem and optimism of a people in bondage so that, when freedom came, they would be psychologically prepared for it.

The second current of socialization addressed the need of the Freedmen to become a literate people and thus develop a deeper understanding of the political and social implications of their hard won freedom. This latter work, as is well known, was carried out by the Black churches and by missionary societies, many of which were based in New England (Litwack 1979; Anderson 1988). Work by these groups gave a much needed focus to (but could not have succeeded without) the strong psychological and cultural resources that the Freedmen brought with them out of slavery. Here Litwack's (1979) description of the cultural and religious values that the New England missionaries and Black church leaders attempted to impart to the Freedmen is particularly relevant to the thesis that these values may have found coherent *secular* expression in the behavioral predisposition I call "John Henryism":

Teachers and missionaries alike, whatever their race or affiliation, could agree on the critical need to provide the recently freed slaves with prerequisites of civilization and citizenship, and these would be nothing less than the virtues esteemed by mid-nineteenth century Americans and taught in nearly every school and from every pulpit – *industry, frugality, honesty, sobriety, marital fidelity, self-reliance, self-control, godliness, and love of country.* [p.452] (emphasis added)

While it is highly unlikely that the Freedmen accepted these teachings uncritically, it is reasonable to conclude that many, perhaps the majority, recognized the utility of these values as the best available strategy for individual and group advancement in a society that would remain hostile to their presence for generations to come.

Was it pure coincidence, then, that this same crucial period, roughly the early 1870s, gave birth to the legend of John Henry? This tale of the folk (i.e., the Black folk) objectified the anxiety and the determination of a newly freed people about to embark upon a quest for economic security and a new cultural identity; but, in the face of such formidable odds, could their quest possibly succeed? Given that this epic drama is still unfolding, none of us knows with certainty the answer to this question. However, if I read the legend of John Henry correctly, and if I understand its strong echo in the exemplary life of John Henry

Martin,¹¹ the Black North Carolina farmer, the answer would seem to be "yes – but not without struggle, and not without a price."

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NOTES

¹ The terms "Black American" and "African-American" are used interchangeably in this paper.

² Copies of the JHAC12 are available upon request from the author.

³ The Cronbach alpha, a measure of internal consistency for unidimensional scales, varies between 0.70 and 0.80 for the JHAC12.

⁴ For Blacks, the composite measure of socioeconomic status was constructed as follows: "high" = 9 years or more of formal schooling plus at least a semi-skilled (e.g., truck driver, painter) or skilled job (e.g., carpenter, electrician, secretary); "low" = less than 9 years of schooling or an unskilled job (e.g., farm laborer, domestic worker).

⁵ For Whites, the composite measure of socioeconomic status was constructed as follows: "high" = high school graduate, or more, plus a white-collar job (e.g., businessman, nurse, teacher, plant manager); "low" = non-high school graduate or a blue-collar job (e.g., electrician, mechanic, assembly line worker).

⁶ The Pitt County study was designed to be longitudinal; that is, we will track changes in blood pressure as study participants age and then relate these changes to their baseline (1988) dietary practices, physical activity levels, body weight and body fat distribution, psychological stress, socioeconomic status and John Henryism scores. Data collection for the 1988–1993 follow-up period was conducted from February 1 through July 31, 1993.

⁷ Psychological stress was measured by the Perceived Stress Scale developed by Sheldon Cohen and colleagues at Carnegie-Mellon University.

⁸ Recall that the exclusions forced all low socioeconomic status individuals in these analyses to have psychological stress scores *above* the sample median. Hence, if high stress scores, alone, dramatically increased risk for hypertension, both low socioeconomic status groups shown in Figure 10 – those persons who scored low on John Henryism (N=215) as well as those who scored high (N=138) – would show dramatic elevations of hypertension prevalence. This is clearly not the case.

⁹ This racial difference in John Henryism scores persisted even after we controlled, statistically, for education, marital status, and life satisfaction.

¹⁰ Though Black men and Black women score similarly on John Henryism, it is possible

that their scores are significantly influenced by environmental factors (e.g., racial discrimination/economic hardship) to which both groups are exposed as well as by environmental factors (e.g. gender discrimination) to which only one group – women – is exposed. This topic clearly deserves further study.

¹¹ John Henry Martin died in 1989, at 81 years of age.

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