4-2001

African-American Women’s Emotional Responses to Historical Racial Events as a Function of Socioeconomic Status

Melissa Ruth Stevenson
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations
Part of the Multicultural Psychology Commons, and the Quantitative Psychology Commons

Recommended Citation
https://scholarworks.wmich.edu/dissertations/1347

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
AFRICAN-AMERICAN WOMEN'S EMOTIONAL RESPONSES TO
HISTORICAL RACIAL EVENTS AS A FUNCTION
OF SOCIOECONOMIC STATUS

by

Melissa Ruth Stevenson

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Psychology

Western Michigan University
Kalamazoo, Michigan
April 2001
AFRICAN-AMERICAN WOMEN’S EMOTIONAL RESPONSES TO HISTORICAL RACIAL EVENTS AS A FUNCTION OF SOCIOECONOMIC STATUS

Melissa Ruth Stevenson, Ph.D.
Western Michigan University, 2001

One hundred African-American women between the ages of 18 years and 80 years who were born in the United States and for whom English was their primary language were exposed to video taped incidents of historically accurate racist events from American history. Measures of emotional reactivity including heart rate, blood pressure and measures of anger and anxiety were taken and the Hollingshead Four Factor Index of Social Status was used to classify subjects into three socioeconomic levels. The experimental protocol required that subjects be exposed to a period of adaptation followed by a period of exposure to a neutral video stimulus prior to viewing the experimental video. The overall research design was a two factor (3x3) repeated measures factorial design. The independent variables were the three levels of socio-economic status and the three periods of assessment, adaptation, neutral and racial. The results suggested all subjects had an increased emotional response from neutral to the racist period as reflected in the change across dependent variables. Yet the hypothesis that lower SES subjects would respond differently to the racial stimulus compared to higher SES subjects was not supported. Several trends emerged that contradicted previous research. Present findings suggest that higher SES subjects
may be more reactive than lower SES subjects in their perception of racism and physiological reactivity to racist events.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI®
DEDICATION

When all discrimination is abandoned,
When contact with things is broken,
The mind is brighter than sun and moon together,
Cleaner than frost and snow
—Zen Prayer

I dedicate this dissertation and the completion of my doctorate to the smartest woman I know, my grandmother, Edna Yvonne Smith Vincent. Growing up I used to sit mesmerized by her words; poems recited, characters vividly drawn in my head and memories of ancestors for which I owe my existence. Others had world book encyclopedias and I had and still have my gram. A woman with unlimited potential but she chose her family over and over again. And it is because of this choice I am Dr. Melissa Ruth Stevenson.

Thank you, Gram, for blessing me with the choice to be all that God has planned.
ACKNOWLEDGMENTS

Thank you God for the ending of this journey and the beginning of another. This dissertation and degree are not a testimony of my intellect but instead a symbol of my faith. A faith in God that wavered at times but I endured. A more tangible thank you and much love goes to my mother, Veronica Suzette Vincent, who listened to my angst, and many complaints. She encouraged when I needed it and pushed when I was stuck. She was determined that my dream would not be deferred. To my father, Jerome P. Stevenson, Sr., I say thank you for your contribution to my character. I am stubborn, tenacious and opinionated much like you. Without these characteristics I would have not made it through school. To my Aunt Lee, I thank you for your persistent encouragement, your constant reminders and loving support. To my Uncle John, thank you for being there when I needed you, you never failed to fuss but you never failed me and for that I am grateful. To my brother, Jerome Stevenson, thank you for always believing in me and being surprised by my insecurities, your encouragement and love are much appreciated and still needed. To all of my family, the Vincents, Stubbs, Evans-Abio, Mitchells, Hopewells, Nails, Combs, Phillips, Cochrans, Thomases, Crews, Langdons, Woodsons, Barbara and Brandon Ledyard, and Blounts, thank you for never letting me give up and reminding me that I am my Aunt Betty’s Dr. Missy.

To my adopted family who never failed me, a big "Thank You". Kim Mathews, Sheila Eaton, Pat Sciberras, Kelly Jordan, Sonya Flagg, Mavis Turner,
Acknowledgments—Continued

Kerri and Kenyatta Mubaarak, Tamara Jeffries, Bill Liles, and my ever faithful Joseph Ampah, you all fed me when I was hungry, listened when I cried, edited when I could not read or write anymore and shouted when I needed to just finish. Thank you to the doctors, David Williams and James Stubbs, who gave me the space and the use of their support staff to carry out this project. To Sabrina, Tywan, Marissa, Beatrice and Melvy, thank you for your patience and time.

To my first mentor, Dr. Aubrey Escoffery, thank you for taking a lost student under your wing and being more than an instructor, but my surrogate father. To Dr. Vincent Goldman, thank you for listening at the essay contest and paving my way to NCCU. To Dr. Elwood Robinson, thank you for believing in my ability to be a contributing scholar, academic and being my friend. To Dr. Richard Spates, thank you for pushing me when I needed and being an instructor of life lessons as well as psychology. And to Dr. Mark Orbe, it's been nothing but divine love since our first meeting--thank you for being my mentor, prayer partner, editor, friend and academic guru. To Dr. McAdoo, thank you for normalizing my experience during our many talks, nothing ever seemed too big. Thank you, Dr. Baker, for being an excellent example of a female academic. And to my mentor, friend, and spirit sister, Dr. Genna Rae McNeil, thank you for being my hero. I want to be like you when I grow up.

And last but not least, Benjamin Walker Blount, you are the icing on the cake. Thank you for jumping right in. You have watched videotapes, had your blood
pressure taken, stapled, read and re-read, listened, and pushed. I cannot remember when you were not a part of this journey.

Melissa Ruth Stevenson
# TABLE OF CONTENTS

**ACKNOWLEDGEMENTS** ...........................................................................................................ii

**LIST OF TABLES** ..................................................................................................................x

**LIST OF FIGURES** .................................................................................................................xiii

**CHAPTER**

**I. INTRODUCTION** .................................................................................................................1

**II. REVIEW OF RELATED LITERATURE** ...............................................................................7

  SES as a Psychosocial Stressor..............................................................................................7

  Implications of SES Levels..................................................................................................11

  SES in the Occurrence and Pattern of Life Events ..........................................................13

  SES on Quality of Life.........................................................................................................15

  SES as a Causal Factor.........................................................................................................19

  SES and Life Events...........................................................................................................21

  SES and Anxiety..................................................................................................................22

  Perceptions of SES.............................................................................................................23

  Cultural Context of Stress....................................................................................................24

  Synergistic Impact of Race and SES..................................................................................28

  Graduated SES Effects........................................................................................................32

  SES and Psychological Disturbances..................................................................................33

  Racism and Stress...............................................................................................................37
Table of Contents—Continued

CHAPTER

Conceptual Framework Considerations ............................................37
Operationalism of Racism ...............................................................37
Racism and Psychophysiological Distress ........................................40
Cultural Context .............................................................................42
Perceptions of Racism ...................................................................44
Summary of Reviewed Literature ....................................................45
Research Rationale .........................................................................45

III. METHODS SECTION .................................................................47

Design ..........................................................................................47
Subjects .........................................................................................48
Dependent Measures ......................................................................48
Instrumentation ............................................................................49
Questionnaires ..............................................................................49
Procedures ....................................................................................50
Hypotheses ..................................................................................51
Analysis Section ...........................................................................52

IV. RESULTS ....................................................................................53

Participant Characteristics ............................................................53
Group Characteristics ....................................................................55
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Data Analyses</td>
<td>55</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td>56</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>64</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>80</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>94</td>
</tr>
<tr>
<td>Summary of Statistical Analysis</td>
<td>111</td>
</tr>
<tr>
<td>V. DISCUSSION</td>
<td>113</td>
</tr>
<tr>
<td>Research Considerations</td>
<td>113</td>
</tr>
<tr>
<td>Hypothesis 1: Racism and Psychophysiological Response</td>
<td>114</td>
</tr>
<tr>
<td>Hypothesis 2: Emotional Response and SES</td>
<td>116</td>
</tr>
<tr>
<td>Hypothesis 3: Perception of Racism and SES</td>
<td>118</td>
</tr>
<tr>
<td>Hypothesis 4: Perception and Racism</td>
<td>119</td>
</tr>
<tr>
<td>Study Limitations</td>
<td>120</td>
</tr>
<tr>
<td>Initial Experimental Anxiety</td>
<td>121</td>
</tr>
<tr>
<td>Experimental Fatigue</td>
<td>122</td>
</tr>
<tr>
<td>Experimental Protocol Confusion</td>
<td>122</td>
</tr>
<tr>
<td>Prolonged Experimental Stimulus</td>
<td>123</td>
</tr>
<tr>
<td>Racial Disconnection</td>
<td>124</td>
</tr>
<tr>
<td>Psychometric Inadequacy</td>
<td>124</td>
</tr>
</tbody>
</table>
Table of Contents—Continued

CHAPTER

Dearth of Class Diversity ................................................................. 125
Strengths ............................................................................................... 125
Overall Strengths .............................................................................. 125
Simplicity in Design ......................................................................... 126
Community-Based Research ............................................................. 126
Scientific Context .............................................................................. 127
Future Research Directions ................................................................ 127
Continued SES Exploration ............................................................. 127
Field Study Research ......................................................................... 128
Breadth of Age .................................................................................. 129
Conclusion ............................................................................................ 129

APPENDICES

A. Research Design ............................................................................ 131
B. Recruitment Flyer ........................................................................... 133
C. Subject Psychophysiological Recording Sheet .................................. 135
D. Demographic Questionnaire ............................................................ 137
E. Video Stressor Rating ....................................................................... 139
F. Description of Neutral Videotape ..................................................... 141
G. Video Description of Historical Racial Events ................................. 143
### APPENDICES

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>H. Human Subjects Institutional Review Board Approval Letter</td>
<td>147</td>
</tr>
<tr>
<td>I. Participant Consent Form</td>
<td>149</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>152</td>
</tr>
</tbody>
</table>
LIST OF TABLES

1. Age and Annual Income Descriptions .......................................................................54
2. SES Marital Status Distribution Description ............................................................54
3. SES Age Distribution Description ............................................................................55
4. Tests of Within-Subjects Effects Measure for SBP ................................................57
5. SBP – Paired Samples t-Test .....................................................................................58
6. Tests of Within-Subjects Effects Measure for DBP ................................................58
7. DBP – Paired Samples t-Test ..................................................................................60
8. Tests of Within-Subjects Effects Measure for MAP ...............................................60
9. MAP – Paired Samples t-Test ...................................................................................62
10. Tests of Within-Subjects Effects Measure for HR ...................................................62
11. HR – Paired Samples t-Test ....................................................................................64
12. Tests of Within-Subjects Effects Measure for Anxiety ...........................................64
13. Tests of Within-Subjects Effects Measure for Anger ..............................................66
14. Stimuli x SES Interaction Effects for SBP ...............................................................67
15. Between Subjects Effects for SBP ...........................................................................69
16. Stimuli x SES Interaction Effects for DBP ..............................................................70
17. Between Subjects Effects for DBP ..........................................................................71
18. Stimuli x SES Interaction Effects for MAP .............................................................73
19. Between Subjects Effects for MAP ..........................................................................74
List of Tables—Continued

20. Stimuli x SES Interaction Effects for HR ...............................................................75

21. Between Subjects Effects for HR ...........................................................................77

22. Stimuli x SES Interaction Effects for Anxiety .......................................................78

23. Stimuli x SES Interaction Effects for Anger ..........................................................79

24. Between Subjects Effects for Job Perception of Racism During the Past Year ..........81

25. Between Subjects Effects for Job Perception of Racism Over the Lifetime ...........83

26. Between Subjects Effects for Academic Perception of Racism During the Past Year .84

27. Between Subjects Effects for Academic Perception of Racism Over the Lifetime ....85

28. Between Subjects Effects for Public Realm Perception of Racism During the Past Year .87

29. Between Subjects Effects for Public Realm Perception of Racism Over the Lifetime .88

30. Between Subjects Effects for Response to Racist Statements During the Past Year ....89

31. Between Subjects Effects for Response to Racist Statements Over the Lifetime .......91

32. Between Subjects Effects for Overall Perception of Racism During the Past Year ....92

33. Between Subjects Effects for Overall Perception of Racism Over the Lifetime ..........93

34. Interaction Effects for SBP: Stimuli x Perception of Racism During the Past Year ..96
List of Tables—Continued

35. Interaction Effects for DBP: Stimuli x Perception of Racism During the Past Year ................................................................. 97

36. Interaction Effects for MAP: Stimuli x Perception of Racism During the Past Year ........................................................................ 98

37. Interaction Effects of HR: Stimuli x Perception of Racism During the Past Year .............................................................................. 100

38. Interaction Effects for Anxiety: Stimuli x Perception of Racism During the Past Year ........................................................................... 101

39. Interaction Effects for Anger: Stimuli x Perception of Racism During the Past Year ........................................................................... 102

40. Interaction Effects for SBP: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 104

41. Interaction Effects for DBP: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 105

42. Interaction Effects for MAP: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 106

43. Interaction Effects for HR: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 108

44. Interaction Effects for Anxiety: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 109

45. Interaction Effects for Anger: Stimuli x Perception of Racism Over the Lifetime .................................................................................... 110
LIST OF FIGURES

1. SBP Within Subject Effects ................................................................. 57
2. DBP Within Subject Effects ................................................................. 59
3. MAP Within Subject Effects ................................................................. 61
4. HR Within Subject Effects ................................................................. 63
5. Anxiety Within Subject Effects ............................................................ 65
6. Anger Within Subject Effects ............................................................... 66
7. SBP Interaction Effects ....................................................................... 68
8. SBP Difference Between Subject Effect ............................................... 69
9. DBP Interaction Effects ....................................................................... 71
10. DBP Difference Between Subject Effects ............................................. 72
11. MAP Interaction Effects ................................................................... 73
12. MAP Difference Between Subject Effects ........................................... 75
13. HR Interaction Effects ....................................................................... 76
14. HR Difference Between Subject Effects .............................................. 78
15. Anxiety Interaction Effects ................................................................ 79
16. Anger Interaction Effects ................................................................... 80
17. Job Perception of Racism During the Past Year Between SES Groups ...... 82
18. Job Perception of Racism Over the Lifetime Between SES Groups ........... 83
19. Academic Perceptions of Racism During the Past Year Between SES Groups ... 85
List of Figures—Continued

20. Academic Perceptions of Racism Over the Lifetime Between SES Groups ................................................................. 86

21. Public Realm Perception of Racism During the Past Year Between SES Groups ............................................................. 87

22. Public Realm Perceptions of Racism Over the Lifetime Between SES Groups ............................................................... 89

23. Response to Racist Statements During the Past Year Between SES Groups ........................................................................ 90

24. Response to Racist Statements Over the Lifetime Between SES Groups ........................................................................... 91

25. Overall Perception of Racism During the Past Year Between SES Groups ........................................................................ 93

26. Overall Perception of Racism Over the Lifetime Between SES Groups ........................................................................... 94

27. Overall Perception of Racism During the Past Year: SBP Interaction Effects ................................................................. 96

28. Overall Perception of Racism During the Past Year: DBP Interaction Effects ..................................................................... 98

29. Overall Perception of Racism During the Past Year: MAP Interaction Effects ..................................................................... 99

30. Overall Perception of Racism During the Past Year: HR Interaction Effects ...................................................................... 100

31. Overall Perception of Racism During the Past Year: Anxiety Interaction Effects ............................................................... 102

32. Overall Perception of Racism During the Past Year: Anger Interaction Effects .................................................................... 103

33. Overall Perception of Racism Over the Lifetime: SBP Interaction Effects .......................................................................... 104

34. Overall Perception of Racism Over the Lifetime: DBP Interaction Effects .......................................................................... 106

35. Overall Perception of Racism Over the Lifetime: MAP Interaction Effects .......................................................................... 107
List of Figures—Continued

36. Overall Perception of Racism Over the Lifetime: HR Interaction Effects.........108
37. Overall Perception of Racism Over the Lifetime: Anxiety Interaction Effects ...110
38. Overall Perception of Racism Over the Lifetime: Anger Interaction Effects .....111
CHAPTER I

INTRODUCTION

What is the cost of being a Negro (Siegel, 1961)? During the civil rights era a Newsweek poll was conducted asking African-Americans to chronicle their discriminatory experiences (Siegel, 1961). Approximately one third of the African-Americans interviewed identified discrimination as the cause of their inability to obtain the type of job they desired. Based on these findings, Siegel (1961) conducted a series of surveys that revealed a lower economic return on educational progress for African-Americans when compared to their white counterparts. The surveys also indicated a greater economic oppression for African-Americans with the least amount of education. Therefore, it would appear that the potential economic advancement of African-Americans was seen as a threat, and discrimination was an appropriate way to retaliate (Heaven & Furnham, 1987; Siegel, 1961).

Heaven and Furnham (1987) explored economic beliefs as a form of racial prejudice. Seventy-two white subjects from local universities were sampled and categorized according to socioeconomic status (e.g., lower, middle and upper). Subjects then completed questionnaires that probed attitudes toward citizens of African-American descent, economic locus of control, self-esteem, anxiety and authoritarianism. Findings suggested that white subjects who endorsed racist attitudes in fact believed individuals of African-American descent were primarily of
lower socioeconomic status and deserving of poor treatment.

More than thirty years have elapsed since the civil rights movement and ostensibly life for African-Americans politically, socially, and economically has shown marked improvements. The extent to which African-Americans have benefited from these advances is unclear since African-Americans continue to lead all racial/ethnic groups in psychological and physical distress (Braithwaite & Taylor, 1992; Jones & Korchin, 1982; Livingston, 1994; U.S. Dept. of Health and Human Services, 1980). Many researchers have explored the relationships between race/ethnicity, social class/socio-economic status and psychological distress by taking into account social, legal, and economic advances in racial progress (Adler et al., 1994; Harburg et al., 1973; Kessler, & Cleary, 1980; Liem, & Liem, 1978; Neff, 1984).

Harburg et al. (1973) were among the first to explore psychosocial factors that included level of income, education, marital stability, and crime. The basis for their hypothesis was that psychological distress occurs when subjects live in socially disorganized and deprived areas, thus, causing them to utilize more psychological adaptive skills due to the relatively small amount of material resources. It is not just the existence of social disorganization that causes psychological distress but the perception of the stressor within the specific social context (Scotch & Geiger, 1963).

Harburg et al. (1973) examined four cross sections of the metropolitan Detroit area and divided those cross-sections along racial lines, gender (e.g., male or female), and level of stress (e.g., high or low) making up eight subject groups: Black (male and female) high stress and low stress; White (male and female) high stress and low
stress. The areas were established by researchers utilizing Detroit city statistics that examined differences between the inner and outer city areas based upon the availability of educational, recreational, sanitary, and service facilities. Also included were rates of crime, divorce, unemployment, and population density. The rationale behind selecting these factors was related to the premise that environments tend to leave subjects vulnerable to chronic stressors thereby increasing the likelihood of psychological distress. Blood pressure was used to measure the emotional stress response. Several conclusions were drawn from the findings. First, Black males living in high stress areas exhibited higher psychophysiological levels than Black males living in low stress areas. This difference was also found between Black, high and low stress females as well as White high and low stress females. Second, Black males living in high stress areas demonstrated a higher percentage of psycho-physiological readings compared to other male race area groups. White females were found to have the lowest psychophysiological levels of all the experimental groups. Finally, among Black males, those who were young and overweight while living in a high stress area exhibited a higher percentage of psychophysiological levels than a comparable low stress group.

These research findings demonstrated the value of socioeconomic status as a research factor. In order to determine the impact of socio-economic status as it relates to African-Americans, it is especially relevant to focus on within-race difference rather than between-race difference (Orbe, 1995). Harburg et al. (1973) also discovered an emerging African-American middle class in most urban centers due to
their increased economic, political, and social clout. It is this group’s cultural status that warrants serious scientific exploration and probable contribution to critical areas of comprehension.

The data imply that racial oppression should not be the only focus of concern; instead the investigation directed should be multifaceted. Williams and Rucker (1996) presumed discrimination permeated every aspect of existence for most racial/ethnic groups. Consistent with this hypothesis African-Americans are partially woven into the American fabric that exposes them to prejudicial treatment that likely imposes negative effects on their daily psychophysiology. Chronic experience with racial discrimination via racial harassment and subjugation impacts the physiological processes of the African-American community (Williams, 1996). Moreover, the question becomes, is the socio-economic status an additional source of psychological distress as the African-American under class grows and the division between classes widen (Hooks, 1995)?

When studying socioeconomic status (herein referred to as SES) as an independent variable it is important to understand the way in which SES is quantified and observed. SES dictates where individuals or social groups are placed within the societal structure (Williams & Collins, 1995). A group’s placement, in turn, influences their ability to possess power, privilege, and material resources. This position not only impacts the external socioeconomic climate, but it also influences one’s ability to manage life events on a personal level and within their surrounding environment. Frequently, ethnic and racial groups are overrepresented at the lower end of the
continuum, reflecting their difficulty or inability to effectively manage their lives (Williams & Rucker 1996). Therefore, it would appear the higher social status that one achieves, the more power one may have to direct their life and buffer some effects of resulting discrimination. Researchers have found support for an interactional effect between race and SES differences leading them to suspect that discrimination may in fact affect lower SES African-Americans differently than higher SES African-Americans (Klag, Whelton, Coresh, Grim, & Kuller, 1991). The intent of this study considered how one's exposure to video footage of historical racial events affects the emotional reactivity response of African-American women from various SES backgrounds.

Chapter II examined research associated with the variables included in the research design as applied to SES and racism. Initially SES was reviewed as a psychosocial stressor via a historical perspective covering classic studies and thereby linking them to present day research. SES was reviewed according to its varying levels and its impact with respect to African-American life. This entailed forming a bio-sociocultural perspective and defining the causality of SES on psychophysiological distress. Given the extensive review of SES research, the cumulative effect of race and SES was then explored. Lastly, literature with regard to racism and stress was outlined, thus establishing a connection between racism and SES. Reviews on racism began with the conceptual framework for scientific research, followed by the operationalization of racism and the probable impact on the psychophysiology of
African-Americans, and end with how African-Americans ascribe to cultural perceptions of racism.
CHAPTER II

REVIEW OF RELATED LITERATURE

To facilitate the review of SES, the literature is organized according to sections that present hypotheses inherent to the broader concept of SES as a psychologically distressing experience. These sections are outlined in the following manner: (a) classical research on the use of SES as a psychosocial stressor; (b) implications of various SES levels; (c) the impact SES has in African-Americans lives; (d) SES as a causal factor in creating psychological distress; (e) SES as it relates to life events and anxiety; (f) perceptions an individual has of SES and the resulting psychological impact; (g) the conceptualization of stress from a cultural perspective; and (h) SES literature on the cumulative impact of race and SES, graduated levels of SES, and psychological disturbances.

SES as a Psychosocial Stressor

Dohrenwend (1961) reviewed a series of studies that serve as the current comprehensive foundation for the relationship between social environs and psychological dysfunction. All the studies, despite their differences, had four common elements: (1) flagrant environmental characteristics (i.e., social chaos, SES, etc.); (2) theoretical hypotheses that social and cultural stressors were causally related to psychological dysfunction; (3) findings that suggest a correlation relationship...
between environmental stressors and psychological dysfunction; and (4) a focus on one community at one specific time. While these studies are important they were limited. Dohrenwend (1961) emphasized the last common element as being a factor prohibiting generalizability and causality of the proposed hypotheses. He also focused on the fact that laboratory environments were often distant approximations, albeit out of necessity, with respect to everyday stressors. Controlled laboratory environments often forsake cultural variables to preserve scientific standardization practices that serve to reduce interfering confounds. A proposed remedy to this quandary requires sensitivity to sociocultural factors that enable researchers to approximate natural conditions that are still within experimental control. However, in order to achieve this, one must begin formulating theoretical frameworks that analyze and assess relevant stressful conditions.

Based on the above, Dohrenwend (1961) developed a model that incorporated some of the ideas from Selye (1955). Selye's model examined four components. The first consisted of the antecedent stressors consisting of an electric shock or some other toxic agent. The second consisted of the conditioning or mediating factor that may act as a buffer to the antecedent stressor, in that, it either increases or decreases the level of stress an individual experiences. The third component in this model consisted of the unspecified changes that occur within an organism either physically or chemically. The final component consisted of the "General Adaptation Syndrome." A response was seen to be adaptive or maladaptive depending on the frequency, duration or intensity of stress experienced. Selye (1955) described maladaptive
responses as "diseases of adaptation."

While Selye's work dealt with the physical response to stress, Dohrenwend's model (1961) examined antecedents, mediating factors, the resulting stress and adaptive response from a cultural perspective. In this model mediating factors, much like those described in Selye's work, determined an organism's response to a physical stressor that is presented concurrently with the mediating factor. The response experienced by an organism as a result of stressors is then labeled "constraint." Constraint is defined by the author as, "the psychological force exerted by the individual to inhibit a course of action called for by events" (Dohrenwend, 1961, p. 296). The concept of constraint is extended further because it can either be experienced externally or internally. External constraint is energy exerted by the individual to repress behavior required of internal events to meet behavioral demands required of external events. Origins of external constraint may be social status as a function of one's ethnicity and occupation or the strength of one's social support network, consisting of family and friends. The proposed hypotheses were the higher one's social status, the less external constraint experienced. However, a direct relationship exists between external constraint and the perception of one's self when making comparisons to others in similar situations. Inner constraint is defined as, "a person's drives and the internalized rules that give these social direction" (Dohrenwend, 1961, p. 298). Therefore, the self-governing rules to which one adheres to will be strengthened when they encounter a stressor in the presence of those with similar beliefs. An organism having experienced a stressor and subsequent constraint
external/internal) will then attempt to adjust to the level of constraint experienced through adaptation.

The adaptation response is an attempt to adjust the amount of experienced constraint on several levels. Dohrenwend (1961) defined this process in social psychological terms, such as affective, conative and cognitive. The affective refers to the emotional manifestations of this adaptive process and is described as fear, anger, or an intricate summation of the two that results in anxiety. Conative, an alteration in a person’s social behavior, occurs when previous interests may be abandoned, increased, or new ones initiated in the effort to adapt. Lastly, cognitive refers to alterations in self-governed behavior. The rules may be affirmed, weakened, or altered once again as a result of adaptation.

Within this adaptive formulation there is the consideration of whether the process is either maladaptive or adaptive. Dohrenwend (1961) lists environments and events that may lend to one engaging in a maladaptive response. For example when an individual is of school age, educational milieus are of great importance because this is where peer groups judge behavior as either maladaptive or adaptive. This may result in the individual indirectly or directly analyzing their own behavior. Dohrenwend (1961) summarizes his findings in eight propositions as follows:

1. Stress is a state intervening between antecedent constraint and consequent efforts to reduce constraint.
2. Stress underlies both adaptive and maladaptive behavior.
3. The probability of maladaptive responses varies directly with the intensity and duration of stress.
4. The intensity of stress varies directly with the strength of external constraint associated with the stressor.
5. The intensity of stress varies directly with the strength of inner con-
6. The adaptation syndrome represents efforts to reduce constraint.
7. The nature of the adaptation syndrome varies with: the relative strengths of external constraint vs. inner constraint associated with the stressor, and the nature of the sources of inner external constraint.
8. The nature of the adaptive and/or maladaptive response varies with the nature of the adaptation syndrome. (pp. 301-302)

Implications of SES Levels

The amount of stress experienced and perceived by an individual is directly related to mediating factors and the existence or nonexistence of these factors. The author did not explore any negative implications of stress, however the focus instead was on stressors known to most normal individuals who when exposed to these stressors caused disruptions in ordinary daily activities (Dohrenwend & Dohrenwend, 1970). The implications of Dohrenwend's (1961) theoretical propositions excerpted above have proven somewhat limited. While they have been heuristic, research from the period had not yet received statistical support.

Dohrenwend (1973) attempted to address this issue by conducting a study that examined the various ways lower SES groups, commonly consisting of African-Americans and women, found avenues to counter the effects of their economic standing. Those unable to transcend their SES often cited racism, sexism, and capitalism, along with self-defeating psychological states, such as rage, learned helplessness and low self-esteem. Once the researchers formed a link among the many stressors within the populations often labeled as lower SES, two hypotheses were generated. The first hypothesis was that lower socio-economic individuals encounter a greater
degree of life changes when compared to higher SES individuals. The second hypothesis was that lower SES individuals experience a greater degree of psychological distress as a result of the life changes.

For Dohrenwend's (1973) study, 124 subjects who were the identified heads of families were interviewed. The experimental population included U.S. Americans of Irish, Jewish, Anglo-Saxon, African and Puerto Rican ancestry. Irish, Jewish and Anglo-Saxons were classified as advantaged whereas the latter two groups were classified as disadvantaged. Classifications were based solely on the education level of the head of household. Despite attempts to balance educational levels within ethnic groups, those of color were found to be disproportionately disadvantaged (Dohrenwend, 1973).

The interview consisted of three measures examining stressful life events, life event indices, and psychological symptom measures. Of the 124 subjects, at least 48 reported that they did not experience any life change events within the last year, thus they were excluded from the statistical analysis. Forty-nine percent of the African-American subjects responded in a similar manner and were retained for statistical analysis to which certain conclusions were drawn. Overall life change scores were positively related to psychological symptomatology, and social class was inversely related to psychological symptomatology. Women of lower SES were found to have greater life change scores and increased reports of psychological symptomatology related to life events that were counted as being out of their control (rather than events that were within their control). The two previous hypotheses pertaining to
disadvantaged ethnic groups were not supported in Dohrenwend's study. African-Americans' life change scores were not related to lower social status, although this conclusion was made with some reservation. Almost half of the African-American subjects did not report life change events and Dohrenwend (1973) found reasons to suspect methodological issues such as possible cultural insensitivity of the chosen psychometric. Another confounding variable was African-American and Puerto Rican groups were not as heterogeneous when compared to the advantaged ethnic groups. It seemed Caucasian ethnic groups were homogeneous when education was controlled. The other fault with this study was the concentration on finding stressors that affect the general population.

**SES in the Occurrence and Pattern of Life Events**

Myers, Lindenthal and Pepper (1971) explored the connection between the occurrence of life events, the patterning of these events, and the presence of psychological dysfunction in 938 adults randomly selected from a major urban center. The authors attempted to select a sample inclusive of all ethnicities, races, religions, and SES levels. Each subject was examined in five areas: (1) basic demographics, (2) physical health status, (3) mental health status, (4) social and instrumental role performance, (5) life crises that occurred during the last year. These events were drawn from a questionnaire of 62 possibilities and an open-ended question to cover events that may not have been included on the questionnaire. Examples of the types of events queried included things pertaining to education, relocation, marriage, family,
interpersonal relationships, health, work, financial, legal and community. Findings indicated a positive correlation between the severity of psychological dysfunction and the number of life events occurring within the last year. The greater the number of events reported, the more severe the psychological dysfunction. Myers et al. (1971) also eluded to the importance and influence of the culture of the environment an individual and their perception of control over events experienced and subsequent psychopathology. Further correlations were found when overall findings were analyzed related to race, sex, age, marital status, religion and social class. However, this study did not mention whether a specific group or social class reported a disproportionate amount of psychological disturbance.

A follow up study (Myers, Lindenthal & Pepper, 1973) was conducted that targeted the same 938 subjects of which only 720 participated. This study attempted to explore the relationships between SES and psychiatric symptoms and the uneven distribution of life events. Again information was gathered in six areas: (1) basic demographic variables, (2) physical health status, (3) mental health, (4) social and instrumental role performances, (5) help seeking behavior and use of community mental health and social agency facilities, and (6) life crises that occurred during the past year. Psychopathology was assessed using a simple mental status exam, and social class was measured by employing the Hollingshead Two Factor Index of Social Position. Findings in this study indicated a positive relationship between socio-economic status and psychological dysfunction exists. Subjects who were classified among the lowest social class reported twice the amount of psychological disturbance.
disturbance versus those in the highest level. Myers et al. (1973) findings also suggested that lower socio-economic individuals, when compared to higher social status individuals, encountered more life change events that require lifestyle readjustments, such as physiological adaptation and psychological distress. This study, in fact, illuminated the importance of concentrating on events that occur on a daily basis being specific to one’s cultural environment.

**SES on Quality of Life**

SES is an emerging point on which African-Americans differ. SES dictates a person’s yearly income and their achieved standard of living. Many African-Americans are relegated to a low SES status, which often culminates into a difficult psychological and physical day-to-day existence (Grier & Cobb, 1968; Williams & Rucker, 1996). Privileges of life are often unseen social and psychological keys that unlock the doors of social power, educational opportunities, and the ability to influence and/or execute future decisions (Williams, 1996). These keys allow participation in activities that bring pleasure and typically require the services of others. Availability of medical care and the presence of safe living conditions are all characteristics linked to a healthy lifestyle enjoyed by those with privilege. Given this notion, the coincidence that ‘poor’ health is part of the common vernacular, implies that the right to maintain one’s health is a privilege specific to the wealthy (Kosa, 1969; Williams, 1996). Therefore, a positive correlation between environmental deprivation and financial instability is a probable assumption. It would also seem
that those at the higher end of the SES continuum are in some way psychologically insulated from stressors due to their access to resources which, in turn, acts as a mediating factor.

Understanding the manner in which social integration occurs within a larger social context is critical to clinical research exploring the impact of life events. Yet this is frequently not the case when researchers continue to extract micro-processes for study, excluding the cultural context in which it occurs (Liem & Liem, 1978). This can readily be seen when an analysis focuses on African-Americans. To date the concentration has primarily focused on inter-race differences instead of intra-race differences (Anderson, 1989; Harburg et al., 1973; Williams & Collins, 1995). Researchers draw assumptions that African-Americans have a homogeneous life experience with respect to social class and the perception of stressors, such as racism (McNeilly et al., 1996; Orbe, 1995; Williams, 1996; Williams & Rucker, 1996). Liem and Liem (1978) fused several bodies of research together that examine the epidemiology of social class and mental illness, and sociological studies examining the relationship between social class, work environments, and life events.

One of the first studies attempting to explore a relationship between psychological impairment and social class was conducted by Faris and Dunham (1939). They focused on social conditions that seem to acerbate and/or indirectly contribute to the experience of psychological dysfunction within an individual. These conditions, marriage, unhappiness with a career, migration, and social isolation were identified as most likely to cause mental conflict or breakdown and stress during the
adaptation period (Faris & Dunham, 1939).

As part of their examination, Faris and Dunham (1939) divided the city of Chicago into five zones: (1) inner city loop primarily inhabited by the business district and homeless persons on the fringe of the district; (2) transition/slum area composed of industrial areas, unskilled laborers of various ethnicities as well as their families; (3) working men's homes somewhat of a stabilized population, including skilled laborers that are a more homogeneous ethnicity; (4) residential zone; and (5) commuter zones which encompassed a very stable population of socially organized individuals with higher socio-economic levels. Faris and Dunham (1939) measured social organization by the rate of mental hospital admissions and social disorganization as indicated by crime, poverty, and the rate of residential moves.

Two salient points related to ethnicity and first time hospital admissions were produced by the Faris and Dunham (1939) study. The first finding was that African-Americans lived in areas for longer periods of time, were socio-economically comparable to their white counterparts, and were also likely to exhibit the same characteristics such as low rates of social disorganization (i.e., less criminal activity, more likely to own their homes and lower rates of hospital admissions). The second finding associated with first hospital admissions found that state/public hospitals received 82.5 percent of the cases, while private hospitals only received 17.5 percent of the cases. This suggested a higher probability of psychological dysfunction among the socio-economic disadvantaged, and a tendency to matriculate toward public or state run facilities. Therein lies a significant positive relationship with respect to lower
social class status and psychological impairment. Given this fact, researchers attempted to incorporate a larger segment of society to increase generalizability.

Srole, Langner, Michael, Opler, and Rennie (1962) conducted a study in a non-treatment population of approximately 1600 subjects in New York. The researchers examined if bio-sociocultural factors impact mental health in a way that is detectable when explored from a perspective provided by the whole society. The researchers used a home interview method examining sociocultural events that occur over the lifespan of an individual. Questions about general and mental health, demographics, social roles, and what they term “central areas” (i.e., life events one is likely to experience over a lifetime such as marriage/death) of experience were generated.

A significant inverse relationship was found in the population-at-large between the occurrence of a psychological disorder and the level of social class status. The higher ones’ SES, the lower the occurrence of psychological disorder (Srole et al., 1962). In addition, the authors identified childhood environmental impoverishment as a causal factor for the significant relationship. However, upon further statistical analysis, they found life conditions as an adult (versus childhood environs) to have a greater impact on individuals resulting in psychological dysfunction.

While there is strong evidence supporting the profound impact lower socioeconomic status has on individuals with respect to psychological disorder, the findings should not lead one to the assumption that those within lower SES groups possess personality deficiencies that lead to psychological dysfunction (Dohrenwend & Dohrenwend, 1965). Indications suggested there was a greater level of psychological
symptomatology within the lowest SES stratum consisting of individuals, classified as normals, responding to stressors high in frequency and harshness within their environment. Further, consequences of change were identified as causing the decrease of stressors and subsequently reducing symptoms as subjects move from lower SES to higher SES (Dohrenwend & Dohrenwend, 1965).

A similar argument can be likened to African-Americans. Simply put, not all African-Americans will suffer psychological impairment due to their ethnicity or their experiences with discrimination. Nevertheless, a statistical significant relationship exists, and the possibility that the combination of racism and SES may profoundly affect the psychological functioning of African-Americans.

SES as a Causal Factor

Researchers, intending to shift the focus from the individual as a source of causation, expounded on the connection between stress and psychological disorder. Liem and Liem (1978) utilized a hypothesis, developed by Dohrenwend and Dohrenwend (1965), known as social causation. This hypothesis highlights the significance of a person's social condition as a precipitating factor/exacerbating factor in the development of psychological dysfunction. Conditions that may serve as precipitating factors are unemployment, or the possibility of unemployment, and the fact that this condition occurs at a greater frequency among those at the lower end of the social stratum. These researchers also proposed that the prevalence of psychological dysfunction may be correlated with the severity of a person's social
condition. Further, Liem and Liem (1978) demonstrated that "differences in both intensity and quality of stress across social classes are assumed to account for the relation of social class to mental disorder" (p. 142).

Holmes and Masuda (1974) conducted research exploring what life events appeared to cluster before the onset of psychophysiological dysfunction. Their research of life events evolved out of the analysis of everyday events to the extraordinary. The authors found that everyday events, such as community and family support, occupation, education, SES level, health, recreation, and spirituality had a significant impact on the social structures of U.S. American life. Given the fact that not all events categorized under the above are perceived as stressful, the authors utilized an interviewing technique to assess what meaning an individual attached to each event. They conducted interviews on 394 subjects in order to identify clusters of symptomatology using the Social Readjustment Rating Questionnaire. Significant results revealed a 93% correlation between life crises and psychophysiological dysfunction. However, Liem and Liem (1978) also offered an additional supposition. They believed that it is not only the existence of stress that creates the environment for psychological distress, but also the persistence and chronicity of stress at the lower levels of SES. This, in part, appears to be directly related to a lack of available resources to manage stressors. This author proposed that there was in fact a difference in perception of stressors at the lower SES level.
SES and Life Events

An additional area that researchers have explored relates to the relationship between life events, psychosocial readjustment, and resulting psychological impairment according to one's SES. Holmes and Rahe (1967) asked 394 male and female subjects of various races/ethnicities to rate 47 ordinary and extraordinary life events, and how much effort they perceived was necessary to adjust to that particular life event. The events were derived from the principal realms of American life such as family relationships, marriage, occupation, economics, residence, group and peer relationship, education, religion, physical and mental health.

The landmark methodological triumph of this study was the acknowledgment of heterogeneity of emotional responses depending on the subjects' perception of the event. During the developmental stage, Holmes and Rahe (1967) utilized interviews to assess the exact meaning of life events for each subject. Their findings indicated that for some life events there was an attachment of meaning culminating in a common agreement among individuals and between groups that transcends educational/class level, generational gaps, age, religion, ethnicity, sex and marital status.

Furthermore, Paykel et al. (1969) demonstrated that psychological distress, as measured by depression and anxiety, appears to be correlated with certain life events such as those just mentioned. They conducted a control study of 185 depressed patients drawn from area mental health agencies in the New Haven (CT) area, who were primarily white and of a lower SES. One hundred and eighty-five matched controls were sampled from the community while conducting a survey in a mental health
catchment area of metropolitan New Haven (CT). Depressive subjects were queried about the occurrence of a list of life events (items drawn from the Holmes and Rahe (1967) SRSS questionnaire) during the previous six-months prior to the onset of depressive symptoms. Controls were queried about the six-month time period before the interview. Results suggested that overall, depressive subjects experienced three times as many life events during the time period when compared to the controls. Upon further investigation, the type of events depressive subjects affirmed were negative (i.e., arguing with spouse, marital separation, death of immediate family member) compared to events reported by controls that are considered more enjoyable (i.e., engagements, marriage, promotions). The statistical findings led the authors to conclude that a strong relationship between life events and the manifestation of depressive symptomatology existed. However, the subjects in the study were primarily comprised of lower SES people. While the study examined life events occurring in everyday U.S. American life, they did not query about events that are culturally specific, such as racism.

**SES and Anxiety**

Lauer (1973) conducted a cross-cultural study on the amount of social readjustment required as a function of the degree of anxiety an individual experiences. In this study, social readjustment was measured using the Social Readjustment Rating Scale (herein referred to as SRSS) and anxiety was measured using a modified form of the Taylor Manifest Anxiety Scale. U.S. American subjects were sampled from a
Midwestern university, and English subjects were drawn from the Oxford University student population. All subjects were white and evenly divided between males and females. Findings revealed a significant relationship between an increase in SRSS scores and increased anxiety among U.S. American subjects. While the same relationship was found among English subjects, it failed to approach significance. U.S. American subjects' SRSS scores also proved to be an accurate predictor of increased anxiety scores and varied reports of psychophysiological disturbances. Thus the researcher concluded further investigation was needed in order to understand the role anxiety plays in one's ability to adapt to change caused by life events. Although, this study was important in its attempts to address cultural differences, it did not demonstrate how different cultural environments influence outcomes with respect to anxiety and reported psychophysiological disturbances. The resulting conclusions not only deal with the importance of social class and the access to tangible material resources, but also how resources influence an individual's perception of stressors and the resulting impact on their psychological welfare (see, for example, Liem & Liem, 1978).

Perceptions of SES

Stress and how it is perceived in certain contexts is very important when examining discrimination and SES. The study of stress must originate with the identification of probable stressors and the environment in which the person exist that makes them susceptible to stress. There are many life events, such as a 'job promotion,' that
may have a dual impact on an individual thereby providing support as well as stress. Which element of the duality that predominates depends on the complex set of personality characteristics and environmental conditions at the time the event presents itself. This, in turn, shapes any forthcoming social and psychological outcomes (Liem & Liem, 1978).

Zubin (1975) asserts that one's perception of an event dictates the way in which coping mechanisms are employed. Perception also determines the degree of vulnerability experienced by an individual and thereby influences the type of coping mechanisms displayed. When feeling adequate and capable, one is likely to exhibit mastery and competence. On the other hand, the more vulnerable one feels the more helplessness and hopelessness experienced. When dealing with any particular event, this will likely increase the impact of the stressor. In other words, one's SES determines how the environmental context influences their way of coping with stressors, and the resulting impact on their psychological functions.

Cultural Context of Stress

Brown (1974) discouraged research efforts that homogenized people and their emotional responses by utilizing a one-dimensional approach aimed at studying the effects of stressful life events on an individual and their psychological functioning. He believed it was the responsibility of researchers to acknowledge the multitude of characteristics specific to ones' current environment and the importance of these events to the individual. This speaks directly to the point that not all African-
Americans at either a high or low socio-economic level will exhibit a stress response thereby impacting psychological functioning. Yet, it does support the effort to include all aspects of an individual’s life when attempting to measure what is considered stressful, and to what extent that stress will manifest change. Based upon the research for African-Americans, this would have to include racism and SES as key indicators (Williams, 1996; Williams & Collins, 1995; Williams & Rucker, 1996). This statement provided direct support for the present study and the importance of observing subjects within their cultural context. This study attempted to illuminate these specific factors by incorporating material resources, either high or low SES and other social characteristics specific to an ethnic/sex group, in this case racism as it is specific to African-Americans.

Kessler and Cleary (1980) conducted a literature review assessing various probable explanations for class differences in relationship to stressors. They also propose analysis strategies to untangle the influences and value of these strategies in an empirical application. An equation for configuring class differences was composed including variables of: (a) determinants of responsiveness to stress including, individual perception, anxiety proneness, level of self-esteem, sense of personal control, individual's environ; and (b) contending perspectives on class differences in responsiveness to stress which included social causation, and social selection and social resources perspective. The aim of this study was to construct a method of analysis that allows one to reject certain perspectives and determinants that do not contribute to the understanding of the relationship between one's responsiveness to
stress and his/her social class. For instance, Kessler and Cleary (1980) interviewed 720 respondents using the Macmillan symptom checklist and the Hollingshead Index of Social Position. Overall the results suggested stress has a greater impact on individuals in higher social positions as compared to those in lower social positions. Subjects in the lower social status sample were twice as likely to be influenced by the existence of physical health problems and undesirable events as measured by emotional functioning. Moreover, once an individual becomes upwardly mobile, undesirable events have less of an emotional impact compared to those who are immobile. Kessler and Cleary (1980) also found a cross cultural difference in responsiveness to stress as measured by psychological functioning. Generally speaking, the more stress that is applied, the larger the gap between class levels when measured on the amount of distress experienced. People of lower SES are psychologically more vulnerable to stress than individuals of higher social class status. There is also great importance in understanding how individuals define stress within their cultural context.

Lazarus, Averil, and Opton (1974) suggested that a situation only becomes distressing when an individual feels endangered and thereby perceives the experienced events as alarming. A commonly held notion is individuals of a lower SES are more responsive to stress due to the hypothesis that they in some way perceive stress differently and are impacted psychologically more readily than those of a higher SES (Kessler & Cleary, 1980).

Brown, Bhrolchain and Harris (1975) inferred that causality and meaning of the differential impact of stress, as a function of one’s SES, is the critical factor in
determining how SES and psychological distress are correlated. They measured psychological distress by the occurrence of depression in a sample of clinically diagnosed women between the ages of 18-65 years as well as sampled a control group from the larger community. The women were divided into groups according to class (working vs. middle class), and interviewed about life events, long-term dilemmas, and various accompanying controlling factors. Brown et al. (1975) explored whether past, present, or future cognitive schemas determine possible perceptions of encountered life events. Two variables became apparent from their results. The first, social class, and the second, life stage, affected the rate of psychological disturbance. Life stage was based on a subject's age, marital status, and the age of the youngest child living in the home. According to life stage differences, life events are only significant within the working class women. These differences were attributed to circumstances such as the possibility of eviction, imprisoned husbands, conduct-disordered sons, etc. However, age appears to be a controlling variable as older working class women fail to exhibit a high rate of psychological dysfunction.

Also pertinent, in the determinant of ones' interpretation or ability to cope with stress, is an individual's living environment. People are overtly and covertly impacted by their surroundings (Kessler & Cleary, 1980). Beliefs, values, and personal assessments are indirectly molded and shaped through life experiences. One's behavioral predisposition determines his/her ability to cope, and ultimately dictates vulnerability to stress due to the availability or lack of adequate social resources (Kessler & Cleary, 1980). Therefore, SES does not simply dictate one's net worth
Kessler and Cleary (1980) developed a social causation perspective which "argues that social class largely determines the life experiences to which one is exposed, thus in large part shaping one's coping repertoire and determining access to social resources" (p. 466).

This research, while important, failed to identify problem specifics and ways in which the stress experienced may be buffered by the presence of measurable material resources, social origination, or the upward mobility within the socio-economic hierarchy.

**Synergistic Impact of Race and SES**

Kessler and Neighbors (1986) intimated that the failure of previous research was in its attempt to identify either race or social class as a determinant of distress. The focus instead, should have been on the interactional effect of race and class in lieu of the above. Considering data reflecting the substantive impact race has on the psychological functioning of lower SES individuals, the interaction between race and class is to be expected. This finding, in turn, is congruent with the perspective that racial discrimination aggravates the existing negative health effects of impoverished African-Americans. Based on this premise the Kessler and Neighbors (1986) developed a distress equation model that is defined as follows:

\[ D = b_0 + b_1R + b_2SC + b_3RxSC, \]
where $D$ is a measure of distress, $R$ is a dichotomous variable for race coded 1 for blacks and 0 for whites, $SC$ is a measure of social class and $R \times SC$ is a multiplicative interaction between $R$ and $SC$. In this model we would expect $b_1$ to be positive, which would imply that lower-class blacks have significantly higher distress levels than lower-class whites. We would expect $b_2$ to be negative, which would imply that increased social class is associated with decreased distress. And we would expect $b_3$ to be negative, which would imply that race differences in distress become smaller as we move up the social class hierarchy (p.109).

Specifically, they examined eight epidemiological surveys from the late 1950s to the mid 1970s. The cumulative findings of these studies allowed the researchers to conduct a large enough sample of African-Americans to calculate significant statistical analysis. Depressed mood, anxiety and somatic complaints, measures of psychological distress, were related to race and SES. Statistical analysis illustrated a 'substantial' effect of race on lower socioeconomic individuals' psychological functioning. Furthermore, they hypothesized that poverty and discrimination act in combination for greater effects on lower socioeconomic individuals more vulnerable to racist stressors. In other words, financial achievement may shield or protect high socioeconomic African-Americans from the psychological impact of discrimination.

Kessler and Neighbors (1986) examined three components: race, social class, and psychological distress amongst blacks and whites. The overall picture suggested a clear pattern where substantial race differences in distress could be verified at
lower/higher income levels. The results also indicated the significance of the interaction between race and social class was that psychological distress differences across race are more profound among low-income individuals versus high-income individuals. Another point made in the study found that low-income African-Americans are more psychologically distressed than Whites at comparable income levels.

Kessler and Neighbors (1983) posited additional reasons such as destitution and racial injustice. In fact, these reasons may act in a synergistic manner causing a higher level of distress amongst lower-class people. Despite the potential insight of the above explanations, no research has been attempted to date exploring these plausible explanations. Matters of race warrant intense study with respect to mental health especially for lower SES individuals. While important, comparative analysis between races overlooks the diversity within the African-American population, something that needs to be acknowledged in research on intra- and interrace comparisons (Orbe, 1995).

Support for intra-race analyses are found in Parker and Kleiner's (1966) examination of African-American rates of psychological disturbance in Philadelphia. The study used a control group of 1588 subjects sample from the surrounding Philadelphia community. In addition, a group designated as the ‘ill’ sample was drawn from area mental health facilities (n=3003) was identified. Both groups were interviewed by investigators of African-American ancestry on attitudes toward education, occupation and health. The subjects also completed a needs achievements test which fielded questions on their aspirations, and desires around striving and
achieving set goals, as well as, a social status questionnaire. Parker and Kleiner (1966) found a higher incidence of psychological distress among lower-class blacks, and proposed that it may be an indication of stress resulting from their efforts to accomplish goals leading to advances and a greater degree of success.

Neighbors (1986) concluded that nearly all of what is understood concerning race and psychological well being is grounded in the psychiatric epidemiologic community surveys of black and white comparisons. Focusing primarily on race-comparative studies does not lend itself to understanding the specific mental health needs of minority populations such as African-Americans. Instead studies of 'representative' African-American samples should be called for when prior studies reveal substantial racial differences (Orbe, 1995). The intention of Neighbors' (1986) study was to outline how studies specific to African-Americans may aid in the identification of pertinent psychophysiological risk factors.

Despite the importance of the previous research, efforts to identify and quantify social characteristics such as life circumstances and stressful situations and relate them to race were rare. Neighbors (1986) asked subjects at three different SES levels to relate a time in their lives that was particularly stressful, and then to exact details of that situation that were most difficult. The initial hypothesis focused on obvious differential impacts of various problem situations on the rich and poor. It is also plausible that similar stressful situations may differentially impact psychological functioning which is dependent on an individual's SES. Neighbors (1986) hoped to outline the interactional effect of a 'demographic' characteristic, SES, and stressful
social situations noting that anything studied exclusively fails to detail the whole environment in which people exist and in this case, African-Americans.

Neighbors' (1986) study was conducted using The National Survey of Black Americans; the population was 18 years and older located across the continental United States. Trained interviewers gathered information detailing sex, age, marital status, family income, education, employment status, residence, and region. A culturally valid questionnaire was developed which assessed specific racial/ethnic expressions of distress for the purpose of identifying symptomatology specific to a stressful condition. The conditions were rated according to the severity of response and the type of problem. The severity was assessed using four areas that included nervous breakdown, feeling nervous, feeling depressed, and a simple problem. The type of problem was assessed using five different criteria physical, interpersonal, emotional, death, and economic. The results indicated that for interactions found among physical and economic problem types there existed an inverse relationship between SES and psychological distress. These findings exemplified the need for increased psychiatric epidemiological research that examines the type of stress and demographic array with respect to race and SES.

Graduated SES Effects

Adler et al. (1994) also considered the impact of SES and health in all aspects, both mental and physical. They criticized existing studies for relegating SES to a control variable, and for not studying it as an important etiologic factor. Based
on this criticism, Adler et al. (1994) produced a broad analysis of studies that considered SES and its effects as measured by different indicators. They chose to examine SES at all levels in order to analyze a gradient effect, believing that too much emphasis had been placed on the lower end of the SES spectrum. These researchers underscored this important idea by stating, "identifying factors that can account for the link to health all across the SES hierarchy may shed light on new mechanisms that have heretofore been ignored because of a focus on the more readily apparent correlates of poverty" (p. 15).

Based upon the findings of their research analysis, Adler et al. (1994) concluded certain aspects of SES, such as career, income, and education, determine the course of one's life and are integrated into key life areas. These areas consist of: (a) the physical environment related to leisure and work, in which one may be exposed to environmental hazards like pathogens, carcinogens, etc.; (b) the social environment and related susceptibility to interpersonal violence and accessibility to social support networks; (c) health behavior; and (d) socialization experiences that effect psychological evolvement and ongoing affective cognitions.

SES and Psychological Disturbances

There are two studies that highlight the relationship between depression, hostility and SES; both of which suggest that subjects with lower incomes and minimal education had higher rates of depressive symptoms. Kaplan, Roberts, Camacho, and Coyne (1987) examined data from a survey of adult subjects living in Alameda,
California. Selected inhabitants were first interviewed in 1965 and a follow-up investigation was conducted in 1974. A total of 4,864 subjects participated. The dependent measure of psychological disturbance was scored by respondents' endorsement of depressive symptomatology on the depression index. Independent variables selected were reflective of social status attributes such as ethnicity, social isolation and health behaviors. The prevalence of psychological disturbance was highest for African-American females when rates were adjusted for age. Overall African-Americans were 1.28 times more likely to report psychological disturbances than non-African-Americans. Lack of personal resources, which lead to social isolations and either acute or chronic life stress, were also found to be significant predictors of psychological disturbance.

In another study, Barefoot, Dodge, Peterson, Dahlstrom, and Williams (1989) administered the MMPI to 128 law students in 1957 from a southeastern college university and conducted a follow-up study in 1985. The researchers used the HO scale on the MMPI in an attempt to predict rates of psychophysiological disturbances and rates of mortality. Those who scoring 1 standard deviation above the cutoff score were 5.54 times more likely to experience psychophysiological disturbance when compared to those who scored 1 standard deviation below. Researchers speculated that the results inferred certain conditions within one's environment act in conjunction with increased feelings of hostility to produce negative psychophysiological outcomes. Furthermore, evidence revealed a relationship between psychological distress and SES due to the differential impact of stress on individuals in a lower income
Within their study, Barefoot et al. (1989) defined stress in two ways: (1) encounters with stressors that most will likely experience that require psychological adaptation (i.e., death of a relative, birth of a child, etc.); or (2) when an individual’s perceptions of their ability to actively cope with experiences is diminished thereby lessening adaptive mechanisms. This is usually quantified by subjective self-reports. Research has linked both types of stressful events to the relationship between SES and psychophysiology. Therefore, it is reasonable to assume that increasing one’s income reduces the likelihood of encountering stress, broadens the availability of social and psychological resources, and impacts one’s perception of what events are interpreted as stressful (Adler et al., 1994).

McLeod and Kessler (1990) explored two competing ideologies concerning the causal relationship between SES and psychophysiological distress. The first explanation dealt with the access to financial resources and the distress that may occur when one is relegated to lower end of the social status hierarchy. The second explanation explored the indirect impact of lower SES through the lack of ‘coping’ resources, such as social support and what they defined as resilient personality characteristics. To conduct their study, they used data collected from five epidemiological surveys on subjects within the general population. They examined three variables: (1) psychological distress as measured by depression and psychophysiological distress, (2) SES as measured by the Hollingshead-type seven category code, and (3) undesirable life events as measured by a life event inventory.

Results indicated lower SES individuals were more likely to experience
stressful life events and exhibited more psychophysiological symptoms; higher SES individuals are more likely to have a larger social support network (although this does not buffer all distressing experiences). These findings led McLeod and Kessler (1990) to conclude that the statistical analyses revealed that undesirable life events aid in the comprehension of understanding SES variations upon psychological distress. Individuals of lower SES demonstrated a higher probability of experiencing most of the events when compared to their higher SES cohorts. In fact, financial resources are the identified factor of SES that is most commonly associated with exposure to events. However, SES variances in susceptibility to life events are not exclusively the result of restricted finances. Instead, they account for more ubiquitous hindrances inherent in the lives of lower socioeconomic persons.

Given the salient research that has been conducted analyzing the relationship between SES and psychological distress, studies continue to be conducted on a multi-racial subject population. This covertly omits the possibility of differential impacts with respect to varied ethnic groups. Adler et al. (1994) detailed that within racial groups, SES varies with respect to impact, and possibly affect health outcomes. This underscores the relationship between race and health, which is most obvious amongst lower SES African-Americans who appear to be most vulnerable to discrimination (Klag et al., 1991).
Conceptual Framework Considerations

The fact that we know SES appears to be closely related to the experience of racism for African-Americans does not suggest we know how one attempts to study and measure the effects of racism. Williams (1996) acknowledged the difficulty in measuring racism and the relationship between the experience of racism and psychophysiological disturbances. Therefore, ethnicity seems to be just one factor among a myriad of others which may have an impact on psychophysiology. Other suggested factors, according to Williams (1996), are macrosocial factors, racism social statuses, risk factors and resources, psychophysiological mechanisms and processes, and health status indicators. For a better understanding of how these factors work together to effect mental and physical well being, Williams (1996) developed a model encompassing these factor. This model constructs the framework under which researchers generate formulated hypotheses related to race. Previous studies have posed improper questions leading to flawed conclusions, such as the Tuskegee Experiment (Brandt, 1978; Williams, 1996). By using Williams' (1996) model, areas previously ignored in the stress literature can be targeted for future research.

Operationalization of Racism

Following their research, Williams and Collins (1995) defined racism as
"incorporating ideologies of superiority, negative attitudes and beliefs toward racial and ethnic outgroups, and differential treatment of members of those groups by both individuals and societal institutions" (p. 366). They concentrated on three ways in which racism can impact the psychological welfare and health of African-Americans.

First, racism can alter SES making it unequivalent across race. Second, racism prohibits fair access to civil rights such as equal public education, health care, and recreational outlets. And third, it may produce psychological dysfunction that in turn short circuits physical and mental well being while increasing the propensity for participation in addictive and violent behavior.

In the past, race has been often treated as a confounding variable to be controlled or given significance as a biological variable with inappropriate justification. This usage, while completely ignoring implicit cultural or social conditions, perpetuates the ambiguity attached to race as a variable (LaVeist, 1996). LaVeist (1996) wrote that within racial groups there is an implied assumption that variation does not occur according to nationality and ethnicity. Categorization due to physicality ignores differences that occur across cultural lines. Blacks from Panama, Jamaica, and Alabama certainly experience racism due to their outward appearance, yet there may be sociocultural experiences that may prompt contrasting health behavior and or illness outcomes. Therefore, it seems pertinent that intracultural factors be examined before continuing research geared toward uncovering inter-race differences.

Herman (1996) perceived race as shifting from biological attributes to social paradigms, as the research on racism evolved. There are five ways in which this...
evolution has occurred: (1) ‘race as biology’ looking at organic characteristics such as face and skin; (2) ‘race as social class’ reflecting one’s level of education, language capability, and place of residence; (3) ‘race as culture’ defining one’s religious habits and customs; (4) ‘race as ethnicity’ setting criteria for one’s categorizations based on physicality; and (5) ‘race as nation’ developing as a term when conquerors settled foreign territories and declared the indigenous people as inferior races. It is Herman’s (1996) supposition that racism is the basis by which race was historically and presently defined. This, in turn, affects how researchers approach methodological concerns relating to race and peripheral factors such as SES.

The current paradigm, according to Herman (1996), mistakenly points to socioeconomic factors as confounds when studying the relationship between race and psychophysiological disturbances. Researchers failed to completely analyze the impact of SES on race, and often-selected measures are unequivalent across races. In addition, there is scant clarity with respect to methodology and theory in racism constructs. Herman (1996) concluded that “although class definitions have historically preceded race definitions, race definitions have become useful in maintaining class boundaries” (p. 14).

Herman (1996) addressed these research fallacies by proposing the following alternative causal paradigms. First, race is but one element of social status causally related to other social status variables regarding economics and psychosocial variables. Second, fundamental causes of diseases, prejudice, and economic discrimination are consequences of racial identity. This relationship between disease outcome
and fundamental causes are enduring because it persists long after intervening vari-
ables are extinguished. Third, social and economic factors are primary causes of dis-
ease exclusive of racial identity. Fourth, SES indirectly promotes disease through
negative behaviors such as improper diet, smoking, and drug abuse. Fifth, and
finally, psychosocial variables directly impact the operation of the hypothalamus-
pituitary axis and indirectly promotes disease through mediating negative behaviors.
Thus it would seem that racism, as opposed to racial categorization (i.e., black vs.
white), is the issue when considering the marginalization of minority groups and their
subsequent psychophysiological disturbances (Herman, 1996).

Racism and Psychophysiological Distress

Clark and Harrell (1982) were among the first researchers to explore the rela-
tionship between cardiovascular reactivity and how an individual copes with racism.
The Jenkins Activity Scale (JAS) was used to identify Type A behavior patterns and
the Coping Styles Scale (CSS) was used to identify an individual's methods for deal-
ing with racism. Their findings indicated that personality variables, such as Type A
behavior pattern, were a better predictor of cardiovascular reactivity than traditional
risk factors. Researchers also found a positive correlation between a flexible, proac-
tive style of dealing with racism and resting systolic blood pressure, and diastolic
blood pressure recovery after stress. Unfortunately, the researchers did not utilize
any racial stimuli only traditional laboratory stressor tasks; thus, the exploration of a
response to a racial stressor was left unanswered.
Sutherland and Harrell (1986-87) in response to the Clark and Harrell study (1982) utilized mental imagery versus traditional laboratory stressors to assess psychophysiological responses to racism. The independent variables were three types of scenes to be imagined: fearful, racially noxious, and neutral. Fearful and racially noxious images elicited comparable increased blood pressure readings while neutral blood pressure readings were significantly lower. The results indicated that imagery is a favorable alternative to various traditional methods, and personality variables play a facilitory role in assessing the manifold outcomes in physiological responses.

Additionally, Stevenson (1994) utilized imagery vignettes (neutral, anger, racist) exploring the anger coping styles (anger-in vs. anger-out) differences of an African-American college student population to explore the impact this has on physiology (systolic, diastolic and mean arterial blood pressure, heart rate and galvanic skin response). Students with anger-out coping styles were found to be more physiologically responsive than anger-in subjects with respect to systolic and heart rate changes. And there was a significant difference between the imagery vignettes. The anger and racist vignettes were significantly different from the neutral period, but there was no significant difference for physiological measures between the anger and racist periods. Instead of anger coping styles being relevant as an independent variable, it seems more probable based on Stevenson (1994) findings that anger is instead a dependent variable. This variable in turn is a result of an encountered stressful event and in the current study racism is the culturally specific stressor.
Cultural Context

Jones, Harrell, Morris-Prather, Thomas, and Omowale (1996) examined how cultural beliefs dictate affective and physiological responses to racism. Sixty African-American women, from a historically black university in the southeastern part of America, were randomly selected and all subjects completed an afrocentrism scale that measured one's black identity. A mood self-report measure assessed the type of mood they were in while participating in the experimental session, and a realism and vividness rating scale assessed how vivid they found the imagery, via video or imagery vignette to be. Subjects were then divided into a video group or imagery vignette group. There were three exposure periods, one of a neutral kind, one of a noxious type, and one which contained an obvious racist stimulus. While engaging in either mental imagery or the video viewing, physiological measures such as a subject's heart rate and facial activity were tracked.

Results suggested that both mental imagery and video vignettes of racist content provoked a significant stressor response as measured by heart rate and facial activity. In fact, mental imagery was found to be a more involved stimulus activity than the video presentation which the authors interpreted as a passive event. During the racially noxious presentation, participants relayed feelings of elevated negativity and anger while being measured. Again, the mental imagery caused a more intense response than the video vignette. Findings related to afrocentrism were not as clear. During one of the mental imagery vignettes involving racially noxious content, afrocentrism was related to a stressor response as measured by heart rate and mood.
reactions. Researchers speculated that individuals ascribing to afrocentric beliefs may not react as strongly to racially noxious events due to prejudicial awareness of racially noxious behavior. Jones et al. (1996) encouraged further research on this subject to uncover variables that may in fact buffer African-Americans from the experience of racist events.

Jackson et al. (1996) delineated the perception of racism and self-reports of mistreatment due to race by exploring the subsequent impact, if any, that perceptions have on psychophysiological status. Observations were taken from a sample consisting of respondents to the National Survey of Black Americans that were interviewed at four different periods beginning in 1979 and ending in 1992. Income, education, region, age, and gender were the key sociodemographic variables selected. Dependent variables were life satisfaction, psychological distress, and physical health status. Findings indicated life satisfaction is inversely related to the experience of racial problems. An inverse relationship arose between the perception that 'whites want to keep blacks down' and the dependent variables of life satisfaction and happiness. Nevertheless, psychological distress was positively related in both instances. Another significant finding was that physical health problems were significantly associated with blacks who perceived whites as oppressive. Jackson et al. (1996) felt that the ever present danger of racially elicited prejudice may cause some African-Americans to exist in an environment consistently perceived as threatening. These perceptions may create feelings of hypervigilance that lead to negative psychophysiological outcomes.
Perception of Racism

McNeilly et al. (1996) attempted to quantify and measure a prevailing theme throughout the above research on the perception of the racism. The perception of racism appears to be more relevant than the actual occurrence of the racist event. The researchers noted measures of this nature are valid because they lend insight into the type of racist events encountered, the rate of exposure, and the beliefs of the respondents regarding these events. Yet the experience of, or reaction to, racism is admitted multidimensional and consist of cognitive attributional styles such as affect and behavioral coping mechanisms. It is logical to expect that when one experiences racism, they must first perceive the event, and respond with either an emotional and/or behavioral coping mechanism, which occurs within an attributional belief system.

The Perceived Racism Scale was developed in order to address these concerns. It consists of 51 items that attempt to measure African-Americans' perception of white racist acts committed against African-Americans. African-American women from a historically black college and individuals from the surrounding community were asked to list their personal experiences with racism, and detail how they behaved and coped in response to the events. From these experiences, four domains emerged: (1) job, (2) academic, (3) public, and (4) racist statements. The experiences that occurred most frequently within those four domains resulted in the 51-item questionnaire.

Preliminary findings suggest the Perceived Racism Scale is an accurate tool for measuring African-Americans' perception of racism, emotional responses, and
utilization of coping behaviors (McNeilly et al., 1996). Yet the researchers stress that the results should be viewed with caution, since more study is needed. Suggested areas of research to strengthen the existing foundation include issues of cross-validation testing across geographical regions and predictive validity.

Summary of Reviewed Literature

The review of the literature suggested several plausible research themes. One was the connection between SES and psychophysiological distress. The second was the connection between SES and racial discrimination when viewed within the cultural context for African-Americans. The third was the impact of racism and psychophysiological distress and from this area the realization that how one perceives racism is also relevant. Therefore it was the intent of this study to examine how the variables of SES, psychophysiological distress and racial discrimination combined to affect African-American women.

Research Rationale

It was the purpose of this study to further the understanding of African-American women's response to actual historical racial events. This study analyzed African-American women's emotional reactivity responses when exposed to videotape footage of historical racial events while also analyzing the difference between the two levels of SES. Understanding the emotional responses evoked by the chosen stimulus further enhanced the existing literature because this was thought to be the
first study of this kind. This study considered how exposure to videotape footage of historical racial events affected the emotional reactivity response of African-American women who differed in SES.
CHAPTER III

METHODS SECTION

Chapter III, the methods section, will detail factors pertinent to the running of the study. The design section includes information regarding the independent variables, experimental conditions, and dependent variables as well as the method of statistical analysis. The section regarding subjects offers information regarding inclusion and exclusion criteria and methods of recruitment. Following this section the dependent measures will be discussed featuring manners of measurement, selected questionnaires and related validity and reliability statistics. The chapter will then conclude with the procedural section, proposed hypotheses and manner of statistical analysis of hypotheses.

Design

The design was a two factor (3 X 3) repeated measures factorial design (see Appendix A). The independent variables were the three levels of SES and the three conditions of assessment, adaptation, neutral and racist. The dependent variables were the measures of emotional reactivity (heart rate, blood pressure, anger, and anxiety). An ANOVA was performed on the collected data as well as followed up analyses. The analysis looked at the variation between the three socio-economic levels, while also analyzing the variation between the three conditions. There was
also a within analysis of each subjects neutral measurements compared to the experimental measurements.

Subjects

One hundred African-American women between the ages of 18 years old and 80 years old were recruited from the Kalamazoo and Detroit metropolitan communities through public service announcements, public listings in local churches and community centers (see Appendix B for recruitment flyer). African-American women were used because they are most similar to the population with which the results are to be generalized. Only those African-American women who were born in the United States of America and who speak English as their primary language were included in the study. Subjects with major medical problems, major psychiatric disorders or who take cardiovascular medications to control heart rate (e.g., beta-blockers) were excluded. All subjects who met the inclusion criteria were offered the opportunity to take part in the study.

Dependent Measures

Subjects’ emotional reactivity responses were recorded during an twelve-minute baseline condition (adaptation – sitting and baseline two – neutral visual stimulus), and a twenty-minute experimental condition (see Appendix C). Heart rate and blood pressure measurements were taken with the Lifestat 200 physio-control monitor. Following both conditions, the subjects completed several questionnaires:
(a) Spielberger State Anxiety Questionnaire, and (b) the Spielberger State Anger Questionnaire with the focus on how they felt during that condition. After the experimental condition, subjects completed the Perceived Racism Scale concerning their personal experiences with racism. They also rated how stressful they found the video vignette.

Instrumentation

The Lifestat 200 physio-control monitor measured the specific emotional response of heart rate and blood pressure. The device is an instrument constructed on micro processing technology that allowed the noninvasive measurement of systolic, diastolic and mean arterial blood pressure as well as pulse rate.

Questionnaires

The Hollingshead Four Factor Index of Social Status was used to classify subjects according to their socio-economic level (Hollingshed, 1975) (see Appendix D). It is a questionnaire divided into several domains: (a) marital status, (b) sex, (c) the educational factor, and (d) the occupational factor. The cumulative score from the four domains resulted in an estimation of an individual’s social status within society. The questionnaire was developed during the early 1940s and has evolved until present. Pearson product moment multiple correlation demonstrated a .975 relationship between education, occupation and status.

The Spielberger State Anxiety Inventory (STAI) (Spielberger, 1979) is a self-
report questionnaire consisting of 40 items regarding perceived anxiety and anxiety proneness. The internal reliability coefficients ranged between .86 and .92 reflecting a high rate of internal consistency. The Spielberger State Anger Expression Inventory (STAXI) (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983) is a self-report questionnaire consisting of 44 items regarding anger experiences and anger expression. The coefficient alpha is approximately .82 proving to be internally consistent.

The Perceived Racism Scale (PRS) (McNeilly et al., 1996) is a self-report questionnaire that consists of 51 items that attempt to measure African-Americans perception of racism in four domains emerged: (a) job, (b) academic, (c) public, and (d) racist statements. The coefficient alpha’s for internal reliability ranged from .87-.96. And the final questionnaire was the Video stressor rating (Appendix E), a brief likert scale indicating how stressful subjects found the video vignette.

Procedures

Upon arrival to the research site subjects were led to a designated room and asked to participate by completing a consent form and the Hollingshead Four-Factor Index of Social Status. Subjects then sat quietly for six minutes without speaking, while fitted with a blood pressure cuff that measures beats per minute. Subjects then viewed a neutral visual stimulus (see Appendix F for detailed description of vignette) during an additional baseline period of six minutes which culminated in a baseline period of twelve minutes.

Once the baseline physiological measures were collected participants
completed two baseline questionnaires: (1) STAXI and (2) STAI, and a likert scale rating how stressful they found the neutral video vignette. Participants were then presented with a twenty-minute video vignette depicting historical racial incidents in America (see Appendix G for detailed description of vignette). During the viewing of the video physiological data were once again gathered. After the presentation of the stimulus, subjects were asked to again complete the two inventories, (1) STAXI and (2) STAI. They were also asked to complete the PRS assessing their personal experience with racism and a questionnaire regarding how stressful they found the historical video vignette. Upon completion subjects were debriefed as to the complete nature and intent of the study.

Before initiating the study, the twenty-minute vignette was selected by viewing fourteen hours of documentary footage from the Eyes on the Prize, PBS documentary depicting historical racial incidents. In general, video vignettes have been shown to induce a stressor response and a plausible attempt to quantify racism in America (Armstead, Lawler, Gorden, Cross, & Gibbons, 1989).

Hypotheses

Based upon the review of literature the following hypotheses were established in relation to the present research:

Hypothesis one, all subjects would have a change from baseline (one and two) to experimental condition as reflected in change of dependent variables. Hypothesis two, Lower SES subjects would have a greater emotional response from baseline to
experimental condition than higher SES subjects. Hypothesis three, Lower SES sub-
jects would have a greater perception of racism than higher SES subjects as demon-
strated on the PRS scale. Hypothesis four, Subjects who scored higher on the PRS 
would have a greater emotional response from baseline to experimental condition 
than those with a lower PRS score.

Analysis Section

An ANOVA was performed on each hypothesis looking at the variation 
between the three SES levels, while also analyzing the variation between the three 
conditions. There was also be a within analysis of each subjects baseline measure-
ments compared to the experimental measurement.
CHAPTER IV

RESULTS

The present investigation examined how African-American women of varying SES levels responded emotionally when presented with a videotape comprised of historically accurate racist stimulus events.

To aid in the presentation of the findings the analyses will be displayed according to the following format: (a) participant demographic characteristics, (b) group characteristics by SES level, and according to experimental hypothesis. For primary analyses data are presented in figures to facilitate visual inspection followed by supporting statistical tables for each dependent variable.

Participant Characteristics

One hundred and two African-American women between the ages of 18 and 80 years of age initially participated as subjects in this investigation. One hundred women completed the study. The remaining two were excluded due to their inability to complete questionnaires and the mild discomfort created by the inflation of the blood pressure cuff.

The age of these 100 participants ranged from 18 to 77 years with a mean of 49.03 years. Subjects’ educational levels ranged from partial high school to graduate and post-graduate training. The marital status of participants consisted of the
following: 28 single, 4 separated, 36 married, 22 divorced, and 10 widowed individuals. The mean annual income of all the participants was $73,484 with a minimum reported income of $0 and a maximum reported income of $350,000. English was the primary language for all participants. These data are summarized in Tables 1 and 2.

Table 1
Age and Annual Income Descriptions

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>100</td>
<td>18</td>
<td>77</td>
<td>49.03</td>
<td>14.62</td>
</tr>
<tr>
<td>Annual Income</td>
<td>100</td>
<td>$0</td>
<td>$350,000</td>
<td>$73,484</td>
<td>$54,740.12</td>
</tr>
<tr>
<td>Valid N</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2
SES Marital Status Distribution Description

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Major Professional and Business Persons</th>
<th>Medium Professional and Technical Persons</th>
<th>Skilled, Semi-skilled and Unskilled Persons</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>13</td>
<td>9</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>Separated</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Married</td>
<td>17</td>
<td>17</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>Divorced</td>
<td>13</td>
<td>5</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Widowed</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>34</td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>
Group Characteristics

The Hollingshead Four Factor Index of Social Status was used to determine subjects’ SES based on marital status, sex, education and occupation. This cumulative score then determined a descriptive label, of which there were five nominal categories. These included Major Professional and Business, Medium Professional and Technical, Skilled Craftsmen, Semiskilled and Unskilled. For the purposes of this study the first two groups were used as designed but the last three were collapsed into one group due to the small number of subjects represented. The respective demographics for the SES groups are depicted in Tables 2 and 3.

Table 3
SES Age Distribution Description

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Major Professional and Business Persons</th>
<th>Medium Professional and Technical Persons</th>
<th>Skilled, Semiskilled and Unskilled Persons</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 39</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>40 – 59</td>
<td>23</td>
<td>16</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>60 – 80</td>
<td>17</td>
<td>8</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>34</td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>

Primary Data Analyses

The first hypothesis explored the changes across the three experimental conditions as measured by the dependent variables. The measures consisted of systolic blood pressure, diastolic blood pressure, mean arterial blood pressure, heart rate, state
anxiety and state anger, which collectively constituted the variable of emotional response. The following section will outline and detail the primary data analyses for this hypothesis.

**Hypothesis 1**

The first hypothesis predicted that all subjects would have undergone a change from baseline to experimental conditions as reflected in greater responses on each primary dependent variable (systolic blood pressure, diastolic blood pressure, mean arterial blood pressure, heart rate, state anxiety and state anger). A single factor ANOVA with repeated measures was performed for all dependent variables, in each case the within (repeated) factor consisted of time of observation. Group means for each dependent variable for each experimental condition were also graphed to facilitate visual inspection. The results of these analyses are presented in the following figures and tables. The figures depict graphic mean changes associated with the experimental conditions while the tables present the results of the repeated measures ANOVA.

The repeated measures analysis of variance is shown in Table 4. Since the F statistic is 8.567, which is significant with p < .05, the conclusion is made that there is a significant difference between experimental conditions for systolic blood pressure. The graph shown in Figure 1 also indicates a significant difference occurred in the change from adaptation to neutral, and from neutral to racism videotape periods. Of particular interest is the latter finding which indicates that subjects’ systolic blood
Table 4
Tests of Within-Subjects Effects Measure for SBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimuli</td>
<td>Greenhouse-Geisser</td>
<td>404.056</td>
<td>1.912</td>
<td>211.323</td>
<td>8.567</td>
</tr>
<tr>
<td>Error (stimuli)</td>
<td>Greenhouse-Geisser</td>
<td>4669.393</td>
<td>189.291</td>
<td>24.668</td>
<td></td>
</tr>
</tbody>
</table>

Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adaptation Period</td>
<td>Systolic Blood Pressure</td>
</tr>
<tr>
<td>2. Neutral Videotape</td>
<td>Systolic Blood Pressure</td>
</tr>
<tr>
<td>3. Racism Videotape</td>
<td>Systolic Blood Pressure</td>
</tr>
</tbody>
</table>

Figure 1. SBP Within Subject Effects.
pressure significantly increased during the racism videotape period when compared to the neutral videotape period. This observation was verified by paired t-tests between respective phases (see Table 5).

Table 5

SBP - Paired Samples t-Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1 Adaptation - Neutral</td>
<td>2.0833</td>
<td>6.0999</td>
<td>.6100</td>
<td>.8730 - 3.2937 - 3.415</td>
<td>99</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Pair 2 Neutral-Racism</td>
<td>-2.7167</td>
<td>7.1129</td>
<td>.7113</td>
<td>-4.1280 - 1.3053 - 3.819</td>
<td>99</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

The repeated measures analysis of variance is shown in Table 6. Since the F statistic is 5.940, which is significant with p < .05, a significant difference appears between experimental conditions for diastolic blood pressure. The graph shown in Figure 2 also indicates a significant difference occurred in the change from

Table 6

Tests of Within-Subjects Effects Measure for DBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimuli</td>
<td>Greenhouse-Geisser</td>
<td>114.780</td>
<td>1.795</td>
<td>63.942</td>
<td>5.940</td>
</tr>
<tr>
<td>Error(Stimuli)</td>
<td>Greenhouse-Geisser</td>
<td>1913.120</td>
<td>177.712</td>
<td>10.765</td>
<td></td>
</tr>
</tbody>
</table>
adaptation to neutral, and from neutral to racism videotape periods. Of particular interest is the latter finding that reveals subjects' diastolic blood pressure significantly increased during the racism videotape period when compared to the neutral videotape period. This observation was verified by paired t-tests between respective phases (see Table 7).
Table 7

DBP - Paired Samples t-Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
</tr>
<tr>
<td>Pair 1 Adaptation - Neutral</td>
<td>0.6367</td>
<td>3.6610</td>
<td>0.3661</td>
</tr>
<tr>
<td>Pair 2 Neutral - Racism</td>
<td>1.5090</td>
<td>4.4612</td>
<td>0.4461</td>
</tr>
</tbody>
</table>

The repeated measures analysis of variance is shown in Table 8. Since the F statistic is 8.826, which is significant with p < .05, the conclusion is made that there is a significant difference between experimental conditions for mean arterial blood pressure. The graph shown in Figure 3 also indicates a significant difference occurred in the change from adaptation to neutral, and from neutral to racism videotape periods. Specifically subjects' mean arterial blood pressure significantly increased during the racism videotape period when compared to the neutral videotape period. This observation was verified by paired t-tests between respective phases (see Table 9).

Table 8

Tests of Within-Subjects Effects Measure for MAP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimuli</td>
<td>Greenhouse-Geisser</td>
<td>282.015</td>
<td>1.955</td>
<td>144.248</td>
<td>8.826</td>
</tr>
<tr>
<td>Error(Stimuli)</td>
<td>Greenhouse-Geisser</td>
<td>3163.320</td>
<td>193.553</td>
<td>16.343</td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adaptation Period</td>
<td>Mean Arterial Pressure</td>
</tr>
<tr>
<td>2. Neutral Videotape</td>
<td>Mean Arterial Pressure</td>
</tr>
<tr>
<td>3. Racism Videotape</td>
<td>Mean Arterial Pressure</td>
</tr>
</tbody>
</table>

Figure 3. MAP Within Subject Effects.

Shown in Table 10 is the repeated measures analysis of variance. Seeing as the F statistic is 5.110, which is significant with p < .05, the conclusion is made that there is a significant difference between experimental conditions for heart rate. Figure 4 also indicates a significant difference occurred in the change from...
adaptation to neutral while there appears to be no change from neutral to racism videotape periods. In fact, the latter finding suggests subjects’ heart rate did not significantly increase during the racism videotape period when compared to the neutral videotape period. This observation was verified by paired t-tests between respective phases (see Table 11).

The repeated measures analysis of variance is shown in Table 12. Given that the F statistic is 15.021, which is significant with p < .05, a significant difference between experimental conditions for anxiety is established. Findings imply subjects’
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adaptation Period</td>
<td>Heart Rate</td>
</tr>
<tr>
<td>2. Neutral Videotape</td>
<td>Heart Rate</td>
</tr>
<tr>
<td>3. Racism Videotape</td>
<td>Heart Rate</td>
</tr>
</tbody>
</table>

Figure 4. HR Within Subject Effects.

anxiety significantly increased during the racism videotape period when compared to the neutral videotape period. The graph shown in Figure 5 also indicates a significant difference by the lack of similarity in the depicted bar graphs.

The repeated measures analysis of variance is shown in Table 13. Since the F statistic is 361.135, which is significant with p < .05, the conclusion is made that there is a significant difference between experimental conditions for anger. Therefore,
Table 11

HR - Paired Samples t-Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>adaptation - neutral</td>
<td>.8833</td>
<td>2.9823</td>
<td>.2982</td>
<td>.2916</td>
<td>1.4751</td>
<td>2.962</td>
<td>99</td>
</tr>
<tr>
<td>neutral-racism</td>
<td>4.200E-02</td>
<td>3.0073</td>
<td>.3007</td>
<td>-.5547</td>
<td>.6387</td>
<td>.140</td>
<td>99</td>
</tr>
</tbody>
</table>

Table 12

Tests of Within-Subjects Effects Measure for Anxiety

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimuli</td>
<td>Greenhouse-Geisser</td>
<td>15629.120</td>
<td>1.000</td>
<td>15629.120</td>
<td>15.021</td>
</tr>
<tr>
<td>Error(Stimuli)</td>
<td>Greenhouse-Geisser</td>
<td>103004.880</td>
<td>99.000</td>
<td>1040.453</td>
<td></td>
</tr>
</tbody>
</table>

Subjects’ anger significantly increased during the racism videotape period when compared to the neutral videotape period. In view of the fact that there is a lack of similarity in the depicted bar graphs in Figure 6 a significant difference is indicated.

Hypothesis 2

The second hypothesis suggested that lower SES subjects would have a greater emotional response from baseline to experimental condition than higher SES.
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neutral Videotape</td>
<td>STAXI Score</td>
</tr>
<tr>
<td>2. Racism Videotape</td>
<td>STAXI Score</td>
</tr>
</tbody>
</table>

Figure 5. Anxiety Within Subject Effects.

subjects. A two factor ANOVA with repeated measures was performed for all dependent variables, in each case the between group factor consisted of SES while the within (repeated measure) factor consisted of time of observation. Group means for each dependent variable for SES by experimental condition were also graphed to facilitate visual inspection. A repeated measure analysis was conducted because this
Table 13
Tests of Within-Subjects Effects Measure for Anger

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimuli Greenhouse-Geisser</td>
<td>9982.845</td>
<td>1.000</td>
<td>9982.845</td>
<td>361.135</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Error(Stimuli) Greenhouse-Geisser</td>
<td>2736.655</td>
<td>99.000</td>
<td>27.643</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neutral Videotape</td>
<td>STAI Score</td>
</tr>
<tr>
<td>2. Racism Videotape</td>
<td>STAI Score</td>
</tr>
</tbody>
</table>

Figure 6. Anger Within Subject Effects.
hypothesis concerned the interaction of the SES with the dependent variable.

The results of these analyses are presented in the following figures and tables. The figures depict mean changes associated with the SES groups by experimental conditions and the tables present the results of the two factor repeated measures ANOVA.

The two factor repeated measures analysis of variance is shown in Table 14. Because the F statistic is 1.659, which is not significant with p > .05, it is concluded that there is no significant interaction for SES and experimental conditions for systolic blood pressure. The graph shown in Figure 7 also indicates a non-significant interaction likely occurred in the change from adaptation to neutral, and from neutral to racism videotape periods between groups.

In order to further clarify the findings of primary interest with respect to Hypothesis 2, a separate analysis was conducted on the difference scores between the neutral videotape period and the racism videotape period across each SES group. The results of that ANOVA and the supporting figure are presented below.

The univariate analysis of variance of the change scores is shown in Table 15.

Table 14

Stimuli x SES Interaction Effects for SBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * SES</td>
<td>Greenhouse-Geisser</td>
<td>154.443</td>
<td>3.841</td>
<td>40.213</td>
<td>1.659</td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>Greenhouse-Geisser</td>
<td>4514.950</td>
<td>186.271</td>
<td>24.239</td>
<td></td>
</tr>
</tbody>
</table>
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adaptation Period</td>
<td>Systolic Blood Pressure</td>
</tr>
<tr>
<td>2. Neutral Videotape</td>
<td>Systolic Blood Pressure</td>
</tr>
<tr>
<td>3. Racism Videotape</td>
<td>Systolic Blood Pressure</td>
</tr>
</tbody>
</table>

Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 7. SBP Interaction Effects.

Given that the F statistic is 3.121, which is significant with p >.05, the conclusion is made that there is a significant difference between groups for systolic blood pressure.

As can be seen in Figure 8 subjects moved from higher to lower SES levels their SBP increased from neutral to racism videotape periods.
Table 15
Between Subjects Effects for SBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES4</td>
<td>302.857</td>
<td>2</td>
<td>151.429</td>
<td>3.121</td>
<td>.049</td>
</tr>
<tr>
<td>Error</td>
<td>4705.899</td>
<td>97</td>
<td>48.514</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5746.784</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>5008.757</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .060 (Adjusted R Squared = .041)

Figure 8. SBP Difference Between Subject Effect.

Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>
The two factor repeated measures analysis of variance is shown in Table 16. Since the F statistic is 1.723, which is not significant with p > .05, the conclusion is made that there is no significant interaction for SES and experimental conditions for diastolic blood pressure. The graph shown in Figure 9 also indicates a non-significant interaction likely occurred in the change from adaptation to neutral, and from neutral to racism videotape periods between groups.

Table 16

Stimuli x SES Interaction Effects for DBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * SES</td>
<td>Greenhouse-Geisser</td>
<td>65.638</td>
<td>3.607</td>
<td>18.195</td>
<td>1.723</td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>Greenhouse-Geisser</td>
<td>1847.482</td>
<td>174.963</td>
<td>10.559</td>
<td></td>
</tr>
</tbody>
</table>

In turn to further clarify the findings of primary interest with respect to hypothesis 2 a separate analysis was conducted on the difference scores between the neutral videotape period and the racism videotape period across each SES group. The results of that ANOVA and the supporting figure are presented below.

The univariate analysis of variance of the change scores is shown in Table 17. Given that the F statistic is 1.567, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for diastolic blood pressure. Although Figure 10 indicates a substantial change in difference scores across SES groups it is likely that the small number of subjects represented in the...
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adaptation Period</td>
<td>Diastolic Blood Pressure</td>
</tr>
<tr>
<td>2. Neutral Videotape</td>
<td>Diastolic Blood Pressure</td>
</tr>
<tr>
<td>3. Racism Videotape</td>
<td>Diastolic Blood Pressure</td>
</tr>
</tbody>
</table>

Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 9. DBP Interaction Effects.

Table 17

Between Subjects Effects for DBP

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES4</td>
<td>61.661</td>
<td>2</td>
<td>30.831</td>
<td>1.567</td>
<td>.214</td>
</tr>
<tr>
<td>Error</td>
<td>1908.658</td>
<td>97</td>
<td>19.677</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2198.028</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1970.320</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .031 (Adjusted R Squared = .011)
lower SES GROUP accounts for the non-significant difference.

The two factor repeated measures analysis of variance is shown in Table 18. Seeing as the F statistic is .741, which is not significant with p > .05, the conclusion is made that there is no significant interaction for SES and experimental conditions for
mean arterial blood pressure. The graph shown in Figure 11 also indicates a non-significant interaction likely occurred in the change from adaptation to neutral, and from neutral to racism videotape periods between groups.

![Figure 11. MAP Interaction Effects.](image)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
In order to further clarify the findings of primary interest with respect to hypothesis 2 a separate analysis was conducted on the difference scores between the neutral videotape period and the racism videotape period across each SES group. The results of that ANOVA and the supporting figure are presented below.

The univariate analysis of variance of the change scores is shown in Table 19. Since the F statistic is .073, which is not significant with p >.05, the conclusion is made that there is no significant difference between groups for mean arterial blood pressure. Figure 12 indicates a minimal change in difference scores across SES groups and thus a non-significant difference.

Table 19

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES4</td>
<td>5.253</td>
<td>2</td>
<td>2.626</td>
<td>.073</td>
<td>.930</td>
</tr>
<tr>
<td>Error</td>
<td>3492.713</td>
<td>97</td>
<td>36.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4007.070</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>3497.966</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .002 (Adjusted R Squared = -.019)

The two factor repeated measures analysis of variance is shown in Table 20. Because the F statistic is 1.208, which is not significant with p >.05, the conclusion is made that there is no significant interaction for SES and experimental conditions for mean arterial blood pressure. The graph shown in Figure 13 also indicates a non-significant interaction likely occurred in the change from adaptation to neutral, and
Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 12. MAP Difference Between Subject Effects.

Table 20

Stimuli x SES Interaction Effects for HR

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * SES Greenhouse-Geisser</td>
<td>25.707</td>
<td>3.577</td>
<td>7.186</td>
<td>1.208</td>
<td>.309</td>
</tr>
<tr>
<td>Error(STIMULI) Greenhouse-Geisser</td>
<td>1032.198</td>
<td>173.506</td>
<td>5.949</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 13. HR Interaction Effects.

In order to further clarify the findings of primary interest with respect to hypothesis 2 a separate analysis was conducted on the difference scores between the neutral videotape period and the racism videotape period across each SES group. The results of that ANOVA and the supporting figure are presented below.
The univariate analysis of variance of the change scores is shown in Table 21. Since the $F$ statistic is 1.975, which is not significant with $p > .05$, the conclusion is made that there is no significant difference between groups for mean arterial blood pressure. Figure 14 indicates a minimal change in difference scores across SES groups and thus a non-significant difference.

Table 21

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES4</td>
<td>35.027</td>
<td>2</td>
<td>17.514</td>
<td>1.975</td>
<td>.144</td>
</tr>
<tr>
<td>Error</td>
<td>860.334</td>
<td>97</td>
<td>8.869</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>895.538</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>895.361</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a $R^2$ Squared = .039 (Adjusted $R^2$ Squared = .019)

The two factor repeated measures analysis of variance is shown in Table 22. Since the $F$ statistic is .893, which is not significant with $p > .05$, the conclusion is made that there is a non significant interaction for SES and experimental conditions for anxiety. The graph in Figure 15 also indicates a change from neutral to racism period for each group; there was no obvious difference between the groups, and thus a non-significant interaction.

The two factor repeated measures analysis of variance is shown in Table 23. Since the $F$ statistic is .385, which is not significant with $p > .05$, the conclusion is made that there is no significant interaction for SES and experimental conditions for anger. The graph in Figure 16 also indicates a change from neutral to racism period.
Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 14. HR Difference Between Subject Effects.

Table 22

Stimuli x SES Interaction Effects for Anxiety

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI *SES Greenhouse-Geisser</td>
<td>1862.648</td>
<td>2.000</td>
<td>931.324</td>
<td>.893</td>
<td>.413</td>
</tr>
<tr>
<td>Error(STIMULI) Greenhouse-Geisser</td>
<td>101142.232</td>
<td>97.000</td>
<td>1042.703</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Within Subject Factors

<table>
<thead>
<tr>
<th>Stimuli</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neutral Videotape</td>
<td>STAXI Score</td>
</tr>
<tr>
<td>2. Racism Videotape</td>
<td>STAXI Score</td>
</tr>
</tbody>
</table>

Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 15. Anxiety Interaction Effects.

Table 23

Stimuli x SES Interaction Effects for Anger

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * SES</td>
<td>Greenhouse-Geisser</td>
<td>21.545</td>
<td>2.000</td>
<td>10.773</td>
<td>.385</td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>Greenhouse-Geisser</td>
<td>2715.110</td>
<td>97.000</td>
<td>27.991</td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 3

The third hypothesis posited that lower SES subjects would have a greater perception of racism than higher SES subjects as demonstrated on the PRS scale.
The PRS scale was presented in four areas exploring perceptions of racism on the job, academic setting, public realm and responses to racist statements. The scale was further divided into perceptions regarding the past year and perceptions over one’s lifetime regarding racism on the job, academic setting, public realm, and responses to racist statements. For the purposes of this analysis, a univariate ANOVA for all four areas, with respect to the past year and over one’s lifetime, was performed. Group means for each area, in regards to the past year and over one’s lifetime, were also graphed.

The results of these analyses are presented in the following tables and figures. The tables present the results of the univariate ANOVAs, and the figures depict mean changes associated with the SES groups.

The univariate analysis of variance of the change scores is shown in Table 24. Given that the F statistic is 1.055, which is not significant with p >.05, the conclusion is made that there is no significant difference between groups for the perception of racism on the job during the past year. Figure 17 indicates a minimal change in scores across SES groups and thus a non-significant difference.

Table 24

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>220.228</td>
<td>2</td>
<td>110.114</td>
<td>1.055</td>
<td>.352</td>
</tr>
<tr>
<td>Error</td>
<td>10125.562</td>
<td>97</td>
<td>104.387</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20567.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>10345.790</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .021 (Adjusted R Squared = .001)
Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 17. Job Perception of Racism During the Past Year Between SES Groups.

The univariate analysis of variance of the change scores is shown in Table 25. Since the F statistic is 2.742, which is not significant with $p > .05$, the conclusion is made that there is no significant difference between groups for the perception of racism on the job over one's lifetime. Figure 18 indicates a trend such that as
Table 25  
*Between Subjects Effects for Job Perception of Racism Over the Lifetime*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>681.886</td>
<td>2</td>
<td>340.943</td>
<td>2.742</td>
<td>.069</td>
</tr>
<tr>
<td>Error</td>
<td>12062.224</td>
<td>97</td>
<td>124.353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55469.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>12744.110</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .054 (Adjusted R Squared = .034)

---

**Figure 18. Job Perception of Racism Over the Lifetime Between SES Groups.**

**Between Subject Factors**

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>
subjects move from higher to lower occupational levels their perception of racism on the job over the lifetime also decreased.

The univariate analysis of variance of the change scores is shown in Table 26. Since the F statistic is .260, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for the perception of racism in academia during the past year. Although Figure 19 indicates a substantial change in scores across SES groups it is likely that the small number of subjects in the lower SES group accounts for the non-significant difference.

Table 26

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>40.099</td>
<td>2</td>
<td>20.050</td>
<td>.260</td>
<td>.772</td>
</tr>
<tr>
<td>Error</td>
<td>7481.741</td>
<td>97</td>
<td>77.131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11170.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>7521.840</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .005 (Adjusted R Squared = -.015)

The univariate analysis of variance of the change scores is shown in Table 27. Since the F statistic is 2.473, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for the perception of racism in academia over one's lifetime. Figure 20 indicates a trend such that as subjects move from higher to lower occupational levels their perception of racism in academia over the lifetime also decreased.
Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 19. Academic Perception of Racism During the Past Year Between SES Groups.

Table 27
Between Subjects Effects for Academic Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>744.644</td>
<td>2</td>
<td>372.322</td>
<td>2.473</td>
<td>.090</td>
</tr>
<tr>
<td>Error</td>
<td>14601.356</td>
<td>97</td>
<td>150.529</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>53762.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>15346.790</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .049 (Adjusted R Squared = .029)
The univariate analysis of variance of the change scores is shown in Table 28. Since the F statistic is .411, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for the perception of racism in the public realm during the past year. Although Figure 21 indicates a
Table 28

Between Subjects Effects for Public Realm Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>71.451</td>
<td>2</td>
<td>35.725</td>
<td>.411</td>
<td>.664</td>
</tr>
<tr>
<td>Error</td>
<td>8430.989</td>
<td>97</td>
<td>86.917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21362.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>8502.440</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .008 (Adjusted R Squared = -.012)

Figure 21. Public Realm Perception of Racism During the Past Year Between SES Groups.

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>
substantial change in scores across SES groups it is likely that the non-significant difference is accounted for by scaling utilized to depict graph differences.

The univariate analysis of variance of the change scores is shown in Table 29. Seeing as the F statistic is .829, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for the perception of racism in the public realm over one's lifetime. Although Figure 22 indicates a substantial change in scores across SES groups it is likely that the small number of participants in the lower SES GROUP accounts for the non-significant difference.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>231.212</td>
<td>2</td>
<td>115.606</td>
<td>.829</td>
<td>.439</td>
</tr>
<tr>
<td>Error</td>
<td>13520.098</td>
<td>97</td>
<td>139.382</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>68367.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>13751.310</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R Squared = .017 (Adjusted R Squared = .003)

The univariate analysis of variance of the change scores is shown in Table 30. Since the F statistic is 1.441, which is not significant with p > .05, the conclusion is made that there is no significant difference between groups for the response to racist statements during the past year. Although Figure 23 indicates a substantial change in scores across SES groups it is likely that the non-significant difference is accounted for by the scaling utilized in depicting the graphs and small number of subjects represented in the lower SES group.
Figure 22. Public Realm Perception of Racism Over the Lifetime Between SES Groups.

Table 30

Between Subjects Effects for Response to Racist Statements During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>198.102</td>
<td>2</td>
<td>99.051</td>
<td>1.441</td>
<td>.242</td>
</tr>
<tr>
<td>Error</td>
<td>6667.938</td>
<td>97</td>
<td>68.742</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16588.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>6866.040</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .029 (Adjusted R Squared = .009)
The univariate analysis of variance of the change scores is shown in Table 31. Since the F statistic is 1.880, which is not significant with p >.05, the conclusion is made that there is no significant difference between groups for the response to racist statements over one's lifetime. Although Figure 24 indicates a substantial change in
Table 31

Between Subjects Effects for Response to Racist Statements Over the Lifetime

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>363.390</td>
<td>2</td>
<td>181.695</td>
<td>1.880</td>
<td>.158</td>
</tr>
<tr>
<td>Error</td>
<td>9373.520</td>
<td>97</td>
<td>96.634</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35241.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>9736.910</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .037 (Adjusted R Squared = .017)

Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 24. Response to Racist Statements Over the Lifetime Between SES Groups.
scores across SES groups it is likely the small number of subjects represented in the lower SES GROUP accounts for the non-significant difference.

The univariate analysis of variance of the change scores is shown in Table 32. Since the F statistic is .005, which is not significant with p >.05, the conclusion is made that there is no significant difference between groups for the overall perception of racism during the past year. Although Figure 25 indicates a substantial change in scores across SES groups it is likely that the non-significant difference is accounted for by the scaling utilized to depict the graphs.

Table 32

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>7.018</td>
<td>2</td>
<td>3.509</td>
<td>.005</td>
<td>.995</td>
</tr>
<tr>
<td>Error</td>
<td>74139.732</td>
<td>97</td>
<td>764.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>213649.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>74146.750</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .000 (Adjusted R Squared = -.021)

The univariate analysis of variance of the change scores is shown in Table 33. Since the F statistic is 2.487, which is not significant with p >.05, the conclusion is made that there is no significant difference between groups for the overall perception of racism over one's lifetime. Figure 26 indicates a trend such that as subjects move from higher to lower occupational levels their overall perception of racism over the lifetime also decreased.
Between Subject Factors

<table>
<thead>
<tr>
<th>SES Groups</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>52</td>
</tr>
<tr>
<td>2. Medium</td>
<td>34</td>
</tr>
<tr>
<td>3. Collapsed Skilled</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 25. Overall Perception of Racism During the Past Year Between SES Groups.

Table 33

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>7544.991</td>
<td>2</td>
<td>3772.496</td>
<td>2.487</td>
<td>.088</td>
</tr>
<tr>
<td>Error</td>
<td>147158.799</td>
<td>97</td>
<td>1517.101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>788479.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>154703.790</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .049 (Adjusted R Squared = .029)
Figure 26. Overall Perception of Racism Over the Lifetime Between SES Groups.

**Hypothesis 4**

The fourth hypothesis indicated that subjects who score higher on the PRS will have a greater emotional response from baseline to experimental condition than
those with a lower PRS score. For the purposes of this analysis, the four scores during the past year and over a lifetime were collapsed resulting in one score for the perception of racism during the past year and the perception of racism over a lifetime. Then, for each subject, the score was categorized as a low, medium, or high level of perception. Therefore for the perception of racism during the past year analysis, a two (2 x 3) factor ANOVA with repeated measures was performed on each dependent variable. For the perception of racism over one's lifetime a two (3 x 3) factor ANOVA with repeated measures was performed for each dependent variable. Group means for each dependent variable for the experimental condition by PRS perception were also presented.

The results for the perception of racism during the past year and for the perception of racism over one's lifetime are presented in the following tables and figures. The tables present the results of the two factor repeated measures ANOVA, and the figures depict visual mean changes associated with the experimental conditions and level of perception.

The two factor repeated measures analysis of variance is shown in Table 34. Given that the F statistic is .638, which is not significant with p >.05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for systolic blood pressure. Although Figure 27 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the medium perception group accounts for the non-significant difference.
Table 34

Interaction Effects for SBP: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception Greenhouse-Geisser</td>
<td>30.214</td>
<td>1.906</td>
<td>15.852</td>
<td>.638</td>
<td>.522</td>
</tr>
<tr>
<td>Error(STIMULI) Greenhouse-Geisser</td>
<td>4639.179</td>
<td>186.78</td>
<td>24.837</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 27. Overall Perception of Racism During the Past Year: SBP Interaction Effects.
The two factor repeated measures analysis of variance is shown in Table 35. Since the F statistic is 1.012, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for diastolic blood pressure. Although Figure 28 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the medium perception group accounts for the non-significant difference.

Table 35

Interaction Effects for DBP: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception Greenhouse-Geisser</td>
<td>19.548</td>
<td>1.802</td>
<td>10.845</td>
<td>1.012</td>
<td>.359</td>
</tr>
<tr>
<td>Error(STIMULI) Greenhouse-Geisser</td>
<td>1893.572</td>
<td>176.641</td>
<td>10.720</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two factor repeated measures analysis of variance is shown in Table 36. Because the F statistic is .137, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for mean arterial blood pressure. Although Figure 29 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the medium perception group accounts for the non-significant difference.
Figure 28. Overall Perception of Racism During the Past Year: DBP Interaction Effects.

Table 36

Interaction Effects for MAP: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>4.404</td>
<td>1.956</td>
<td>2.252</td>
<td>.137</td>
<td>.868</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>3158.916</td>
<td>191.66</td>
<td>16.482</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 29. Overall Perception of Racism During the Past Year: MAP Interaction Effects.

The two factor repeated measures analysis of variance is shown in Table 37. Since the F statistic is 1.593, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for heart rate. Although Figure 30
Table 37

Interaction Effects of HR: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse-Geisser</td>
<td>16.919</td>
<td>1.806</td>
<td>9.366</td>
<td>1.593</td>
<td>.208</td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>1040.986</td>
<td>177.02</td>
<td>5.881</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 30. Overall Perception of Racism During the Past Year: HR Interaction Effects.
indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the medium perception group accounts for the non-significant difference.

The two factor repeated measures analysis of variance is shown in Table 38. Seeing as the F statistic is .971, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for anxiety. Although Figure 31 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the medium perception group accounts for the non-significant difference.

Table 38

Interaction Effects for Anxiety: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>1010.139</td>
<td>1.000</td>
<td>1010.139</td>
<td>.971</td>
<td>.327</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>101994.741</td>
<td>98.000</td>
<td>1040.763</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two factor repeated measures analysis of variance is shown in Table 39. Since the F statistic is 3.362, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during the past year for heart anger. Figure 32 indicates a trend such that as subjects move from lower to medium perceptions of racism their anger response during the racism videotape period also increased.
Between-Subjects Factors

<table>
<thead>
<tr>
<th>Perception of racism during past year</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>low</td>
<td>87</td>
</tr>
<tr>
<td>2</td>
<td>med</td>
<td>13</td>
</tr>
</tbody>
</table>

Figure 31. Overall Perception of Racism During the Past Year: Anxiety Interaction Effects.

Table 39

Interaction Effects for Anger: Stimuli x Perception of Racism During the Past Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>90.760</td>
<td>1.000</td>
<td>90.760</td>
<td>3.362</td>
<td>.070</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>2645.895</td>
<td>98.000</td>
<td>26.999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Between-Subjects Factors

<table>
<thead>
<tr>
<th></th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall perception of</td>
<td>low</td>
<td>87</td>
</tr>
<tr>
<td>racism past year</td>
<td>med</td>
<td>13</td>
</tr>
</tbody>
</table>

Figure 32. Overall Perception of Racism During the Past Year: Anger Interaction Effects.

The two factor repeated measures analysis of variance is shown in Table 40. Given that the F statistic is 1.555, which is not significant with $p > .05$, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism over one's lifetime for systolic blood pressure. Although Figure 33 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the high perception group accounts for the non-significant difference.
Table 40

Interaction Effects for SBP: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Perception of racism over one's lifetime</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>
| STIMULI * Perception
  Greenhouse-Geisser |
| Error(STIMULI)
  Greenhouse-Geisser |
| 145.035 | 3.794 | 38.231 | 1.555 | .191 |
| 4524.358 | 183.993 | 24.590 |

Figure 33. Overall Perception of Racism Over the Lifetime: SBP Interaction Effects.
The two factor repeated measures analysis of variance is shown in Table 41. Since the F statistic is 1.104, which is not significant with \( p > .05 \), the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism over one's lifetime for diastolic blood pressure. Although Figure 34 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the high perception group accounts for the non-significant difference.

Table 41

Interaction Effects for DBP: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>42.568</td>
<td>3.611</td>
<td>11.789</td>
<td>1.104</td>
<td>.354</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>1870.552</td>
<td>175.127</td>
<td>10.681</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two factor repeated measures analysis of variance is shown in Table 42. Seeing as the F statistic is 1.082, which is not significant with \( p > .05 \), the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism over one's lifetime for mean arterial blood pressure. Figure 35 indicates a minimal change in scores across perception groups and thus a non-significant difference.
Figure 34. Overall Perception of Racism Over the Lifetime: DBP Interaction Effects.

Table 42

Interaction Effects for MAP: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Perception of Racism over the Lifetime</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>low</td>
<td>52</td>
</tr>
<tr>
<td>2</td>
<td>med</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>high</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perception of Racism over the Lifetime</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>69.013</td>
<td>3.925</td>
<td>17.583</td>
<td>1.082</td>
<td>.366</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI) Greenhouse-Geisser</td>
<td>3094.307</td>
<td>190.35</td>
<td>16.255</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 35. Overall Perception of Racism Over the Lifetime: MAP Interaction Effects.

The two factor repeated measures analysis of variance is shown in Table 43. Since the F statistic is .571, which is not significant with p >.05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism over one's lifetime for heart rate. Although Figure 36 indicates a substantial change in scores across perception groups it is likely that the small number of subjects in the high perception group accounts for the non-significant difference.
Table 43

Interaction Effects for HR: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Perception</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>12.320</td>
<td>3.606</td>
<td>3.416</td>
<td>.571</td>
<td>.66</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>1045.584</td>
<td>174.905</td>
<td>5.978</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 36. Overall Perception of Racism Over the Lifetime: HR Interaction Effects.
The two factor repeated measures analysis of variance is shown in Table 44. Because the F statistic is 2.436, which is not significant with p > .05, the conclusion is made that there is no significant interaction for experimental conditions and the overall perception of racism during one’s lifetime for anxiety. Figure 37 indicates a trend such that as subjects move from lower to higher perceptions of racism their anxiety response during the racism videotape period also increased.

Table 44

Interaction Effects for Anxiety: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Perception Type</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI * Perception</td>
<td>4925.240</td>
<td>2.000</td>
<td>2462.620</td>
<td>2.436</td>
<td>.093</td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>98079.640</td>
<td>97.000</td>
<td>1011.130</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two factor repeated measures analysis of variance is shown in Table 45. Since the F statistic is 7.922, which is significant with p < .05, the conclusion is made that there is a significant interaction for experimental conditions and the overall perception of racism during one’s lifetime for anger. Figure 38 indicates as subjects move from lower to higher perceptions of racism their anger response during the racism videotape period also increased. Therefore, subjects who had a higher perception of racism over their lifetime experienced a greater level of anger when confronted with racism.
Between-Subjects Factors

<table>
<thead>
<tr>
<th>Perception of racism over the lifetime</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>low</td>
<td>52</td>
</tr>
<tr>
<td>med</td>
<td>med</td>
<td>41</td>
</tr>
<tr>
<td>high</td>
<td>high</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 37. Overall Perception of Racism Over the Lifetime: Anxiety Interaction Effects.

Table 45

Interaction Effects for Anger: Stimuli x Perception of Racism Over the Lifetime

<table>
<thead>
<tr>
<th>Perception</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STIMULI</td>
<td>384.262</td>
<td>2.000</td>
<td>192.131</td>
<td>7.922</td>
<td>.001</td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error(STIMULI)</td>
<td>2352.393</td>
<td>97.000</td>
<td>24.251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenhouse-Geisser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of Statistical Analysis

Hypothesis one, which examined all subjects change from baseline to experimental periods was confirmed for all dependent measures. There was a significant increase in physiological as well as emotional responsivity for subjects when they
encountered the racist stimuli, as compared to the baseline and neutral videotape periods. Hypotheses two and three were not confirmed. Therefore, the proposition that lower SES subjects tend to be more responsive to stressors when compared to higher SES subjects was not supported. Hypothesis four which examined subjects who have a higher perception of racism will be more responsive to racist stimuli than those with a lower perception was minimally supported. Only on one dependent measure was there a significant change for anger in those participants who had a lower perception of racism over the lifetime to those with a higher perception of racism over the lifetime. To the contrary, the findings indicated that those with a higher perception of racism during their lifetime experience a greater sense of anger when confronted with a racial stimulus.

Chapter V will discuss in greater detail the implications of the findings and the resulting contribution to the existing body of research. A section will discuss each hypothesis, findings, and connections to existing research. From there, overall need for this type of research will be presented, followed by study limitations and directions for future research.
CHAPTER V

DISCUSSION

This final chapter will review and interpret the findings of the present investigation. The sections are organized around each of the four hypotheses. Within each section specific contributions that this study makes to the discipline will be outlined. This includes descriptions of the strengths of the study, emerging patterns and their relationship to the existing literature in the field. Following these sections the benefits of conducting such research will be presented; specifically how this line of research is necessary with respect to treatment efficacy and identified stressors for African-Americans. Study limitations will then follow and the chapter will conclude with a discussion of future directions of research.

Research Considerations

It was the intent of this study to consider how exposure to historical racial events affects the emotional response of African-American women as function of their socioeconomic status. Therefore, building upon the limitations and recommendations of past research (Clark, Anderson, Clark, & Williams, 1999; Williams, 1996) several hypotheses were proposed. The first hypothesis predicted all subjects would have a change from baseline to experimental condition as reflected in change of dependent variables. The second hypothesis posited lower SES subjects would have
a greater emotional response from baseline to experimental condition than higher SES subjects. The third hypothesis asserted lower SES subjects would have a greater perception of racism than higher SES subjects as demonstrated on the PRS scale. And, the fourth hypothesis proposed subjects who scored higher on the PRS would have a greater emotional response from baseline to experimental condition than those with a lower PRS score.

**Hypothesis 1: Racism and Psychophysiological Response**

The finding that African-American women are indeed impacted by racism as measured by their psychophysiological responsivity may be interpreted in a few ways. First, it could be the stress of living in a racist society makes African-American women vulnerable to racial stressors. The effects of which are then manifested physically and emotionally (Armstead et al., 1989; Stevenson, 1994; Williams & Collins, 1995). This finding is consistent with Armstead et al. (1989) and Jones et al. (1996) who found increased physiological responsivity when subjects were presented with racially noxious stimuli.

Second, historical references such as those depicted in the racial visual stimulus may have reminded women of a time in history that may be repressed and thus provoked a stressor response. Many participants informally commented that they were surprised by their psychophysiological response and would not have predicted such a reaction. This observation is consistent with research utilizing racial visual stimuli with African-American populations and suggests a visual stimulus is a
Third, the emotional response of anger to the racial stimulus may be a coping behavior that protects one from the immediate impact of racism, allowing one to feel in control and psychologically invulnerable. And while this may be an adaptive response psychologically, chronic and sustained use of this behavior may be physically maladaptive as reflected in the increased physiological response of subjects (Armstead et al., 1989). An increased anxiety response may reflect the heightened sense of awareness African-Americans exhibit in the anticipation of racial discrimination and harassment. In other words, one must be on guard and thereby prepared to deal with racist experiences (Williams & Rucker, 1996).

During the viewing of the racism videotape, subjects evidenced a heightened level of anxiety as reflected in this author's behavioral observations. Research field notes indicate that during the neutral videotape subjects were noticeably more relaxed. In fact, their breathing was more even and they seemed to be engaged and focused on the subject matter with minimal motor activity. When subjects were presented with the racism videotape they were again engaged and focused on the subject matter. However, there was a noticeable increase in motor activity as indicated by frequent shifting in their seats, tapping of their feet, shallow breathing, and in some cases, tears. Many subjects were also audibly distressed (e.g., Oh my God, unbelievable) during the viewing of graphic racially charged imagery such as the mutilated

---

1 Behavioral observations were collected when the investigator noted correlated behavioral differences between stimulus periods. Therefore behavioral observations were noted and logged for each participant.
body of Emmitt Till and the lynched and burned bodies of African-American men.

As expected Hypothesis 1 was statistically supported by this study. However, what proved to be an unexpected strength were the comments offered by subjects. Many of the older women commented on their memory of the depicted scenes or their participation in the civil rights movement. They also commented on how those experiences were validated by research conducted in this area.

Hypothesis 2: Emotional Response and SES

Hypothesis 2 posited that lower SES subjects would have a greater emotional response from baseline to experimental condition than higher SES subjects. This was not born out in the present investigation. There were no significant differences for any of the dependent variables yet there are trends suggested by the graphs. The trends indicate higher SES subjects are more reactive than lower SES subjects, which contradict previous research findings supportive of lower SES individuals' vulnerability to environmental stressors (Harburg et al., 1973; Williams & Rucker, 1996). However, these findings are presented with caution, given the fact that there was minimal representation of lower SES subjects within the present study. The failure to find class differences was also true of Dohrenwend's (1973) study in which there was no significant interaction between class and life changing events (i.e., birth of a child, death of a loved one, unemployment). In fact, lower SES African-American subjects were not found to be more susceptible to life changing events (Dohrenwend, 1973). This was also the case with a study conducted by Myers (1971) in which overall
findings found a positive correlation between psychological dysfunction and the number of life changing events. However, in Myers (1971) research, it was unclear what the interaction of SES was in this correlation. Similarly, it remains unclear with this present study. It is quite possible that with a greater number of participants in the lower SES group the present trend may have been reached significance and thus have contradicted prior research that suggested otherwise (Harburg et al., 1973).

Further speculation points to racism and its widespread impact on African-Americans irrespective of SES. It stands to reason racism permeates all attempts of psychological buffering and impacts those who perceive it equally (Jones et al., 1996). It is also possible higher SES subjects are in fact angrier than lower SES subjects because they have assimilated to majority cultural standards and yet still face discrimination (Cose, 1993). Many African-Americans speak of embracing Eurocentric culture at the expense of their psychic welfare, which often results in feelings of isolation and exclusion. Jones et al. (1996) and Jackson et al. (1996) portend African-Americans who view Caucasians as oppressive experience little life satisfaction or happiness which in turn makes them more susceptible to negative health outcomes.

However, it is also worth mentioning that this study was conducted during a time of economic prosperity. Today's economic climate provides those at the lower end of the financial spectrum employment opportunities that may have been compromised during previous points in our history (Siegel, 1961). Therefore there may be a weakening of the correlational relationship between economics and racism when the
financial outlook is bright for all (Heaven & Furham, 1987). SES and its influence on individuals' perception of racism remain unclear but require further exploration; this fact is further illuminated in the collected field data.

It was informally noted during the course of this investigation that many women experienced subtle discrimination from unexpected sources. Examples included the inability to get a financial loan or buy a home in a certain area despite being qualified. They also experienced the questioning of their leadership at work by white subordinates, or pressure of the unequal expectations when in positions of leadership. Many felt as if they were being watched more closely than their white colleagues in comparable positions. So, despite the findings, the observed trends and anecdotal information suggest SES is still a critical variable for research, with greater emphasis on perception.

Hypothesis 3: Perception of Racism and SES

Hypothesis 3 stated that lower SES subjects would have a greater perception of racism than higher SES subjects as demonstrated on the PRS scale. The results of this study were unable to support this particular hypothesis. There were no significant findings that suggested an increased level of perception leads to greater psychophysiological responsivity when presented with a racial stimulus. It is quite possible that the perception of racism as a stressor is independent of SES level. In other words, racism may impact African-Americans regardless of how they perceive the stressor. This finding contradicts research that indicates racism and SES may act
synergistically to cause negative psychophysiological outcomes in African-Americans (Williams, 1996).

Also worthy of mentioning are several patterns that emerged from the study which contradict previous research examining lower SES subjects greater psychophysiological reactivity to presented stressors (Kessler & Neighbors, 1986). Higher SES subjects were found to have a greater perception of racism in several areas, such as the arenas of academia and employment over one’s lifetime. While this is contradictory to the lower SES argument, it supports Adler et al. (1994) who concludes little is known about subjects at the higher SES spectrum due to the greater accessibility of subjects who are considered impoverished.

Therefore, it remains unclear how perception and SES interact. However, this appears to be an area with great heuristic value. Clearly, a number of questions exist, including is your level of perception predicted by your level of SES and if so does this in turn influence one’s response to a presented racial stressor. In short, further investigation is necessitated to uncover how racism is perceived and the impact of this perception across the whole SES spectrum.

Hypothesis 4: Perception and Racism

It was proposed that subjects who score higher on the PRS would have a greater emotional response from baseline to experimental condition than those with a lower PRS score. The results of the study supported this position to a minimal degree. All findings regarding the dependent variables except for anger were found
to be statistically non-significant. Subjects who perceived racism to a greater extent over their lifetime exhibited a higher state of anger. This finding aids in the interpretation of previous findings (Stevenson, 1994) that were unable to differentiate between an anger and racist emotional stressor responses. It would suggest that anger is one of the many responses that may occur when one experiences racism, and it is more of a multi-factored emotional response than previously thought. Therefore, this finding suggests further exploration regarding anger and one’s perception of racism.

The finding also minimally supported the premise that the perception of racism may be more relevant than the existence of racism (McNeilly et al., 1996). However, quantifying racism and the perception of racism is a difficult task; analyzing how one perceives a stressor such as racism has added complications (Herman, 1996; Williams & Collins 1995). Consequently, this finding is interpreted with caution due to the PRS questionnaire possibly failing to capture the level of racial awareness. Jones et al. (1996) found similar results in their study in which there was no evidence to support the hypothesis that the more aware one is of racism the more likely they will experience a significant increase in physiological reactivity when presented with a racial stressor.

Study Limitations

This section presents limitations of this investigation that includes descriptions of the initial experimental anxiety, experimental fatigue, and experimental protocol confusion. Also included is a discussion of the prolonged experimental
stimulus, possible racial disconnection, psychometric inadequacy and dearth of class diversity.

Initial Experimental Anxiety

Several limitations became apparent over the course of the study. The first was the allotted time increments for each experimental period. It appeared that many women were anxious upon arrival and having a baseline period in which the expectation was to sit quietly proved difficult for many. Consequently, this expectation may have artificially inflated their physiological readings. Unfamiliarity with the setting and experimental process may have also contributed to inflated readings. Therefore the initial five minutes became more of an adaptation period to overcome feelings of anxiousness. However this period was useful, as this anxiety effect appeared to dissipate during the neutral videotape period.

Many subjects were also anxious regarding the subject matter and had to be reassured as to what would happen during the experimental session. It was apparent that, although they wanted to participate in what seemed to be a worthwhile endeavor, there was a great deal of mistrust with respect to the process. Establishing a rapport often associated with a therapeutic relationship was often needed to complete the protocol. So in this way the protocol was not the detached experimental relationship often implemented to maintain scientific objectivity. However, this also raises the following question: How does one conduct research in populations that have been oppressed and consequently learned to distrust those symbols which
represent the oppressive and often punishing establishment? Therefore, while the rapport may be counter to research objectivity, it proved necessary and beneficial with respect to the comfort of the cohort involved in this study.

**Experimental Fatigue**

The number of measurements during the experiment also posed a problem. The initial experimental protocol demanded that physiological readings be taken every minute resulting in five readings during the baseline, five readings during the neutral and twenty readings during the racism stimulus. After running ten subjects it became apparent that the number of readings were too great and caused unreasonable discomfort to the subjects. Another possible cause of discomfort was the constriction of the blood pressure cuff rather than the experimental protocol. Therefore it became necessary to alter the procedure to where readings were taken every two minutes. It became apparent that a follow-up period would have proven too much for subjects, unnecessarily causing fatigue to their arms and unnecessarily confounding findings.

**Experimental Protocol Confusion**

Another limitation was that a few women seemed confused when watching the neutral videotape. It is possible that they were distracted by the subject matter because the flyer and the consent form set the stage for an encounter with racist material. They were steeling themselves, preparing to view upsetting subject matter and instead they were met with subject matter benign in content. It is also possible
that the participants felt the subject matter was boring and too long in length. A frequent comment from the subjects involved the time constraints of their schedules and the difficulty of finding a 90-minute block of time to participate. In their perception, watching a lifestyle video discussing the variations of culinary seasonings seemed like a waste of time and vastly different from the expected subject matter of racism. Therefore it was necessary to explain that there was a reason for presenting the chosen material and that the neutral video was indeed a critical part of the experimental protocol. This suggests that a better orientation of subjects was necessary via the initial instructions but Jones et al. (1996) noted in their study, “it is unlikely that any manner of instruction to relax will mitigate the arousal that is bound to accompany the anticipation of the arrival of the stressful script” (p. 119).

**Prolonged Experimental Stimulus**

In the same vein, the racism stimulus appeared to be too long. There was an initial intense disturbance especially when participants viewed the body of the mutilated Emmitt Till, and other critical points such as the discussion of Medgar Evers’ death and his wife’s intense rage and hatred of white people at that point in her life. However, despite these most provocative moments, participants seemed to engage in distracting behavior. This may have been a preventive measure prohibiting complete emotional attachment or identification with the subject matter.
Racial Disconnection

Also pertinent and worth mentioning is the fact that a few subjects spoke of their disconnectedness with the subject matter. It was framed in their minds as a historical incident with little relevance to their lives. There was also the issue with younger participants (those 35 and younger) stating that they had no idea things were as bad as they were. In fact, one participant asked the researcher during the debriefing if the movie was real or fake. This comment speaks to the issue of perception of a stressor and the lack of awareness in the community—especially the younger community—of the implications that racism has had in their country, their community and on themselves. This type of thought/behavior was also prevalent in the Stevenson (1994) study in which college age participants often commented that they had never experienced racism. It is unclear how to measure this type of belief system and to what end is this belief a by-product of racism. This lack of understanding is a limitation in this study and should be the focus of future studies. Also required in future research is the development of reliable psychometrics to measure these types of beliefs.

Psychometric Inadequacy

Study field notes were replete with observational evidence regarding subject’s frustration with the questionnaire. There was often the feeling that their perception of racism was not accurately measured on the questionnaire which often led to them offering personal details of how they perceive and deal with racism. Participants
often complained about the inadequate response key, stating that there were responses that may have been a better fit for their experiences. Also the queried subject matter seemed dated especially for younger participants. It also left out questions regarding pertinent racist experiences such as the isolation and seclusion often experienced when having to work or schooled in an all white setting.

Dearth of Class Diversity

Another obvious limitation was the lack of class diversity. Lower SES subjects were seriously underrepresented in the study therefore compromising the generalizability of the results. The lack of lower SES representation led to a dearth of data speaking to the hypothesis regarding class difference. There were trends that contra-indicated research cited in the review suggesting that lower SES subjects were less reactive than higher SES subjects. It is this finding that requires even further research exploration, using SES as an independent variable.

Strengths

Overall Strengths

The strengths of this research are far reaching in several ways. First, it attempts to extend a body of research that is limited and currently in the formative phase. Only a few studies (Armstead et al., 1989; Clark & Harrell, 1982; Clark et al., 1999; Harburg et al., 1973; Jones et al., 1996; Kessler & Neighbors, 1986; Neighbors, 1986; Stevenson, 1994) have been attempted regarding the exploration of
racism. However, these have not used racist stimuli, been theory based, utilized survey methodology and/or focused on intra-vs. inter-race differences. This study attempted to go a step further and utilize a provocative and relevant racial stimulus within a single race and sex-based cohort.

Simplicity in Design

Second, the study of racism is multi-faceted and often difficult. Therefore, ruling out potential confounds by constructing simple experimental designs is paramount (Armstead et al., 1989; Jones et al., 1996; Stevenson, 1994; Williams, 1996). Orbe (1995) detailed the necessity of research to focus on intra-class/race/gender differences before exploring inter-class/race/gender differences. Hence, it was pertinent that this study use only African-American women.

Community-Based Research

Third, these women were eager to share their stories and participate in research they deemed important and necessary. They often stated, as noted in research field notes that telling their stories validated their experiences. It would appear being able to contribute to a research study examining racism felt healing to them. It also may have felt like a personal contribution, availed through academia, to society and in turn inform larger society of the detrimental impact of racism. Continued research that is inclusive of the African-American community may foster greater trust between this population and the scientific community. This in turn may
promote greater participation in future studies.

Scientific Context

Providing a dialogue within a scientific context may provide the proper emotional distance for true reconciliation and healing to occur within American society. As reported earlier in the review section, African-Americans lead most ethnic groups in most diseases and psychophysio-logical distress (Braithwaite & Taylor, 1992; Jones & Korchin, 1982; Livingston, 1994; U.S. Dept. of Health and Human Services, 1980). Therefore, it is pertinent that continued research in this area occurs to uncover further relationships racial stressors and negative health outcomes and make clearer others.

Future Research Directions

Continued SES Exploration

The present findings addressed several suggestions for future research mentioned in previous studies (Armstead et al., 1989; Stevenson, 1994). The first is using SES as an independent variable to further explore the impact racism has on one’s perception of culturally specific stressors. While the findings did not prove statistically significant, possible trends were presented suggesting higher SES subjects are more responsive than lower SES subjects and thereby warrant further research exploration. Also the use of larger sample sizes and greater class diversity may in fact illuminate findings not found in the present study.
The second was the use of racism as a stressor specific to one’s cultural context (Williams, 1996). The validity of utilizing culturally specific stressors was achieved in this study but how one perceives and interprets stressors remains ambiguous warranting further exploration. Using psychometrics and racial stimuli that maybe more provocative and relevant to one’s own life experience seems to lend itself to achieve more clarity with respect to using racism as a stressor. Anecdotal information offered by many of the younger subjects would suggest that the use of dated racist material was too removed from their frame of reference to demand a stressor response. They spoke of incidents related to recent police brutality cases or corporate discrimination (such as Denny’s or Comp USA) that would be more effective.

Field Study Research

Also elucidated in this study was the need for field studies in this area of research exploration. The obvious anxiety and ambivalence of participants seemed to warrant the possibility of conducting research in settings, which they are more comfortable. When exploring subject matter that is already anxiety provoking, it would seem that conducting research in a setting that is familiar is worth risking confounding factors relevant to environment. This may eliminate confounds that interfere with a true emotional stressor response directly related to the intended stimulus versus anxiety created by the environment. This would also improve greater subject participation especially when considering using lower SES subjects in which
transportation and monies are an issue.

**Breadth of Age**

Another implication for future research realized in this study was the use of subjects across generations. Researchers commonly use college-age populations due to convenience and availability, which in turn limits the breadth of life experience (Armstead et al., 1989; Stevenson, 1994). The current study is thought to be one of the first to attempt to explore racisms' impact on women outside of a traditionally college age population. The use of a wider age range provides greater generalizability to the resulting findings as well as exploring an ignored population in the literature: older African-American women.

**Conclusion**

In spite of the obvious limitations, this line of research contributes significantly to the existing literature. It completely validated the idea that racism is a worthy stimulus and thereby fitting the definition of a culturally specific stressor. It also was one of the first to explore SES as an independent variable and focus on its relationship to racism. Given that some of the findings were not significant, unanswered questions regarding this interaction require further exploration. Also using a population that more closely resembles the one in which the findings are being applied is worthy of future consideration. Racism and its impact on African-Americans, and in turn the whole of society is quite complicated and will require ongoing research.
efforts that will ultimately lead to findings that will impact therapeutic intervention, physical intervention, and possibly social policy.

In short, this study demonstrated physiological differences between experimental periods when subjects were presented with a quantified racial stimulus. Clark et al. (1999) write extensively of necessitated research that supports and explores the impact of racial stressors on African-Americans, and this finding clearly provides statistical support of this idea. Also supported is the use of a racial stimulus rather than traditional laboratory tasks such as performance on mental tasks or performance demands (Clark & Harrell, 1982). This finding encourages research endeavors to move from the general social context to a specific cultural context (Clark et al., 1999). This was also outlined in Williams (1996) model for future research and Jones et al. (1996) who proposed and conducted research exploring the benefit and importance of research within the cultural context.
Appendix A

Research Design
Research Design

Experimental Conditions

<table>
<thead>
<tr>
<th>SES Levels</th>
<th>Adaptation</th>
<th>Neutral Video</th>
<th>Racism Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Professional N=52</td>
<td>Systolic blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diastolic blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean arterial pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heart rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>State anger</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>State anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium Professional And Technical N=34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled, Semi-skilled And Unskilled N=14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The design of this study is a two (3x3) factor repeated measures design.
Appendix B

Recruitment Flyer
RESEARCH STUDY

Attention African-American women age 18 yrs. – 65 yrs.

Participants are being recruited for a study looking at “African-American Women’s responses to historical racial events as a function of socio-economic status.” I am a graduate of Hampton University, currently pursuing my doctorate degree at Western Michigan University, seeking volunteers to participate in my study. The study attempts to explore the emotional impact of racially provocative stressor. Participants who are African-American women, born in the United States with English as their primary language will be asked to view a videotape and to complete questionnaires. Subjects must be healthy, have no known history of major medical problems, and must not be taking medications for cardiovascular disease. For more information about how to participate please call 616-387-; ask to speak with the research investigator. Thank you for your cooperation in advance.
Appendix C

Subject Psychophysiological Recording Sheet
Subject Psychophysiological Recording Sheet

Baseline Period One

(1) HR _____  (2) HR _____
(3) HR _____  (4) HR _____
(5) HR _____  Total _____

Baseline Period Two

(1) HR _____  (2) HR _____
(3) HR _____  (4) HR _____
(5) HR _____  Total _____  Baseline Average Total _____

Racial Stimulus Period

(1) HR _____  (2) HR _____  (3) HR _____  (4) HR _____
(5) HR _____  (6) HR _____  (7) HR _____  (8) HR _____
(9) HR _____  (10) HR _____  (11) HR _____  (12) HR _____
(13) HR _____  (14) HR _____  (15) HR _____  (16) HR _____
(17) HR _____  (18) HR _____  (19) HR _____  (20) HR _____

Racial Average Total _____

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Appendix D

Demographic Questionnaire
Demographic Questionnaire

Name_________________________________________
Address________________________________________
Phone_________________________________________
Age________

Health Information:
Are you currently taking medication________ If yes, what
kind:_________________________________________

Hollingshead Four Factor Index of Social Status

Sex________
Marital Status:
Single________
Separated ______ Are you receiving support_______
Married ______
Divorced ______ Are you receiving support_______

Educational Status:
less than seventh grade ______
junior high school (9th grade) ______
partial high school (10th grade or 11th grade) ______
standard college or university graduation ______
graduate professional training (graduate degree) ______

Occupational Title:______________________________
Annual income:______________________________
Spouse’s Occupational Title:______________________________
Annual income:______________________________
Appendix E

Video Stressor Rating
How stressful did you think the video was?

0 1 2 3 4 5 6 7 8 9 10
No Very
Stress Stressed

Subject Signature: _____________________________________________

Researcher Signature: ___________________________________________
Appendix F

Description of Neutral Videotape
Description of Neutral Videotape

The video begins with B. Smith, the host, introducing a segment on the characteristics of various salts and peppers. The next scene shows her interacting with a guest, Michelle Anna Jordan, an expert/author of salt and pepper. B. Smith engages her first in a discussion on an assortment of salts, they move to a range of peppers and methods of grinding peppercorns. The segment ends with B. Smith inquiring about recipes calling for salt and pepper. There is a brief break in the scene in which B. Smith once again introduces her guest and begins a conversation of unusual ways of using salt and pepper such as citrus fruits and pineapple.
Appendix G

Video Description of Historical Racial Events
Video Description of Historical Racial Events

The video begins with a scene of Fannie Lou Hammer and a narration by Julian Bond. Julian Bond’s narration describes the civil rights movement in America as the second revolution. It then goes to a scene of people protesting and switches to a scene of imprisoned protestors. There is then an interview with a woman expressing pride, fear and amusement. She is talking about her son’s involvement with the civil rights protest and the eminent dangers. There is then a scene of protestors being beaten at a lunch counter and subsequently imprisoned. Singing is heard while there is a picture of mourners at a funeral. It then goes to Martin Luther King speaking of his hopes for an equal America.

We then pan to an interview with Mose Wright, Emmett Till’s uncle, who is talking about the night several white men came to his home asking for the boy who was fresh with a white woman. He proceeds to describe how the white men took the boy to a car and never returned. Testimony of Emmett Till’s mother about a call she got about her son is the next scene. Julian Bond narration regards Emmett Till’s alleged transgression. The following scene is of Mose Wright talking about the Sheriff finding the body of his mutilated nephew. Julian Bond narrates about Emmett Till’s mother shipping his body back to Chicago for an open casket funeral so the world could see what they did her son.

A scene follows of his mother entering the church and people emotionally distraught after viewing the body. A picture of him as a normal fourteen-year-old flashes on the screen and follows with a view of his decomposed body. Julian Bond
narrates of the racist men who killed him while they are shown at a press conference relaxed and unconcerned about going to trial for the murder of a young black man. Julian Bond narrates about the great interest in the trial by the NAACP, national press and a black congressman. While he is narrating there is a scene of newspapermen covering the trial. A speech by Roy Wilkins of the NAACP is the next scene, Wilkins speaks about the White Mississippian who killed Emmit Till. A white sheriff is then seen talking about the negative influence of the NAACP on the otherwise “good” acting niggers.

An interview of a black newspaperman is the next scene in the video about the trial of white men for the murder of Emmit Till. Julian Bond is heard next relating tales of lynchings while scenes of black men being lynched, burned, and swinging from trees are shown. Following his narration is a scene of a clan rally opposing integration. Julian Bond then narrates of sit-ins while a scene is shown of non-violent student protestors during a lunch counter protest. It quickly changes to a scene in which the protestors are being beaten by white bystanders and arrested by the police. Blacks not involved in the protest were also beaten and arrested as shown in the next scene. Frederick Leonard is then interviewed. He talks about his experience as a freedom rider in the south facing an angry white mob.

William Simmons of the white citizen’s council is interviewed about his opposition to the civil rights movement. Julian Bond narrates about the reason for the development of the white citizen’s council. Simmons is then shown again. This leads into an interview with Myrlie Evers talking about the assassination of her
husband. Julian Bond is heard talking about the shooting while a scene is shown of the incident. Myrlie Evers is again shown talking about her feeling of hatred at the moment she looked up from her husband's body and saw white policeman and local white neighbors. A scene follows of indignant Black women screaming at the police while the police are antagonizing blacks during a protest. An interview is then shown of Judge Tom Brady talking about his opposition to blacks gaining voting rights. The next scene depicts Fannie Lou Hammer testifying before the credentials committee in Washington D.C.. This is followed by the press conference of a white mayor speaking about the agitation Mr. Luther King and the NAACP are causing in his community. This leads to a scene of a sheriff arresting and abusing a highly respected black woman in the local community, which is then followed by a scene of local police attacking protestors.

A black man is then seen very agitated while he is explaining the rationalization for the riots. The National Guard is viewed immediately afterwards stopping a black man and requesting identification. Roger Wilkins is then interviewed about his fear during the riot in Detroit when the National Guard stopped him. Ending scenes include a brief interview of Rev. Cleage followed by a view of a black family walking up a street desolated by riot activity. During this ending Julian Bond narrates of oppression and the existence of two Americas separate and unequal.
Appendix H

Human Subjects Institutional Review Board Approval Letter
Date: 27 May 1998
To: Richard Spates, Principal Investigator
Melissa Stevenson, Student Investigator
From: Richard Wright, Chair
Re: HSIRB Project Number 98-04-02

This letter will serve as confirmation that your research project entitled “African-American Women’s Response to Historical Racial Events as a Function of Socio-Economic Status” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 27 May 1999
Appendix I

Participant Consent Form
I have been invited to participate in a research project entitled "African-American Women's responses to historical racial events as a function of socio-economic status." This study is the dissertation project of Melissa Stevenson of the Psychology Department at Western Michigan University. It is under the direction of Dr. C. Richard Spates.

Upon arrival for participation, I will be given the option of being automatically entered into a lottery just for showing up for the study. It has been explained to me that my entry into the lottery is not contingent upon my completion of the research protocol. I will be asked to participate in an initial screening phase. I might be asked to participate in the second phase of the project, which consists of watching a video depicting actual historical racial incidents. My consent to participate in this project indicates that I will be asked to attend one session. I may withdraw or refuse to be involved at any point in this project without any pressure or penalty. The initial session will consist of obtaining demographic information and information on my current medical status. If I am asked to participate in the second phase of the project, my heart rate will be measured while I relax in advance of seeing the video, again while I watch a neutral video tape and once more while I watch a video depicting historical racially offensive events. Following this last video I will be provided a brief period of relaxation, after each video I will be asked to fill out two questionnaires. The questionnaires will ask how I was feeling during the video. Finally, I will also be asked to fill out a questionnaire regarding my perceptions of racial discrimination. The session should take approximately 90 minutes and will be conducted at the Western Michigan University Psychology Clinic, the Kalamazoo Deacon’s conference and Detroit area medical facilities by the co-principal investigator and a therapist trained in the research protocol.

As in all research, there may be unexpected risks to the participants. If an accidental injury was to occur, appropriate emergency measures will be taken. However, no compensation or treatment will be made available to me except as otherwise specified in this consent form. One potential risk is that I might become upset with the incidents depicted in the video. Melissa Stevenson or another designated clinical psychologist will be available to offer crisis counseling should I require it. I would not be responsible for the cost of this intervention. I have been told that if additional counseling is needed, I will be responsible for the cost of this treatment if I choose to pursue it.

All information collected from me will be kept confidential. My name will not appear on any papers. All forms will be coded and Melissa Stevenson will keep a master list of the names of participants and their corresponding code numbers. Once the data have been
collected and analyzed, the master list will be destroyed. Following the completion of this study, all of the other forms related to data collection (i.e., consent forms) will be retained in a locked file in the Western Michigan University Psychology Clinic for three years following the completion of this study. An alternate data set and computer back up disk will also be kept locked in a file cabinet in the student investigator's home office for three years. The coded data will additionally be kept on a computer disk for at least five years in the Western Michigan University Psychology Clinic.

I can drop out or refuse to be involved at any point in this project without any pressure or penalty. If I have any questions or concerns about this study, I may contact Dr. Spates at (616) 387-8332 or Melissa Stevenson at (616) 387-4332. I may also contact the Chair of the Human Subjects Institutional Review Board at (616) 387-8293 or the Vice President for Research at (616) 387-8298 with concerns that I have. My signature below indicates that I have read/or been explained the purpose and requirements of this study and I agree to participate.

__________________________  ____________________
Signature                  Date

__________________________  ____________________
Consent Obtained by: Initials of researcher                  Date
BIBLIOGRAPHY


