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# Development and psychometric validation of the Perceived Classism Scales: measures of perceived social class discrimination

Jovan Omar Hernandez  
*University of Iowa*

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DEVELOPMENT AND PSYCHOMETRIC VALIDATION OF THE PERCEIVED  
CLASSISM SCALES: MEASURES OF PERCEIVED SOCIAL CLASS  
DISCRIMINATION

by

Jovan Omar Hernandez

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy  
degree in Psychological and Quantitative Foundations (Counseling Psychology) in the  
Graduate College of The University of Iowa

August 2013

Thesis Supervisor: Professor William Ming Liu

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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This is to certify that the Ph. D. thesis of

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has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Psychological and Quantitative Foundations (Counseling Psychology) at the August 2013 graduation.

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To my mom who has sacrificed so that I may have a better life. Your unyielding support has made all the difference. I would not have come this far if not for you.

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## CHAPTER 1

### INTRODUCTION

This chapter first provides a brief introduction to social class and classism. Second, general background information relevant to understanding the function of social class in the United States is presented. Next, a brief discourse on the development of social class as a core issue of multicultural competency is discussed. Fourth, a theoretical framework for understanding social class and classism is presented. Lastly, significant terms used in this paper will be defined.

Social class is becoming an increasingly pertinent topic of study within the field of psychology. In 2007, the American Psychological Association (APA) convened a task force whose goal was to provide a comprehensive review of the social class literature relating to psychology, develop operational definitions for social class related phenomena, and offer recommendations for future social class-related research (American Psychological Association, Task Force on Socioeconomic Status, 2007). The task force concluded social class operates as a form of social stratification analogous to racial/ethnic or gender identity. As a result, individuals may be discriminated against on the basis of social class similar to race and racism.

While social class research has stretched across multiple disciplines, the topics of investigation have remained fairly consistent. Scientists have primarily concentrated on the relationships between social class and physical and psychological health. For example, children and adults from lower social class backgrounds are at greater risk for a variety of psychological problems and poorer physical health (e.g., depression, anxiety, neurotic disorders, and lower educational expectations and attainment) (Andres,

Adamuti-Trache, Yoon, Pidgeon, & Thomsen, 2007; Black & Krishnakumar 1998; Lewis et al., 1998). The research on social class has illuminated the many challenges faced by the underprivileged, but it does not specifically address their experiences with social class-based discrimination or classism.

The psychological literature regarding social class-based classism is scant. Several theoretical and methodological problems in the investigation of classism may account for the paucity of research. First, researchers classify social class status using a wide and inconsistent array of descriptors (Liu, Ali, Soleck, Hopps, Dunston, & Pickett, 2004). Second, few attempts have been made to understand individuals' subjective experiences with classism. The importance of understanding how classism influences individuals cannot be overstated. For example, high school students from lower social class backgrounds may constantly be told they will be unable to become a teacher or engineer because they lack the resources or professional etiquette needed to enter the profession. A second example may include that of a young woman from a wealthy family who desires to work for a non-profit organization, but is pressured by friends and family to accept a higher earning or more prestigious career. Finally, investigation into social class discrimination has been hindered by a lack of psychometrically sound instruments designed to measure classism. Researchers have made extrapolations from associations between objective indices of social class (e.g., income level, educational attainment), health outcomes, and classism, but failed to directly address the individual's perception of social class discrimination and its relation to psychological sequelae.

## Background

### *Economic Discrepancy in the United States*

Social class and classism are salient research topics because of the economic discrepancies inherent in all economic systems. The following section provides a synopsis of current United States economic demographics in order to characterize the economic discrepancies among its citizens. In addition, this section will describe commonly held American convictions that underlie the United States' capitalist economy and how these beliefs may inadvertently contribute to economic disparity.

The United States is regarded as the wealthiest country in the world, but a closer examination of income in the United States reveals an uneven distribution of wealth. Data from the Congressional Budget Office, the Center for Budget and Policy Priorities (CBPP) (2007), found the current income gap between the United States' wealthiest and poorest people has grown to its highest level since 1929. In 2005 alone, income for the top 1% of American households increased by an average of \$180,000, while income for the lowest 1/5<sup>th</sup> of households increased an average of \$200 (CBPP, 2007). In addition to this income gap, the United States maintains one of the largest poverty rates of all industrialized nations (CBPP, 2007).

Recent U.S. Census data defines the poverty threshold for a family with two adults and two children as making less than \$23,283 (Census Bureau, 2012b). Currently, 46.2 million people in the United States fall at or below this poverty threshold. In addition, there is also a significant discrepancy in the distribution of poverty when poverty is examined among racial/ethnic groups (Census Bureau, 2008). Approximately 24.5% of African Americans, 21.5% of Hispanics, 10.2% of Asian Americans, and 8.2%

of non-Hispanic Whites are impoverished; however, the Census Bureau data does not account for cost of living, which complicates interpretation of these raw poverty figures. For example, a family of four living in San Francisco, CA would have much greater difficulty living on \$23,000 a year than a family of four living in Des Moines, IA.

There are also notable ethnic/racial differences that emerge when examining indicators of household income. The median household income in 2007 was \$50,233. Asian Americans had the largest median income at \$66,103 followed by non-Hispanic Whites with \$54,920, and African Americans with the lowest median income at \$33,916. Unfortunately, household income may also be a poor indicator of economic status because it does not account for number of members in the household. For example, Asian American's may have the largest household income because Asian American households have a larger number of family members per household than the typical White household. Similarly, Latino households have a tendency to underreport household size because of immigrant status. Thus, there may have a much larger number of Latinos in a household than is reported and the gap in household income between Latinos and Whites may be even more substantial. In addition, the Census Bureau's economic indicators for poverty and household income may not accurately characterize the disparity between the working class and upper class because it fails to consider additional economic factors such as savings, accumulated wealth, and debt. A discussion of common American beliefs may be helpful in understanding economic inequality in the United States.

A historical analysis of United States' economic development reveals three central tenets that have shaped its expansion and may have contributed to economic

disparity and classism (Liu, Hernandez, Mahmood, & Stinson, 2004). These three prevailing beliefs are: (a) meritocracy, (b) the Protestant Work Ethic, and (c) the Belief in a Just World. Meritocracy refers to the notion that economic advancement can be achieved solely through merit. Therefore, any individual is capable of reaching her/his material goals if they work hard enough for it. This perspective does not recognize the influence of privilege and assumes all individuals maintain equal access to goods and services.

Privilege has most often been discussed within the confines of White privilege. Sue (2003) defined White privilege as “unearned advantages and benefits that accrues to White folks by virtue of a system normed on the experiences, values, and perceptions of their group” (p.137). In addition to White privilege, privilege can be extended to all groups that have historically maintained positions of power. For example, men have traditionally held authority over women, heterosexuals over gays and lesbians, and the upper class over lower class.

Liu, Pickett, and Ivey (2007) recently expanded the concept of privilege to address social class and classism. Specifically, the authors addressed the concept of White middle-class privilege, but also acknowledged the existence of middle-class privilege in other ethnic and racial groups. The authors argued middle-class is a difficult concept to define because no objective criteria can adequately characterize the middle-class. Rather, individuals likely perceive the middle-class to be what they consider “normal”. For example, a child who spends each summer at the lake may think it is normal for families to take month long vacations. Therefore, when the child becomes an adult he/she may purchase a lakeside cabin so that his/her children care share similar

experiences of growing up. Consistent with this hypothesis, researchers have found a propensity for Americans to identify as middle class even when objective indices of SES indicate otherwise (Kelley & Evans, 1995). One factor that may influence a person's opinion of normal is social class bias (Liu et al., 2007). Social class bias refers to the belief that every person seeks to improve their social class status. Accordingly, social class bias can contribute to economic inequality because economically disadvantaged people may be hesitant to collectively act as a group to improve their situation.

Individuals from low SES backgrounds may assume it is "every man/woman for his/herself" in achieving upward mobility. Wright and Taylor (1998) found individuals from oppressed groups are less likely to collaborate for positive change if criteria for group membership are ill-defined. Poor or working class individuals who hold the social class bias may feel they or others are only temporarily occupying the low SES group and thus are reluctant to join in communal action to better their position.

A second belief long held by Americans that contributes to social class inequities is the Protestant Work Ethic (PWE) (Liu, et al., 2006). The PWE is thought to have been initiated by John Calvin who considered work to be one of the most important aspects of living a pure life. The PWE adheres to the "pull yourself up by the bootstraps" mentality, which supposes that individuals persist against all obstacles. Within this perspective, individuals who do not place work at the forefront of their lives are viewed negatively. For example, a man who chooses to spend more time with his family would be less highly regarded than a man who prefers to work 80 hours a week. Those who subscribe to the PWE are therefore likely to view those in lower social classes as responsible for their socioeconomic position because they are unwilling to work or persevere through



adversity. This attitude in effect runs the risk of blaming the victim for not moving above their current situation rather than taking into account the contextual barriers which prevent the lower class from rising. Individuals taking this position may perpetuate or create economic differences because they are disinclined to aid those in need.

A third common belief held by Americans is the Belief in a Just World (BJW). People who believe in the just world phenomena may feel that others have what is coming to them and that good deeds will be rewarded and bad deeds will be punished. Similar to the individual who adheres to the PWE, those who believe in a just world may think that people who occupy a lower social class belong there as punishment for past transgressions. For example, a person may comment that homeless individuals are receiving their due because they chose to engage in bad behaviors such as consuming alcohol or using drugs. This attitude may not only serve to incite complacency in helping those who are less fortunate, but also bears the added consequence of anger or deliberate hostility toward the poor.

In sum, meritocracy, the PWE, and BJW may all contribute to social class inequities prevalent in the United States. A greater understanding of the association between social class and psychology may illuminate the effects of social class inequities on mental health. Psychology's emerging focus on social-class related phenomena as an area of multicultural study will be discussed in the following section.

### *Social Class as a Domain of Multicultural Competence*

The emphasis on multiculturalism within the field of psychology and applied psychological practice has evolved over the past few decades. The most significant call for a multiculturally inclusive psychology came in 1992, when Sue, Arredondo, and

McDavis authored a paper that presented inspirational guidelines for psychologists to acquire multicultural competence in areas such as race, sexual orientation, and social class. The authors specifically referred to “White middle-class values” (p. 479) inherent in the field of psychology and in our clinical practice; however, the majority of multicultural research following this call has focused on issues of race, ethnicity, sex, gender, and physical and mental disability. In contrast, social class has been an area of multicultural competency that has received modest attention (Liu, Ali, et al., 2004). A primary reason for the tempered development of social class research as it pertains to multiculturalism has been the inability of researchers to develop consistent and cohesive definitions of social class. Numerous researchers have examined the relationship between socioeconomic status (SES) and a host of psychological factors. But, these studies used a wide variety of indicators for determining SES. Examples of SES indicators used in previous research range from educational attainment, household income, individual income, occupational status, etc. As such, there remained a need to address such inconsistencies within social class research.

#### *Introduction of Social Class Theory*

A new framework for understanding social class that attempted to resolve the aforementioned issues was proposed by Liu, Soleck, et al. (2004). The authors focused on the individual’s subjective experience with social class and developed the Social Class Worldview Model (SCWM) and Modern Classism Theory (MCT). But, their model did not provide a means for measuring an individual’s subjective experience with social class discrimination. Therefore, the goal of the current study is to develop the Perceived Classism Scales (PCS), measures that assess a person’s subjective experience with

classism. The PCS is grounded in Liu, Soleck, et al.'s SCWM and MCT. Both the SCWM and MCT will be discussed in greater detail in the following chapter, along with literature relevant to the development of the PCS.

### *Terms Defined*

This section provides brief definitions for several prominent terms discussed throughout this paper including: (a) socioeconomic status, (b) social class, (c) downward classism, (d) upward classism, (e) lateral classism, and (f) internalized classism. A more comprehensive description and examples of each of these terms will also be presented in the ensuing literature review. More specifically, these terms will be discussed in the context of theories on social class and classism.

Socioeconomic status (SES) refers to a person's standing in society as measured by traditional objective indicators such as annual income, household wealth, educational attainment, etc. Social class is defined by Liu, Soleck, et al. (2004) as "the beliefs and attitudes that help the individual to understand the demands of one's economic culture, develop the behaviors necessary to meet the economic culture demands, and recognize how classism functions in one's life" (p. 9). Social class differs from SES, in that in addition to objective indicators, social class reflects a more subjective understanding of social class and also incorporates the function of classism in shaping a person's perception of social class.

Classism is defined as discrimination which is targeted at individuals because they are perceived to be from a certain social class standing (e.g., lower class, middle-class, upper class) and this discrimination is subjectively experienced as a stressor (Clark, Anderson, Clark, & Williams, 1999; Liu, Soleck, et al., 2004). Classism is further

deconstructed into several forms depending on the social class standing of the targeted individual. Downward classism occurs when classism is directed at an individual because he/she is perceived to be from a lower social class standing. Upward classism refers to when an individual from a lower social class discriminates against a person because they are perceived to be from a higher social class standing. Lateral classism is defined as discrimination from others who share the same social class standing as that of the victim. Finally, internalized classism represents the internalization of classist attitudes or beliefs directed toward an individual's social class group that result in negative affective and cognitive states such as depression, anxiety, low self-worth, etc.

## CHAPTER 2

### LITERATURE REVIEW

The first part of this literature review section broadly discusses social class and multiculturalism. Second, social class as it pertains to the development of the PCS will be defined. Third, a description of Liu, Soleck, et al.'s (2004) SCWM and MCT will be presented. Fourth, this literature review will detail the relationship between social class and psychology with a focus on counseling psychology. Fifth, a review of the literature on classism will be provided. Sixth, information on previously developed classism measures will be presented. Lastly, this literature review will elucidate classism's relationship to psychological well-being via a model of biopsychosocial response to stress and through stereotype threat.

#### Social Class and Multiculturalism

The empirical study of social class has become imperative because of psychology's continuing emphasis on multiculturalism and multicultural competency. In 1992, Sue, Arredondo, and McDavis published a seminal paper that called for applied psychologists to develop multicultural competence prior to serving members from diverse populations. The authors offered three guidelines for becoming a multiculturally competent therapist. Generally, these guidelines suggested psychologists: (a) develop awareness of their own biases and values, (b) understand the client's worldview, and (c) use culturally appropriate interventions. The authors also detailed three content areas of training for each of the three guidelines. These areas included beliefs, knowledge, and therapeutic skills. The field of counseling psychology has taken the lead on

multiculturalism since the publication of this paper and counseling psychology has placed at the forefront of multicultural research.

The American Psychological Association (APA) (2003) eventually followed counseling psychology's example and convened a task force to examine multiculturalism and create guidelines for multicultural training, research, and practice. The task force focused on ethnic/racial diversity and their recommendations highlighted the need for psychologists to educate themselves about ethnic and racial diversity. The authors were careful to note that there were numerous other areas of diversity, but they were beyond the scope of the current guidelines. They called upon researchers to explore these other areas of diversity such as sexual orientation and social class. This declaration by the APA prompted an increase in multicultural research, but there still remained a notable lag in social class-related research when compared to other foci of diversity such as ethnicity/race and sexual orientation.

The APA would later revisit the issue of social class and formed the Task Force on Socioeconomic Status (2007). The goals of this task force were threefold: (a) to describe how socioeconomic inequalities operated within the United States, (b) to explain why SES is important to the field of psychology, and (c) to provide recommendations for disseminating knowledge about the negative effects of socioeconomic disparity throughout the APA. One of the Task Force's primary findings was that social class research suffered from inconsistent conceptual definitions. The Task Force stressed the need to develop more accurate and consistent definitions of social class. The Socioeconomic Task Force's findings highlight the need for psychologists to develop greater understanding of social class and to create more accurate assessments of social

class-related phenomena. In addition, researchers have argued a paucity of research exists regarding subjective social class and classism (Liu, Ali, et al., 2004). The following three sections define social class for the purposes of this study and present the SCWM and MCT, which represent the theoretical foundations for the current study and the development of the PCS.

#### Toward a Working Definition of Social Class

The APA's Task Force on Socioeconomic Status (2007) attempted to create a more comprehensive definition of social class by examining the social class literature. Their research identified three common themes that summarized the methodology used by psychologists to investigate social class. One approach to studying social class was to objectively quantify an individual's ability to accumulate capital (e.g., income level, educational attainment, accumulated wealth, etc). Unfortunately, defining social class in this manner does not account for contextual factors that may affect individuals' access to material goods and social networks. For example, a raw data point, such as income-level, does not address the potential barriers an individual from a lower social class background may encounter when attempting to gain access to higher education. A person from an upper social class is more likely to gain access to higher education because they have greater financial resources to pay for college. Reviews of the social class literature suggest this approach to understanding social class is most often used because objective demographic information, such as income, is relatively simple to obtain.

The SES Taskforce also identified a second common approach in which to study social class. This alternative method was to view social class as a continuous slope where an individual's social class status is determined relative to others in the United

States. This perspective allows researchers to incorporate both objective measures of social class and subjective evaluations of social class. This approach also enables psychologists to better understand the inequality that exists among and within social classes.

The final recurring theme identified by the Taskforce was for researchers to conceptualize social class within a system of power and privilege that serves to maintain socioeconomic inequities. This framework enabled researchers to investigate individuals' motivations for engaging in prejudicial or discriminatory classist behaviors. This final theme attempted to address the systemic, contextual, and individual factors that influence social class.

For the purposes of this paper social class will be defined using Liu, Soleck, et al.'s (2004) conceptualization, which states social class is "an individual's position within an economic hierarchy that is determined by his or her income, education level, and occupation; the individual is also aware of his or her place in the economic hierarchy and of others who may share a similar position" (p. 8). The following sections provide an overview of Liu, Soleck, et al.'s SCWM and MCT.

#### Social Class Worldview Model

Liu, Soleck, et al. (2004) developed the SCWM and MCT as a means for understanding the individual's subjective experience with social class and classism. It is important to note, the SCWM and MCT were specifically designed to explain social class-related phenomena within the United States and may or may not apply to locations outside of the United States. In addition, prior to discussing the central tenets (i.e., domains) of the SCWM and MCT, several assumptions of the models must be presented.



One assumption of both the SCWM and MCT is that individuals in America are constantly striving for upward mobility by means of accumulating capital. The forms of desired capital can vary widely, but generally fall into one of three categories as identified in the Capital Accumulation Paradigm (CAP). The CAP organizes capital into social, human, and cultural capital (Liu, Soleck, et al., 2004). Social capital refers to an individual's use of social networks to maintain or elevate her/his social class standing. One example may be that of a promising high school student who desires to become a business major in college. This student may choose Harvard over a state university because of the influential business contacts she/he can make at Harvard. Human capital is defined as "the perceived value derived from education, occupations, interpersonal skills, and/or innate physical attributes (e.g., beauty of physical ability) that are valued in the community" (Liu, Soleck, et al., 2004, p. 101). For example, a middle-class family may take steps to ensure their children's future success by sending them to private schools and hiring personal athletic trainers so that the children can make a varsity sport team. Finally, cultural capital refers to an individual's use of tastes or aesthetics to demonstrate his/her social class to others. For example, a professional woman may enroll in a wine tasting course so that she can impress her co-workers with her knowledge of wine at future business dinners. One caveat that must be considered is that the value of each form of capital fluctuates as a function of the individual's environment. For example, the professional woman's knowledge of wine may be more highly regarded in a thriving urban area full of young professionals, but less so in a rural farm location that promotes knowledge about the local high school football team. Each of the unique environments in a person's life that require adherence to a different set of values can be

construed as an economic culture. The notion that people operate within multiple economic cultures is a second key assumption of the SCWM and MCT.

Three additional assumptions also guide the SCWM. First, social class impacts the person at both the individual and subjective levels. Second, the individual's personal experiences guide the development of her/his worldview. Third, individuals constantly attempt to match values and beliefs associated with each domain of the SCWM in order to satisfy the demands of their economic cultures. The five SCWM domains and related values and beliefs are discussed below.

The SCWM's five domains include: (a) referent group of origin, referent peer or cohort group, and referent group of aspiration; (b) lifestyle; (c) property relationships; (d) behaviors; and (e) consciousness, attitudes, and saliency. The three referent groups represent sources of influence that guide a person's social class worldview and his/her use of class-dictated behaviors. The referent group of origin consists of individuals who help establish the parameters that govern a person's social class worldview model, such as friends or family. For example, family members may teach the appropriate etiquette required at family gatherings or peers may emphasize a particular style of dress needed to fit in with that group of friends. The lifestyle domain refers to the types of cultural activities an individual chooses to spend his/her time and resources on. An individual may then use these cultural activities to demonstrate his/her social class standing. One example of the lifestyle domain may be an individual who saves up to attend NASCAR races and views races on television each week to keep abreast of how different drivers are performing. The ability to discuss NASCAR may be highly regarded within an individual's particular economic culture. The property relationships domain refers to the

material objects a person desires that reinforce her/his current social class worldview of herself/himself and others. For instance, a new Mercedes-Benz may enable a well-earning couple to view themselves as upper-middle class, while also signifying to others that they are not working class or even lower middle-class. The fourth SCWM domain is titled behaviors. Behaviors refer to all the behaviors an individual has amassed throughout his/her lifetime that are compatible with his/her social class worldview. Lastly, consciousness, attitudes, and saliency represent the fifth domain. This domain refers to the extent to which a person is aware of his/her social class status in the context of the larger social strata. For example, a person is able to distinguish between different social class groups (e.g., working class vs. middle class) or have an understanding of the manner in which social class functions within her/his society (e.g., wealthy, suburban families often have greater access to high performing schools). Liu, Soleck, et al. (2004) also proposed the MCT as a complement to the SCWM in order to foster a more comprehensive understanding of social class.

#### Modern Classism Theory

Liu, Soleck, et al.'s (2004) SCWM argues that systematic investigations into social class should also consider the individual's subjective experience with social class and classism. The emphasis on the subjective nature of social class thus challenges the commonly held assumption that only individuals from a higher social class can discriminate against those from a lower social class. If the subjective experiences of individuals are considered, then individuals from any social class can be the target or perpetrator of classism. Liu, Soleck, et al. (2004) developed the MCT to clarify these possible forms of classism. It should be noted that the MCT operates under the

assumption that members from all social class backgrounds are motivated to accrue capital to maintain or further their current social class standing.

Liu, Soleck, et al. (2004) extended the conventional perception of classism and proposed four types of directional classism: (a) upward, (b) downward, (c) lateral, and (d) internalized classism. Upward classism occurs when a person from a higher social class is targeted for discrimination by an individual from a lower social class. For example, lower social class individuals at a neighborhood drinking establishment may discourage “yuppies” from taking over their bar by making fun of their “designer” clothing or manner of speak. In contrast, downward classism refers to discriminatory behaviors by higher social class individuals aimed at members of a lower social class. For example, a wealthy college sorority may require pledges to fund high-cost activities for the sorority or have expensive annual dues to discourage lower income applicants. Downward classism is the most commonly referenced form of classism in popular culture which is typified by “the rich discriminating against the poor.” Lateral classism occurs when an individual experiences pressure to conform to the economic demands of others who are thought to share the same social class background. This form of classism is the type of classism colloquially referred to as “keeping up with the Joneses.” For instance, a person may feel compelled to acquire a ski boat if several members of the neighborhood association recently purchased boats. Lastly, internalized classism occurs when an individual begins to internalize those classist messages directed towards them from others in his/her economic cultures. For example, an individual may feel frustrated and angry if he/she is unable to afford the new iPad that his/her friends are purchasing. The

internalization of these messages may lead to negative psychological states such as anxiety, depression, or frustration.

One criticism that may be directed at the MCT is that it posits classism consists of multi-directional relationships (e.g., upward and downward classism) rather than a single unidirectional relationship (i.e. downward classism). For example, scholars who investigate racism argue that racism can only be unidirectional in nature because the dominant group maintains a power differential over all other groups. In contrast, the multi-tiered structure of social class affords differing levels of power for each social class; hence, classism may be more accurately characterized using a multidirectional approach. For example, a middle class individual may be subject to discrimination from members of a higher social class, yet the middle class person maintains power and the ability to discriminate over lower social class individuals. The middle class person may engage in discriminatory behaviors directed at lower social class individuals in an attempt to maintain or advance her/his current social class. The nature of social class does not lend itself neatly to one dominant group; rather it is a complex web of social stratum. Social class is also dynamic and does not easily lend itself to the dichotomous partitioning that can be used to understand other forms of privilege. For example, a high level executive at a Fortune 500 company may be laid off as a result of restructuring or an economic downturn, whereas an individual who is White cannot ever become African American and lose the privileges that are afforded to White people. Depending on the circumstances, a person may experience a small decrease in social class standing such as having to spend less money or he/she may experience a dramatic decrease such as losing a house and/or vehicles. In addition, as Liu, Soleck, et al. (2004) noted, race, gender, and

social class are a mechanism for maintaining White or male privilege. For instance, an upper middle-class African American male may have more educational attainment, hold a higher status job, and have a larger income than a lower middle class White male; yet, the White male may engage in upward classism in an attempt to assert his White, male privilege over the African American male.

MCT theory is relevant to the current study because the PCS attempts to measure the downward, lateral, and upward forms of classism proposed by Liu, Soleck, et al. (2004). Liu, Soleck, et al. (2004) also did not expand upon the potential psychological sequelae that may result from exposure to classism. Therefore, an additional goal of this project is to examine the relationship between psychological well-being and perceived forms of classism.

### Social Class and Counseling Psychology

A general search of the psychological literature using the terms “social class” and “socioeconomic status” revealed 12,601 journal articles on the two subjects. These results did not include books, book chapters, dissertation, etc. In fact, research on social class-related phenomena may be much greater because psychologists have used numerous descriptors to define social class. The brevity of social class related research makes it difficult to provide a concise summary and is beyond the scope of this paper. Therefore, this paper will restrict its discussion of social class to three primary areas. The first area is the relationship between social class and counseling psychology. The second area will focus on emerging research in the area of subjective social class. Subjective experiences with social class will be of greater relevance to this research study because this study will attempt to develop a measure that assesses individuals’ perceptions of

classism. The third area discussed will be investigations into classism. Few researchers have attempted to empirically study individuals' perceptions of classism because no instruments for assessing classism had existed until recently. Most investigators have inferred social class discrimination based on objective indicators rather than considering the individual's subjective experience with classism.

Counseling psychology has been in a prime position to study social class and classism because of its emphasis in vocational psychology and its commitment to multiculturalism and social justice. Yet, until recently, counseling psychology has not focused much of its attention on social class. The ensuing part of the paper details the study of social class within counseling psychology.

Counseling psychology's awareness of social class has expanded rapidly over the past decade. In 2004, Liu, Soleck, et al. published the aforementioned theoretical models for understanding social class and classism in the *Journal of Multicultural Counseling and Development*. This article served as a both a call and catalyst for counseling psychology to focus more on social class and engage in greater social class research. The authors also reviewed the social class literature pertaining to counseling psychology in their article. They operationalized the terms social class and classism so that counseling psychologists could share a systematic approach for researching social class, thus shedding greater insight into the effects of social class and classism.

The area of counseling psychology that has historically directed the greatest attention to social class has been career development. Brown, Fukunaga, Umemoto, and Wicker (1996) provided a comprehensive review of vocational research related to social class, work, and retirement over a six-year period from 1990-1996. As is the case with

most social class research, the authors were hesitant to draw any definite conclusions because of the wide variety of methods used to measure social class. But, their search of social class-related vocational literature yielded three recurring themes. The first of these themes was the relationship between social class and career choice attitudes and behaviors. In general, social class may influence a person's beliefs about potential career considerations, perceived control over career choices, and perceived capacity for attaining a desired career. In addition, individuals from higher social class backgrounds tended to place greater emphasis on occupational prestige than those from lower social class backgrounds and higher social class was also associated with higher levels of educational attainment. The second theme identified by Brown et al. (1996) was the interaction between social class and work-related behaviors. Persons who occupy a high social class status appeared to place greater emphasis on work than for those from a low social class status. Women from high social class backgrounds were also more likely have careers which permitted time for both work and family than women from low social class backgrounds. Research also suggested that persons who are from a low social class are likely to be employed in jobs that provide less financial opportunity and are less satisfying. Lastly, the authors noted a third theme related to social class and retirement. Retired individuals with high social class backgrounds were more likely to participate in expensive or intellectually demanding activities and retire at a later age than individuals from lower social classes.

Brown et al. (1996) did an excellent job synthesizing social class and vocational literature, but noted an overall paucity of research in this area. They argued the need for vocational psychologists to be more intentional in their investigations of social class.



Several studies have since answered this call and specifically addressed the intersection between social class/socioeconomic status and vocational development.

Blustein, Chaves, et al. (2002) interviewed 10 men and women around the age of 22 who represented a range of socioeconomic status (SES) backgrounds. Participants all had low skilled jobs and were classified into a high or low SES groups based on their parents' occupations. Each interviewee was asked questions pertaining to their transition from school to work. Findings suggested a wide discrepancy between the high SES groups' and low SES groups' experiences from school to work. Higher SES participants were more likely to perceive work as a rewarding experience, find jobs more related to their personal interests, make greater preparations to attain a desired career (e.g., seeking out relevant training or education), and consider a wider variety of career options than participants from the low SES grouping. Individuals with low SES status also reported greater challenges and received less support for entering a desired career with high social class status. High SES participants also often received career guidance and financial support from parents to facilitate career exploration. Blustein et al.'s study (2002) advanced our understanding of the role of SES in career development, but the qualitative nature makes it difficult to generalize their findings. A group of researchers provided some solutions to this problem and examined the influence of self-efficacy on career expectations in adolescents from lower SES backgrounds.

Ali, McWhirter, and Chronister (2005) examined self-efficacy and career expectations in a sample of 114 adolescents from a largely working class high school. Adolescents' SES backgrounds were determined using Hollingshead's (1975) Four Factor Index of Social Status. Higher scores on the index represented higher levels of

social status. Participants were also given measures of career self-efficacy, vocational expectations, parental, friend, and sibling support, and perceived barriers to educational attainment.

Results showed participants from low SES backgrounds who reported greater peer and sibling support more strongly believed their preparation for a career would result in achieving a desired career than participants with less support. Ali and her colleagues also found adolescents from both high and low SES backgrounds endorsed fewer perceived barriers to higher education if their decisions to obtain more education were supported by their parents and friends.

These two investigations into career and SES address a great need, but counseling psychology must continue their example and study social class as it relates to normal development and multicultural competence among other topic areas. A promising new line of research on social class in the field of counseling psychology has begun to examine individual's subjective perceptions of social class.

One of the largest-scale studies investigating subjective social class was conducted by Singh-Manoux, Adler, and Marmot (2003). The authors examined the relationship between subjective social status, objective measures of SES, and changes in mental and physical health. The participants in this study were part of a longitudinal study of government employees in London, England. The sample contained a total of 3,924 men and 3,413 women between the ages of 35 to 55. The authors had participants rate on a scale from 1 to 10, their perception of their social standing relative to the highest (i.e., most money, most educated, best jobs) and lowest (i.e., least money, least education, worst jobs) members of society in order to gauge subjective social status. Each

participant's government pay grade, father's SES (taken from the Registrar General's Social Class classification system), educational attainment, personal and household income, and household wealth were used to determine objective social status. Mental and physical health was assessed using measures of global health and psychological distress.

Singh-Manoux, Adler, and Marmot (2003) found subjective social status was most strongly correlated with objective measures of household wealth, personal income, household income, and education. Both subjective social status and objective SES were significantly related to physical and mental health outcomes. Higher SES was associated with better overall health. The authors also contrasted the utility of both the subjective and objective measures of social status in predicting health outcomes. Results showed the subjective measure of social standing more accurately predicted declines in health as opposed to measures of objective SES.

The findings from this study highlight the need to investigate subjective perceptions of social class throughout different regions of the world. The United Kingdom has an established history of class divide and participants in this study may have had a greater sense of class awareness than individuals from countries such as the United States, which denounces class separation. Social class research using a sample from the United States may help address the role of subjective social class in America.

A study by Ghaed and Gallo (2007) examined the relationship between subjective social status, objective indicators of SES, and cardiovascular risk in United States women. Participants for this study were taken from a larger study investigating the relationship between occupation, ambulatory blood pressure, and psychosocial

experiences. Ninety-two women completed measures of subjective and objective social status, depression, anxiety, pessimism, stress, and behavioral risk factors (i.e., serving of fruits and vegetables, amount of physical activity, body-mass index). Participants' clinic and ambulatory blood pressure was also taken on several occasions. The subjective measure of social status was similar to that used in the study by Singh-Manoux, Adler, and Marmot (2003). The measure was modified so that participants were asked to rank their social status in comparison to others in their community and within the United States.

Results showed the two subjective social status measures predicted depression, anxiety, pessimism, and levels of stress. Higher levels of perceived social status in the community were related to decreased levels of anxiety and stress. Participants who reported having a high social status relative to others in the United States were also more likely to eat fruits and vegetables, yet have higher diastolic blood pressure than lower social status participants. Conversely, lower perceived social status in the United States was related to low clinic and ambulatory blood pressure. In addition, those with lower social status in the United States ate fewer fruits and vegetables and participated in lower rates of physical activity than higher status participants.

One criticism at the use of subjective measures to understand social class is that they may not be reliable over an extended period of time. A second concern may be their appropriateness for groups other than middle-aged adults who might have a greater sense of class awareness. One study that addressed these concerns investigated the association between objective SES indicators, subjective social class, and self-rated health over a four year period in a sample of adolescents (Goodman, Huang, Schafer-Kalkhogg, &

Adler, 2007). The youth sample was drawn from a Midwestern suburban city and consisted of 267 African American males, 274 African American females, 321 White males, and 317 White females. The average age of participants at the onset of the study was 15.1 years. The participants' parents provided their level of education and pre-tax household income as objective ways to classify SES. The participants completed an adolescent version of the rating scale used in the two previously discussed studies, but the scale was amended so that participants rated the relative standing of their families. Follow-up assessment of subjective social status and overall health was conducted approximately every 10-11 months for four years.

Over the four-year period, students' perceptions of their social class standing declined over time, but showed less variability with increasing age. The researchers also found several differences between African American and White participants' subjective ratings. African American students from families with low educational attainment were more likely to rate their subjective social class higher than white students whose families had similar educational backgrounds. These results also suggest that race is also inseparably intertwined with social class.

A separate study conducted by Thompson and Munich (2007) investigated the relationship between subjective social status and career decision making. One hundred forty seven women and 74 men completed measures of subjective social class status, career decision self-efficacy, career decision status, and social desirability. Results showed greater access to resources, higher levels of social power, and higher prestige were associated with higher self-efficacy in choosing a career. Higher self-efficacy, in turn, increased the probability that participants would select a desired career.

Aggregate findings from these two studies suggest subjective social class may better predict mental and physical health outcomes than objective measures of SES. These conclusions accentuate the need for future study of subjective social class-related phenomena such as classism.

### Classism

There is a paucity of both theoretical and empirical literature on classism and psychologists have made several calls for researchers to remedy this situation (Liu, Ali, et al., 2004; Smith, 2005). An examination of the literature revealed only four studies that directly or indirectly examined classism and these four studies are reviewed below.

The earliest of the four studies to examine factors related to classism was conducted by Grella (1990). The sample consisted of 40 women who were divorced at least one year, were still unmarried, and had at least one child living at home. Thirty-eight of the women were White and two were Latina. Each woman was interviewed about changes in their perceived social class standing following divorce. Participants reported substantial decreases in their social status after the divorce. Grella also found many women felt conventional definitions of social class failed to accurately characterize their current condition and that they often viewed material possessions as indicators of social class. The majority of interviewees held clerical jobs or worked part-time while they were married and were unable to maintain their married economic lifestyle after the divorce. The data also showed women's perception of their social class following the divorce was often based on their parents' status or they compared their current social standing with their pre-divorce lifestyle or other divorced women.

The next investigation into classism was by Granfield (1991). Granfield examined law students' experiences with classism through the use of interviews, observations, and surveys. Participants included 404 law students at an Ivy League law school. One hundred three of the students were interviewed about their experiences with social class stigma. The remaining 391 participants were administered questionnaires on their motives for attending law school, subjective perceptions of personal change, expectations about future practice, and their perceptions about different areas of law specialization. In addition, these students also provided demographic data about their backgrounds.

Themes from the interviews suggested newly-entering students from working class backgrounds took pride in their social class background. This sense of economic pride motivated them to apply themselves and do well in law school and several interviewees alluded to the belief that pride fueled their desire for social justice. But, soon after entrance into the law program, these interviewees began to express feelings of discontent. They reported their backgrounds hindered their relationships with other law students and they often felt incompetent or powerless. In order to cope with these feelings many interviewees engaged in "passing." Passing in this study referred to attempts made by individuals from underprivileged backgrounds to identify and become more like those individuals from higher social class backgrounds. Several students in the study began to represent themselves as higher social class by purchasing new clothing. In sum, many of the interviewed participants experienced marginalization by other students and professors. Granfield only briefly mentioned descriptive quantitative results from the survey and noted two-thirds of the working class, first year students reported

excessive pressure to get good grades as opposed to one-third of the higher social class students. One difficulty with interpreting Granfield's results was that he did not discuss how he distinguished working class students from students of other social class groups in the survey. In addition, his method for selecting working class students for the interviews was largely based on parental occupation.

This study illustrates the manner in which classism can adversely affect psychological well-being. The findings from this study suggest experiences with classism can be very detrimental to the person being targeted and can lower feelings of self-worth. Experiences with classism were so powerful for many of these students that it was responsible for changes in behavior. Once again, this study reinforces the need for greater research into the effects of classism and its relationship to mental health.

The third study related to classism was conducted by Bullock and Limbert (2003) who extended Grella's work by empirically exploring low-income women's beliefs about social class and upward mobility. The authors surveyed 69 women who were enrolled in an educational program for low-income individuals. The women were attempting to elevate their current social class standing through education. All women in the study were mothers and participants' racial/ethnic breakdown were as follows: 48% White, 29% Latina, 6% African American, 3% Asian/Pacific Islander, 1% Native American, and 13% self-identified as "other." The women were administered questionnaires that assessed for previous, current, and future social class statuses, reasons on the existence of poverty and wealth, attitudes toward income disparity, and beliefs about education and economic mobility.



Findings from the study showed participants were more likely to report that poverty was the result of systemic factors rather than the result of an individual's actions. Results also showed privilege, more than hard work or luck, was the most endorsed reason for attaining wealth. Finally, women in the study felt education would provide them the means for attaining middle-class status.

The fourth study on classism investigated medical students' experience with classism (Beagan, 2005). One hundred thirty-three, third-year, medical students completed a questionnaire on their experiences with classism throughout their medical schooling. Fifty students in the sample also participated in interviews. Forty-three percent of upper-middle and upper class students reported they fitted in well in medical school as opposed to 29% of working class students. Data from the interviews also suggested working class students felt their social class backgrounds made training more difficult. Several of the working class participants reported being subjected to disparaging comments or jokes about their socioeconomic backgrounds. Students not only observed student-to-student classism, but also witnessed fellow students treating working class patients worse than middle class patients. Forty-three percent of upper-middle and upper class participants reported patients' social class did not influence treatment by healthcare professionals, whereas 19% of working class participants felt working class patients were treated differently.

While this mixed-methods research design provides valuable information, the study had potential limitations. The criteria for discriminating between social class groups were unclear. Students were instructed to report whether they perceived themselves to be working, lower middle, upper middle, or upper class without parameters

defined for each class. But, as discussed previously in this paper, this subjective assessment of social class may better predict behavior than objective indices. In addition, the instrument used in this study to assess classism was not psychometrically validated. The analyses reported were merely descriptive and it is not clear if any of the differences found between social class groups were significant. Therefore, it may be difficult to generalize these participants' experiences to other medical students. Overall, these four studies highlight the need for empirically validated instruments that assess classism in order to advance psychologists' understanding of social class. The ensuing section discusses prior empirical attempts to measure classism.

#### Previous Classism Measures

A review of the social class literature revealed two previous attempts to empirically measure classism. First, Langhout, Rosselli, and Feinstein (2007) developed the Classism Experiences Questionnaire-Academe (CEQ-A) to assess college students' experiences with classism in an academic environment. The CEQ-A is a 22-item, Likert-style (1= once or twice, 2 = sometimes, 3 = often, 4 = or many times) measure that consists of three scales. The first subscale, Citational Classism, refers to the use of jokes or stories that discriminate against individuals from low socioeconomic backgrounds. The second subscale, Institutionalized Classism, attempts to measure a person's experience with classism that results from an institution's guiding principles. The final subscale, Interpersonal Classism Via Discounting, assesses how often an individual feels others have purposefully tried to discount the individual's social class status.

Unlike the proposed PCS, the hypothesized domains for the CEQ-A were not grounded in a theory that specifically addressed classism. The authors instead referred to

Bourdieu's (1986) definition of social class as their primary theoretical foundation rather than a theory on classism. Bourdieu conceptualized social class as consisting of economic, social, and cultural capital. Liu, Soleck, et al. (2004) incorporated these three concepts in the SCWM, but also expanded their definition of social class and included the influence of classism. One difficulty with using Bourdieu's interpretation of social class to create the CEQ-A is that he did not specifically address issues of classism and each scale of the CEQ-A only contain items that relate to aspects of economic, social, and cultural capital. The authors of the CEQ-A also reviewed the social class and discrimination literature and isolated several themes they believed would accurately depict the types of classism experienced by college students. The authors then modeled items on the CEQ-A after several existing measures on differing types of discrimination.

More recently, a second classism measure was developed by Thompson and Subich (2013). The Experiences with Classism Scale (EWCS) is a 25-item instrument, 6-point Likert-type response where 1 = never happened, 2 = happened once in a while (less than 10% of the time), happened sometimes (10%-25%) of the time, happened a lot (26%-49%), happened most of the time (50%-70%), happened almost all of the time (more than 70% of the time). The EWCS was largely modeled after the General Ethnic Discrimination scale (GED; Landrine, Klonoff, Coral, Fernandez, & Roesch, 2006). The GED attempts to assess individuals' experiences with ethnic discrimination and the EWCS modified items from the GED to reflect experiences with social class. In addition, items on the EWCS were developed to reflect the themes identified by Ritz and Hyers (2005) in their unpublished qualitative study that examined classism in 38 low income college students.

The EWCS consists of two subscales designed to measure personal and systematic experiences with classism. The personal subscale consists of 18 items and sample items include “How many times have you been treated unfairly in the past year by teachers and professors because of your social class” and “How many times have you been suspected or accused of doing something wrong (such as stealing, cheating, not doing your share of work, or breaking the law) in the past year because of your social class”? The systemic scale consists of seven items and examples of items include “How often have you felt frustrated with all of the steps you had to take with the financial aid office or banks in order to have access to money for school” or “How often in the past year did you feel that friends, roommates, and/or classmates “showed off” their ability to buy nice things, go on vacations, and drive nice cars”? The items on the EWCS generally reflected Liu, Soleck, et al.’s (2004) conceptualization of downward classism. Individuals who reported greater levels of classism on the EWCS were also likely to self-identify as lower social class. The authors of the EWCS also reported higher scores on the personal and systematic subscales were related to measures of depression, anxiety, and stress. Lower scores on the two subscales were associated with greater well-being and self-esteem.

Similar to the CEQ-A, the EWCS was designed to assess the frequency of classist experiences in a college population. The EWCS differs from the CEQ-A in that the EWCS expands experiences with classism beyond the academic environment. The sample used for the development of the EWCS was also much more varied with regards to income level and SES background than the sample used in the construction of the CEQ-A.

One limitation of the EWCS is that the personal and systematic subscales were strongly related, which suggests the possibility that the two subscales may not assess two distinct constructs. A second limitation of the EWCS is that its factor structure has not been validated using a confirmatory factor analysis. Confirmatory factor analysis of the EWCS may help further delineate the underlying factor structure of the EWCS and the proposed two-factor model of the EWCS.

One primary distinction between the CEQ-A, EWCS, and the proposed PCS is that the PCS will attempt to measure classism multidirectionally rather than unidirectionally. The CEQ-A and EWCS only assessed the individual's experiences with downward classism. In contrast, the PCS seeks to identify the individual's perception of upward, downward, and lateral classism. The rationale behind the need to measure these three forms of classism was discussed previously. A second key distinction between the CEQ-A, EWCS, and PCS is that the PCS will be uniquely grounded in a comprehensive explanatory model of social class and classism (i.e., the SCWM and MCT). The CEQ-A and EWCS were not based on any specific theory of social class or classism. Rather, they were modeled on prior instruments of discrimination or on the cumulative findings of past research studies on social class and classism.

The relative lack of classism literature and paucity of instruments designed to assess classism have made it difficult to investigate the mechanisms by which classism operates on the individual. Classism represents one form of discrimination based on an individual's social class standing; therefore, one method for exploring classism's affect on the individual is to understand how other forms of perceived discrimination such as racial/ethnic and sex discrimination influence the individual. The relationship between

other forms of discrimination and psychological health is discussed in the ensuing section. It is important for the reader to understand the potential relationship between classism, stress, and psychological well-being because the proposed PCS models previously developed measures of discrimination that hypothesized discrimination may serve as both an acute and chronic stressor which can negatively impact mental health.

#### Classism, Classism-related Stress, and Psychological Well-being

Perceived discrimination is an important area of study for psychologists because research has consistently shown a negative association between perceived discrimination and psychological and physical well-being. For example, Landrine, Klonoff, Gibbs, Manning, and Lund (1995) found perceived sexism was responsible for a greater level of physical and psychiatric symptoms than generic stressors in a multi-racial/ethnic sample of 631 women. In another study, Mexican-immigrant women who reported experiencing perceived discrimination were more likely to endorse depressive symptoms than women who did not feel they had been discriminated against (Salgado de Snyder, 1987). The inverse relationship observed between perceived discrimination and psychological and physical well-being may result from the individual's psychological and physical stress responses to acts of discrimination. This section will discuss a model of racism-related stress and how this model may be adapted for use with classism. This model will be used to explain the pathways in which classism can potentially result in mental and physical distress.

Researchers have hypothesized perceived discrimination may be related to lower well-being because perceived discrimination serves as a form of stressor. In fact, several measures of perceived discrimination have been constructed on the premise that

perceived discrimination operates as a type of stress (Klonoff & Landrine, 1995; Landrine & Klonoff, 1996; Utsey & Ponterotto, 1996). Unfortunately, the authors of these instruments did not provide a cohesive theory explaining the association between perceived discrimination, stress, and mental and physical health. In an attempt to resolve this limitation, Clark, et al. (1999) developed a biopsychosocial model of racism-related stress for use with African Americans. This biopsychosocial approach is based on Lazarus and Folkman's (1984) psychological model of stress. A thorough description of this racism-related stress model will be presented, because in combination with Liu, Soleck, et al.'s (2004) SCWM and MCT, it represents the theoretical foundation for the PCS. Analogous examples for perceived social class discrimination will be provided for each construct in the biopsychosocial model.

The biopsychosocial model details the process by which a person construes an environmental stimulus as discrimination and how it may lead to psychological or physical distress. The initial stage in this model is that the individual must first be aware of some environmental stimulus prior to deciding if he or she has been discriminated against. According to Clark, et al. (1999), three variables can influence an individual's perception of environmental stimuli (e.g., overt discrimination). These variables are constitutional factors, sociodemographic factors, and psychological and behavioral factors. Constitutional factors include the physical qualities of the individual. In terms of classism, this may represent the intersection between race/ethnicity and social class. African Americans and Latinos are often associated with the lower class, while Whites are usually thought of as middle-class or higher. Other characteristics such as bad teeth or obesity may also be linked with class differences. The second variable,

sociodemographic factors, refers to background characteristics such as SES. For example, an individual wearing dirty jeans and a t-shirt may more likely be the target of classist acts than an individual wearing a designer business suit. Lastly, psychological and behavioral factors are the lenses through which individuals experience environmental stimuli. For instance, a person who is made to wait a long time while shopping for a car may claim that salesmen were not interested in helping because he/she looked like they would be unable to afford an expensive vehicle. In contrast, another person may not have even noticed the delay or might have attributed the delay to the salesmen being preoccupied with other customers. Once an individual has perceived the environmental stimulus they make an attribution of the stimulus.

Clark, et al. (1999) posited there are three possible alternatives when perceiving the stimulus. The person may recognize the stimulus as classism, as a different type of stressor, or not acknowledge any type of stressor or classism. When a person fails to perceive the discrimination he or she may experience a somatic response to the stressor. If the person perceives the situation as classism or as another stressor she/he is likely to engage in adaptive or maladaptive coping responses. Examples of adaptive coping responses include seeking support from friends or family or taking an assertive approach and alerting the offender that they have intentionally or inadvertently acted in a discriminatory manner. Maladaptive coping strategies could include getting in a physical confrontation with the transgressor or using drugs or alcohol.

This individual's coping response will in turn influence the type of stress reaction. A positive coping strategy will decrease the level of stress experienced by the discriminated person. Conversely, a negative coping approach increases the likelihood



the person will activate both physiological and psychological stress responses. Individuals with poor coping strategies who are exposed to constant classism may experience over-activation of their sympathetic nervous system and this over-activation may have deleterious consequences. Research has shown persistent arousal of the sympathetic nervous system resulting from stress is associated with a number of cardiovascular risk factors such as hypertension and myocardial ischemia (al'Absi, Everson, & Lovallo, 1995; Blumenthal, Jiang, Waugh, Frid, Morris, Coleman, et al., 1995). Poor coping can also relate to decreased immune system functioning, which makes the individual more susceptible to infection and disease (Seegerstrom & Miller, 2004). In addition, maladaptive coping may have negative effects on psychological health. For example, a person may experience anger, depression, learned-helplessness, anxiety, or a host of other negative emotions. These associations between social class, discrimination, and mental health should be further studied.

A recent investigation provided a template for studying the relationships between racism-related stress, psychological distress, and social class (Pieterse & Carter, 2007). Two hundred and twenty African-American men completed measures on general life stress, racism-related stress, and mental health. Participants were asked to rate their level of social class and 46% identified as working class, 45% as middle-class, and 7% as upper class.

The authors found general life stress was a more accurate predictor of psychological distress than stress related to perceived racism. These results suggest that stressors such as moving and financial difficulty may have a greater influence on mental health than perceived discrimination. Perhaps more interesting was that responses to

racism-related stress varied by social class. Psychological distress related to racism was more prevalent in participants from upper or middle class backgrounds than participants who identified as working class. One reason for this finding may be that education increases awareness of discrimination and the middle and upper-class men may have obtained more education than the working class men. The authors did not report demographic data related to social class or educational attainment so it is difficult to make any conclusions regarding the possible influence of class awareness and education on perceived discrimination.

In summary, Clark, et al.'s (1999) biopsychosocial model of racism-related stress provides an important medium for understanding the potential negative effects classism may have on a person. Previous research using the biopsychosocial approach has shown a link between perceived racial/ethnic discrimination and lower psychological well-being. Extrapolations from the biopsychosocial model suggest that individuals who perceive classism and have insufficient resources for appropriate coping are at greater risk for the psychological and physiological distress than individuals who are able to manage stress more effectively. In addition to the possible effects classism may have on psychological well-being via the biopsychosocial stress response, classism can have varying impacts on an individual's mental state through other means. Stereotype threat represents one of the alternative mechanisms in which classist discrimination can affect well-being and is discussed in the following section.

#### Classism and Stereotype Threat

The negative relationship between perceived discrimination and psychological well-being can also be construed through more indirect routes than the biopsychosocial

model previously discussed. Perceived discrimination may also adversely affect psychological well-being because the person being discriminated against may experience stereotype threat. Stereotype threat occurs when an individual feels her/his behavior will be interpreted as fulfilling a generally accepted stereotype about the individual's group of origin. Psychologists have been unable to study the effects of chronic stereotype threat because they are only able to invoke acute stereotype threat in experimental settings and have not developed a means of assessing real-life, chronic stereotype threat. But it stands to reason, if a person experiences chronic stereotype threat he/she may internalize the stereotype and be at greater risk for a host of psychological distress (e.g., feel compelled to change their behavior, withdraw emotionally, or experience feelings of low self-worth). This section of the paper describes Steele and Aronson's (1995) pioneering study into the effects of stereotype threat. Second, three studies which specifically examined the effects of social-class related stereotype threat will be presented.

Steele and Aronson (1995) conducted a four-part study to investigate the effects of stereotype threat on African American college students' academic performance. In the first part, African American and White students were asked to complete a 30-minute examination consisting of Graduate Record Examination (GRE) verbal subtest items. In the diagnostic condition participants were told the test was a measure of intellectual ability. During the nondiagnostic condition the test was described as a problem-solving task that was not a measure of intellectual ability. In addition, participants were also asked to complete a questionnaire that assessed for perceived academic competence and self-worth. The authors compared participants' performances with their reported Scholastic Aptitude Test (SAT) verbal scores and across experimental conditions.

Results showed African Americans students in the experimental group performed significantly worse than Whites in the experimental group and both African Americans and Whites in the control group.

The second part of the study investigated whether the poor academic performance shown in the previous study was due to African American participants' anxiety about possibly confirming negative stereotypes about African Americans. To examine this possibility, the investigators followed the same procedure used in the first study and then asked participants to complete a measure of state-anxiety after the test. The verbal subtest was again administered on a computer and participants' response time for each item was calculated. The authors found no difference between African American and White participants' reported levels of state-anxiety, which suggest the African American participants' performance in the experimental condition of the first study was not the result of anxiety.

In the third part of the study, Steele and Aronson attempted to elicit stereotypes about African Americans in participants to gauge whether the possibility of fulfilling a stereotype would cause African American participants to engage in self-handicapping strategies or try to avoid behaviors that were considered stereotypically African American (e.g., listens to rap music, plays basketball, etc.). In this study, African American and White students were divided into the diagnostic and nondiagnostic conditions used in the previous two studies. In addition, a control group was instituted. The control group did not complete the test but completed the outcome measures, which assessed for stereotype activation, stereotype avoidance, self-doubt, performance apprehension, and willingness to self-handicap. Results showed African American

students in the diagnostic condition reported greater levels of self-doubt and stereotype avoidance than African American or White participants in the remaining conditions.

The final portion of the study investigated whether stereotype threat could be activated solely by asking participants to identify their race on a demographic form. The experimenters followed the procedure used for the nondiagnostic conditions in studies one and two. Steele and Aronson found that African American participants who indicated their race prior to taking a test exhibited significantly lowered performances when compared to African American students who did not indicate their race and White students who reported their race. African American participants who did not report their race performed equal to their White counterparts.

The immediate consequences of stereotype threat shown by Steel and Aronson's work emphasize the need to investigate the impact that other types of discrimination may have on an individual's behaviors. Thus, stereotype threat provides an important lens for understanding the acute effects of classism on human behavior. While the majority of research on stereotype threat has focused on race or sex-based stereotypes, the association between stereotype threat and social class has been investigated by a few researchers. A review of the stereotype threat literature revealed three studies specifically addressing social class stereotyping.

The earliest of these studies was conducted by Croizet and Claire (1998). The sample in this study consisted of 128, White, French undergraduates of varying socioeconomic status. Participants were chosen from a larger subject pool so that an equal number of students from both high and low socioeconomic backgrounds were represented. Socioeconomic status was determined using participants' parental

occupation. In addition, all students in the low status group were receiving financial aid, while the high status students were not receiving financial aid.

The authors investigated whether three variables would impact students' performances on a GRE-style measure of verbal reasoning. The first condition manipulated the descriptions participants read about the goals of the study. One description was written to induce stereotype threat and the other was neutral. The second variable was the student's SES background (i.e., high or low). Finally, in the third condition, half the study participants were asked to indicate their parents' occupations and educational levels in an attempt to make awareness of their SES background more salient.

Results of the study showed low SES participants in the stereotype threat condition performed worse on the verbal abilities test than low SES participants who were provided the neutral description or high SES participants in the stereotype threat group or control group. The results of this study are especially relevant to understanding social class because the researchers were able to eliminate the potential confound race may have had because all participants were White. The authors did not report the number of females and males in the study and participants' sex may have influenced results.

The second study by Harrison, Stevens, Monty, and Coakley (2006) investigated the relationship between socioeconomic stereotype threat in both White and non-White participants. The authors expanded on Croizet and Claire's (1998) study by including middle-class and non-White students. A total of 269 participants were included in the study. One hundred and sixty-four self-identified as White, 32 as Hispanic, 29 as Asian American, 14 as African American, 2 as Arab American, 8 as multiracial, and 10 as

“other.” The students were divided into lower, middle, and upper income groups and were assigned to each income group based on their families’ typical income level when they were growing up. Lower income was defined as making below \$39,999, middle income as making between \$40,000-\$74,999, and high income making above \$75,000.

Harrison, Stevens, Monty, and Coakley (2006) had participants complete verbal and quantitative items from the Scholastic Aptitude Test (SAT). Prior to taking the tests participants were provided one of two sets of instructions. The instructions in the diagnostic condition stated “middle and upper income students consistently performed better than lower income students on standardized tests” (p.345) and that “their performance would be compared to other students from across the nation in order to determine why lower income students generally performed worse than higher income students” (p. 346). Students in the non-diagnostic condition were informed the purpose of the test was to investigate the relationship between psychological factors and standardized tests. In addition to manipulating stereotype threat, the authors also assessed for test anxiety, effort, self-esteem, and identification with school subjects after the students completed the exams.

Results showed lower income students in the diagnostic condition performed worse on the verbal and quantitative tests than lower income students in the non-diagnostic condition. Lower income students also scored lower than middle and high income students in either the diagnostic or non-diagnostic condition. Contrary to the performances by low income students, high income students in the diagnostic condition scored higher than high income students in the non-diagnostic condition, which suggests the stereotyping of lower income students may have also improved the performances of

high income students. Lower income students in the diagnostic condition also reported higher levels of test anxiety than lower income students who were provided non-diagnostic instructions.

These results found by Harrison, Stevens, Monty, and Coakley (2006) suggested low income students are more susceptible to negative effects of stereotype threat than middle or high income students. More interestingly, stereotyping of lower income students was related to an improvement in the performance of high income students.

The most recent study to investigate social class stereotype threat was conducted by Spencer and Castano (2007). This study was similar in many aspects to the study by Croizet and Claire (1998). Spencer and Castano (2007) modified the study done by Croizet and Claire by conducting their investigation using an American sample of college students and including a measure of self-assurance. In addition, the authors investigated SES as a continuum based on parents' income rather than creating separate income groups based on arbitrary cutoffs. Forty-six students participated in the study and were classified into the low SES group if their income was one standard deviation below the sample mean. The average reported parental income bracket for this sample was \$65,000 to \$80,000. The procedure used in this study mimicked the diagnostic and nondiagnostic conditions used by Croizet and Claire. Participants were asked to complete a 15-item test comprised of GRE questions and a proofreading task. The students were then administered a questionnaire that assessed their levels of confidence that they had successfully completed the previous tasks.

Results showed parental income was positively associated with test performance. Low SES students whose social class was made relevant prior to testing performed worse



on the exam than low SES students whose background was not made salient. Low SES class participants in the diagnostic condition also answered fewer test items correctly than did lower SES students in the nondiagnostic condition. The authors found low SES students whose class was made salient and low SES students in the diagnostic condition reported they had less confidence that they answered the exam questions correctly after completing the exam than their counterparts in the nonsalient and nondiagnostic conditions.

The results of this study may be difficult to generalize given the mean of parental income reported by the students was very high. The low SES participants in this study may not typically be classified as low SES, yet the threat of stereotype adversely affected their performance. This may suggest individuals at SES levels other than low SES can experience stereotype threat. For example, a middle-class student would experience stereotype threat if they were lead to believe their performance would be compared to an upper class student who attended an elite university. Overall, these research studies show the potential negative influences of classism on individuals. Classist discrimination can serve to harm the individual through multiple modalities such as induced stress responses and stereotype threat.

### Summary

This literature review provided background information relevant to the study of social class and then discussed pertinent research on social class and classism. In general, research on social class has suffered from inconsistent definitions and a paucity of investigation into subjective experiences with social class. Social class may be used by individuals as a stratification system akin to race and sex in which increasing levels of

power are held by those occupying higher social class statuses. With power comes the ability to enforce dominant systems of values and beliefs and the ability to discriminate against those with less power. The resulting classist discrimination may negatively impact individuals who are targets of classism. The hypothesized association between classism and potential harm to the individual was illustrated using the biopsychosocial model of classism-related stress and stereotype threat. A small number of researchers have specifically examined classism and there have been two empirical measures designed to assess downward classism, the CEQ-A and EWCS (Langhout, Rosselli, & Feinstein, 2007; Thompson & Subich, 2013). The theoretical grounding of these measures was limited to broad conceptualizations of social class and they were not based on a specific theory of classism.

#### Significance of the Current Study

This literature review highlighted several concerns related to the investigation of social class and classism. Inconsistent operational definitions and a focus on objective social class descriptors have limited psychologists' ability to understand how social class and classism influence people in their day-to-day lives. Researchers have argued that the individual's subjective experience with social class and classism must also be examined to fully understand social class and classism (Liu, Ali, et al., 2004). In addition, inquiry into social class and classism has been hindered by a lack of instruments designed to measure social class and classism-related constructs, much less subjective experiences with social class and classism (American Psychological Association, Task Force on Socioeconomic Status, 2007). Classism is of particular investigative importance because classism is subjective in nature and it may have deleterious effects on mental and

physical health, identity development, career choices, etc. A review of the social class literature revealed two previous attempts to subjectively measure classism, the Classism Experiences Questionnaire-Academe and Experiences with Classism Scale (CEQ-A; Langhout, Rosselli, & Feinstein, 2007; EWCS; Thompson & Subich, 2013). The CEQ-A and EWCS were limited in scope because they were created to assess unidirectional (downward) classism even though classism is dynamic and should be examined multidirectionally. The use of the CEQ-A and EWCS is also restricted because they were not grounded in an explanatory model of classism and they were also created specifically for a college student population. Therefore, the purpose of the current research study is to address the discussed deficiency in classism research by creating a multidirectional measure of classism that will generalize to diverse populations. The PCS will also be the first classism instrument grounded in a theory which specifically attempts to elucidate the nature of social class and classism, the Social Class Worldview Model and Modern Classism Theory (Liu, Soleck, et al., 2004). It is hoped the PCS will provide psychologists a more comprehensive, valid, and generalizable instrument for studying the nature of classism and the relationships between classism and psychological sequelae. The PCS may also offer therapists an opportunity to assess for classism in their clients and develop targeted classism interventions.

## CHAPTER 3

### METHODOLOGY

This chapter details the initial item development, methodology, and study design for the Perceived Classism Scales (PCS). An initial item development phase and three separate studies were required to develop the PCS. The first study consisted of scale construction and an exploratory factor analysis. The second study was conducted to validate the factor structure of the revised PCS using a confirmatory factor analysis. The third study was performed in order to demonstrate convergent and concurrent validity of the PCS and to determine test-retest reliability following a 14-day interval. The procedure for developing the item pool is presented at the beginning of this chapter. Next, each of the three studies will be described separately. Each study description will detail participant characteristics, the recruitment of participants, and the procedure for statistical analyses. Lastly, the description of the final study will also include information regarding the psychometric properties of concurrent validity measures.

#### Item Generation

Each item for the PCS was generated in accordance with the theoretical structure of the SCWM and MCT developed by Liu, Soleck, et al. (2004). The PCS item stems and response formats were modeled on previously existing measures of discrimination such as the Index of Race Related Stress (IRRS; Utsey & Ponterotto, 1996). The IRRS was chosen because the developers conceptualized racial discrimination as a type of stressor, similarly to the manner in which the PCS conceptualizes classism as a form of stress. The IRRS is a 43-item Likert-style instrument that assesses perceived racist discrimination. The conceptual argument behind the IRRS is that perceived

discrimination operates as a type of stressor, which in turn leads to poorer psychological well-being. The IRRS asks participants to rate (0 = this never happened to me, 1 = this event happened, but did not bother me, 2 = this event happened and I was slightly upset, 3 = this event happened and I was upset, and 4 = this event happened and I was extremely upset) their experiences with specific discriminatory events. Responses are scored along four dimensions: (a) cultural racism, (b) institutional racism, (c) individual racism, and (d) collective racism. Higher scores on each of the four subscales indicate greater frequency of perceived racism. The IRRS has adequate concurrent validity and was significantly correlated with a measure of stress (Utsey & Ponterotto, 1996). The alpha coefficients for each IRRS subscale were .89 for cultural racism, .82 for institutional racism, .84 for individual racism, and .74 for collective racism. Test-retest reliability coefficients for the IRRS subscales over a two-week time period ranged from .54 -.75.

Using the IRRS as a template, an initial 51-item pool was developed to represent the three latent variables (i.e., upward classism, downward classism, and lateral classism) underlying the hypothesized PCS factor structure, which were previously discussed in the literature review. The items assessed whether the participant experienced any incidents of perceived classism and to what extent the incident affected her/him. The initial item pool was reviewed by two individuals with an extensive knowledge of the social class research and Liu, Soleck, et al.'s (2004) SCWM and MCT to improve content validity of the PCS. Reviewers were asked to evaluate the wording and content of each individual item and determine whether items designed to measure each factor were appropriately grouped. Feedback from each individual was used to refine items, eliminate unsuitable items, and create additional items.

The revised items were attached to a 5-point, Likert-style response that contained the following descriptors: 0 = this never happened to me, 1 = this event happened, but did not bother me, 2 = this event happened and I was slightly upset, 3 = this event happened and I was upset, and 4 = this event happened and I was extremely upset. Initially, a scale score for each of the factors was derived and an overall total score combining upward, lateral, and downward classism was calculated; however, it was determined an overall scale score calculation was not appropriate. The reason the downward, upward, and lateral classism scales were not combined into a single, overall scale score was because data analyses suggested the concepts represented distinct scales that were not highly correlated. Higher scores on each subscale represented greater experiences with social class discrimination.

## Study 1

### *Participants*

Participants for this study were recruited from two public universities and one private university in the Midwest. The initial sample consisted of 321 participants over the age of 18 and a total of 303 participants were included in the final sample. Data from 18 of the students were eliminated because they responded to fewer than half of the items or they did not respond appropriately to imbedded validity checks that were designed to identify random responding. The final sample consisted of 207 women (68%) and 96 men (32%). According to Tabachnick and Fidell (2001), a minimum of five cases per item is necessary to perform factor analysis. Additionally, researchers have argued for a minimum ratio of five to ten participants per item to perform a factor analysis, however, this ratio may be less restrictive if there are over 300 total cases (Tinsley & Tinsley,

1987). The number of total participants in this study was 303 and the number of participants per item was 5.94, therefore meeting suggested minimum sample size.

### *Procedure*

Participants were recruited through a variety of education, psychology, and communication courses at three Midwestern universities. Individuals who indicated willingness to participate in this study were emailed a three-digit code and a link to the online survey. Participants were then presented with an informed consent and indicated their willingness to participate in the study. Those participants who chose to continue their participation were directed to the survey. The students were also able to discontinue the survey at any time without penalty. Participants were asked to complete a series of demographic questions and a measure of subjective social status prior to beginning the 51-item PCS.

### *Instruments*

Participants were asked to respond to several demographic questions. The questions inquired about gender, ethnic/racial identification, age, student status, current yearly income, parent's estimated current year household income, mother's highest level of completed education, and father's highest level of completed education. The demographic questions used in this study are presented in Appendix A. In addition, students were asked to complete the 51-item PCS and the MacArthur Scale of Subjective Social Status (Adler, Epel, Castellazo, & Ickovics, 2000). The MacArthur Scale is discussed below and the MacArthur Scale and the original 51-item PCS are presented in Appendixes B and C, respectively.

The MacArthur Scale of Subjective Social Status is a two-item measure that assesses perceived social class relative to others in the individual's local community and more generally, her/his society. The participants were asked to mark on a ladder labeled from "1" to "10" where she/he ranks her/himself relative to others in her/his community and relative to all persons in the United States. The bottom (1) of the scale represents people in the community/society with the least amount of money, worst jobs, lowest levels of education, etc. The top (10) of the ladder represents individuals in the community/society who are the best off, have the most money, most successful careers, most desirable jobs, etc. The higher the student marks him/herself the more his/her perceived social status is similar to individuals at the top of the ladder. Singh-Manoux, Adler, and Marmot (2003) found the MacArthur Scale positively correlated with objective measures of SES such as personal income, household income, education, etc. The authors also found the scale contributed unique variance to predictions of physical and mental health above and beyond objective measures of SES.

#### *Data Analyses*

Data for this study were analyzed using SPSS 21 (IBM Corp., 2012). The item pool for the entire PCS in this study initially consisted of 51 items. There were 18 items constructed for the downward classism subscale, 17 items for the lateral classism subscale, and 16 items for the upward classism scale. Data was first examined using the Kaiser-Meyer-Olkin (Kaiser, 1974) measure of sampling adequacy and Bartlett's (1954) test of sphericity to determine appropriateness for factor analysis. Second, the data was subjected to a principal components analysis using a Promax rotation because it was assumed the items on each subscale of the PCS would share some relation with each



other. Third, the Kaiser criterion and visual inspection of the scree plot were used to establish the appropriate number of factors to retain and these two approaches are described below (Zwick & Velicer, 1986). Lastly, data were subjected to two subsequent Promax rotations with the specification that two and three factors be extracted in order to optimize the factor structure for the PCS. The rotation which stipulated two factors be extracted more accurately represented the hypothesized PCS factor structure than the rotation with three extracted factors. The factors on the two factor rotation represented the upward and downward classism constructs. The third factor on the three factor rotation did not consist of items designed to measure lateral classism. Therefore, it was decided to continue development of the PCS with only the upward and downward classism scales.

The Kaiser criterion consists of isolating eigenvalues greater than one from the input correlation matrix. The eigenvalue for each factor represents a measure of the total variance accounted for by that factor. The benefit of using eigenvalues is that they provide objective criteria for examining factor structure. The second method used in this study for determining the factor structure was the scree test. Catell (1966) developed the scree test as an alternative option for determining the appropriate number of factors to extract and is a graphical representation of eigenvalues and factors. The eigenvalues are placed along a vertical axis and the factors are placed along the horizontal axis. The resulting graph resembles a sloping “L” shaped line. Catell recommended the factors preceding the bend in the slope should be retained because they account for the majority of variance.

## Study 2

### *Participants*

Participants for the second study were recruited from two public universities and one private university in the Midwest. Two-hundred and fifty-seven students participated in the study. Data from 20 participants were not analyzed because they either did not complete more than half the items or failed to correctly respond to imbedded validity checks for random responding. A total of 237 participants were included in the final analyses of the data. One hundred and sixty of the participants were women (67.5%) and 77 were men (32.5%). As discussed previously, five to ten cases per item is considered a suitable minimum for factor analysis and there was a total of 16 items in this study. The ratio of participants to items was 14.81 to 1, thus meeting minimum sample size for factor analysis.

### *Procedure*

Participants who indicated willingness to participate in the second study were emailed a three-digit code and a link to the survey. Participants were presented with an informed consent and asked to indicate their willingness to participate in the study. Those participants who consented were then directed to the survey. Participants were allowed to discontinue the survey at any time without penalty. In addition, they were allowed to pause and continue the study from their previous ending point. Similar to the first study, participants were asked the same demographic questions and their subjective social status prior to completing the PCS. Students were also asked to complete the third study, two weeks after they completed this study, so that test-retest reliability could be

determined. In addition, participants in the third study completed measures to assess for concurrent and convergent validity.

### *Instruments*

Participants completed the same demographic questions that were presented in the first study. The questions asked for gender, ethnic/racial identification, age, student status, current yearly income, parent's estimated current year household income, mother's highest level of completed education, and father's highest level of completed education. Students were also asked to complete therevised PCS that was developed after the initial factor analysis. The number of items on the PCS were reduced from the initial 51-item pool to 16 items. Half of the 16 items represented the Upward classism scale and the other half of items constituted the Downward classism scale. In addition, the MacArthur Scale of Subjective Social Status.

### *Data Analyses*

Data for the second study were subjected to confirmatory factor analyses using AMOS 7.0 (Arbuckle, 2006). First, a chi-square statistic was calculated to assess model fit; however, researchers have suggested a significant chi-square statistic may not accurately depict the model when the sample size is large (Jöreskog & Sörbom, 1993). In order to account for the potential problems associated with a larger sample size, several additional fit indices were used to investigate the adequacy of the PCS factor structure including: (a) goodness of fit (GFI), (b) comparative fit (CFI), (c) standardized root mean square residual (SRMR), (d) normed fit index (NFI) and (e) the root mean square error of approximation (RMSEA). The GFI assesses the amount of variance and covariance in the sample data that is also explained by the sample data and the NFI is used to contrast

the hypothesized model versus the baseline model (Bentler & Bonnet, 1980). Hu and Bentler (1999) argued GFI and NFI indexes over .95 suggest a good model fit. The CFI is used to compare the proposed model with a null model and an index above .95 represents a good fit (Hu & Bentler, 1999). In contrast to the GFI and CFI, both the standardized root mean square residuals and root mean square error of approximation are considered to be a good fit if the values are less than .05 (Hu & Bentler, 1999). According to Byrne (1998), the SRMR “represents the average value across all standardized residuals derived from the fitting of the variance-covariance matrix for the hypothesized model” (p.115). The RMSEA contrasts competing models from the same data set in order to determine the best fit. A total of three competing factor models from the PCS were entered into the confirmatory analyses to determine the most appropriate factor structure.

### Study 3

#### *Participants*

Participants for this study were recruited from two public universities and one private university in the Midwest. All participants for the third study previously participated in the second study. Two-hundred and thirty-seven students completed the second study and 169 of those students participated in the third study. The 169 participants consisted of 114 (67.5%) women and 55 (32.5%) men.

#### *Procedure*

Participants who previously completed the second study and indicated willingness to participate in the third study were emailed a three-digit code and the link to the survey. Participants choosing to continue were directed to an informed consent and asked to indicate consent for participating in the study. Those participants who chose to

participate were required to complete the survey 14 days after they completed the second study. Participants were again allowed to discontinue the survey at any time without penalty. In addition, they were allowed to stop and continue the study at any point. Participants were also asked the demographic questions and subjective social status questions that were used in studies one and two.

### *Instruments*

Participants were asked to respond to several demographic questions. The questions inquired about gender, ethnic/racial identity, age, student status, current yearly income, parent's current yearly household income, mother's highest level of completed education, father's highest level of completed education, and the MacArthur Scale of Subjective Social Status (Adler et al., 2000). The demographic questions regarding yearly income, household income, parental education levels, and subjective social status were included to address validity of the PCS scales and to induce social class awareness in participants. Demographic questions are presented in Appendix A.

### *Perceived Classism Scales (PCS).*

The PCS was revised following confirmatory factor analyses and the items on the PCS were reduced from 16 items to 11 items. The revised PCS is an 11-item Likert-style response questionnaire that was developed for this study. The PCS is composed of two scales which assess for downward and upward classism. The downward scale was comprised of five items and the upward scale contained six items. Downward classism is defined as an individual's perceptions of social class discrimination by individuals who they perceive to be from a higher social class. In contrast, upward classism is defined as discrimination by individuals who are perceived to be from a lower social class than the

respondent. The range of possible scores on the downward classism scale was 0-25 and possible scores on the upward classism scale ranged from 0-30. Higher scores on each scale represent greater perceptions of social class discrimination. Alpha coefficients of reliability from the second study for the downward scale and upward scale were .74 and .89, respectively. The alpha coefficients for the current study were .78 for the downward classism scale and .89 for the upward classism scale.

#### Convergent and Concurrent Validity Measures

Each of the following instruments was selected to address convergent and concurrent validity for the PCS because of their associations with perceived discrimination, as discussed previously in the literature review. The Internalized Classism Scale (Liu & Hernandez, 2008), Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), and the Stress scale of the Depression, Anxiety, and Stress Scales (Lovibond & Lovibond, 1995) were used as measures of convergent validity, while the Rosenberg Self-Esteem Scale (Rosenberg, 1965), Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) and the Depression and Anxiety scales of the DASS (Lovibond & Lovibond, 1995) were identified as measures to assess concurrent validity of the PCS.

*Internalized Classism Scale (ICS; Liu & Hernandez, 2007).*

The ICS is currently under development by the authors and is under Appendix D. A previous study using the ICS provided preliminary psychometric evidence and the alpha coefficient for the ICS in that study was .96 (Liu & Hernandez, 2008). The ICS consists of 30 Likert-style (1 = strongly disagree and 6 = strongly agree) questions that assess the extent to which a person internalizes social class discrimination. For example,

people who experience high rates of social class discrimination, might in turn, hold negative perceptions about themselves or experience depression or anxiety related to the discrimination. The instrument is composed of one factor and a single total score is calculated from all items. Examples of items include “I sometimes get frustrated when I am not able to get something that is important for me to maintain my social class,” “My peer group has shaped the way I see social class issues around me,” and “I have experienced pressure to be like others in my social class group.” High scores on the ICS suggest an individual perceives pressure from others in his/her economic culture to maintain their current social class standing. Cronbach’s alpha for the ICS in the current study was .96.

*Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983).*

The PSS is a 14-item Likert-type (0 = never to 4 = very often) instrument that measures the occurrence of stressful events over the past month. The PSS was normed on a two college samples and had alpha reliability coefficients of .84 and .85. The alpha coefficient for the current study was .86. Higher scores on the PSS are indicative of greater perceived levels of stress. Mean scores for the two college samples were  $M = 23.18$  ( $SD = 7.31$ ) and  $M = 23.67$  ( $SD = 7.79$ ). The PSS has demonstrated a positive association with measures of perceived racial discrimination, depression, stressful life events, and social anxiety (Cohen, Kamarck, & Mermelstein, 1983; Utsey & Ponterotto, 1996). The PSS is under Appendix E.

*Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965).*

The RSE is a 10-item, 4-point, Likert-type scale (1 = strongly disagree and 4 = strongly agree) that provides an overall score of self-esteem. The RSE measures an

individual's perception of him or herself and a higher score on the RSE indicates a higher level of self-esteem. Whiteside-Mansell and Corwyn (2003) reported alpha coefficients of .83 for the RSE with adults and the alpha coefficient in this study was .91. Previous research on perceived discrimination and self-esteem has suggested a negative relationship (Carter, Mazzula, Victoria, Vasquez, Hall, Smith, et al., 2013; Umana-Taylor & Uddegraff, 2007). The RSE is presented in Appendix F.

*Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).*

The PANAS is under Appendix G and consists of 20 adjectives that form positive affect (PA) and negative affect (NA) subscales. Participants are asked to rate (1 = very slightly or not at all and 5 =extremely) how well each adjective describes the way they generally feel. A higher score on each respective scale indicates greater positive or negative affect. Crawford and Henry (2004) showed the PANAS had good construct validity and reported alpha coefficients of .89 for the PA scale and .84 for the NA scale. The coefficients for the PA and NA scales in the current study were .86 and .87, respectively. The PANAS has been used extensively and research has suggested individuals who experience high levels of racism and discrimination are likely to also endorse high levels of negative affect (Brondolo et al. 2008).

*Depression, Anxiety, and Stress Scales (DASS; Lovibond & Lovibond, 1995).*

The DASS is a 42-item self-report instrument that was developed in an Australian sample to assess depression, anxiety, and stress.. A version of the DASS was constructed using American English and it has since been validated using both community and clinical samples from the United States and Canada (Antony, Beiling, Cox, Enns, & Swinson, 1998; Brown, Chorpita, Korotitsch, & Barlow, 1997). The DASS contains



three scales that examine symptoms of depression, anxiety, and stress. Each scale contains 14 items and a previous study on the DASS demonstrated alpha coefficients of .97, .92, and .95 for the depression, anxiety, and stress subscales (Antony, et al., 1998). The alpha coefficients for the depression, anxiety, and stress subscales in the current study were .95, .90, and .93, respectively. Higher scores on each subscale represent a greater level of symptomology. Previous studies have demonstrated a link between discrimination and depression and anxiety (Salgado de Snyder, 1987; Williams, Neighbors, & Jackson, 2003). The DASS is presented under Appendix H.

#### *Data Analyses*

Data analysis for the third study consisted of Pearson product moment correlations computed among the PCS scales, and each measure (both overall scores and subscale scores, if applicable) described above. The PCS scales used in this study were the modified versions created after the confirmatory factor analyses in the prior study. In addition to correlations, a series of independent samples t-tests and one-way analysis of variance (ANOVAs) were performed to identify potential group differences among categorical variables. Lastly, a test-retest reliability coefficient was computed after a 14-day interval.

The first independent samples t-tests was conducted to examine differences between male and female participants' scores on the PCS downward classism scale. The independent variable consisted of two levels (male and female) and the dependent variable was downward classism. The second independent samples t-test was performed to assess mean differences between men and women and their scores on the PCS upward

classism scale. The independent variable for this t-test was gender and the dependent variable was upward classism.

Several one-way ANOVA's were also conducted in order to identify possible differences between the participants' student status (i.e., level of schooling), parents' annual income, and downward and upward classism. The independent variable for the first ANOVA was the participants' reported student status, which consisted of five levels: (a) freshman, (b) sophomore, (c) junior, (d) senior, and (e) graduate/professional. The dependent variable for this ANOVA was downward classism. A second ANOVA using the same independent variable as the first ANOVA was also conducted; however, the dependent variable for this ANOVA was adjusted to reflect upward classism.

In addition to student status, two ANOVA's were also performed to examine potential differences between participants' reported parental income and downward and upward classism. The independent variable for these two ANOVA's consisted of parental income and the variable was subdivided in six levels: (a) \$0-\$9,999, (b) \$10,000 - \$25,999, (c) \$26,000 - \$49,999, (d) \$50,000 - \$74,999, (e) \$75,000 - \$99,999, and (f) over \$100,000. The dependent variable for the first of these ANOVAs was downward classism and upward classism was the dependent variable for the second ANOVA.

The final data analysis conducted for the third study consisted of computing the test-retest reliability coefficient over a time interval of 14 days for both the downward and upward classism scales.

## CHAPTER 4

### RESULTS

This chapter describes the results of statistical analyses conducted on participant data in this study. First, demographic data and results of the exploratory factor analyses for the first study are presented. Second, participant characteristics along with the data analyses of competing confirmatory factor models for the second study are discussed. Third, participant demographics and the means, standard deviations, alpha coefficients, and correlations among measured variables used to assess validity of the PCS in study three are provided. In addition, examinations of group differences (i.e., gender, parental household income level, and student status) for the third study are discussed. Lastly, information regarding test-retest reliability for the PCS will be presented.

#### Study 1 Descriptive Statistics

Participants for this study were recruited from two public universities and one private university in the Midwest. The initial sample consisted of 321 participants over the age of 18, and a total of 303 participants were included in the final sample. Data from 18 of the students were eliminated because they responded to less than half the items or they did not respond appropriately to imbedded validity checks that were designed to identify random responding. The sample consisted of 207 women (68%) and 96 men (32%). The age of participants ranged from 18 years to 49 years and the average age of participants was 20.91 years ( $SD = 3.99$ ). The reported racial/ethnic background of participants was approximately 93% White, 2% bi-racial, 2% Asian American, 1% African American, 1% Latino, 0.7% multiracial, 0.3% Native American, and 0.7% did not identify their ethnic/racial background.

Participants were also asked to complete several other demographic questions that included yearly income, parent's yearly income, mother's highest level of completed education, and father's highest level of completed education. A breakdown of all participants' demographic data for study one are presented in greater detail in Appendix I. The majority of students (86%) estimated their yearly income to be between \$0 and \$9,999. Fifty-seven percent of students reported their parents' yearly income was over \$75,000 and 6% of students reported their parents' yearly income was below \$26,000. A Bachelor's degree was the most frequent level of highest educational completion for both mothers (32%) and fathers (27%) of participants. Participants in this study also had a mean score of 6.41 ( $SD = 1.37$ ) on the subjective social status item that asked their social standing relative to others in society and they reported an average score of 6.61 ( $SD = 1.54$ ) on the status question asking them to identify their status within their own community. These findings suggest participants typically viewed themselves as occupying a higher social status than others in their community and in society.

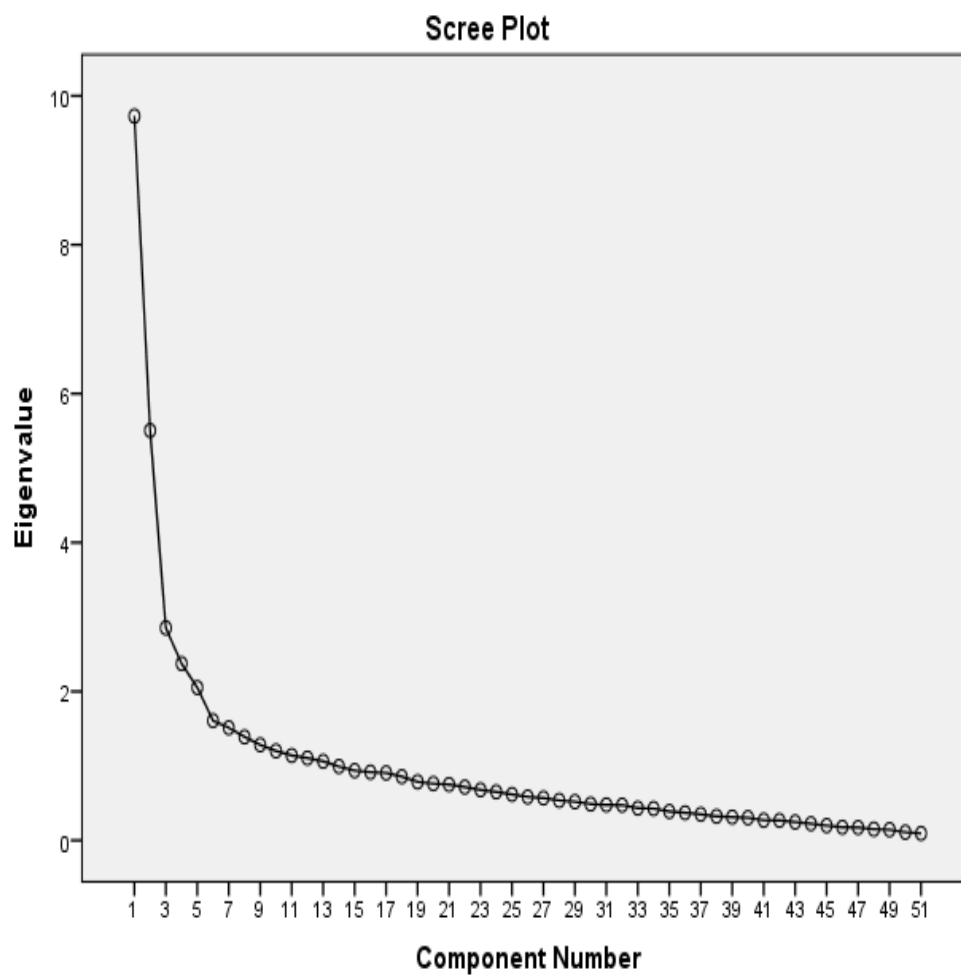
#### Study 1 Exploratory Factor Analysis

An exploratory factor analysis was performed on the 51-item PCS using SPSS (2012). The suitability of the data for factor analysis was determined using the Kaiser-Meyer-Olkin (Kaiser, 1974) measure of sampling adequacy and Bartlett's (1954) test of sphericity. The Kaiser-Meyer-Olkin measure of sampling adequacy for the PCS in this study was .829, which is greater than the .60 level suggested by Kaiser (1974). In addition, Bartlett's test of sphericity for the PCS was statistically significant at the .000 level suggesting the correlation matrix was appropriately factorable.

The data was then subjected to a principal components analysis using a Promax rotation. The Kaiser criterion and visual inspection of the scree plot were used to determine the number of factors to retain (Zwick & Velicer, 1986). The Kaiser criterion consists of isolating eigenvalues greater than one from the input correlation matrix. The initial version of the PCS contained 13 factors with eigenvalues over 1.00. These 13 factors accounted for 64.35% of the explained variance. The second approach used in this study for determining the factor structure was Catell's (1966) scree test. Inspection of the scree plot for this data showed a distinct separation between the second and third factors, which suggests that two factors should be retained. The scree plot is presented below in Figure 1. In addition to the Kaiser criterion and scree test, items in the component matrix with a factor loading of less than .30 were removed. Analysis of the resulting items that loaded onto the first and second components showed that these factors consisted of items from the downward and upward classism subscales.

In order to further reduce the number of items selected for the PCS, the data were subjected to two additional Promax rotations with the specification that both two and three factors be extracted. An analysis of the factor rotations showed the two-factor rotation more accurately represented the proposed constructs underlying the PCS than the three factor rotation. The first variable on the two factor rotation accounted for 19.08 % of the unique variance and the second variable contributed 10.80% of the variance. No other factor contributed greater than 5.60% of the variance. The correlation between the two components was  $r = .227$ , which suggests minimal communality between the two variables.

Figure 1. Scree Plot of Components and Eigen Values for 51-item PCS



Inspection of the pattern matrix suggested that the items with the highest factor loadings represented statements designed to measure upward and downward classism. Analysis of the structure matrix, which detailed the correlation between the variables and the factors, showed moderate to strong correlations. Any items with a correlation below .40 were discarded. The factor loadings for each item that was selected for the revised PCS are presented below in Table 1 and the factor loadings for all items in the analysis are shown in Appendix J.

Overall, findings from study one provided preliminary support for the development of the downward and upward classism scales, while the lateral classism scale did not appear to accurately characterize the lateral classism construct proposed by Liu, Soleck, et al. (2004). An initial item pool of 51 items was created to measure downward, upward, and lateral classism. Exploratory factor analysis of participants' responses on the 51 items suggested two factors accounted for majority of variance. The two factors represented items designed to measure the downward and lateral classism constructs. The number of scale items was reduced and the downward and upward classism scales were revised to create an 8-item downward classism scale and 8-item upward classism scale. Each of the items for the upward and downward classism scales for the revised PCS came from the initial item pool of items developed for the upward and downward classism scales, respectively. This suggests the items on the revised PCS acted as initially hypothesized during the development of the PCS item pool. The downward and upward classism scales did not demonstrate strong interrelation, which suggested they measured two distinct concepts.

## Study 2 Descriptive Statistics

Participants for the second study were recruited from two public universities and one private university in the Midwest. Two-hundred and fifty-seven students participated in the study. Data from 20 participants was not analyzed because they either did not complete more than half the items or failed to correctly respond to imbedded validity checks for random responding. A total of 237 participants were included in the final analysis of the data. One hundred and sixty of the participants were women (67.5%) and 77 were men (32.5%). The students ranged in age from 18 years to 32 years with a mean age of 19.82 ( $SD = 1.55$ ). Participants' self-reported ethnic/racial background consisted of approximately 92% White, 3% Latino, 2% African American, 1% Asian American, 1% Biracial, and 1% multiracial.

Participants were also asked to complete demographic questions similar to those presented in the first study (i.e., yearly income, parent's yearly income, mother's highest level of completed education, father's highest level of completed education, and the MacArthur Scale of Subjective Social Status). Participants' demographic data for study two are presented in greater detail in Appendix K. Ninety-two percent of students' yearly income was less than \$10,000. Over 50% of participants reported their parents' yearly income was above \$50,000 and 25% of participants stated their parents made over \$100,000 a year. The average score (10 = highest and 1 = lowest) on a measure of subjective social standing within society was 6.20 ( $SD = 1.43$ ) and for social standing within their community the mean score was 6.52 ( $SD = 1.54$ ). The most frequent level of mothers' completed education was a bachelor's degree (35%) and it was also the most common level of educational attainment for fathers (30%).



Table 1. Perceived Classism Scales Items and Factor Loadings

Item	Factor 2	
You were treated unfairly because someone perceived you to be from a lower social class.	<b>.59</b>	-.38
You were treated unfairly by work supervisors, teachers, etc., because you were perceived to be from a lower social class.	<b>.59</b>	-.44
You were made fun of because you were perceived to be from a lower social class.	<b>.52</b>	-.42
You were teased because you were perceived to be from a lower social class.	<b>.54</b>	-.42
You were treated unfairly by service industry workers (e.g., restaurant servers, salesperson, store clerks, etc.) because you were perceived to be from a lower social class.	<b>.46</b>	-.38
People made fun of you for not being able to afford popular items such as IPOD, laptop, flat screen television, etc.	<b>.50</b>	-.32
Someone misunderstood your intentions or motives because they thought you were from a lower social class.	<b>.54</b>	-.35
People assumed you were not intelligent because they believed you were from a lower social class.	<b>.53</b>	-.43
You were treated unfairly because the person(s) thought you were from a higher social class.	.36	<b>.51</b>
You felt made fun of because you were perceived to be from a higher social class.	.39	<b>.58</b>
You felt you were teased because someone believed you were from a higher social class.	.34	<b>.52</b>
People commented that you acted like you are better than them because you had more money than them.	.33	<b>.51</b>
People commented that you are privileged.	.27	<b>.54</b>
People teased you because they believe you come from a family with a lot of money.	.24	<b>.63</b>
People called you spoiled because they perceived you are a part of a higher social class.	.36	<b>.64</b>
You were called a “snob” because you were perceived to be from a higher social class.	.34	<b>.60</b>

## Study 2 Confirmatory Factor Analyses

The initial PCS measurement model tested was the 16-item version that was created following the exploratory factor analysis. The confirmatory analysis of this model showed a significant chi-square,  $\chi^2$  ( $df = 103, N = 237$ ) = 351.55,  $p = <.000$ . The CFI was .86, the NFI was .81, the GFI was .83, the RMSEA was .10, and the SRMR was .06. As discussed prior, CFI, GFI and NFI indexes over .95 suggest a good model fit, while the RMSEA and SRMR are considered to be a good fit if the values are less than .05. Therefore, the current model did not accurately characterize the data. An examination of the modification indices was conducted in an attempt to try and improve the model fit.

Evaluation of the modification indices and individual items showed item numbers two, seven, thirteen, and sixteen shared a high covariance with other items on the measure. These four items were removed and a subsequent confirmatory analysis was conducted for the revised model. The four eliminated items included: (a) “you were treated unfairly by work supervisors, teachers, etc., because you were perceived to be from a lower social class”, (b) “someone misunderstood your intentions or motives because they thought you were from a lower social class”, (c) “you were called a “snob” because you were perceived to be from a higher social class”, and (d) “people called you spoiled because they perceived you are a part of a higher social class”.

The second confirmatory analysis on the revised, 12-item PCS was conducted and a significant chi-square was achieved,  $\chi^2$  ( $df = 53, N = 237$ ) = 109.44,  $p = <.000$ . The values for the CFI, NFI, GFI, RMSEA, and SRMR were .95, .91, .93, .07, and .04. While much improved, the analysis did not support a good model fit for the data. An

examination of the modification indices for the second confirmatory analysis was performed in an attempt to improve the model fit. This analysis suggested the item “you were treated unfairly because someone perceived you to be from a lower social class” continued to covary strongly with other items on the PCS. This item was subsequently removed from the PCS and a third examination of the model fit was conducted.

The final confirmatory analysis of the newly revised PCS resulted in a significant chi-square statistic,  $\chi^2$  ( $df = 43, N = 237$ ) = 71.01,  $p = <.005$ . The resulting values for CFI, NFI, GFI, RMSEA, and SRMR were .97, .94, .95, .05, and .04. These values suggested the third hypothesized model was a good model fit to the data and was much improved over the previously hypothesized models. The model fit values for each of the hypothesized models are presented below in Table 2 and the final items on the downward and upward classism scales based on the final measurement model are shown in Table 3. In summary, for the second part of this study the downward and classism scales were subjected to additional validation using confirmatory factor analysis with a different sample. Preliminary findings did not provide strong support for the 8-item versions of the downward and upward classism scales. Further examination suggested removal of three items from the downward classism scale and two items from the upward classism scale. An analysis of the 5-item downward classism scale and 6-item upward classism scale suggested these versions of the scales provided the best model fit of participants' response patterns.

### Study 3 Descriptive Statistics

Participants consisted of 198 students who were recruited from two public universities and one private university in the Midwest. Data from 29 participants were

Table 2. Summary of Measurement Model Statistics

Fit Indexes	Initial Measurement Model	Second Measurement Model	Final Measurement Model
$\chi^2$	351.55	109.44	71.01
df	103	53	43
<i>p</i> -value	< .000	< .000	< .005
CFI	.86	.95	.97
NFI	.81	.91	.94
GFI	.83	.93	.95
RMSEA	.10	.07	.05
90% CI for RMSEA	(.09-.11)	(.05-.09)	(.03-.07)
SRMR	.06	.04	.04

*Note.* CFI = Comparative Fit Index; NFI = Normed Fit Index; GFI = Goodness-of-Fit Index; RMSEA = Root Mean Square Error of Approximation; SMSR = Standardized Root Mean Squared Residual.

Table 3. Final Items for PCS Scales

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	<i>Downward Classism Scale</i>
1.	You were made fun of because you were perceived to be from a lower social class.
2.	People made fun of you for not being able to afford popular items such as an IPOD, laptop, flat screen television, etc.
3.	You were teased because you were perceived to be from a lower social class.
4.	People assumed you were not intelligent because they believed you were from a lower social class.
5.	You were treated unfairly by service industry workers (e.g., restaurant servers, salesperson, store clerks, etc.) because you were perceived to be from a lower social class.
	<i>Upward Classism Scale</i>
6.	You were teased because someone believed you were from a higher social class.
7.	People commented that you are privileged.
8.	You were treated unfairly because the person(s) thought you were from a higher social class.
9.	You felt made fun of because you were perceived to be from a higher social class.
10.	People commented that you acted like you are better than them because you had more money than them.
11.	People teased you because they believe you come from a family with a lot of money.

---

not analyzed because they either did not complete more than half the items or failed to correctly respond to imbedded validity checks for random responding.

One hundred fourteen women (67.5%) and 55 men (32.5%) were subsequently included in the data analysis. Participants ranged from 18-years-old to 26-years-old with a mean age of 19.76 ( $SD = 1.35$ ). Participants' self-reported ethnic/racial background was approximately 91% White, 4% Latino, 2% African American, 1 % Asian American, 1% Biracial, and 2% multiracial.

Participants were also asked to complete demographic questions similar to those presented in the first two studies (i.e., yearly income, parent's yearly income, mother's highest level of completed education, father's highest level of completed education, and the MacArthur Scale of Subjective Social Status). Participants' demographic data for study three are presented in detail in Appendix L. Ninety-five percent of students reported their yearly income was less than \$10,000. Forty-eight percent of participants reported their parents' yearly income was above \$50,000 and 25% of participants stated their parents made over \$100,000 a year. The average score (10 = highest and 1 = lowest) on a measure of subjective social standing within society was 5.30 ( $SD = 1.38$ ). The average score for social standing within their community the mean score was 5.61 ( $SD = 1.54$ ). The most frequent level of completed education for both mothers (34%) and fathers (34%) was a bachelor's degree.

Study 3 Concurrent Validity, Convergent Validity, Group Differences, and Test-Retest

#### Reliability

Correlations were calculated between all measures and are shown in Table 4.

Results showed minimal, yet, significant positive correlations between downward

Table 4. Correlations among Related Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Down	--											
2. Upward	.12	--										
3. Per Stress	*.18	*.16	--									
4. Int Class	.11	.10	*.15	--								
5. Pos Aff	.04	-.01	**-.41	-.14	--							
6. Neg Aff	.05	.14	** .65	** .22	**-.26	--						
7. Dass Stress	.13	** .21	** .64	*.16	**-.26	** .70	--					
8. Dass Anx	.14	.10	** .60	.12	**-.27	** .68	** .75	--				
9. Dass Dep	*.15	.07	** .70	*.18	**-.41	** .62	** .73	** .77	--			
10. Self Est	*-.15	-.08	**-.65	**-.20	** .52	**-.63	**-.55	**-.55	**-.71	--		
11. Lad Soc	**-.22	*.20	** .24	-.05	-.14	*.16	.14	.14	** .23	**-.27	--	
12. Lad Com	-.15	.13	.13	.02	**-.20	*.16	.10	*-.15	*.17	**-.25	** .47	--
Mean	6.50	8.72	40.47	118.92	34.53	22.07	24.96	19.62	20.72	31.49	4.70	4.39
SD	2.50	4.31	7.31	25.32	6.53	7.01	8.53	6.65	8.20	5.35	1.37	1.48
Alpha	.78	.89	.86	.96	.86	.87	.93	.90	.95	.91	--	--

Note. \*  $p < .05$ , \*\*  $p < .01$ . Down = Downward Classism; Upward = Upward Classism; Per Stress = Perceived Stress; Int Class = Internalized Classism; Pos Aff = Positive Affect; Neg Aff = Negative Affect; Dass Stress = DASS Stress Subscale; Dass Anx = DASS Anxiety Subscale; Dass Dep = DASS Depression Subscale; Self Est = Self-esteem; Lad Soc = Social Status in Society; Lad Com = Social Status in Community.

classism, perceived stress ( $r = .18, p < .05$ ) and depression ( $r = .15, p < .05$ ). These findings suggest individuals who experienced higher levels of downward classism reported greater feelings of stress and higher levels of depressive symptoms than individuals who reported lower levels of downward classism. Minimal, negative relationships were also found between downward classism and self-esteem ( $r = -.15, p < .05$ ) and perceived social standing within society ( $r = -.22, p < .01$ ). Therefore, individuals who experienced downward classism were likely to report low levels of self-esteem and they also viewed themselves as having a lower social standing when comparing themselves to other individuals in our society.

Upward classism was also significantly associated with several variables. Results showed upward classism was nominally correlated with perceived stress ( $r = .16, p < .05$ ), the DASS stress subscale ( $r = .21, p < .01$ ), and with perceptions of social standing within society ( $r = .20, p < .05$ ). These findings imply that participants who reported experiencing higher levels of upward classism were also more likely to endorse feeling stressed than individuals who reported lower levels of upward classism. Individuals experiencing higher levels of upward classism also had a tendency to view themselves as occupying a higher social status than individuals who reported lower levels of upward classism.

### *Group Differences*

A series of independent t-tests and one-way analyses of variance (ANOVAs) were conducted to examine potential group differences. The first independent t-test compared differences between men's and women's responses (independent variable) on the downward classism scale (dependent variable).



As expected, Levene's test showed equal variance and no significant difference was found between men ( $M = 6.27$ ,  $SD = 2.07$ ) and women ( $M = 6.60$ ,  $SD = 2.69$ ;  $t(167) = -.78$ ,  $p = .43$ , two-tailed). A second independent samples t-test was performed to identify differences between men and women (independent variable) on the upward classism scale (dependent variable). An examination of Levene's test suggested unequal variance in scores between men and women; therefore, tests for groups with unequal variances were used. The results of the adjusted independent t-test for men and women on the upward classism scale did show a significant difference. The mean score for women ( $M = 10.45$ ,  $SD = 4.83$ ) was significantly higher than the mean score for men ( $M = 8.22$ ,  $SD = 2.36$ ;  $t(166.95) = -4.03$ ,  $p = .00$ , two-tailed). The significant difference between men and women on the upward classism scale was not predicted and this finding may be due to the disproportionate representation of women as opposed to men in this study. The sample in this study may have also included a larger percentage of women who identified as upper social class.

Two one-way ANOVAs were conducted to assess possible differences between student-status and the downward and upward classism scales. The independent variable in this analysis included student-status (freshman, sophomore, junior, senior, and graduate) and the dependent variable was either downward classism or upward classism. The mean scores on the downward classism scale for freshmen, sophomores, juniors, seniors, and graduate students were 6.28 ( $SD = 2.53$ ), 6.38 ( $SD = 2.18$ ), 7.37 ( $SD = 3.18$ ), 6.14 ( $SD = 2.33$ ), and 6.00 ( $SD = 1.41$ ), respectively. Results of the first ANOVA showed equal variances and no significant differences between student-status and downward classism:  $F(4, 164) = 1.17$ ,  $p = .33$ . The second one-way ANOVA examining

differences between student status and upward classism also suggested equal variances and results were non-significant:  $F(4, 164) = 1.04, p = .39$ . The mean scores on the upward classism scale for freshmen, sophomores, juniors, seniors, and graduate students were 9.26 ( $SD = 4.35$ ), 9.77 ( $SD = 3.95$ ), 11.00 ( $SD = 5.44$ ), 8.81 ( $SD = 3.44$ ), and 9.50 ( $SD = 3.54$ ), respectively. These results suggest there were no differences between student status and their perception of downward and upward classism.

In addition, a series of ANOVAs were performed to examine differences between reported parent household income (\$0-\$9,999, \$10,000 - \$25,999, \$26,000 - \$49,999, \$50,000 - \$74,999, \$75,000 - \$99,999, and over \$100,000) and responses on the downward and upward classism scales. Parent household income represented the independent variable in these two ANOVAs and consisted of the six separate income ranges provided above. Downward and upward classism represented the dependent variable in each ANOVA, respectively.

Initial examination of the one-way ANOVA regarding parent household income and downward classism demonstrated a violation of Levene's test for homogeneity of variances  $F(5, 163) = 6.31, p = .00$ . Welch's adjusted  $F$  ratio was used in this instance because of the heterogeneity in variances and there was no significant difference found between levels of household income and downward classism  $F(5, 9.75) = 2.73, p = .09$ . The downward classism scale means and standard deviations for each income group were as follows: (a) \$0-\$9,999 ( $M = 11.00, SD = 4.24$ ), (b) \$10,000 - \$25,999 ( $M = 9.38, SD = 4.41$ ), (c) \$26,000 - \$49,999 ( $M = 6.23, SD = 2.10$ ), (d) \$50,000 - \$74,999 ( $M = 7.24, SD = 2.88$ ), (e) \$75,000 - \$99,999 ( $M = 5.97, SD = 2.01$ ), and (f) over \$100,000 ( $M = 5.70, SD = 1.42$ ).

In addition, a one-way ANOVA conducted for parent household income and upward classism did not violate assumed homogeneity of variances. Results showed no significant differences between any reported income level and upward classism:  $F(5, 163) = 1.84, p = .11$ . The means and standard deviations for upward classism scale scores for each income bracket were as follows: (a) \$0-\$9,999 ( $M = 6.00, SD = 0.00$ ), (b) \$10,000 - \$25,999 ( $M = 7.50, SD = 2.14$ ), (c) \$26,000 - \$49,999 ( $M = 9.66, SD = 4.58$ ), (d) \$50,000 - \$74,999 ( $M = 8.76, SD = 4.00$ ), (e) \$75,000 - \$99,999 ( $M = 10.31, SD = 5.04$ ), and (f) over \$100,000 ( $M = 10.77, SD = 4.31$ ).

Overall, it was expected there would be significant differences between reported household income and experiences with downward and upward classism. Specifically, individuals with lower reported levels of household income should experience greater levels of downward classism on lower levels of upward classism than individuals with higher household income. While there were not significant differences the means trended toward lower household income individuals experiencing greater levels of downward classism and lower levels of upward classism than higher income individuals. These means may not have reached a level of significant difference because very few participants were represented in the bottom two income groups.

#### *Test-retest Reliability*

One hundred and sixty participants were included in the analyses for test-retest reliability of the downward and upward classism scales. A breakdown of participants' demographic data was provided previously under the heading "Study 3 Descriptive Statistics". Participants' responses on the PCS in the third study were matched via a unique identifier with their responses on the PCS in the second study. Test-retest

reliability was calculated following a 14-day interval using the matched scores. The test-retest reliability coefficient for the downward classism scale was .76 and the upward classism scale reliability coefficient was .87.

In conclusion, the third and final part of the current research study was conducted in an attempt to establish concurrent and convergent validity, internal reliability, and test-retest reliability for the PCS downward and upward classism scales. Findings from this part of the study provided some initial evidence for concurrent and convergent validity of the PCS scales. Downward classism was minimally, but significantly related to measures of perceived stress, depressive symptoms, self-esteem, and subjective social standing within society. The downward classism scale was not significantly related to measures of internalized classism, positive affect, negative affect, anxiety, or subjective social standing within the individual's community. The upward classism scale was also minimally, but significantly related to perceived stress, and subjective social standing within society. It was not associated with internalized classism, positive affect, negative affect, depression, anxiety, self-esteem, or subjective social standing within the individual's community. Results also showed women were more likely than men to perceive upward classism. The final versions of PCS Downward and Upward classism scales demonstrated adequate internal consistency and test-retest reliability over a 14-day interval.

## CHAPTER 5

### DISCUSSION

This chapter expands upon the findings presented in Chapter 4. First, the relationships between the PCS and the Social Class Worldview Model and Modern Classism Theory will be discussed. Second, the association between the PCS and biopsychosocial model of classism-related stress will be presented. Third, an examination of the PCS and measures of psychological well-being will be presented. Fourth, limitations of the current study will be addressed. Fifth, implications for counseling psychology and clinical applications of the PCS will be offered. Lastly, potential directions for future research will be presented.

#### PCS and the Social Class Worldview Model and Modern Classism Theory

Liu, Soleck, et al. (2004) proposed the first comprehensive theories on social class and classism, the Social Class Worldview Model (SCWM) and Modern Classism Theory (MCT). The PCS extends Liu, Soleck, et al.'s models by being the first instrument designed to measure the downward, upward, and lateral classism constructs identified in the MCT.

For the purposes of the PCS, downward classism was conceptualized as an individual's perception of discrimination resulting from his/her lower social class status. Downward classism occurs when an individual is the target of class discrimination by someone from a higher social class because the targeted individual is perceived to occupy a lower social class. Therefore, individuals who identify as lower class should be more likely to experience downward classism than individuals who identify as higher social class. Findings from the current study supported this association. Participants who stated

they occupied a lower social class in their community reported experiencing downward classism, while those participants with higher social class standing in their community did not endorse downward classism. This result is consistent with Liu's (2011) conceptualization of downward classism. Liu proposed an individual who occupies a low social class is more likely to experience and perceive downward classism than an individual from a high social class. The findings from this study are also similar to those found by Thompson and Subich (2013) in their development of the EWCS. Items on the EWCS reflected downward classism and Thompson and Subich reported participants who identified as lower or lower middle class experienced significantly greater instances of (downward) classism than middle class and upper class peers.

Results from this study also showed upward classism was related to higher perceived social standing and it was not associated with lower perceived social standing. This suggests individuals who subjectively rated themselves as high social class were more likely to report being the target of upward classism than individuals who did not identify as high social class. These findings are consistent with Liu, Soleck, et al.'s (2004) MCT and conceptualization of upward classism. According to Liu, Soleck, et al., upward classism occurs when a person experiences discrimination because they are perceived to occupy a higher social class. Contrary to the association between higher perceived social standing and greater experiences with upward classism, there were no differences between higher and lower reported parental household income levels and experiences with upward classism. This suggests individuals from higher SES backgrounds (based on objective criteria) were not more likely to experience classism than individuals from lower SES backgrounds.

One possible reason for the inconsistent relationships between classism, perceived social status, and objective SES may be that subjective social status more accurately reflects social class experiences than traditional objective indicators. Indeed, Liu, Ali, et al. (2004) posited objective indicators of social class fail to address the subjective experience of social class. They argued perceived social class is a more salient influence on how a person defines his/her social class than objective SES indicators. It is possible participants in this study who self-identified as higher social class were more likely to engage in behaviors in accordance with higher social class expectations than participants who did not perceive themselves as occupying a higher social class. Therefore, engaging in stereotypically higher class behaviors may increase the possibility that one is targeted for upward classism. Conversely, individuals from high SES backgrounds (objectively defined) who do not perceive themselves as higher social class may be less likely to experience upward classism because they do not display behaviors consistent with higher social class expectations/stereotypes. For example, a 25-year-old female from a wealthy family who lives a “hippie” lifestyle and is not materialistic is unlikely to be targeted for upward classism. In contrast, a 25-year-old female from a middle class background may experience numerous incidences of upward classism if she drives an expensive car, makes derogatory comments about poor people, and treats service workers with disdain. The middle class female is at greater risk of being targeted for classism than the upper class female because the middle class female engages in behaviors that are more frequently attributed to higher class individuals. These “high class” behaviors are likely to attract upward classism even though the middle class female occupies a lower objective SES than the wealthy female.

Results also showed items developed to measure lateral classism were not validated in this study. Lateral classism was defined as the pressures and expectations placed on an individual from others who share the same social class as the individual. Therefore, individuals at all social class levels can be assumed to experience lateral classism from those who occupy their respective social classes.

One possible explanation the lateral classism scale did not assess classism as hypothesized is because the items did not include a reference point for participants. For example, one of the lateral classism items used was “you felt pressured by friends to take expensive vacations such as going to Europe or going on a cruise”. Many of the item stems followed this format and these items may have proved too ambiguous for participants to be able to identify the social class background of the subject in the item stem. The aforementioned question may have been improved by adding a reference point such as “you felt pressured by friends *who share your same social class* to take expensive vacations such as going to Europe or going on a cruise.”

A second possible rationale is participants may have had difficulty identifying similar others in their social class. The inclusion of subjectivity in social class identification rather than adhering to strictly objective measures may introduce greater levels of ambiguity in social class awareness. For example, a family may report they are the same social class as other families that have similarly reported household income and household wealth, which are objective measures of SES. In contrast, from a subjective perspective, that same family may reside in a middle-class neighborhood and may view themselves as occupying a lower social class than their neighbors because they do not take annual summer vacations like the majority of their neighbors. Another example may



be a lower class neighborhood where all households are below the poverty line and receiving welfare assistance. One family in that neighborhood may be willing to assume greater levels of debt and purchase a newer car which is of high status value in that neighborhood. The rest of the neighborhood may in turn view that family as occupying a higher social class because of their vehicle, when based on objective measures of SES, all families in that neighborhood would still fall within the same SES stratum. In assessing subjective social status it is unlikely that individuals are taking into account other individuals' levels of wealth and debt. It is more likely individuals use material and objective examples of SES such as houses, vehicles, televisions, and jewelry to assess their social class standing relative to others.

Increasing social class awareness in future respondents may improve saliency of the lateral classism items. One approach toward inducing social class awareness may be to ask respondents to identify their social class standing (e.g., Do you identify as lower class, lower middle-class, upper middle-class, upper class etc.?) prior to completing the PCS. Additionally, the following prompt provided at the start of the lateral classism scale may assist participants in identifying similar others in social class standing: "Please think of people (e.g., family, friends, etc.) you consider being in the same social class as you. Use this group of people as a reference point for responding to the following items." A third possible explanation for the inability of items on the lateral classism to properly assess lateral classism may have to do with the manner in which lateral classism items were conceptualized. First, the lateral classism items may have been biased by the developer's personal values and beliefs. Initial steps were taken during item development in an attempt to reduce bias such as having items reviewed by individuals

with knowledge of the SCWM and social class research in counseling psychology. However, re-examination of the items by additional outside observers suggested the lateral classism items may be skewed toward middle-class ideals and the items may not fully represent lateral classism as experienced by individuals from a range of social class backgrounds. For instance, lateral classism items such as “You felt pressured by your family to choose a job that has a higher social status (e.g., lawyer, doctor, architect, etc)” and “You felt pressured by friends to take expensive vacations such as going to Europe or on a cruise” are more likely to be relevant to individuals who are middle-class or higher and may not capture the experiences of lower social class participants.

A second issue related to the conceptualization of lateral classism items is related to a fundamental assumption in Liu, Soleck, et al.’s (2004) SCWM and MCT, which posits all individuals seek to improve their social class status. The lateral classism items on the PCS only attempted to measure whether a participant felt pressured to accumulate capital in order to keep up with others in their social class. These items failed to address the potential bidirectionality inherent in Liu, Soleck, et al.’s assumption. The assumption is that individuals constantly strive to maintain or improve their social class standing through the accumulation of capital; however, individuals can also maintain or improve their social class standing by ensuring that others do not advance beyond them. For example, Michael may have a colleague who is vying for a job promotion. If the colleague receives the promotion it is likely she/he will move into a higher social class status than Michael. Michael may not be in a position in his career to also be promoted, so rather than being able to maintain a commensurate social class standing as his promoted colleague, Michael prevents his colleagues attempt to become promoted. In

disrupting his colleague's promotion, Michael ensures he maintains the same social class as his colleague and does not experience a drop in his social class standing. This disruption may take a more sinister form such as notifying the supervisor about the colleague's questionable work habits or a less insidious approach such as trying to convince the colleague that taking the promotion would result in less family time and potentially greater family conflict. Therefore, lateral classism may not only be experienced as pressure to keep up with others in your same social class, but also as pressure from others to ensure you do not rise above them. Additional items assessing this opposing spectrum of lateral classism may have better characterized participants' experiences with lateral classism.

Findings from this study also showed the PCS scales were not significantly correlated with the Internalized Classism Scale (ICS; Liu & Hernandez, 2007). The ICS attempts to measure whether individuals who experience classism internalize the classist attitudes directed at them or their social class group. For instance, a person who considers themselves middle class and is unable to maintain stereotypical aspects of a middle-class lifestyle, such as owning a house in the suburbs with a swimming pool, may experience a feeling of failure over her/his inability to fulfill her/his social class identity. This feeling of failure may result in symptoms of anxiety or depression if the person is unable to cope with these pressures. Using Liu, Soleck, et al.'s SCWM and MCT it is logical to assume the PCS and ICS would be related; however, this association may not have been significant because the ICS has yet to be fully validated. The ICS is currently in development and at this time has not undergone thorough validation of its proposed usefulness as a measure of internalized classism. It may be possible the ICS is measuring

latent variable(s) other than internalized classism and this contributed to the lack of association between the PCS and ICS.

Overall, the PCS demonstrated modest support for the downward and upward classism constructs of the MCT. Namely, individuals who self-identified as lower class reported experiences with downward classism and individuals who self-identified as higher class experienced upward classism. Both these relationships were as predicted by the SCWM and MCT. The items used to assess lateral classism were not validated in this study and this may have been the result of poor item specification or items that did not properly reflect lateral classism. The PCS was also not related to internalized classism, but this may have been related to the limited psychometric properties of the ICS. Further research should determine whether the PCS may support others aspects of the SCWM and MCT and whether modification to the PCS may improve its explanatory power for use as a measure of the MCT's classism domains.

#### PCS and Biopsychosocial Model of Classism-related Stress

According to the biopsychosocial model of classism-related stress, individuals who interpret a stimulus as an act of classism may experience elevated levels of stress as a result of the perceived discrimination. Results showed individuals who reported higher levels of classism also experienced greater levels of stress than individuals who reported lower levels of classism, as predicted by the biopsychosocial model. However, this association between the PCS scales and stress levels was somewhat small. While the relationship between classism and stress was small in this study, the strength of this relationship was similar to that demonstrated by the instrument the PCS scales were modeled after, the Index of Race Related Stress (IRRS; Utsey & Ponterotto, 1996). With

regards to the IRRS, significant correlations were only found between two of the four IRRS subscales scores and reported stress levels and the magnitude of these correlations were similar to those found between the PCS scales and levels of stress. In addition, a commonly used measure of sexist discrimination, the Schedule of Sexist Events (SSE; Klonoff & Landrine, 1995), also conceptualized discrimination as a form of stress similar to the PCS and the IRRS. The SSE contains two subscales, the Schedule of Sexist Events-Lifetime (SSE-Lifetime) subscale and the Schedule of Sexist Events-Recent (SSE-Recent) subscale. The authors of the SSE reported significant correlations between the SSE subscales and two measures of stress, which ranged between .24 and .27 ( $p < .01$ ). These correlations were in similar magnitude to those found between the PCS and stress. Thus, while the relationships between the PCS downward and upward classism scales and reported stress levels were nominal, the strength of these relationships were approaching those found between previously established measures of discrimination and levels of stress.

#### PCS and Psychological Well-being

Previous research has shown greater levels of reported stress are associated with increased risk for depression and anxiety (Hammen, 2005; Levenstein et al., 1993). As described by the biopsychosocial model, class discrimination was hypothesized to be related to lower psychological well-being because classism is conceptualized as a stressor and research has shown a link between greater levels of stress and psychological distress. Unfortunately, the observed relationships between the PCS Scales and reported stress levels were relatively small. These minimal correlations between the PCS scales and stress suggested there would also be small, if any significant, associations between the

PCS scales and psychological well-being. Results from this study showed precisely this and the relationships between the PCS scales and psychological well-being were small, if observed. Downward classism had a weak relation to depression and self-esteem, but did not show any significant association with anxiety or positive affect. Meanwhile, upward classism was not related to depression, anxiety, positive effect, or self-esteem. It should also be noted the small magnitudes of these relationships should be interpreted with caution given the large sample sizes increase the possibility of finding significant relationships.

One possible explanation for the lack of significant relationships found between classism and psychological distress may be that participants' experiences with classism occurred at a time too distal to meaningfully affect their current stress levels or mental health. In order to more accurately assess the relationship between classism and psychological well-being, the PCS may be modified so that participants are asked to indicate their experiences with class discrimination over the past two weeks or month. Focusing on recent experiences with class discrimination may increase the PCS scales' sensitivity to related decreases in psychological well-being.

A second potential rationale for the current findings between classism and psychological well-being is that general life stress may mediate or moderate this relationship between classism and mental health. In a study by Pieterse and Carter (2007), the authors found lower levels of psychological well-being were more strongly predicted by general life stressors than stress from discrimination. Results from the current study echoed those findings by Pieterse and Carter, as higher levels of general perceived stress were more strongly related to psychological distress than classism.

Overall, the relationship between classism and psychological distress was not as robust as predicted. This relationship may have been small because classism did not appear to incite much increase in stress levels and general stressors were more strongly related to lower psychological well-being than classism-related stress.

In summary, the current study provides preliminary support for the use of the PCS as a measure of the MCT downward and upward classism constructs. As predicted by the MCT, individuals who perceived themselves as lower social class were likely to endorse items on the Downward Classism Scale of the PCS and those individuals who viewed themselves as higher social class endorsed greater levels of Upward Classism on the PCS. Additionally, classism was related to greater levels of stress; however, the magnitude of this relationship was nominal. The association between classism and stress may have been less strong than expected because participants' experiences with classism may have been too distal and did not have as much of an influence on current reported stress levels. Lastly, downward classism was shown to be related to somewhat higher levels of depression and lower self-esteem, while upward classism was not associated with any change in psychological well-being. These relationships may have also been affected by the amount of time passed between previous experiences with classism and current psychological functioning. It is also possible general life stressors may have a greater influence on psychological well-being than classism-related stress.

#### Limitations

One limitation of the current research is the samples used in this study do not reflect the general population in the United States and therefore the PCS Scales may not generalize to all adults in America. First, all participants in this sample were in the

process of attaining a four-year college degree, while as of 2010, only 29.9% of people in the United States who are over the age of 25 have completed a college degree (Census Bureau, 2012a). Second, the sample in this study tended to report much higher levels of personal/parental income than the average U.S. citizens report. Almost 50% of participants in the first study, 49% of participants in the second study, and 49% of students in the third study reported their parents' estimated household income was over \$75,000. This is far greater than the median U.S. household income reported from 2007-2011, which was \$52,762 (Census Bureau, 2013). Third, the racial/ethnic background of participants for all three studies was over 90% White. In contrast, during the 2010 U.S. census, 63.7 % of respondents identified as non-Hispanic White, 16.3% as Hispanic, 12.6% as Black or African American, 4.8% as Asian, 0.9% as American Indian or Alaska Native, 6.2% as other, and 2.9% as two or more races (Census Bureau, 2010). Fourth, the average age of participants in this study was approximately 20 years and the range of ages represented was fairly narrow. Lastly, 67.5% of participants in the current study were female. Overall, participants in this study were likely to be White females and they were more educated, wealthy, and younger than the general United States population.

The differences in demographic characteristics between study participants and the U.S. population make generalizability of the current study difficult. Therefore, use of the PCS Downward and Upward Classism Scales may not be appropriate with more economically and racially diverse individuals. The relative wealth and education levels of participants may pose a particular threat to external validity for the Downward Classism Scale. There was a small proportion of lower social class participants and the majority of participants were likely to rate themselves as occupying a higher social class



than the people within their community and society. It stands to reason that the lower social class participants would be most likely to experience downward classism, yet their representation in the study was relatively small and results for the Downward Classism scale may be less generalizable. In contrast, high social class participants in this study were overrepresented and may render the Upward Classism Scale more generalizable.

A second limitation related to the samples used in current studies was that all participants were currently enrolled in college. College students may be in a much more salient period of transition than individuals who are not in college. For example, for college individuals may be exposed to a greater diversity of people in terms of race/ethnicity, social class, sexual identity, etc., than is typical of their local communities. Therefore, subjective experiences with social class and classism may be more dynamic in college students as they attempt to define themselves in relation to people from a diverse array of backgrounds. Additionally, individuals who choose to attend college may also be more likely to experience rapid changes in social class than the general population. For example, a low social class individual may be elevated to a higher social class standing simply by attending college. Similarly, a high social class student may experience a relative decrease in social class because they are required to move from a large, well-furnished home to a basic dorm room where they must share space and belongings with a roommate.

A third limitation of this study is the observed relationships between the PCS scales and measures of psychological well-being were not causal in nature. There may be potential confounding variables that affect these relationships or it is possible that individuals who are stressed and/or depressed are more likely to perceive classism rather

than classism leading to stress or depression. As noted in the biopsychosocial model of classism-related stress, an individual must first perceive a stimulus as classism in order to experience any deleterious effects; however, a person's current affective state may influence their attribution of the stimulus. According to Beck's (1976) cognitive triad of depression, individuals who are depressed may harbor a more negative outlook of the world and as a result may be more likely to view neutral situations in a negative manner. It becomes logical those individuals who are depressed may be more likely to attribute neutral class-based situations as being discriminatory. This raises the possibility that depression may also increase the likelihood a person perceives classism, which in turn increases levels of stress and subsequent depressive symptoms.

Lastly, a limitation of this study was that items on the PCS did not specify a timeframe in which the participant experienced the classist acts. For example, participants were not asked to respond to items based on their experiences in the last two weeks, month, etc. Participants may have been recalling classist events which occurred throughout their life when responding to these items. The lack of specified timeframe introduces the possibility that participants incorrectly recalled or interpreted past experiences with classism or completely failed to remember past incidences of classism. These limitations may be addressed by future studies to improve the validity of the PCS.

#### Implications for Counseling Psychology/Clinical Implications

The field of counseling psychology has long been oriented towards multiculturalism, social justice, and advocating for individuals who experience discrimination and oppression (Sue, Arredondo, & McDavis, 1992). In order to more fully understand the influence of discrimination on individuals, counseling psychologists

have developed multiple measures to assess for common forms of discrimination such as racial/ethnic discrimination, sexist discrimination, and discrimination based on sexual orientation (Balsam, Beadnell, & Molina, 2013; Landrine, Klonoff, Coral, Fernandez, & Roesch, 2006; Utsey & Ponterotto, 1996). Generally, discrimination has been associated with a variety of negative consequences such as increased risk for depression and anxiety (Landrine, Klonoff, Gibbs, Manning, & Lund, 1995; Salgado de Snyder, 1987). Given the negative consequences of discrimination, counseling psychologists should continue to explore how differing forms of discrimination influence individuals.

One area of discrimination that has not received much attention has been the investigation into social class discrimination or classism. The need to better understand classism is very relevant given there is inherent economic inequality in the United States' capitalist economy. These economic discrepancies in combination with long-held American beliefs such as meritocracy and the Protestant Work Ethic serve to maintain a tiered social class structure, in which those at the higher end of the spectrum are afforded greater levels of power and privilege. This stratification of power and privilege is likely to result in individuals engaging in discrimination or oppression as a way to elevate or maintain their social class standing. The PCS developed in this study provides a novel approach toward examining this classist discrimination.

The complex nature of social class and classism in America requires a more comprehensive theoretical approach toward understanding social class and classism such as that proposed by Liu, Soleck, et al. (2004) in their Social Class Worldview Model and Modern Classism Theory. Social class and classism in America is dynamic, relative, and subjective at the individual level. The PCS contributes to the existing literature on social

class and classism by providing counseling psychologists a more inclusive methodology for understanding the manner in which classism operates. Findings from this study suggest people at all social class levels are at risk for being targets of classism, whether they consider themselves to be high on the spectrum of social class or among the lower levels of social class standing. The PCS is able to assess this full spectrum of classism because it is designed to measure multidirectional classism among individuals from lower, middle, and upper social class backgrounds, as opposed to solely the unidirectional (downward) classism that individuals from lower social class backgrounds typically experience.

Two previous measures of classism, the CEQ-A (Langhout, Rosselli, & Feinstein, 2007) and EWCS (Thompson & Subich, 2013), were developed to assess lower social class, college students' perceptions of downward (unidirectional) classism. The items for the CEQ-A and EWCS were based on research findings from past studies on social class and classism and on previously created measures of discrimination, rather than being grounded in a comprehensive theory on social class and classism. The ability of the PCS to assess multidirectional classism, rather than unidirectional classism, is important because it offers a more accurate representation of how classism operates in the United States than the two previously developed classism measures. For example, a middle-class person may be able to discriminate against individuals who are from a lower social class background, but that same middle-class person may also be the target of classism from individuals who occupy a higher social class. In addition, the middle-class individual may be subject to discrimination from a person who is perceived to be from a lower social class. Classism, whether it be from a person occupying a higher social class

or a person occupying a lower social class, may negatively affect an individual's psychological well-being (Liu, Soleck, et al., 2004). The PCS provides counseling psychologists an innovative approach toward investigating the function of classism in people's lives.

Counseling psychology has also long focused on normal developmental processes most people are likely to encounter and successfully resolve. Classism represents one of the typical developmental issues that all people in the United States must contend with, yet some may not be as resilient and will experience greater negative effects from classism. The PCS offers counseling psychologists the ability to determine which individuals may be at greater risk of psychological distress resulting from classism.

Identity development is also a normal developmental process that all persons engage in and this process can be complicated by factors such as social class, discrimination, and oppression (Fouad & Brown, 2000). The PCS may be used to understand how classism influences identity formation. Might individuals define themselves partly based on their experiences with classism? For example, a child from a poor neighborhood may receive messages that higher education is unattainable either because of financial costs or because no other member of her/his family has pursued higher education. This child may internalize this classism and harbor a view that she/he is not a viable candidate to attend college. Similarly, a child from a higher social class background may receive messages that she/he should attend the best colleges and earn a post-graduate degree. Internalization of these messages may prevent her/him from exploring aspects of her/his identity that may be related to artistic expression or the enjoyment of labor-based activities such as cooking or construction.

The PCS also provides counseling psychologists an opportunity to investigate how classism interacts with other forms of discrimination to influence identity development. In a study by Mason (2004), the author examined the relationship between skin color, job discrimination, income, and cultural identity in Latino Americans. Mason found individuals with darker skin types experienced much lower earning power than their lighter skinned counterparts. Mason also discovered Mexican Americans who identified as Chicano were penalized with lower annual income than Mexican Americans who did not identify as Chicano. In addition, higher rates of acculturation were associated with greater earning power, yet acculturation was not sufficient to account for loss of income in individuals with the darkest skin colors. This study highlights the potential interplay between ethnic discrimination, identity, and social class/classism. It is important that counseling psychologists garner a better understanding of the complex interaction among multiple identities and multiple forms of discrimination.

The PCS also offers counseling psychologists the opportunity to investigate relationships between classism and other forms of discrimination on mental health. Classism may operate as a moderating or mediating variable between other forms of discrimination and their relationship to mental health. The PCS can be used to examine the saliency of differing forms of discrimination on psychological well-being. For instance, psychologists may use the PCS to more accurately assess whether classism or ethnic/racial discrimination account for greater levels of psychological distress in ethnic/racial minority individuals.

In addition to research, the PCS may be used by practicing clinicians to assess for classism in their clients. This study suggests individuals who experience downward

classism may be at greater risk for a heightened stress response. Psychologists can provide appropriate interventions for those susceptible to stress because of experiences with downward classism. For example, psychologists may incorporate stress reduction techniques when working with clients who report being the target of downward classism.

The biopsychosocial approach toward classism-related stress posits an individual must first experience and then interpret a stimulus as a classist event prior to experiencing stress. Psychologists can provide assertiveness training so that clients feel more comfortable dealing with classist situations when they occur and thus possibly limiting stress responses. Clients may also be instructed how to cognitively reframe classist experiences so that they do not internalize classist messages.

The use of social class peer support groups may also be beneficial for clients experiencing classism. For instance, lower social class clients in a middle class work environment may find it helpful to discuss with other lower class group members their experiences with classism and the challenges of interacting with co-workers who typically have greater resources of social, cultural, and human capital.

Overall, the PCS advances multicultural psychology research and answers calls by the APA Task Force on Socioeconomic Status (2007) to develop instruments that assess classism and social-class related phenomena. The PCS may be used to better understand how classism operates on the individual, how classism relates to identity development, and how classism intersects with other forms of discrimination. The PCS also offers therapists an approach to assess classism in their clients and to develop appropriate interventions.

### Future Research

The PCS should be further validated using more economically and ethnically diverse samples. The questions in the PCS were designed to apply to the majority of adults within the United States, but the samples used were not very diverse. Research on the PCS can also be conducted to determine whether the PCS is sensitive to changes in social class standing. For example, will a person from a lower social class background experience upward classism if they attend college or secure a higher paying job than is typical from individuals whom they grew up with? Or conversely, might an individual from a higher social class who experienced upward classism shift to experiencing downward classism after losing their job?

The findings in this study were also similar to those reported by Pieterse and Carter (2007). Their research suggested general life stressors (e.g., finances, work, etc.) were more strongly related to psychological distress than discrimination. Psychologists may want to further explore the relationship between life stressors, discrimination, and psychological distress. For example, life stressors may play a moderating or mediating role in the relationship between classism and psychological distress. The biopsychosocial model of discrimination-related stress posits the effects of discrimination are related to the type of coping resources employed. Future research on classism may also examine whether individuals with more adaptive coping responses report lower levels of psychological distress from classist experiences than individuals with maladaptive coping strategies.

Results from this study also suggested individuals who experience upward classism did not experience the same level of psychological distress when compared to



individuals who reported downward classism. Higher social class individuals may be more likely to report upward classism, yet the negative effects of classism may be buffered because they still maintain a level of power and privilege over the perpetrator of upward classism, who by definition, occupies a lower social class standing. Future research may attempt to delineate the possible relationship between upward and downward classism and power and privilege.

Lastly, counseling psychology has continually emphasized career development as a professional focus. Researchers have shown social class plays a role in the career decision making process and the PCS may offer a new perspective for understanding how classism may influence career choice development (Brown et al., 1996). One of the key concepts in Lent, Brown, and Hackett's (1994) social cognitive career theory of career development is the role that contextual influences (i.e., support and barriers) may have in a person's career exploration and choices. Future investigators may use the PCS to determine whether class discrimination serves as a barrier to an individual's career development. Similarly, research by Deimer et al. (2010) suggests career development is partially shaped by sociopolitical development, which is an awareness of/and desire to change sociopolitical inequities such as those associated with social class. In their study of lower SES, African American, Latino, and Asian American high school students, the authors found greater sociopolitical development increased the relevance of work in student's lives and sociopolitical development also influenced students' beliefs surrounding career expectations. These results led Deimer et al. to conclude sociopolitical development may serve as a useful tool in assisting lower SES ethnic/racial minority members in achieving upward class mobility. The PCS may prove useful in

assessing the saliency of social class discrimination and its influence on sociopolitical development. The PCS may also be used to elucidate the process by which an individual's experiences and responses to classism contribute to sociopolitical development and subsequent career development and class mobility.

Overall, prospective research using the PCS should attempt to improve validity of the PCS. Investigators can also further explore the nature of the relationship between the different forms of classism, stress, and psychological well-being. Finally, the PCS may be used to develop a new understanding of traditional counseling psychology domains such as career development.

### Conclusion

The current study contributes to the existing literature on social class and classism by providing a new instrument with which to measure classism. Results from this study provide preliminary support for use of the PCS Downward and Upward Classism Scales as measures of perceived social class discrimination. The PCS differs from two previous classism measures in that it assesses classism multidirectionally, rather than unidirectionally. Findings from this study suggest individuals who perceive themselves as occupying a high social class status are more likely to endorse upward classism, while individuals who self-identify as lower social class are more likely to experience downward classism. The PCS scales also showed some relation to reported stress levels; however, the scales were not strongly associated with depression, anxiety, negative affect, or self-esteem. In addition, the PCS demonstrated adequate internal consistency and test-retest reliability. Future research on the PCS may attempt to improve the external and construct validity of the PCS.

APPENDIX A  
DEMOGRAPHIC FORM

## Demographic Form

1. Gender?
2. How do you identify your ethnic/racial identity?
3. What is your age?
4. What is your current student status?
5. What is your mother's highest level of education?
6. What is your mother's occupation?
7. What is your father's highest level of education?
8. What is your father's occupation?
9. What is your current (estimated) yearly income?
10. What do you estimate to be your parent(s) current yearly household income?

APPENDIX B

MACARTHUR SCALE OF SUBJECTIVE SOCIAL STATUS

### MacArthur Scale of Subjective Social Status

1. Think of this ladder as representing where people stand in society. At the top of the ladder are the people who are best off—those who have the most money, most education and the best jobs. At the bottom are the people who are worst off—who have the least money, least education and the worst jobs or no job. The higher up you are on this ladder, the closer you are to people at the very top and the lower you are, the closer you are to the bottom. Where would you put yourself from 1-10 on the ladder? Please select the number where you think you stand.

2. Think of this ladder as representing where people stand in your local community. At the top of the ladder are the people in your community who are best off—those who have the most money, most education and the best jobs. At the bottom are the people in your community who are worst off—who have the least money, least education and the worst jobs or no job. The higher up you are on this ladder, the closer you are to people at the very top and the lower you are, the closer you are to the bottom. Where would you put yourself from 1-10 on the ladder? Please select the number where you think you stand.

APPENDIX C

PERCEIVED CLASSISM INITIAL 51-ITEM POOL

## Perceived Classism Scale Initial 51-Item Pool

*1 = This has never happened to me*

*2 = This event happened, but did not bother me*

*3 = This event happened and I was slightly upset*

*4 = This event happened and I was upset*

*5 = This event happened and I was extremely upset*

Please rate your response to the following events.

Downward

You were treated unfairly because someone perceived you to be from a lower social class.

You were treated unfairly by work supervisors, teachers, etc., because you were perceived to be from a lower social class.

You were made fun of because you were perceived to be from a lower social class.

You were teased because you were perceived to be from a lower social class.

You were treated unfairly by service industry workers (e.g., restaurant servers, salesperson, store clerks, etc.) because you were perceived to be from a lower social class.

You were excluded from an activity (e.g., going out with friends, buying tickets to a concert, going to dinner, etc.) because you could not afford it.

Your friends made fun of you for having to work rather than spend time with them.

People made fun of you for not being able to afford popular items such as IPOD, laptop, flat screen television, etc.



You have been accused of or suspected of doing something wrong (e.g., stealing, cheating) because they perceived you to be from a lower social class.

You have been accused of or suspected of doing something wrong (e.g., stealing, cheating) because the person thought you were poor.

People made fun of your clothing because it is not designer label.

Someone misunderstood your intentions or motives because they thought you were from a lower social class.

You were prevented access to an organization (social club, sports club) because you were perceived to be from a lower social class.

You were made fun of because of the way you speak (e.g., southern drawl, rural, urban, etc.)

You found out people were saying hurtful things behind your back because they thought you were from a lower social class than them.

People teased you for having to shop at places like Wal-mart, Dollar Stores, etc. because you could not afford to shop at more expensive stores.

People made fun of where you are from because it is considered a poor area.

People assumed you were not intelligent because they believed you were from a lower social class.

Lateral

You felt pressured by friends to buy the right type of clothes.

Your family mentioned that you do not meet their economic expectations (e.g., taking a non-profit job, negligible income due to artistic career choice such as music or painting, etc.).

You felt pressured by friends or family to act in a certain way.

You felt pressured by friends or family to practice better etiquette or manners.

Your friends commented that you should not spend time with people with less money or resources than you.

Your friends commented that you should not associate with people who are a part of a lower social class than you.

Friends or family told you to date/marry a person who is more financially well off than you.

Friends or family told you to date/marry an individual who is more affluent than you.

You felt pressured by your family to choose a major or job that will be more financially lucrative (e.g., engineer, business, lawyer, etc.).

You felt pressured by your family to choose a major or job that has a higher social status (e.g., lawyer, doctor, architect, etc.).

You felt pressured by your family to choose a major or job that is more prestigious (e.g., scientist, doctor, architect, etc.).

You felt pressured by friends to take expensive vacations such as going to Europe or going on a cruise.

You felt uncomfortable when your friends make fun of poorer people and expect you to join in.

You felt pressured by your family or friends to go to a four-year college rather than take a job that does not require a college degree or go to a technical school, etc.

You felt pressured by friends to dress a certain way.

You felt pressured by friends or family to have interests that reflect your social class (e.g., reading the New York Times, watching NASCAR, knowing about art, reading important literature, listening to a certain type of music, etc.)

Friends or family were not happy when you dated someone who was poorer than you.

Upward

You were treated unfairly because the person(s) thought you were from a higher social class?

You felt made fun of because you were perceived to be from a higher social class?

You felt you were teased because someone believed you were from a higher social class?

You have been treated unfairly by service industry workers (e.g., restaurant servers, store clerks, etc.) because they thought you were from a higher social class?

You were treated unfairly by bosses or supervisors because they perceived you came from a higher social class?

Individuals from a lower social class made fun of your car, designer clothing, etc.

Individuals from a lower social class teased you for being ambitious (e.g., seeking an education, wanting to get a high paying job, etc.).

People commented that you acted like you are better than them because you had more money than them.

People commented that you are privileged.

People teased you because they believe you come from a family with high social status or a lot of money.

People called you spoiled because they perceived you are a part of a higher social class.

Someone misunderstood your intentions or motives because they thought you were from a higher social class than them.

You were called a “snob” because you were perceived to be from a higher social class?

You were told you dress like a “preppie or yuppie” by people who are from a lower social class.

Your family has commented that you think you are better than them because you either are attending college or have a successful job.

You found out people were saying hurtful things behind your back for reasons related to them thinking you are a part of a higher social class than them.

APPENDIX D  
INTERNALIZED CLASSISM SCALE

### Internalized Classism Scale

I buy the right things to fit in with my social class group.

I need to be involved in activities similar to others in my social class group.

The way I spend my money is influenced by a social class group I want to be a part of in the future.

I sometimes become frustrated when I am not able to get something that is important for me to maintain my social class standing.

Physical attractiveness is valued in my social class group.

Possessions are necessary to reinforce my standing in my social class.

I need to know how to dress to fit into my social class group.

The social class group I would like to be a part of has shaped the way I see social class issues.

Sometimes I feel distressed when I can't get my social class needs met.

I make an effort to know the right people to reinforce my social status.

The group I aspire to be like is an important source of social class messages.

When I can't get something I need to be like others in my social class group I sometimes feel anxious.

Sometimes I have feelings of failure when I can't maintain my social class standing.

I tend to listen to the group I want to be a part of when it comes to how to behave in a particular social class group.

I feel pressure to keep up with others in my social class group.

The group I aspire to be like influences how I think about social class issues.

My peer group shapes the way I spend and value my money.

When I continually fail to meet the expectations of my social class group I feel sad.

I need to have similar experiences to those in my social class group.

I am concerned when others do not conform to my group standards.

I am conscious of how I behave around others because it reflects my social class.

My peers influence how I act in my social class group.

When I don't meet the expectations of my social class group I feel sad.

I believe that social class is an important issue in my life.

My peer group has shaped the way I see social class issues around me.

I need to have the same skills and abilities as others in my social class group.

I do whatever it takes to meet the "right" people.

I consider it important to make connections in the right social class groups.

I am expected to know the right kinds of food, clothing, and music to maintain my social class standing.

When my friends do not act like others in my social class group I feel uncomfortable.

APPENDIX E  
PERCEIVED STRESS SCALE



### Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

*0 = never    1 = almost never    2 = sometimes    3 = fairly often    4 = very often*

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and "stressed"?
4. In the last month, how often have you dealt successfully with irritating life hassles?
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
7. In the last month, how often have you felt that things were going your way?
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
9. In the last month, how often have you been able to control irritations in your life?

10. In the last month, how often have you felt that you were on top of things?
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

APPENDIX F  
ROSENBERG SELF-ESTEEM SCALE

### Rosenberg Self-Esteem Scale

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD.

On the whole, I am satisfied with myself.

At times, I think I am no good at all.

I feel that I have a number of good qualities.

I am able to do things as well as most other people.

I feel I do not have much to be proud of.

I certainly feel useless at times.

I feel that I'm a person of worth, at least on an equal plane with others.

I wish I could have more respect for myself.

All in all, I am inclined to feel that I am a failure.

I take a positive attitude toward myself.

APPENDIX G  
POSITIVE AND NEGATIVE AFFECT SCALE

### Positive and Negative Affect Scale

This scale consists of a number of words that describe different feelings and emotions.

Read each item and then mark the appropriate answer in the space next to that word.

Indicate to what extent you generally feel this way, that is, how you feel on average. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

\_\_\_\_\_ interested

\_\_\_\_\_ irritable

\_\_\_\_\_ distressed

\_\_\_\_\_ alert

\_\_\_\_\_ excited

\_\_\_\_\_ ashamed

\_\_\_\_\_ upset

\_\_\_\_\_ inspired

\_\_\_\_\_ strong

\_\_\_\_\_ nervous

\_\_\_\_\_ guilty

\_\_\_\_\_ determined

\_\_\_\_\_ scared

\_\_\_\_\_ attentive

\_\_\_\_\_ hostile

\_\_\_\_\_ jittery

\_\_\_\_\_ enthusiastic

\_\_\_\_\_ active

\_\_\_\_\_ proud

\_\_\_\_\_ afraid

APPENDIX H  
DEPRESSION, ANXIETY, AND STRESS SCALES

## Depression, Anxiety, and Stress Scales (DASS)

Please read each statement and circle a number 0, 1, 2, or 3 that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

*0 = Did not apply to me at all.*

*1 = Applied to me some degree, or some of the time.*

*2 = Applied to me a considerable degree, or a good part of the time.*

*3 = Applied to me very much, or most of the time.*

I found myself getting upset by quite trivial things

I was aware of dryness of my mouth

I couldn't seem to experience any positive feeling at all

I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)

I just couldn't seem to get going

I tended to over-react to situations

I had a feeling of shakiness (eg, legs going to give way)

I found it difficult to relax

I found myself in situations that made me so anxious I was most relieved when they ended

I felt that I had nothing to look forward to

I found myself getting upset rather easily

I felt that I was using a lot of nervous energy

I felt sad and depressed



I found myself getting impatient when I was delayed in any way  
(eg, elevators, traffic lights, being kept waiting)

I had a feeling of faintness

I felt that I had lost interest in just about everything

I felt I wasn't worth much as a person

I felt that I was rather touchy

I perspired noticeably (eg, hands sweaty) in the absence of high  
temperatures or physical exertion

I felt scared without any good reason

I felt that life wasn't worthwhile

I found it hard to wind down

I had difficulty in swallowing

I couldn't seem to get any enjoyment out of the things I did

I was aware of the action of my heart in the absence of physical  
exertion (eg, sense of heart rate increase, heart missing a beat)

I felt down-hearted and blue

I found that I was very irritable

I felt I was close to panic

I found it hard to calm down after something upset me

I feared that I would be "thrown" by some trivial but  
unfamiliar task

I was unable to become enthusiastic about anything

I found it difficult to tolerate interruptions to what I was doing

I was in a state of nervous tension

I felt I was pretty worthless

I was intolerant of anything that kept me from getting on with what I was doing

I felt terrified

I could see nothing in the future to be hopeful about

I felt that life was meaningless

I found myself getting agitated

I was worried about situations in which I might panic and make a fool of myself

I experienced trembling (eg, in the hands)

I found it difficult to work up the initiative to do things

APPENDIX I  
STUDY 1 PARTICIPANT CHARACTERISTICS

## Study 1 Participant Characteristics

**Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	.3	.3	.3
Male	95	31.4	31.4	31.7
Female	207	68.3	68.3	100.0
Total	303	100.0	100.0	

**Ethnic/racial identity**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid White	281	92.7	92.7	92.7
African American	2	.7	.7	93.4
Latino	4	1.3	1.3	94.7
Asian American	5	1.7	1.7	96.4
Native American	1	.3	.3	96.7
Biracial	7	2.3	2.3	99.0
Multiracial	1	.3	.3	99.3
Abstain	2	.7	.7	100.0
Total	303	100.0	100.0	

**Student status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Freshman	64	21.1	21.1	21.1
Sophomore	113	37.3	37.3	58.4
Junior	66	21.8	21.8	80.2
Senior	41	13.5	13.5	93.7
Graduate	19	6.3	6.3	100.0
Total	303	100.0	100.0	

**Mother's highest level of education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than High School	3	1.0	1.0	1.0
	High School	54	17.8	17.8	18.8
	Vocational/Technical Training	14	4.6	4.6	23.4
	Some College	44	14.5	14.5	38.0
	Associate's Degree (A.A.)	42	13.9	13.9	51.8
	Bachelor's Degree (e.g., B.A., B.S.)	97	32.0	32.0	83.8
	Master's Degree (e.g., M.S, M.A.)	39	12.9	12.9	96.7
	Graduate (e.g., Ph.D) or Professional Degree (M.D., J.D.)	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

**Father's highest level of education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than High School	4	1.3	1.3	1.3
	High School	52	17.2	17.2	18.5
	Vocational/Technical Training	28	9.2	9.2	27.7
	Some College	44	14.5	14.5	42.2
	Associate's Degree (A.A.)	20	6.6	6.6	48.8
	Bachelor's Degree (e.g., B.A., B.S.)	82	27.1	27.1	75.9
	Master's Degree (e.g., M.S, M.A.)	42	13.9	13.9	89.8
	Graduate (e.g., Ph.D) or Professional Degree (M.D., J.D.)	31	10.2	10.2	100.0
	Total	303	100.0	100.0	

**Current (estimated) yearly income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1.3	1.3	1.3
\$0-\$9,999	260	85.8	85.8	87.1
\$10,000-\$25,999	26	8.6	8.6	95.7
\$26,000-\$49,999	6	2.0	2.0	97.7
\$50,000-\$74,999	3	1.0	1.0	98.7
\$75,000-\$99,999	2	.7	.7	99.3
Above \$100,000	2	.7	.7	100.0
Total	303	100.0	100.0	

**Parent(s) current yearly household income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	2.6	2.6	2.6
\$0-\$9,999	3	1.0	1.0	3.6
\$10,000-\$25,999	14	4.6	4.6	8.3
\$26,000-\$49,999	42	13.9	13.9	22.1
\$50,000-\$74,999	69	22.8	22.8	44.9
\$75,000-\$99,999	65	21.5	21.5	66.3
Above \$100,000	102	33.6	33.6	100.0
Total	303	100.0	100.0	

APPENDIX J  
PCS ITEM FACTOR LOADINGS







APPENDIX K  
STUDY 2 PARTICIPANT CHARACTERISTICS

## Study 2 Participant Characteristics

**Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	77	32.5	32.5	32.5
	Female	160	67.5	67.5	100.0
	Total	237	100.0	100.0	

**Ethnic/racial identity**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	218	92.0	92.0	92.0
	African American	4	1.7	1.7	93.7
	Latino	7	3.0	3.0	96.6
	Asian American	2	.8	.8	97.5
	Native American	3	1.3	1.3	98.7
	Biracial	3	1.3	1.3	100.0
	Multiracial	0	0	0	
	Total	237	100.0	100.0	

**Student status**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	72	30.4	30.4	30.4
	Sophomore	83	35.0	35.0	65.4
	Junior	53	22.4	22.4	87.8
	Senior	27	11.4	11.4	99.2
	Graduate	2	.8	.8	100.0
	Total	237	100.0	100.0	

**Mother's highest level of education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than High School	1	.4	.4	.4
	High School	49	20.7	20.8	21.2
	Vocational/Technical Training	9	3.8	3.8	25.0
	Some College	31	13.1	13.1	38.1
	Associate's Degree (A.A.)	23	9.7	9.7	47.9
	Bachelor's Degree (e.g., B.A., B.S.)	82	34.6	34.7	82.6
	Master's Degree (e.g., M.S, M.A.)	31	13.1	13.1	95.8
	Graduate (e.g., Ph.D) or Professional Degree (M.D., J.D.)	10	4.2	4.2	100.0
	Total	236	99.6	100.0	
	Missing	System	1	.4	
Total		237	100.0		

**Father's highest level of education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than High School	4	1.7	1.7	1.7
	High School	52	21.9	22.3	24.0
	Vocational/Technical Training	18	7.6	7.7	31.8
	Some College	28	11.8	12.0	43.8
	Associate's Degree (A.A.)	14	5.9	6.0	49.8
	Bachelor's Degree (e.g., B.A., B.S.)	70	29.5	30.0	79.8
	Master's Degree (e.g., M.S, M.A.)	33	13.9	14.2	94.0
	Graduate (e.g., Ph.D) or Professional Degree	14	5.9	6.0	100.0
	Total				

	(M.D., J.D.)			
Total		233	98.3	100.0
Missing	System	4	1.7	
Total		237	100.0	

**Current (estimated) yearly income**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$0-\$9,999	216	91.1	91.9	91.9
	\$10,000-\$25,999	14	5.9	6.0	97.9
	\$26,000-\$49,999	3	1.3	1.3	99.1
	\$75,000-\$99,999	2	.8	.9	100.0
	Over \$100,000	0	0	0	100.0
	Total	235	99.2	100.0	
Missing	System	2	.8		
Total		237	100.0		

**Parent(s) current yearly household income**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$0-\$9,999	1	.4	.4	.4
	\$10,000-\$25,999	9	3.8	3.9	4.3
	\$26,000-\$49,999	45	19.0	19.4	23.7
	\$50,000-\$74,999	64	27.0	27.6	51.3
	\$75,000-\$99,999	54	22.8	23.3	74.6
	Above \$100,000	59	24.9	25.4	100.0
	Total	232	97.9	100.0	
Missing	System	5	2.1		
Total		237	100.0		

APPENDIX L  
STUDY 3 PARTICIPANT CHARACTERISTICS

## Study 3 Participant Characteristics

**Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	55	32.5	32.5	32.5
Valid Female	114	67.5	67.5	100.0
Total	169	100.0	100.0	

**Ethnic/racial identity**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid White	153	90.5	90.5	90.5
Valid African American	3	1.8	1.8	92.3
Valid Latino	7	4.1	4.1	96.4
Valid Asian American	2	1.2	1.2	97.6
Valid Native American	0	0	0	
Valid Biracial	1	.6	.6	98.2
Valid Multiracial	3	1.8	1.8	100.0
Total	169	100.0	100.0	

**Student status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Freshman	47	27.8	27.8	27.8
Valid Sophomore	69	40.8	40.8	68.6
Valid Junior	30	17.8	17.8	86.4
Valid Senior	21	12.4	12.4	98.8
Valid Graduate	2	1.2	1.2	100.0
Total	169	100.0	100.0	

**Mother's highest level of education**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than High School	1	.6	.6	.6
High School	37	21.9	21.9	22.5
Vocational/Technical Training	7	4.1	4.1	26.6
Some College	23	13.6	13.6	40.2
Associate's Degree (A.A.)	18	10.7	10.7	50.9
Bachelor's Degree (e.g., B.A., B.S.)	58	34.3	34.3	85.2
Master's Degree (e.g., M.S, M.A.)	17	10.1	10.1	95.3
Graduate (e.g., Ph.D) or Professional Degree (M.D., J.D.)	8	4.7	4.7	100.0
Total	169	100.0	100.0	

**What is your father's highest level of education?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than High School	3	1.8	1.8	1.8
High School	38	22.5	22.5	24.3
Vocational/Technical Training	11	6.5	6.5	30.8
Some College	16	9.5	9.5	40.2
Associate's Degree (A.A.)	10	5.9	5.9	46.2
Bachelor's Degree (e.g., B.A., B.S.)	57	33.7	33.7	79.9



Master's Degree (e.g., M.S, M.A.)	22	13.0	13.0	92.9
Graduate (e.g., Ph.D) or Professional Degree (M.D., J.D.)	12	7.1	7.1	100.0
Total	169	100.0	100.0	

**Current (estimated) yearly income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid \$0-\$9,999	159	94.1	94.6	94.6
\$10,000- \$25,999	7	4.1	4.2	98.8
\$26,000- \$49,999	1	.6	.6	99.4
\$75,000- \$99,999	1	.6	.6	100.0
Over \$100,000	0	0	0	
Total	168	99.4	100.0	
Missing System	1	.6		
Total	169	100.0		

**Parent(s) current yearly household income**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid \$0-\$9,999	2	1.2	1.2	1.2
\$10,000- \$25,999	8	4.7	4.7	5.9
\$26,000- \$49,999	35	20.7	20.7	26.6
\$50,000- \$74,999	42	24.9	24.9	51.5
\$75,000- \$99,999	39	23.1	23.1	74.6

Above \$100,000	43	25.4	25.4	100.0
Total	169	100.0	100.0	

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