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AN ECOLOGICAL MODEL OF ACADEMIC NEGATIVE PREDICTION DEFIANCE IN COLLEGE STUDENTS

by

KELLY L. MALTESE TSAI

Under the Direction of Marci R. Culley

ABSTRACT

Pathways to becoming a college student are as numbered and varied as college students themselves. For some people, the pathway to college is marked by barriers, such as negative messages received by the student regarding their abilities to attend college and/or the likelihood that they will get to attend college. On one hand, research suggests that children and adolescents internalize these negative messages, which then have the potential to block achievement in higher education. On the other hand, the general body of resilience research suggests that youth can overcome challenges and defy negative influences, as did the participants of the current study. However, little is known about this process of achievement in the face of negative predictions. Consequently, the current study used qualitative grounded theory methodology to explore the experience of defying negative messages received about becoming a college student.

In unstructured interviews, fourteen undergraduate students described their experience of receiving negative messages about their abilities to attend college or the likelihood that they would get to attend college, as well as their subsequent experience of becoming college students in the face of these messages. Based on the literature regarding resilience, negative prediction defiance, and the effects of expectations on academic competence, an ecological model of overcoming negative messages was proposed in which micro, meso, and macrosystemic influences were hypothesized to play a role in encouraging or discouraging college attendance.

Although participants came from diverse demographic backgrounds and experienced varied types of negative messages, all of their narratives shared major components, which comprise the theory proposed in the current study. These components are sources of negative messages, perceived underlying influences on sources, reasons to defy the message, facilitators of defiance, and barriers to defiance. This theory was compared to existing theories regarding resilience, negative prediction defiance, and the effects of expectations on academic competence. Additionally, research and policy implications are discussed that highlight the importance of providing youth who may be at-risk to receive negative messages with support in their families, schools, and communities.

INDEX WORDS: Resilience, College attendance, Educational achievement, Negative prediction defiance, Educational expectations

AN ECOLOGICAL MODEL OF ACADEMIC NEGATIVE PREDICTION DEFIANCE IN COLLEGE STUDENTS

by

KELLY L. MALTESE TSAI

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2008

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Kelly L. Maltese Tsai

2008

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December 2008

DEDICATION

"You gain strength, courage and confidence by every experience in which you really stop to look fear in the face… You must do the thing you think you cannot do.*"* Eleanor Roosevelt

This dissertation is dedicated to the project's participants, and students like them everywhere, who had to battle racism, classism, sexism, and other injustices on their path to college.

They did not back down or give up in the face of the obstacles and barriers created by the negative messages they received.

May their strength and determination inspire us to fight against injustice so that in the future young people do not have to face it.

May their aspirations inspire us to support young people and their dreams.

May their success inspire us to achieve the things that we are told we cannot achieve.

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To my loving husband Jeff for hanging in there with me from graduate school applications to graduation. He has always supported me in multiple ways and he has made countless sacrifices so that I could follow this dream. He also has the gift of helping me keep everything in perspective, which is essential to completing any long and challenging task.

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Last, but not least, thank you to my participants for sharing their stories with me and permitting me to use them in this way.

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1. INTRODUCTION

In the United States, college graduates earn almost twice as much money as people with high school diplomas (Organization for Economic Cooperation and Development, cited by U.S. Department of Education, 2006). The U.S. Department of Labor reported that 90% of the fastest-growing jobs for the coming years will require postsecondary education or training (U.S. Department of Education, 2006). Additionally, being a college graduate reduced the likelihood that a person qualifies to be classified as a minimum wage worker or as working-poor (U.S. Department of Labor, 2006). Consistent with the philosophy that guides resilience literature (Luthar, 1991; Masten & Coatsworth, 1998; Werner, 1993), I argue that the most important cases to examine, in terms of intervention development, may be those youth who are attending college despite encountering people and circumstances that suggested they were not "college material". According to Masten and Coatsworth, resilient youth can "…teach us better ways to reduce risk, promote competence, and shift the course of development in more positive directions" (1998; p. 205). Specifically, I was interested in the stories of youth whose resilience took the form of defying negative predictions that people were perceived to have made about their ability to or likelihood of attending college.

Given that negative prediction defiance appears to reflect a form of resilience, key theories from the resilience literature guided the current study. In their critical assessment of the field of resilience research, Luthar, Cicchetti, and Becker (2000) noted several theoretical considerations of import when studying resilience. First, they described the need for resilience research to examine multiple contexts that are part of children's development. Specifically, they recommended viewing the processes involved in resilience at 3 levels: the community, family, and the child (Luthar et al., 2000). Luthar and colleagues also encouraged researchers to consider

the transactions between ecological contexts and children in their theory development and testing. For example, Masten and Coatsworth (1998) have noted the importance of considering how children *and* environments can foster competence, calling for interventions aimed at influencing the capabilities of children and their environments, as well as at improving the fit between children and their environments. (Masten & Coatsworth, 1998). As will be detailed later in this chapter, the current study utilized a multi-level ecological model that assumed transactions between individuals and their environments.

Research on resilient youth has highlighted a number a variables that seem to also be important in negative prediction defiance. In Werner's (1993) longitudinal study of a group of children in Kauai who experienced perinatal stress, poverty, and family environments characterized by conflict and psychopathology, protective factors that supported success in adulthood came from individuals' temperament, skills and values, parents, other adults, and "opportunities at major life transitions" (p.508) such as adult education programs in the transition from high school to post-graduation employment. Her findings supported the assessment of protective factors at multiple levels and also described the complicated relations between individuals and their environments, which support or oppose resilience. In Masten and Coatsworth's (1998) compilation of findings from the resilience and competence literature, they described characteristics of resilient children and adolescents from three contexts: individual, family, and extrafamilial. Examples of characteristics hypothesized to be relevant to the current study include self-efficacy, close and caring relationships with adults either within or outside of the family, and access to extrafamilial resources (e.g. community organizations, effective schools).

The term “negative prediction defiance” (NPD) was first used in print by Boardman, Harrington and Horowitz (1987) in a chapter on the life histories of extremely successful career women (C.C. Harrington, personal communication, June 4, 2006). A decade ago, in their exploratory study of 60 people from impoverished backgrounds who achieved high levels of occupational success, Harrington and Boardman (1997) used the term “Pathmaker” rather than “negative prediction defier” to describe their participants, recognizing that some participants may not identify with defying someone or something on their journey. However, the authors originally classified their participants as negative prediction defiers and are the only researchers to conceptualize their participants’ experience in this way. By definition, Pathmakers’ families of origin fell into a low SES group. In contrast to a comparison group, Pathmakers’ families were also more likely to be marked by the death of a parent, abuse, or other disturbances in the structure of their family. However, they were no less likely than comparison group participants to have experienced family support for education and reported that their families had a positive influence on education. Pathmakers identified teachers as important resources more often than comparison group participants. Relevant to the current study, Harrington and Boardman’s (1997) questions about participants’ neighborhoods were very limited and thus did not yield specific information about neighborhood resources or constraints; the current study attempted to gather more specific information about neighborhood influences by directly asking participants about their neighborhoods. Pathmakers were also more likely than comparison group participants to have a strong internal locus of control and to attribute success to themselves, although they also credited important individuals who supported them (Harrington & Boardman, 1997).

The Pathmakers study underscored the importance of neighborhood, family, school, and individual variables which supports an ecological approach to conceptualizing how people

become Pathmakers or negative prediction defiers. The current study was the first to examine NPD with respect to college students and to focus on young adults who will likely have a different perspective on achievement. The current study also addresses the gap in the literature with respect to neighborhood variables.

Given the paucity of research on NPD, this researcher explored relevant literature in the areas of academic expectations and influences on academic achievement. However, many gaps exist in this literature as far as its ability to account for a phenomenon like NPD. For example, researchers have studied the Pygmalion effect extensively since it was introduced in the 1960s by Rosenthal and Jacobs (1968, as cited in Nolen, 2002). Applied to the classroom, the Pygmalion effect is the phenomenon in which teacher expectations unintentionally contribute to the performance of students, in the direction of the expectation (Nolen, 2002; Rosenthal, 1997). In this way the expectation may become a self-fulfilling prophecy in which the student believes they are only capable of achieving what is expected of them. Along the same lines, research on stereotype threat has found that the fear of being negatively stereotyped in an academic area, due to other people's judgments or one's own actions, negatively impacts academic performance (Steele, 1997). Furthermore, Steele argued that this threat should be more salient in students for whom school achievement is an important part of their identity. However, extant research has not focused on why some students do not internalize negative expectations made of them or demonstrate lower academic performance based on stereotype threat, instead going on to succeed and defy the expectation. In the current study, college students told their story about their academic achievement in the face of negative messages and judgments; examining these stories increases our understanding of their experiences and generates ideas for additional variables that

may be important for achievement among students who face similar obstacles on their path to becoming a college student.

Another significant gap in the academic literature occurs in our understanding of young adults who by attending college, appear to defy predictions based on their race and SES. Mello (2005) found that when academic achievement and parental SES were controlled, African American participants had the highest educational expectations, followed by Latino/a participants, Asian American participants, Native American participants, and European American participants. What is notable about the expectations of these youth is that they exist in the face of the census data which in and of itself may serve to lower other people's expectations of these youth and may potentially lead to negative predictions based on racial group membership; consequently the existence of these high expectations may represent an act of NPD. Mello indicated that according to U.S. Census Data (U.S. Census Bureau, 2004, as cited in Mello, 2005) these high educational expectations do not match actual attainment within participants' respective racial groups. Additional national data indicated that high school graduates from low-income families with parents who did not have a postsecondary degree were less likely to enroll in college in the fall after graduation (U.S. Department of Education, 2006). Furthermore, individuals living in a low-income family or those who are a member of a racial minority group are more likely to drop out of high school, which presents a significant barrier to attending college (U.S. Department of Education, 2004). Thus, the high expectations of the youths in Mello's study may represent a form of NPD in and of themselves. However, there is no existing research on the way that defying negative predictions may influence expectations about one's own abilities and academic achievement in the face of significant obstacles. Since both obstacles and resources related to NPD and to becoming a college student may exist in

multiple contexts and levels of an individual's environment, including within the individual, it is important for an exploratory study of NPD takes a multilevel approach, as the current study did (see Figure 1.)

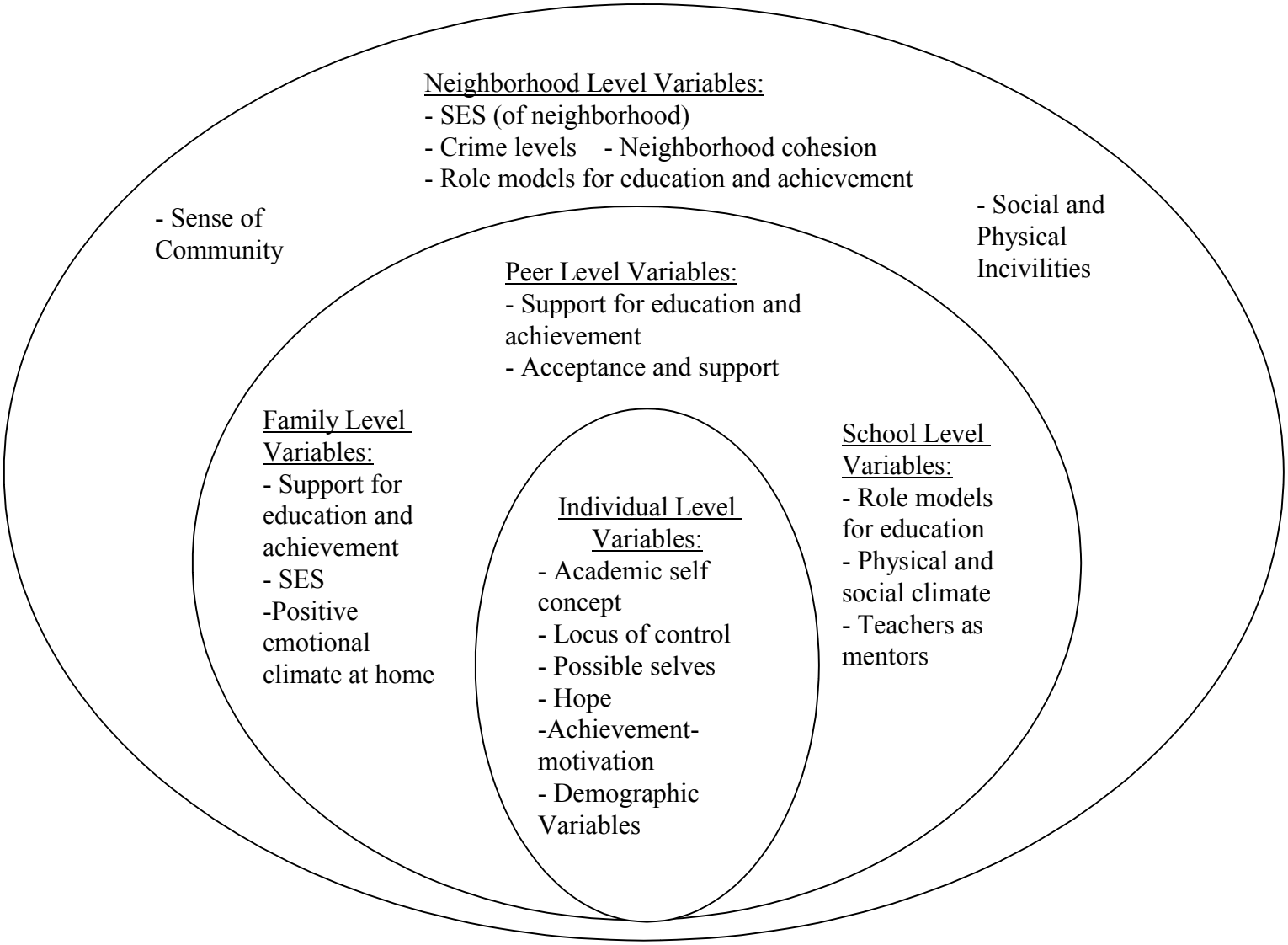

Figure 1

Multi-Level Model of Potential Influences on Negative Prediction Defiance

2. LITERATURE REVIEW

The following literature review presents a selection of key studies in the resilience literature, existing research on negative prediction defiance, and relevant studies on expectations related to academic competence. Next, a rationale for the ecological theoretical model that guided this study will be presented. Finally, influences on academic achievement from several different ecological levels, including individual, parenting, peer, school, and neighborhood variables, will be considered as potential factors in negative prediction defiance (NPD).

Resilience

As previously noted, negative prediction defiance is one form of resilience. Multiple definitions for resilience exist within the literature. In their critical assessment of resilience, Luthar and colleagues (2000) summarized the main three ways that the term is operationalized, according to Masten and her colleagues: "(1) at-risk individuals show better-than-expected outcomes, (2) positive adaptation is maintained despite the occurrence of stressful experiences, and (3) there is good recovery from trauma" (p.544-545). In the current study, participants' experiences were representative of these first two definitions. Becoming college students was a "better-than-expected outcome" for each participant since they had the experience of someone or some thing (e.g. society) predicting that they would either not go to college or not be successful in college. Additionally, for participants who received negative messages at multiple points in their development, their perseverance represents the maintenance of "positive adaptation" in the face of "stressful experiences".

In Luthar's (1991) study of vulnerability and resilience in 9th graders, she considered a number of moderating variables in the relation between social competence and stress, some of which may influence academic negative prediction defiance, including internal locus of control

and intelligence. She operationalized stress as the experience of negative life events (e.g. parents separating or failing a grade) and membership in a high-risk sociodemographic group (e.g. low SES, ethnic minority status). Among the study's findings, internal locus of control was found to moderate the relation between classroom assertiveness (one example of social competence assessed in the study) and stress, such that adolescents with higher levels of internality exhibited more classroom assertiveness, even in the presence of high stress levels. Conversely, adolescents with more of an external locus of control exhibited lower levels of assertiveness under conditions of higher stress (Luthar, 1991). Luthar posited that the belief that one is powerless to control a situation is related to more passive and less effective coping, similar to the phenomenon of learned helplessness. On the other hand, internal locus of control is related to more active attempts to succeed in the face of adversity, via the belief that one *can* control the outcome of the situation. As will be discussed later, internal locus of control was a key variable for all participants in Harrington and Boardman's (1997) study on negative prediction defiance. Additionally, Luthar did not find relations between demographic variables (e.g. family size, household composition, ethnicity, parents' education) and adjustment. Notably, beliefs and judgments formed on the basis of participants' demographic variables in the current study and Harrington and Boardman's study were the basis of negative messages received by these individuals, but did not go on to prevent the success of these individuals in becoming college students or highly successful in their careers (Harrington & Boardman, 1997).

One of the models for resilience research is Werner's (1993) seminal longitudinal study of children born in 1955 in Kauai; this study identified groups of protective factors and processes that supported the successful development of "high risk" youth. Given the longitudinal nature of this study, in which data were collected at five time points (when participants were 1,2,10,18,

and 32 years of age) Werner was able to offer unique insight into protective factors that were at work at different developmental stages of participants' lives. Looking at the portion of the "high risk" cohort who developed into "competent, confident, and caring adults", protective processes were identified from infancy into adulthood (Werner, 1993, p. 504). Resilience fostering individual variables included being perceived as easy to care for babies with good natures; alert and autonomous toddlers with good communication, motor, and self-help skills; elementary school students who got along well with peers and had good reasoning and reading skills; high school graduates with a positive self concept and an internal locus of control; and determined, competent adults. In terms of environmental variables in which the resilient group differed from the other members of the at-risk cohort, this group tended to have had an intimate bond with at least one caregiver as infants, received extra-familial emotional support (e.g. friends, neighbors, teachers), participated in extracurricular activities as children and adolescents, and received support from a spouse/mate and faith/prayer as adults. Werner also noted that the educational and vocational achievements of this group "were equal to those of the low-risk children in the cohort who had grown up in more affluent, secure, and stable environments" (p. 506). Thus, in achieving this level of success, they defied the negative predictions that society may have made about them based on their birth into environments characterized by "poverty … perinatal stress… chronic discord, parental alcoholism, or mental illness" (p. 504). Methodologically, Werner's study was unique and important not only in its longitudinal nature, but in its theoretical approach that highlighted multiple levels of ecology in participants' lives and the transactional nature of person-environment relations. These two theoretical constructs have been designated as integral to the proper study of resilience, as described above (Luthar et al., 2000) and also informed the study of negative prediction defiance (Harrington & Boardman, 1997).

Negative Prediction Defiance

Harrington and Boardman (1997) begin their book *Paths to Success: Beating the Odds in American Society* with the description, "This book is about people who are interesting because they have lived out an American myth. Born to poor and uneducated families, the subjects of this book achieved success" (p. vii). The book chronicles Harrington and Boardman's qualitative study of 100 people who attained high levels of occupational success, 60 who came from impoverished backgrounds and 40 who did not and served as a comparison group. The authors initially referred to their non-comparison group participants as "negative prediction defiers" because their occupational success defied the negative predictions that could be made about them based on their SES. In the book they refer to their participants as "pathmakers," noting that some participants may have adopted defiance in their striving for success while others may not have. In this study, I interviewed people who identified with the experience of receiving and overcoming negative messages about their ability to become college students or the likelihood that they would get to attend college. Harrington and Boardman's (1997) study is highly relevant and informative as its participants achieved success coming from backgrounds that may be similar to that of the negative prediction defiers who participate in the current study. Their research is also relevant as it used qualitative methods and took a strengths-based approach, and examined multiple levels of influence in people's lives, as was the intention of the current study. Harrington and Boardman conceptualized pathmaking as being defined by variables at "the intersection of opportunity and resources, and character" (p.5). Based on this way of thinking, the researchers considered the different experiences and contexts in people's lives to be interdependent. They posited that the resources and opportunities in participants' lives may create redundancy, such that if one support falls short in some way, there is another support ready

to fill the gap. Having fewer resources to cover different obstacles (less redundancy) makes success more difficult. This is consistent with basic theories about resilience that focus on protective and risk factors (Luthar et al., 2000; Masten & Coatsworth, 1998; Werner, 1993). The levels or contexts of resources that the authors examined that are relevant to the current study were family resources, neighborhoods, education, personal resources, and individual level characteristics.

Harrington and Boardman (1997) reported a number of key differences between "Pathmakers" and the comparison group. In terms of family of origin, Pathmakers were more likely to have a parent die during their childhood, experience abuse or other disturbances in the structure of the family, and were less likely to stay in contact with their families of origin as adults. They were also more likely than comparison group participants to have families that were more egalitarian in the division of labor, more religious, and had larger numbers of children. Notably, there were no differences between the two groups in terms of families' support of education and in general feelings that families had a positive influence on their education.

By definition, Pathmakers were more likely to grow up in neighborhoods of a lower SES. Unfortunately, the questions asked about neighborhoods were very limited and there was no information collected about specific influences on achievement at the neighborhood level. For many Pathmakers, education and neighborhood were inextricably connected, such that growing up in a lower SES neighborhood was related to attending schools with more limited resources. Not surprisingly, Pathmakers were less likely to attend private schools and reported more general obstacles to school success. On the other hand, teachers were a resource for Pathmakers, who reported more than comparison group participants that their teachers were significant influences. Accounts of teachers were given in response to a general question about people who had been

important influences on schooling, which indicates the saliency of teachers for the Pathmaker group. In terms of the education obstacles identified, several African American Pathmakers described their experience attending extremely under-resourced segregated schools. While their experience was at a time when segregation in schools was still legal, this is not an issue of the past as many public schools today remain segregated in terms of race and SES. Schools in lower SES neighborhoods, which are more likely to be populated by African American and Latino families due to the disproportionate incidence of poverty in these groups, often have fewer resources needed to support high quality education than do schools in higher SES neighborhoods. Additionally, some Pathmakers also reported facing obstacles related to their class or their parents' education level (Harrington & Boardman, 1997).

In terms of individual characteristics and personal resources, Pathmakers were more likely than comparison group participants to have a strong internal locus of control. Related to this, although Pathmakers credited important individuals who supported them, they were more likely to attribute their success to themselves. The authors point out that "an important component in being able to construct social resources and to make environments was the Pathmakers' belief that they could determine their own future" (Harrington & Boardman, 1997, p.176). Not surprisingly, both Pathmakers and comparison group participants spoke about their strong need for achievement.

Overall, the authors found that there were many routes to success for Pathmakers and comparison group participants. They noted that the main body of literature did not necessarily predict what was learned from the exploratory qualitative interviews, which supports their choice of methodology. Additionally, they found differences in the experiences of participants of different races and between men and women in terms of obstacles and intersections between

racism, sexism, and access to certain resources and opportunities, which will be considered in more detail later (Harrington & Boardman, 1997). Although Harrington and Boardman did not consider specific negative predictions that participants may have experienced, their study is unique in its consideration of multiple levels of influences that facilitate a person's development in the context of socioeconomic backgrounds that society would see as leading to far less career success than that achieved by the Pathmakers.

Only one other study was found that explored the specific phenomenon of negative prediction defiance. In a chapter of a book edited by Robert Sternberg (2003) about psychologists who "defy the crowd", Dean Keith Simonton shared the story of his development as a psychologist. Like the participants in the Pathmaker study, Simonton came from a working class home and his father was not a high school graduate. Simonton was discouraged from taking college-preparatory classes in junior high and encouraged to pursue a vocational track since he did well in shop courses. Thus, even early on Simonton had negative predictions made about his future, which he defied by excelling in the college preparatory courses that he enrolled in against his school counselor's advice. Simonton highlighted several characteristics and experiences that he believes contributed to his "crowd defiance". First, although he would be the recipient of more negative predictions about his chosen research area in graduate school, he did receive encouragement and awards for his achievements in junior high and high school and received full scholarships for college and graduate school. In graduate school, Simonton was told repeatedly that his research ideas were worthless and he should not pursue them, yet he persisted against this criticism and continued to follow his dream of studying creativity. Overall, Simonton pointed to perseverance, the ability to solve problems divergently, and a passion for his work as key factors in his ability to be a crowd defier. While this study was less structured than

the Pathmaker study, some of the same individual characteristics related to a general resiliency emerged. Since no other studies were found that deal explicitly with NPD, I will now turn to some of the literature on how expectations, which are often synonymous with predictions, influence academic competence.

Expectations and Academic Competence

The literature regarding the influence of youth, parent, and teacher expectations is too extensive to be completely covered here and a full review is beyond the scope of this research. However, since expectations often act as the foundation of predictions and the belief that they can be defied, it is important to consider some of the research findings on the development and influence of expectations related to education and academic competence.

Youth, Families and Culture

Adolescents' educational expectations, as well as their occupational expectations, are connected with educational and occupational achievement in adulthood (Eccles, Wigfield, & Schiefele, 1998; Schoon, 2001). Schoon and Parsons (2002) also found that adolescents' educational and occupational expectations were positively associated with parental SES (education, income, and occupation) both cross-sectionally and in their development over time (from age 14 to age 26). From a developmental perspective, thinking about the future, exploring roles, and getting information about education and work are processes that youth focus more on as they age (Arnett, 2000). With an increased focus on the future and more exploration, it would be expected that youth would also be gaining a more accurate picture of the opportunities and barriers to achieving their educational and occupational goals (Gottfredson, 1996). Barriers could potentially include negative predictions or may be correlated with them since the same factors that negative predictions may be based on, such as low parental SES or past academic

success, may serve as barriers to future educational and occupational attainment. According to Gottfredson's theory of circumscription and compromise (1996), the experience or expectation of barriers may negatively impact educational and occupational aspirations. Interestingly, this does not appear to be the case for individuals who are negative prediction defiers.

While it is not surprising that parents' involvement and belief in their children can influence how well their children function in school (Gonzalez-DeHass, Willems, & Holbein, 2005), researchers in Australia explored whether parents' beliefs about the school itself, as well as their aspirations, expectations, and interest regarding their child's education, differed between parents of children attending high achieving and low achieving schools (Jacobs & Harvey, 2005). Parents whose children attended low achieving schools, as assessed using scores on a nation-wide achievement test taken in the last year of school, were most satisfied with their children's education as compared with other parents in the study. These parents also perceived that there was not an emphasis on achievement at their children's schools, but this did not decrease their satisfaction. In fact, many parents from medium achieving schools along with the majority of parents from low achieving schools noted that school success was not equivalent to high academic scores, but rather included children's personal growth and character development; these parents expected school curriculum to address these expectations. These parents also noted that factors such as school location and quality of facilities were important. In contrast, the parents whose children attended high achieving schools identified academic achievement as their main priority; none mentioned school location or facilities. Thus, overall, the majority of parents, regardless of the school's level of achievement, were satisfied with their children's schools. However, expectations for their children's achievement and defining criteria for "satisfaction" with schools differed according to school's level of achievement (Jacobs &

Harvey, 2005). This finding raises interesting questions related to students' hypothetical experience of negative predictions. Theoretically, based on the above results, students in low achieving schools could be receiving messages from parents that a level of achievement below what is needed for college attendance (the test scores that categorized schools are used in college admissions) is adequate, even expected. While the development of character, self-esteem, and social skills identified as necessary for school success by parents in medium and low achieving schools are undoubtedly important, questions remain about what messages are sent to students by a deemphasizing of traditional academic success and whether these messages could become negative predictions about attending college.

Another study on the perceptions that parents of juvenile offenders have about their adolescents supported the hypothesis that negative predictions and expectations of youth may influence youths' behavior (Bradshaw, Glaser, Calhoun, & Bates, 2006). Due to the range of violent and disobedient adolescent behaviors reported, researchers classified parents into "low", "moderate", and "high" groups for comparative analysis purposes. Parents in the "low" group reported the fewest feelings of hopelessness, anger, and fear toward their adolescents, followed by parents in the "moderate" and "high" groups (Bradshaw et al., 2006). Although this study is cross-sectional and cannot indicate whether the parents' negative emotions and expectations or the child's violent and oppositional behavior occurred first, it is likely that these two variables are part of a transactional relation influencing family functioning. Alternately, having high expectations for a child and giving a child support may facilitate prosocial development and resilience, including NPD, in youth growing up in communities affected by violence and families where parents face significant stress (Bradshaw et al., 2006; Scales, Benson, Leffert, & Blyth, 2000).

It is important to consider ways in which SES, being part of a racial or ethnic minority group, and sex may influence the expectations that people have about youth and that youth have about themselves, as well as how demographic group membership may influence opportunities and barriers. Harrington and Boardman (1997) point out:

> The United States is a stratified society which presents a variety of obstacles to an equal distribution of its resources: gender, skin color, class, and language, for example, are characteristics people can use to give an advantage to some and a disadvantage to others. (p.4)

While it is outside the scope of this review to summarize the historical and present social science literature regarding this point, I will focus on relevant findings from several studies that explore the intersection of demographic group membership, expectations and academic achievement.

Harrington and Boardman's (1997) Pathmakers were all negative prediction defiers based on the expectations associated with their SES and their family's educational history. Specifically, they were all characterized as poor by "local definition" (p.203), which is to say that their economic well-being was determined in comparison to their surrounding community. Their family's SES, as measured by Hollingshead and Redlich's index of occupational prestige (based on parent(s)' occupation) had to fall within the lowest two strata of the index and neither parent could have graduated from high school. Additionally, families had to be part of the low occupational status and low income strata throughout a participant's childhood in order for someone to be considered a Pathmaker. Although these SES demographics were shared across Pathmakers, the group contained both genders and people who were African American and Caucasian. Based on their review of literature and their resource redundancy theory, previously

described, Harrington and Boardman (1997) hypothesized and found important differences and similarities among the Pathmakers based on their gender and racial group membership.

The main gender difference Harrington and Boardman (1997) found was that women noted that there were more costs to success, specifically relational costs, than men reported. In other words, sacrifices in personal life for one's career success were more often noted by women. Accordingly, women were less likely than men to be married at the time of the interview and were also married to one person for fewer years than male participants. Additionally, they had fewer children than men and reported more yelling and less compromising with their spouses (Harrington and Boardman, 1997). The most significant race differences were found in the areas of family and schooling. African American participants were more likely to describe the presence of extended families in their homes when growing up, to have mothers with higher educational attainment who were also more likely to be working, and to reflect positively on their childhood homes as loving, less tense, and as pleasurable places to return home to as adults. African Americans reported that they were more influenced by other African Americans in school, while Caucasians reported that they were most significantly influenced by other Caucasians in school. Additionally, African Americans reported more obstacles in their educational success and encounters with racism than did Caucasians (Harrington and Boardman, 1997).

Several studies with younger participants have also highlighted differences in educational expectations between genders and different racial groups. Mello (2005) hypothesized that differences in gender stereotypes and parental expectations about educational and occupational roles would account for differences between females and males' development of their own expectations in these areas. Although results from the literature in this area are mixed, some

studies note that females have higher educational and occupational expectations than males (Mau & Bikos, 2000; Mello, 2005), in spite of perceiving more barriers, including sex discrimination, to their future educational and occupational success than males (Gottfredson, 1996; McWhirter, 1997). In this case, females' higher expectations in the face of more perceived barriers may represent the beginning of NPD. In terms of differences in expectations between different racial groups, Mello (2005) highlighted potential differences in barrier perception and family messages about education that may influence how educational and occupational expectations develop. In one study (McWhirter, 1997), Mexican American high school students forecasted more ethnic discrimination in their future jobs than European Americans. In general, research in this area suggests that African American and Latino students are more likely to perceive and experience barriers to future occupational achievement (Luzzo, 1993; Perrone, Sedlacek, & Alexander, 2001). On the other hand, strong emphasis on the value of education, as well as high educational and occupational expectations found among some immigrant families (Fuligni, 1997), may serve as a support for achievement in these areas. Mello (2005) found that when academic achievement and parental SES were controlled for, African American participants had the highest educational expectations, followed by Latino/a participants, Asian American participants, Native American participants, and European American participants. However, Mello was careful to point out that according to U.S. Census Data, these high educational expectations do not match actual attainment within participants' respective racial groups (U.S. Census Bureau, 2004, as cited in Mello, 2005). What is important in terms of the existence of these expectations is that they exist in the face of census data that in and of itself may serve to lower people's expectations of these youth and may lead to negative predictions being made based on racial group membership. Just as for the young women in the previously described studies (Gottfredson,

1996; Mau & Bikos, 2000; McWhirter, 1997; Mello, 2005), these youths' high expectations may represent a form of NPD on some level.

Teachers

When considering what differentiates students who do have such negative predictions made about them from students who do not, teachers likely play an important role. The idea of teacher expectations leading to self fulfilling prophecies in students regarding their academic achievement was first articulated by Rosenthal and Jacobs in their 1968 article *Pygmalion in the Classroom* (cited in Rosenthal, 1991). Teachers may form expectations from a variety of sources that may or may not be related to students' academic competencies, including SES, gender, ethnicity, level and type of parental involvement, and participation in extracurricular activities (Pigott and Cowen, 2000; Van Matre, Valentine, & Cooper, 2000).

Much of the research on teacher expectation supports the Pygmalion theory, also referred to as interpersonal expectancy effects, in which expectations of authority figures unintentionally influence the performance of individuals in the direction of the expectation (Nolen, 2002; Rosenthal, 1997). Rosenthal (1997) points out the importance of investigating mediators between teacher expectancy effects and student performance. From his assessment of the literature, he posits that the two central mediating factors are climate/affect and input/effort. Climate, or affect, refers to the socio-emotional climate that teachers may create for students; these climates vary in warmth according to the level of positive or negative expectations held by the teachers about particular students. Rosenthal maintains that these cues are often communicated nonverbally. Input, or effort, refers to the extra effort that teachers may put in teaching more material and more difficult material to students for whom they have positive expectations. Two additional factors that Rosenthal believes are important are output, which

refers to the varying opportunities for student responding that teachers give both verbally and nonverbally and feedback, which refers to giving more positive and differentiated performance feedback to students for whom they hold more positive expectations. Pre-existing variables of the student, including sex, age, and personality, may also serve as moderators (Rosenthal, 1997). Research suggests that as children grow older, their own expectations more strongly mediate the relation between teacher expectations and achievement (Kuklinski & Weinstein, 2001), which may account for cases in which the Pygmalion effect is not seen, as in NPD in the face of negative teacher expectations. Perhaps some children's own expectations about themselves are more resilient to other people's negative expectations. Thus, along with the previously discussed mediators, moderators such as sex, age, and personality, as well as race and cultural identity, may play a role in whether negative expectations through a Pygmalion effect become internalized self fulfilling prophecies or feed into NPD. Alternately, positive expectations may become internalized and contribute to the defiance of negative predictions that students receive in other areas of their lives through the Pygmalion effect.

Expectations and Academic Competence Summary

Youth, parent, and teacher expectations regarding academic competency all appear to influence future academic achievement in some way. Parental SES may influence adolescents' educational and occupational expectations. General youth development may also influence these expectations. Teacher expectations may not be based on accurate predictors of academic ability. These expectations have the potential, if perceived by students, to become internalized and play out in students' academic performance through a self fulfilling prophecy; this is also known as the Pygmalion effect. Additionally, it is important to consider ways that SES, racial or ethnic

background, sex, and other demographics may influence expectations held by youth or others about their academic abilities.

A Multi-Level Ecological Approach

As is evident in the studies from the resilience and expectations literature, as well as from the Pathmakers and "crowd defier" studies, expectations and influences come from many areas of a person's life. As children develop, their relations with different contexts change, but at any one time multiple systems are part of development and influence the course that people take, as well as the way they move along this course. Such an ecological approach was first introduced to the field of psychology by Urie Bronfenbrenner (1977). He encouraged researchers to not only consider the settings that immediately surrounded a child, such as their parents, siblings, and classmates, but also to look at the larger social contexts that influence the relationship one has to these more immediate systems. These larger social contexts include the school, the neighborhood, and the rules and information that are carried by cultures and subcultures, including "economic, social, educational, legal, and political systems" (Bronfenbrenner, 1977, p. 515). He also emphasized that individuals were not passive recipients of influences from these different levels but rather were active participants in transactional relationships with family, friends, neighborhoods, schools, and other contexts within which they existed (Bronfenbrenner & Morris, 1998).

Bronfenbrenner's model has four interrelated main components: process, person, context, and time. Process refers to the interactions between the person and their environment. The way that processes influence development is thought to be dependent on characteristics of the person, environmental context, and time periods in which the processes are occurring (Bronfenbrenner & Morris, 1998). Bronfenbrenner (1977) conceptualized four levels of ecological influences:

microsystems, mesosystems, exosystems, and macrosystems. Of the four levels, microsystems are located most proximally to the individual. Microsystems include activities, relationships, and roles that are experienced directly by the developing individual, as well as physical and social environmental influences on development (Bronfenbrenner & Morris, 1998). Examples of microsystems particularly relevant to developing youth are families, peer groups, and schools. Mesosystems are the next level beyond microsystems; they are defined as systems comprised of the relations between two or more microsystems, for example when qualities of the home environment influence a child's academic progress or conversely when a child's academic progress affects the home environment (Bronfenbrenner, 1986). Other examples of mesosystems include the connection between parenting practices and adolescent peer group affiliations or neighborhoods, which are made up of relations among adults, children, and institutions (to name a few components) (Bronfenbrenner & Morris, 1998). The third level, exosystems, describes influences on development that occur in settings not typically occupied by children themselves, but that may be occupied by parents or other individuals who directly interact with children (Bronfenbrenner, 1986). Exosystems vary greatly in size and scope. For example, a parent's workplace may serve as an exosystem when it exerts an influence on parenting practices (Bronfenbrenner, 1986). Another example of an exosystemic influence is when children's schools or families are impacted by legislation made at the local and federal levels (e.g., segregation or the No Child Left Behind program). An individual child may have no direct or face-to-face contact with the coworkers of his or her parents or members of the state and national legislatures, but children are undoubtedly affected by these systems through their impacts on schools and families. Finally, macrosystems are the "overarching institutional patterns of the culture or subculture, such as the economic, social, education, legal, and political systems of

which micro-, meso-, and exosystems are the concrete manifestations" (Bronfenbrenner, 1977, p. 515). For example, cultural ideologies related to educational values, race, and class are examples of macrosystems that influence micro, meso, and exosystems such as families, schools, neighborhoods, and government institutions.

Keeping with Bronfenbrenner's ecological model of human development, the next sections of the literature review will consider ways in which characteristics of the individual, family, peers, school, and neighborhood may influence school achievement and thereby support the defiance of negative predictions made about academic competence. It is beyond the scope of this literature review to consider potential influences from every ecological level (e.g. exosystems and macrosystems); consequently, this portion of the review will focus on the levels and corresponding variables that have received the most attention in the literature. Exosystemic and macrosystemic influences will be considered in more detail in the Discussion chapter to the extent that they emerged from participants' narratives.

Individual-Level Influences

Personality Traits

As previously discussed, the most significant individual level variables in the Pathmakers study were achievement motivation and internal locus of control (Harrington & Boardman, 1997). Traditional individual level characteristic research has focused on personality traits, with the most popular model being the "Big Five": openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Komarraju & Karau, 2005). While past research has considered ways that these traits influence learning and school achievement, little work has been done exploring whether the traits influence academic motivation. Komarraju and Karau (2005) investigated this question using an undergraduate population. They used a measure of

academic motivation to categorize the students into three groups: avoidant, engaged, and achievement oriented. Avoidant students experienced discouragement and anxiety about school, were often withdrawn in class, and took courses for extrinsic reasons rather than a strong intrinsic desire to learn that material. Engaged students enjoyed learning, sharing ideas, and saw learning as a way to improve themselves. Achievement oriented students appreciated excelling academically and performing better than others around them. Extraversion and neuroticism were positively associated with avoidance, while conscientiousness and openness were negatively related to avoidance. Extraversion was also positively related to being engaged in learning, but the positive relation between engagement and openness to experience was stronger. Being more conscientious, neurotic, and open to experience was related to a higher achievement orientation, with conscientiousness and achievement orientation being the most strongly related. While this was a correlational study, it does offer some interesting ideas of what personality variables may be part of the achievement motivation that was so significant for the Pathmakers and may also be influential in being a person who defies negative academic predictions.

Academic Variables related to Confidence and Persistence

"Individual-level" variables do not exist or develop in a vacuum. Consequently, it is common to see studies that look at a combination of variables from different levels. Eccles and colleagues (2004) examined individual and family variables that have been significant in previous literature to see how they contributed to attending college two years after graduation from high school. Data were collected longitudinally from 681 mostly Caucasian, working to middle class participants and their parents from 6th grade through the age of 20. Specifically, the study investigated the following variables: general academic self concept, which refers to how good an adolescent feels they are at an academic subject and how successful they expect to be in

that subject; academic task value, which is how important it is for the participant to be good at an academic subject; future educational plans after completing high school; academic performance, as measured by grades; academic resiliency from the mother's report, defined as how persistent their child is when faced with an academic challenge; whether the mother encouraged the child to go to college; and family income and highest level of education. As predicted by previous research, participants from families with higher incomes and higher levels of maternal education in 6th grade were more likely to be full-time college students at age 20. These young adults also had higher academic self concepts, resiliency, and certainty about attending college in 6th grade, which was related to being more likely to be enrolled in a college-track mathematics class in 10th grade, and a higher grade point average (GPA) in 12th grade. This chain of events, although supported only by correlational data in this study, may suggest some kind of developmental trajectory for college attendance. Notably, sixth grade certainty of college plans predicted attending college at age 20 above and beyond the influence of family demographics, 6th grade GPA, and academic resiliency. The strongest predictors of planning to attend college in 6th grade were the value placed by the mother on college attendance and the academic values of the child. Other predictors were 6th grade GPA and family demographics (Eccles, Vida, & Barber, 2004). These data suggest that determination to attend college as an early adolescent, which is likely important for youth who experience negative predictions about the possibility that they could be college students, appears quite important and is influenced by family variables. Additionally, the roles of persistence, here measured by the academic resilience variable, and confidence, measured by the academic self-concept variable, are also significant and conceivably fit into a profile of characteristics that would support NPD.

Possible Selves

Another individual level variable that has been investigated as potentially connected to motivation and academic achievement is the possible self. A possible self is an individual's idea of his or herself in the future (Norman & Aron, 2003). Possible self theories maintain that people tend to have many possible selves, including selves that we hope to become, fear becoming, and expect to become, in spite of or due to our hopes and fears. Social, cultural, and historical contexts also influence what kinds of possible selves we develop (Norman & Aron, 2003). The connection between possible selves and motivation is unclear in much of the literature. However, Norman and Aron (2003) proposed a model in which motivation to become a specific possible self is dependent on 1) availability, which is how easily an outcome (related to the possible self) can be imagined; 2) accessibility, a cognitive construct defined as how easily stored knowledge can be activated and thus be part of a person's awareness; and 3) perceived control over attaining or avoiding possible selves. In a group of 116 undergraduate students, availability, accessibility, and perceived control all influenced motivation to achieve a possible self (Norman & Aron, 2003). However, perceived control was the strongest predictor of motivation. For youth who experience negative predictions about their ability to attend college, it may be encouraging for them to have a possible self that is a college student. The same internal locus of control characteristic that was important for the Pathmakers also seems to be a motivator to achieve hoped for and deny feared possible selves. Thus, the presence of both a college student possible self and a high level of perceived control may be variables contributing to NPD.

Hope

Hope is one variable that may be part of theories reviewed regarding possible selves and persistence. Snyder and colleagues, who are responsible for much of the primary body of literature and a prominent measurement tool of hope, define hope as "not an emotion but rather a dynamic cognitive motivational system… emotions follow cognitions in the process of goal pursuits" (Snyder et al., 2002, p. 820). Hope includes motivation to pursue goals, referred to as agency by Snyder and colleagues (2002), and strategies to achieve goals, known as pathways. By this definition, hope should be positively correlated with self-esteem, perception of problem solving abilities and control, optimism, positive affect, and expectation of positive outcomes (Snyder et al., 2002). Thinking about what it takes to defy negative predictions, it is plausible that hope, as well as the correlates noted, could be necessary components. In a 6 year longitudinal study of college freshman, Snyder and colleagues (2002) investigated their theory that agency and pathways, rather than goals themselves, inhibit or facilitate goal directed behavior. The researchers' categorized participants into high-hope, medium hope, and low-hope groups based on their scores on a hope scale assessing agency and pathways. Students with higher hope scores had higher GPA's, a better likelihood of college graduation, and were less likely to be dismissed from college due to poor grades. In the discussion following these findings, Snyder and colleagues (2002) noted several consequences of hope that may be important in NPD. They cite their previous work demonstrating that high-hope students are less ambiguous and more certain of their goals, a clarity that was previously discussed as being important in whether possible selves influence motivation (Snyder, 1994 and Snyder, 2002 as cited in Snyder et al., 2002). The researchers also describe their previous research in which high-hope students did not become discouraged by information or experiences related to not reaching

their goals (Snyder, 1996, as cited in Snyder et al., 2002). Rather, high-hope students saw these experiences as sources of feedback to develop other approaches to facilitate goal achievement (Snyder et al., 2002). This last point may be especially relevant for negative prediction defiers who receive a significant amount of pessimistic information about the likelihood of achieving their goals, yet who manage not to internalize these negative predictions and to persist in their pursuits.

Ethnicity and Culture

As discussed in previous sections, another important variable in related to academic achievement is culture; one significant carrier of culture in many families is ethnicity. Fuligni, Witkow, and Garcia (2005) explored the influence of adolescents' ethnic identification with their academic attitudes and achievement. Participants (N=589) were ninth graders from Mexican, Chinese, and European backgrounds. Adolescents from all of these ethnic backgrounds selected more than one label to describe their ethnicity, which the authors believe represent the presence of multiple ethnic identities. These labels were largely unrelated to academic attitudes and achievement. However, the strength of ethnic identification, assessed by measures of the centrality of an ethnic label to the adolescent's self definition and of adolescent's positive feelings toward their ethnic group, was positively related to liking school, finding school interesting, and believing that school was important and valuable for their future. Adolescents with strong ethnic identification were also more likely to feeling that their school respected and valued them. Although ethnic identification was not directly related to academic achievement, for Mexican American and Chinese American adolescents strong ethnic identity was related to positive attitudes about school; this finding was not as prominent for their strong European American peers. The authors suggested that ethnic identity may strengthen positive attitudes

about education and thus improve academic achievement for ethnic minority youth who face unique barriers to school success such as fewer socioeconomic resources, parents who are not familiar with the U.S. education system, and other cultural differences (Fuligni, Witkow, & Garcia, 2005). In this way, strong positive identification with one's ethnic group may serve as a protective factor against negative predictions made based on one's demographics (e.g. race, immigration status, language) and support academic success.

Summary of Individual-Level Influences

Overall, there are several types of individual-level variables that may influence academic achievement and success including personality traits (e.g. internal locus of control, achievement orientation); confidence and persistence; having a positive college student possible self and the perceived control needed to help achieve it; hope; and possession of a strong positive ethnic identity. It is important to keep in mind that these variables are not simple products of an individual; they play out largely on an individual level but are developed through a combination of experiences in many different contexts and biological influences**.** Accordingly, I will next consider family influences on academic achievement.

Family-Level Influences

The family is a consistently well-studied context for child development and serves as the first place where children interact with other people. As previously noted, it is a context that influences and has a transactional relation with individual-level characteristics. Additionally, parents' education level, family economic status, the emotional climate of parent-child relationships, and parental support all play an important role in adolescents' academic functioning (Duchesne, Larose, Guay, Vitaro, & Tremblay, 2005). While there is no research regarding family influences on NPD, research on family, student motivation, and academic

achievement and student motivation is relevant to the exploration of how families may affect NPD.

Family Socioeconomic Status

Research has consistently reported relations between poverty and academic challenges for children. One extensive longitudinal study of over 1000 families in Quebec looked for mediators in the relation between persistent poverty and academic failure (DeCivita, Pagani, Vitaro, & Tremblay, 2004). As has been found in previous research, being welfare dependent and persistently poor, defined as a family's average income to needs ratio being at least 1.5 times below the poverty line for four consecutive years, increased the risk of an elementary school child failing academically; in this study the increased risk was drastic: over 200%. Children in working-poor families had a 59% greater risk for academic failure in elementary school than children in working families who had never been poor. The authors proposed that this relation between economic status and academic failure may be attenuated by parents' positive educational aspirations for their children. They found that beyond family economic status, higher positive maternal educational aspirations reduced the possibility of academic failure by almost 50% (DeCivita, Pagani, Vitaro, & Tremblay, 2004). Perhaps having someone to believe in you in the face of other risk factors is enough to promote academic success and possibly to encourage NPD in other settings where people may not believe in your abilities.

Other data with different families from this same longitudinal study in Quebec have been used to explore what factors predict students' success in the challenging transition from elementary to high school. This is an important time considering the influence of high school success on college attendance. Adolescents were categorized in terms of whether they experienced consistently high levels of academic functioning across the transition, experienced a

decrease in academic functioning during the transition, or had stable low levels of academic functioning (Duchesne et al., 2005). It is notable that there was no group who went from performing at a lower level before high school to performing at a higher level in high school, as we may expect some negative prediction defiers to do. Overall, 86% of the participants were stable in their academic functioning, either at a low or high level, across the 8 year study period. However, there were defining characteristics that distinguished families and individuals across the three groups. For example, being in a one parent family with low maternal education level, being exposed to a less positive emotional climate in one's relationship with the mother at age 6, having externalizing or internalizing problems, and engaging in lower prosocial behaviors in elementary school were more prevalent in the stable low achieving group. Some of these variables, including being from a single-parent family with a mother who has a low education level, experiencing a more negative emotional climate at age 6, and showing more aggression at school, were also more prevalent in the group whose achievement declined over the transition. The authors suggested that the most significant findings were the stability of academic functioning and the evidence for distinct developmental trajectories for the three groups of youth (Duchesne et al., 2005). If these results are generalizeable, they suggest how negative predictions regarding the stability of a child's academic ability may develop, as well as the difficulty of defying negative predictions for an adolescent who may have been on a trajectory throughout their education that is not leading toward college.

Parental Support and Involvement

Duchesne and colleagues' (2005) work points to the importance of positive emotional climate and parental support at home, without considering why specifically this is important to academic competence. One way that this positive emotional climate may foster competence is

through an influence on student motivation. Research has focused on a variety of ways that parental involvement may generally benefit education, but its possible relation with student motivation has only recently been explored in a review (Gonzalez-DeHass, Willems, & Holbein, 2005). Among the studies reviewed, the following parent behaviors were related to various indicators of student motivation in school: participation in school functions or activities, working on homework and other school related activities at home, involvement in extracurricular activities, helping select classes to take, monitoring and responding to academic progress passing along values about education, and providing a balanced home environment in terms of control and support for autonomy (for a list of studies reviewed, please refer to the original review by Gonzalez-DeHass, Willems, & Holbein, 2005). Additionally, they highlighted several child variables that were positively influenced by parent involvement including student engagement in school, intrinsic motivation, locus of control, a motivational goal orientation, and motivation to read (for a list of studies reviewed, please refer to the original review by Gonzalez-DeHass, Willems, & Holbein, 2005). Notably, locus of control, intrinsic motivation, and a motivational goal orientation are all potential contributors to NPD.

In their analysis of the studies reviewed, Gonzalez-DeHass and colleagues (2005) argued that parental encouragement and praise are related to intrinsic motivation and involved parents seem to encourage students to take more responsibility for their own learning. They also suggested that when parents are interested and involved in their child's education, children are more likely to develop a mastery goal orientation, which translates into seeking more challenging learning tasks, persisting in the face of challenges, and feeling more satisfaction in one's academic work. Although most of the reviewed studies were correlational, a limitation that the authors acknowledged, Gonzalez-DeHass and colleagues posited that parent involvement my

improve student motivation through increasing students' perceived control and competence (Gonzalez-DeHass et al., 2005), two important potential components of NPD.

Summary of Family-Level Influences

To summarize, family SES, and positive parental support for and involvement in education are key variables highlighted in the research as supportive of achieving academic success. As children become older, they often begin spending more time with friends and peers and less time at home with parents. Thus, it is important to explore the literature regarding peer influences on academic success.

Peer-Level Influences

Research on peers does not generally examine direct or indirect influences of peers on grades or other measures of academic achievement. Rather, existing research considers the influence of peers on students' school motivation and the positive relation between perceived peer social support and academic goal pursuit and self concept (Wentzel, 1999). A review of the relations between academic social-motivational processes and interpersonal relationships (Wentzel, 1999) revealed that the research on peer influence is undeveloped as compared to research on teacher and parent influences. However, existing research suggested that peer groups, which may differ in their influence and role in a youth's life from dyadic friendships, may serve to hold members accountable for certain standards of achievement and goal pursuit. More generally, peer group acceptance is positively related to academic motivation and elementary aged students tend to choose peer groups that have motivation orientations similar to their own (Wentzel, 1999).

In a study of 7th graders, the context of one's peer group in the fall predicted changes in liking school and achievement that occurred in the course of the school year, while the peer

group did not have a socializing influence on students' changes in beliefs about the importance of school or their expectations for success. Thus, associating with a peer group who disliked school or who were low achievers was associated, respectively, with a greater decline in liking school and in achievement over the course of a school year and being part of a peer group who liked school or were high achievers was related a greater increase in liking and doing well in school (Ryan, 2001). In a large study of 929 4th-6th grade students in which the influence of friends was measured over time and within single academic years, friends were most influential on success attributions, self-perceptions of competence, and perceived importance of meeting grade level standards during a single academic year, rather than across academic years (Altermatt & Pomerantz, 2003). This study also supported the findings from Wentzel's review (1999) that children tend to associate with peer groups who are at least somewhat similar in terms of perceived academic competence and importance placed on academic achievement (Altermatt & Pomerantz, 2003). Perceived support from peers has also been correlated with pursuing academic and prosocial goals and self-concept in a number of studies (Wentzel, 1999). It is important to note that research also suggests that in the absence of positive peer relations, supportive interactions and relationships with adult figures such as parents and teachers may fill the gap and contribute to positive academic adjustment for some students (Wentzel, 1999).

As has been discussed in the context of individual and family level influences, peer groups may also be places where culturally mediated messages about school achievement are communicated. Relationships with peers were one area examined in an ethnographic study of the college choice process for academically successful African American females at two public high schools, one representing a mostly African American low-income student body from which 40% of graduating seniors were college bound and the other representing a student body of diverse

racial and class backgrounds that has 86% of its graduating seniors college bound (Horvat & Lewis, 2003). They explain that their findings paint a complex picture of how African American students manage academic success and seek support from same-race peers in a context sometimes marked by a pressure to not "act white" (Fordham & Ogbu, 1986, as cited in Horvat & Lewis, 2003). In this context, "acting white" refers to performing well in school and may be discouraged because it symbolizes working within an oppressive educational system where white people are in power and white students are afforded benefits and advantages (Horvat & Lewis, 2003). There are a couple of different ways that negative predictions could emerge from this paradigm. First, a peer group may encourage its members to not "act white" and thus suggest that traditional academic success, which would include college attendance, is not something that non-whites participate in or achieve. In this context, academic success could be a form of NPD. Alternately, the paradigm that academic success is associated with whiteness in and of itself contains a negative prediction about other racial groups' academic achievement. Thus, achieving academic success may defy the expectation that it is something only for whites. Additionally, some students of color may feel pressure to defy negative predictions about their social life and personality made about them based on the "acting white" stereotype (Horvat & Lewis, 2003).

Overall, Horvat and Lewis (2003) found that the picture of peer influence is more complicated than what is portrayed by Fordham and Ogbu (1986, as cited in Horvat & Lewis, 2003). Their African American female participants reported that with some same-race peers they may downplay their success so as not to make less academically successful peers feel uncomfortable, but not because of fear of being sanctioned for their achievements. Other students identified contexts in which they were sanctioned or criticized for "acting white" and

they were not comfortable sharing their academic success, as well as contexts in which their success was supported by their same race peers (Horvat & Lewis, 2003).

Summary of Peer-Level Influences

Consistent with what is important at the family level, peer acceptance and support, along with positive peer values about education influence youths' beliefs in the importance of education, pursuit of academic goals, and success in their endeavors. Additionally, based on certain cultural codes and expectations, some youth have to negotiate multiple roles and identities regarding their academic success among their different peer groups, although this does not appear to inhibit their academic achievement. Since many peer relationships, particularly the ones that are investigated in the research literature, exist within the context of school, I will now present some of the relevant literature on school influences.

School-Level Influences

Enrichment Programs and Mentors

Beyond teachers, previously discussed in the academic expectations section, outreach and enrichment programs (Horvat & Lewis, 2003) and mentors who were identified as prominent influences in the Pathmakers study (Harrington & Boardman, 1997) may be important influences on youths' ability to defy negative predictions. Many of the participants in Horvat and Lewis's qualitative study (2003) of successful African American female high school students described their membership in Young Black Scholars (YBS), a community organization with a mission to improve academic performance of African American high school students through enrichment workshops and programs that will help improve readiness for college admission and success as a university student. The young women in this study described this group, as well as other school groups like student government and cheerleading, as sources of social engagement and social

support for their academic success. In the face of negative expectations made about their academic capabilities based on their schools and neighborhoods, African American and Latino youth in another study indicated that university academic outreach programs they were involved in supported a sense of family and gave them "skills, information, information, high expectations, and a sense of moral purpose to 'do something good for your people' and 'give back', such as by working as engineers in their communities or helping their younger siblings attend college" (Cooper et al., 2002, p. 75).

Physical Qualities of the School Environment

As will be explored in the next section related to the physical qualities of a neighborhood, it is plausible that the physical environment of the school—the quality of the physical structure, the educational resources offered in the classrooms, the safety inside and around the building—influences school achievement and, potentially, the negative predictions made about certain students and the expectations that students have of themselves.

Wilcox, Augustine, and Clayton (2006) noted that there are few school-level studies in the research considering the relations between the physical environment and crime. Surveying 7th grade students and teachers among 65 Kentucky schools, they hypothesized that the physical environment within the school and of the neighborhood surrounding the school would influence school crime and student misconduct (Wilcox, Augustine, & Clayton, 2006). Drawing on theories of crime and defensible space, which state that areas perceived as used, defended, and cared for are less likely to be settings for crime (Astor, Meyer, & Behre, 1999), the researchers observed signs of ownership or territoriality in hallways and around the outside of schools; the ease of surveillance of areas both within and outside the school; and the level of school disorder, including physical incivilities such as litter, graffiti, and disrepair (Wilcox, Augustine, &

Clayton, 2006). School disorder was positively related to teacher reported school crime, while signs of hallway territoriality and being able to survey external areas were negatively related to teacher reported school crime. Other research has indicated that unsafe places in schools and a lack of school rule enforcement are positively related to violence and drug use in school (Reid, Peterson, Hughey, & Garcia-Reid, 2006). Additionally, larger school size, gang and drug activity, and the age of enrolled students have been positively associated with crimes and violence in schools (DeVoe et al., 2003).

One possible mechanism through which school physical environments may influence negative predictions made about students is that physical qualities of the school environment may be linked to stereotypes about poor learning environments and outcomes. Additionally, some qualities of school physical environments may inhibit or facilitate student behaviors through a more basic relation between people and their environments (Barker & Gump, 1964, as cited in Culley, Conkling, Emshoff, Blakely, & Gorman, 2006). According to Barker, the physical characteristics of behavior settings, while created by individuals, may facilitate or inhibit individuals by establishing interdependent standing patterns of behavior and physical milieus (Bell et al., 2001). A behavior setting has the potential to define what an individual believes is possible and may create behavior constraints or opportunities depending on how individuals adapt to their behavior setting and on what their role is within the setting. In this way, homes, schools, and neighborhoods may influence the experience of negative predictions and subsequent NPD.

Summary of School-Level Influences

In summary, research suggests that teacher expectations (described in a previous section of this literature review), enrichment programs, mentors and physical environments of schools

make important contributions to children's learning experiences. Outreach and enrichment programs, which may be based in communities or in schools, seem to play an important role in academic success although there is not much research on their effectiveness. Additionally, it is essential to consider that schools exist in the context of neighborhoods. Neighborhoods surrounding schools dictate the resources a school has access to, as well as the safety of the environment outside the school and of the trip to and from school. Surrounding neighborhoods also influence the judgments that people make about the quality of a school and often the opinions of the students that attend a school. In the next section I will highlight some of the important neighborhood variables that may influence academic success, the experience of negative predictions, and NPD.

Neighborhood-Level Influences

Research on neighborhood influences on child development and family functioning is rich and varied in its approaches, variables of interest, and findings. While no research examines directly the neighborhood influences on NPD, I will present findings from neighborhood research that examines social and physical qualities of the environment that may influence youths' academic success and play a role in what kinds of predictions are made about different youth.

Community Violence

One area of focus in the literature is how neighborhoods, particularly community violence exposure within them, influence academic achievement. Research in this area reveals a complex picture of important variables. In terms of school readiness and achievement, one finding across studies in a recent literature review was that high-SES neighbors have a positive effect on academic achievement for children and adolescents living in lower SES neighborhoods that are often marked by community violence (Levanthal & Brooks-Gunn, 2000). In a study considering

family, peer, and neighborhood influences on academic achievement in African American middle school students, lower levels of neighborhood risk (e.g. crime and gang activity) were related to better grades (Gonzales, Cauce, Friedman, & Mason, 1996). Interestingly, the influence of certain peer and family variables on GPA changed based on whether the student resided in a high risk or a low risk neighborhood. For example, peer support was related to better grades for youth in low but not high risk neighborhoods. Additionally, a parenting style higher in maternal restrictive control was related to better grades in high but not low risk neighborhoods (Gonzales, Cauce, Friedman, & Mason, 1996). These findings strongly support a multilevel ecological approach for this type of research.

Henrich and colleagues (2004) took such a multilevel approach in a study that investigated whether depressive symptoms, aggression, perceived school safety, and parent support mediated the relation between community violence exposure and academic achievement in middle school students. Witnessing community violence was related to feeling less safe at school and to a negative change in academic performance over time. Being a victim of community violence was associated with feeling less safe at school over time, but only for boys. Of these boys, those who perceived low levels of parent support were even more at risk for feeling unsafe at school; thus parent support was a protective factor against feeling less safe at school in the face of victimization. However, it is concerning that none of the variables investigated in this study acted as protective factors against the negative influence of witnessing violence on academic achievement (Henrich, Schwab-Stone, Fanti, Jones, & Ruchkin, 2004).

Physical and Social Incivilities in Neighborhoods

Sampson and Raudenbush (2004) looked at the relation between observed disorder and perceived disorder in Chicago neighborhoods. Signs of physical disorder in neighborhoods, also

known as incivilities, include graffiti, garbage, abandoned property or vehicles. Signs of social disorder or incivilities include public intoxication and illegal economic activities such as prostitution and drug sales. Sampson and Raudenbush (2004) also discussed previous research which indicated that people see physical and social incivilities as signs of decline in the neighborhood. For residents, this decline, whether perceived or actual, may also have negative effects on mental health and trigger feelings of powerlessness. In this study, the authors also identified bias at work in which a neighborhood's minority racial composition and poverty influenced residents' and nonresidents' perceptions of disorder and decline. Thus, it is important to consider how children's views of themselves and their neighborhoods, which may impact well-being and aspirations, are shaped not just by disorder but by racial composition and concentrated poverty. It is not hard to imagine that children's and adults views of the neighborhood may influence negative predictions and how children's subsequent views of themselves may influence whether or not they defy negative predictions.

In their review of what they call the "neighborhood-effects" literature, Sampson, Morenoff, and Gannon-Rowley (2002) point to four classes of neighborhood variables that seem to be key in predicting outcome variables: social ties and interactions, norms and collective efficacy, institutional resources, and routine activities. These variables also encompass both physical and social qualities of neighborhoods, such as looking at how land use patterns influence routine activities and how institutional resources are spatially distributed and accessible to families. Some of the reviewed literature found that the shared expectation that neighbors will act out of concern for their neighborhood and children in it predicted child well-being and neighborhood safety. Neighborhood social ties were also linked to the shared expectation that neighbors will act on behalf of the neighborhood and its children. Additionally, the articles they

reviewed looked at ways that signs of physical disorder or incivilities influence residents' and outsiders' attitudes about their neighborhoods (Sampson, Morenoff, & Gannon-Rowley, 2002), which may influence the generation of negative predictions as well as the phenomenon of NPD.

In their investigations of crime, housing conditions, incivilities, and place attachment in metropolitan areas (both cities and bordering suburbs), Brown, Perkins, Brown, and Taylor (1996, 2003, 2004a, 2004b) have assumed the premise that the environment and human behavior are fundamentally interdependent and have transactional relations. Generally, these authors posit that neighborhood conditions are both caused by and influence behavior in residents. As previously noted, incivilities may be defined as physical neighborhood conditions, such as dilapidated housing, litter, and graffiti, or social neighborhood conditions, such as youth perceived to be loitering on street corners or inebriated people on the streets. Incivilities have been investigated as sources of fear of crime, as they serve as outward signs to observers that there is a lack of order or control in the neighborhood, as well as an absence of concerned individuals claiming or owning neighborhood spaces (Bell et al., 2001; Brown, Perkins & Brown, 2003, 2004a, 2004b; Perkins & Taylor, 1996). Brown, Perkins, Brown and Taylor have also found that high levels of incivilities inhibit place attachment (Brown, Perkins, & Brown, 2003; Brown, Perkins, & Brown, 2004; Perkins & Taylor, 1996). By inhibiting place attachment, incivilities may be linked to the variables that Sampson has implicated, as previously detailed, including cohesion, collective efficacy, and social ties. It is not hard to imagine that fear of crime could also inhibit social ties in a neighborhood and influence parenting style. Incivilities serve as outward signs, whether representative of a true lack of order and resident concern or whether indicators of economic hardship. High levels of incivilities may be related to lowered expectations of the neighborhood and even of the people residing within the neighborhood, thus

potentially creating an environment where negative predictions about academic achievement may be easily made.

Mello (2005) conceptualized the neighborhood as an important information source for adolescents regarding what they are likely to achieve and when in their lives they are likely to achieve it, for example, when they will graduate high school, how likely are they to go to college, and what kind of jobs are they most eligible for. The messages that adolescents get are strongly related to the SES of the neighborhood, as SES reflects differing levels of educational and occupational achievement and is dependent on the physical ("Does it exist?") and social (**"**Is it actually attainable based on social structures?")**,** availability of educational and employment opportunities. From focus groups with African American and Latino youth in university academic outreach programs, Cooper and colleagues (2002) noted that "Schools and particularly neighborhoods were worlds where people expected students to fail, become pregnant, leave school, or to engage in delinquent activities" (p. 75). Living in a lower SES neighborhood and being a member of a racial minority group are highly correlated. Thus, it is important to consider the intersections among neighborhood residence, SES, race, and culture when considering how negative predictions may develop, which negative predictions may develop, and what influences NPD.

Neighborhood Cohesion and Sense of Community

Another important neighborhood variable to consider is cohesion among residents. Plybon and colleagues (2003) investigated the relation between neighborhood cohesion and school outcomes for 84 African American female adolescents residing in urban neighborhoods. Their results revealed several important findings. First, neighborhood cohesion, which was assessed by subscales of neighborhood risk (e.g. drug availability in the neighborhood),

integration (e.g. whether neighbors could identify a stranger in the neighborhood), and satisfaction or liking of the neighborhood, was positively related higher school outcomes. Higher levels of neighborhood cohesion also interacted with the coping strategy of seeking support from teachers and parents to predict better school outcomes. These components of neighborhood cohesion may prevent or decrease negative predictions being made to youth in these neighborhoods, which may promote school success. Alternately, having a positive view of one's own neighborhood and seeing strengths and resources there that may not be evident to people outside of the neighborhood may help youth to defy negative predictions that are made about them. Alternately, in a study by Sampson, Morenoff, and Earls' (1999), concentrated poverty, disorder, and low levels of cohesion among neighbors were linked to poor mental health outcomes, as well as high risk behaviors among adolescents.

Sense of community is a phenomenon closely related to neighborhood cohesion. Sense of community, a popular construct in community psychology, has been defined in many different ways over the last 3 decades during which it has been studied (Hughey & Speer, 2002; McMillan & Chavis, 1986; Sarason, 1986). Generally, it is agreed that sense of community includes components of social supports and social networks in the community, physical characteristics of the environment, and an attachment to both these social and physical qualities (Plas & Lewis, 1996). Ross and Jang (2000) focused on the social support and social network component of sense of community in their investigation of whether social ties protected against any of the negative influences of neighborhood disorder, which they define as both physical and social incivilities.

The specific negative influences of neighborhood disorder that Ross and Jang (2000) were interested in were fear and mistrust. Fear specifically refers to fear of victimization/fear of

crime, while mistrust refers to the "perception that it is not safe to trust anyone, being suspicious of others, thinking that everyone is against you, and believing that there are people who want to do you harm" (Ross & Jang, 2000, p. 406). The authors measured two types of social ties: informal interactions and relationships with neighbors and formal participation in neighborhood organizations, such as crime watches, improvement associations, community service groups, and tenant's groups (Ross & Jang, 2000). They found that as perceptions of high levels of neighborhood disorder or incivilities increased, so did levels of fear and mistrust. Levels of fear and mistrust were significantly lower in neighborhoods with less neighborhood disorder as compared to neighborhoods with more disorder. Notably, this relation goes above and beyond influences of family status, gender, race, and age, which have been predictive of mistrust and fear of crime in previous research (Ross & Jang, 2000), as well as in the current study. Regarding social ties, informal interactions and relationships with neighbors moderate the relation between neighborhood disorder and fear/mistrust. In neighborhoods with high levels of neighborhood disorder where residents engage in more interactions and relationships with neighbors, residents experience lower levels of fear and mistrust. In contrast, formal participation in neighborhood organizations did not have significant moderating effects on the relation between neighborhood disorder and fear/mistrust, although it was positively associated with informal interactions and relationships. It is possible that for youth who are the recipients of negative predictions based on disorder in their neighborhoods, sense of community and social ties may facilitate NPD.

Zeldin (2002) investigated this hypothesis in his study of adult beliefs about adolescents' motivation and ability to make contributions to their communities. This study revealed that perceived sense of community was significantly and positively related to the perception of adolescents as prosocial community members and to feelings of confidence in adolescents as

participants in their communities. Perhaps sense of community also facilitates adults' beliefs that the youth in their communities can achieve success in the face of stereotypes and negative predictions, which would be important given the integral role that having someone believe in you likely plays in NPD.

Summary of Neighborhood-Level Influences

To summarize, there are many different neighborhood variables that may influence academic achievement in positive or negative directions. Some of the most prominent ones in the research literature are the SES of a child's neighborhood and its surrounding neighborhoods, neighborhood problems such as crime and gang activity, witnessing and being a victim of community violence, neighborhood cohesion and sense of community. Additionally, research with adults regarding perceived disorder and incivilities indicates that residents' and outsiders' views of the neighborhood influence their perceptions and expectations of the people who live in the neighborhood. This may hold true for youth as well and some research supports the idea that youth form beliefs about what is possible in terms of academic and occupational success from what they see in their neighborhood. Disorder, incivilities, and SES in a neighborhood may also serve as the basis for what kinds of predictions, both negative and positive, that other people make about the educational potential of youth residents. When considering neighborhood influences, it is also important to be mindful of the correlations and intersections among neighborhood residence, SES, and race.

Overall Summary and Conclusions

Although there is little research directly investigating paths to NPD, there are studies of paths to academic success in the face of various challenges and barriers. Additionally, given that NPD is a form of resilience, key findings from that body of literature informed the design of the

current study and the researcher's hypotheses about protective factors. Regarding theoretical considerations, the methodology and findings of multiple resilience studies, including the Pathmakers study, support the use of a multi-level ecological perspective that considers the transactions between people and their environments (Harrington & Boardman, 1997; Luthar et al., 2000; Masten & Coatsworth, 1998; Werner, 1993). Considering the essential role that protective factors play in resilience and negative prediction defiance, it is important to be attentive to the resources afforded by different ecological levels and individual-level variables. For example, internal locus of control (Harrington & Boardman, 1997; Luthar, 1991; Werner, 1993), good temperament, self efficiency/self-help skills, a strong bond with a family member, extrafamilial social support, and school/community resources have been consistently related to resilience, including negative prediction defiance (Harrington & Boardman, 1997; Masten & Coatsworth, 1998; Werner, 1993).

The case study of Dean Simonton (Sternberg, 2003) highlighted individual level variables that helped enable him to be a naysayer to negative predictions made about his abilities. Perseverance, divergent problem solving skills, and a passion for his work, as well as support and encouragement from other people in the face of teachers' and employers' negative predictions, were all key factors for Simonton.

Research on multiple levels of influences on academic achievement, including studies of self, parent, and teacher expectations about academic ability, point to many variables that may also be important in NPD. On the individual level, it appears that certain personality traits, academic self concept, persistence, a positive college possible self, hope, and a strong positive ethnic identity support academic achievement while SES, racial or ethnic background, and sex may influence the expectations or predictions that are made about youth or that youth make about

themselves. These demographics do not just exist on the individual level but are situated within the contexts that youths inhabit including family, peer groups, schools, and neighborhoods. Important family and peer variables include positive values about education and positive educational aspirations, as well as acceptance and support. Additionally, schools and neighborhoods may be socializing influences in youths' academic success and the development of self-expectations. Schools and neighborhoods also may serve as mirrors or measuring sticks to youth and other people about what it is possible to achieve and thus may produce different positive and negative predictions. All of these contexts have the potential to support or oppose NPD and together interact to provide resources and challenges to youth along their path to academic success.

The Current Study

Using a qualitative methodology, this study explored the phenomenon of defying negative predictions related to college attendance in a group of undergraduate university students. Several factors point to the appropriateness of qualitative methodology in the proposed study. First, in the only published study to consider the phenomenon of NPD, Harrington and Boardman's (1997) participants pursued many different routes to success. The main body of literature on achieving occupational success did not necessarily predict what was learned from their exploratory qualitative interviews, which supports using qualitative methods. A qualitative design is also appropriate for the current study since it was exploratory in nature; I was unable to locate any published literature, including dissertations, specific to the experience of defying negative prediction related to college attendance. Creswell (1998) noted that qualitative approaches work well when there are no known theories to explain the phenomenon of interest and for developing new theories. Qualitative interviews also increase the likelihood that the data

represent the subjective meaning of each participant's experience. This is important for several reasons: so little is known about this phenomenon of NPD, knowledge is socially constructed, and people often attach multiple meanings to their experiences (Creswell, 1998; Denzin & Lincoln, 1998; Streubert & Carpenter, 1999). This approach is also in line with a constructivist approach to scientific inquiry, which assumes that reality and truth are "dynamic" (Streubert & Carpenter, 1999, p. 2) and that rather than one reality or "Truth", multiple realities and truths exist (Denzin & Lincoln, 1998). Open-ended questioning is more likely to reveal these multiple meanings and perspectives and characterizes the experience of NPD in the participant's own words

This exploratory qualitative study followed grounded theory methodology in that the researcher allowed theory to emerge from the data (Strauss & Corbin, 1998). This method was deemed appropriate for the proposed research given that while several theories about NPD could be drawn from the literature reviewed here, none of this literature focused specifically on college students or their experiences related to defying negative predictions about college attendance. Given the exploratory nature of the current study and the open-ended nature of grounded theory method, some, all, or none of the variables identified as important in the expectations and academic achievement literature or in the Pathmakers study were expected to be reflected in the narratives of participants. Rather, it was expected that these data would reveal something about the research questions that guided this researcher's preliminary theory development:

(1) What negative predictions about college were experienced and who/what was their source (or multiple sources)?

(2) What impact or consequences were perceived by individuals when they experienced these negative predictions?

(3) What different levels of their ecology, including individual, family, peer, school, and neighborhood influences, played a role in their experience of or response to the negative predictions?

3. METHODS

The current exploratory study aimed to learn more about the experience of college students who defied negative predictions made about their ability to attend college or the likelihood that they would become college students. Qualitative grounded theory methodology was used to explore this phenomenon. The researcher selected this method of inquiry because it is well suited, as compared to quantitative methods, to new, exploratory research investigating participants' lived experience (Creswell, 1998; Denzin & Lincoln, 1998; Schwandt, 1998; Streubert & Carpenter, 1999). Additionally, qualitative approaches are consistent with a constructivist philosophy of reality and knowledge, which was adopted in the current study (Denzin & Lincoln, 1998; Schwandt, 1998; Streubert & Carpenter, 1999). Specifically:

> Constructivists are deeply committed to the contrary view that what we take to be objective knowledge and truth is the result of perspective. Knowledge and truth are created, not discovered by the mind. They emphasize the pluralistic and plastic character of reality—pluralistic in the sense that reality is expressible in a variety of symbol and language systems; plastic in the sense that reality is stretched and shaped to fit purposeful acts of intentional human agents… constructivists emphasize the instrumental and practical function of theory construction and knowing (Schwandt, 1998, p. 236).

This constructivist philosophy guided the methods of the current study, as well as the interpretation of the data. The researcher felt that the best way to gain these different perspectives described by Schwandt was through a qualitative inquiry that imposed as little structure and naming of the terms by the researcher as possible. These methods were used in the hope of

gaining not just participants' perspectives, but of also hearing their stories told in their own words.

Participants

Participants were a convenience sample recruited through the undergraduate subject pool of students enrolled in Introduction to Psychology courses at Georgia State University (GSU). In spring of 2006, only 43% of undergraduates enrolled at GSU identified as Caucasian (Office of Institutional Research at Georgia State University, 2006). From a larger national study of college freshmen that surveyed over 2000 GSU freshmen, 56% of students reported that they had "some concern" about financing their college education, while 12% reported having major concerns. To further clarify these students' economic situation, 88% said that the availability of the Hope scholarship at GSU was very important, while almost a third had none of their own resources (i.e. financial savings) to support their education, and 20% of the students surveyed had no family resources (parent, relative, or spouse) to financially support their first year academic expenses. Twenty-seven percent of these students reported that their mother's highest level of education was high school graduate or less, and 28% reported the same for their father's highest level of education (Cooperative Institutional Research Program, Institutional Summary for Georgia State University, 2004). It is possible, given Census data and extant research, that students who are most likely to receive negative predictions about attending college may be part of a racial minority group, come from families with lower incomes, and represent the first generation in their family to attend college. These groups are well represented among the undergraduate population at GSU. The inclusion criterion for the proposed study was having experienced one or more negative predictions about one's ability to be a college student or the likelihood that one will attend college. Participants self-selected for the study by responding to a posting on the

university's online system for research study recruitment. Students enrolled in classes that require research study participation, such as Introductory Psychology, have access to this website that features descriptions and scheduling options for all of the research studies that are seeking participants in a given semester. The posting for the current study read: "Before coming to college, did you ever get a message that you would never become a college student or that you did not have what it takes to attend college? If you have had this experience, we would like to hear about it by interviewing you." Thus, all participants in the current study self-identified as having some form of this experience.

Demographic information was collected from participants in two ways; each participant when they filled out a demographic sheet after completing their interview (see Appendix A), while another set of demographic variables emerged spontaneously in the course of the interviews. Both types of demographic data are summarized for each participant in Table 1. The participant group was purposely evenly divided into males and females. Regarding race and ethnicity, participants' self-identified terms are used throughout this paper when describing them. Participants' described their race as Black (4), African American (3), Caucasian (2), White (2), Hispanic (1), Indo-American (1), and Vietnamese (1). In order to gain a sense of the SES of participants' families of origin, they responded to questions about their parents' highest education level and estimated annual household income, on average, when they were "growing up". The education level of parents' participants ranged from "no high school diploma" to "Ph.D." Overall, 71% of participants' mothers and 64% of their fathers attended college or were college graduates. However, when participant race is considered, these numbers look somewhat different. Looking at the parental education levels of non-white participants, 40% of mothers and 50% of fathers had obtained a high school diploma or less. On the other hand, white

participants reported that all of their mothers had attended some college or had earned a college degree, and all of their fathers had earned a bachelor's or higher level of degree.

Participants had a difficult time responding to the question regarding the estimated annual household income, on average, when they were growing up; consequently, income data should be interpreted with caution. Half of participants hesitated before answering the question and told the interviewer that they were unsure how to answer the question. Some asked if an approximate number was okay, while others said they could not come up with a number and estimated their social class instead (when prompted by the interviewer). Additionally, for a few participants, their response to this question contrasted sharply with their descriptions of the neighborhoods that they grew up in. For example, one participant who reported her family was "middle class" on the demographic form described her home and neighborhood (Little Haiti in Miami) as:

> I just saw the way that I grew up, and it was hard, I grew up in a home with no air conditioning and no heaters… It was literally like being raised in a different country… You know some of the areas could be unsanitizing, it can be hot when you're going to sleep, and the insects and the mosquitoes and stuff when it's a predominantly hot area… so the neighborhood was pretty poor, it wasn't a rich neighborhood, it wasn't even middle class, it was on the poor side of it.

The contrast between this description of her home and neighborhood and her identification as "middle class" is one example that calls into question the validity of the income item. However, since half of the participants did not hesitate before answering the question and seemed confident in their responses, all of the responses are reported here, but with the understanding that they should be viewed cautiously. Seventy-nine percent of participants (11) gave a numerical response to the income question, while the other participants wrote "middle class" (2) or "upper middle

Table 1

Participant Demographics

Sex	*Race*	*Mother's Highest Education Level*	*Father's Highest Education Level*	*Estimated Average Yearly Household Income while Growing Up*	*Other Demographic Data*
Female	African American	College*	College*	Unsure, identified as upper middle class*	Freshman; double majoring in music management and public relations
Male	Caucasian	1 year of college	Bachelor's of Business Administration	$250,000	Senior (graduating semester that interview was conducted); accepted to pursue his Master's degree in International Business at a prestigious university in Europe and plans to return to the United States to earn a law degree after completing his M.B.A.
Male	African American	No high school diploma	Associate's Degree	$60,000	Already earned a Master's degree in Chemical Engineering; returning to school to get prerequisites needed to pursue a Ph.D. in Psychology
Male	Vietnamese	High school	High school	$35,000	Freshman
Male	Caucasian	High school/ unfinished college	Ph.D.	Approximately $100,000	Finishing freshman year; English major
Female	Black	High school	High school	$20,000	Senior (graduating semester that interview was conducted)
Female	Indo-American	High School	Master's degree	< $15,000	Likely a sophomore or junior
Female	African American	College	High School	Middle class	Haitian-American; Junior; social work major; plans to get master's degree in social work when bachelor's degree is completed; mother of 2
Female	Hispanic	College	College	Middle class	Immigrant from Columbia; finishing freshman year
Male	White	Ph.D. (Psychology)	Bachelor's degree	Approximately $150,000	Psychology major with plans to pursue a psychology graduate degree
Male	White	Master's Degree	Bachelor's degree	6 figures	Finishing junior year
Female	Black	2-year college	High school	$80,000	Business marketing major
Female	Black	Some college	High school	$25,000	Freshman
Male	Black	Master's of Public Health	Ph.D.	$120,000	Pursuing a double major and a double minor

* these are the demographics of this participant's adoptive parents

class" (1) as their response. The reported incomes ranged from < $15,000 to $250,000. As was seen with parental education levels, there were differences between the income figures reported by non-white and white participants. All of the white participants reported household incomes of at least $100,000, while only one non-white participant reported a figure of that magnitude.

In terms of demographic information that emerged from the interviews and was not part of the demographic sheet, based on participants' reported ages or reported statistics that helped estimate age (e.g. year of high school graduation), they likely ranged in age from 19 years to their late 20's. None of the participants reported taking more than a one year break from education between high school and college, and none of them noted that it was taking significantly longer than expected to complete their bachelor's degree. Rather, one participant was older than the rest because he was returning to school to pursue another degree after previously earning a bachelor's degree and master's degree, as well as being employed at a degree-related job. Although participants were all enrolled in a 1000 level course (Introductory Psychology) at the time of the interview, they were at varying points in completing their bachelor's degrees including freshmen, sophomores, juniors, graduating seniors, and the one participant noted above who was returning to school in order to prepare to earn a second graduate-level degree. Some participants also mentioned information about their area of study during the interview. This information is included along with the other demographic data in Table 1.

Procedure

Initially, the researcher planned to conduct 2-4 pilot interviews with undergraduates recruited from the psychology subject pool. These interviews were to serve as training for the researcher and to aid in honing the interview questions to ensure that they were clear and meaningful to participants. However, when no issues arose after the first two interviews, it was

decided that these interviews would be included as data in the study. Given the unstructured format of the interview, the researcher, in consultation with her research advisor, decided that no changes needed to be made to the interview format.

All participants read and signed a consent form approved by the Georgia State University Institutional Review Board (IRB) (see Appendix B) which described the purpose and content of the interview before beginning the interview. Interviews were audio recorded; participant permission for this was part of the consent form. Interviews were conducted in private rooms within the Georgia State University Psychology Clinic. Interviews varied greatly in length, lasting from approximately fifteen minutes to one hour. However, as will be discussed in the Results section, all interviews shared common elements and contained codeable material, as all participants met the criteria for participation in the study.

Prior to each interview, the researcher reviewed the informed consent form with participants, highlighting issues related to confidentiality, and reminded all of the participants that they could stop the interview or request a break at any time. Additionally, the researcher gave a brief explanation of her interest in the subject matter and why she believed the topic was important by saying: "I'm interested in how people are successful even though they have experienced negative messages about themselves and their abilities. I think we need to learn more about this to help us understand how to help other kids in similar situations take the path to college if they want to." The researcher made this statement as an initial way to build rapport with participants, to encourage them to be open in the interview and to help them understand how their stories may be useful to someone else. However, in order not to influence their narratives in any way, no other information about the study was given until the end of the interview when participants were given the opportunity to ask the researcher questions.

The interviews began with the researcher saying: “Tell me about a time when you got a negative message about your ability to attend college or the likelihood that you would become a college student.” Although negative prediction defiance is the name for the phenomenon being studied here, the term “messages” was used instead of “predictions” in the interview question because messages was thought to be a broader and more familiar term to participants. Accordingly, messages and predictions will be used interchangeably in the remainder of the paper. Notably, the messages reported by participants were examples of predictions.

From the participants’ initial story, the researcher prompted them, as needed, to address other issues pertinent to the research questions, including their response to the message, the factors influencing that response, and various levels of their life and environment that may have been connected to them receiving these negative predictions and to their response, including influences at the individual, family, peer, school, and neighborhood levels. For example, the researcher provided such prompts as, “What helped you to not believe the negative message and instead believe that you could go to college?” and “Were there any influences in your family/peer group/school/neighborhood that either encouraged you or discouraged you in your thinking that you could go to college?” The prompts varied based on the specific experience of each participant, but reflected the research questions and hypotheses that were based on the reviewed literature. Consistent with the tenets of grounded theory, which hold that the research process should be influenced by the data (Stern, 1980, as cited in Streubert & Carpenter, 1999; Strauss & Corbin, 1990), the researcher revised questions and their wording to make them more meaningful to participants (e.g. by using participants’ own words to phrase prompts or follow-up questions or by using wording that had been effective in an earlier interview). The only question that was completely standard throughout all of the interviews was the initial open-ended invitation for

participants to tell their story. Through the process of data collection, it was expected that themes would emerge that elucidated inconsistencies and gaps in the developing theory, as well as in theories hypothesized from the reviewed literature (Charmaz, 2000). Consistent with a constructivist grounded theory approach, in later interviews, prompts were used to address these issues when possible and appropriate within the context of the interview (Charmaz, 2000; Schwandt, 1998).

After the participant finished telling their story and all follow-up questions had been asked, he or she was given the opportunity to ask the researcher any questions and to provide contact information if they wanted to receive a summary of research findings. All but 2 of the participants provided the researcher with some form of contact information for this purpose, which may be an indicator of their interest in the study. Finally, each student filled out the previously described demographic questionnaire.

Overall, the researcher had planned to conduct 10-12 total interviews. As previously noted, 14 interviews were included in the data set due to the relevance of and lack of complicating issues pertaining to the initial "pilot interviews". As expected, this number of participants appeared to be adequate in that shared experiences and common characteristics of experiences began to emerge from their narratives. Thus, further interviews were not necessary to achieve saturation, which in qualitative research represents the point at which no new conceptual information emerges (Streubert & Carpenter, 1999).

To safeguard the data and protect the participants' confidentiality, data (including the audiotapes and transcripts) were kept in a locked file cabinet located within a secure office. Participants' identifying information was stored in the same locked file cabinet but was kept in a location separate from transcribed interviews and notes, which were labeled with identification

numbers rather than with participants' names. Permission was obtained from the Georgia State University IRB to relocate data when the researcher moved out of state. Audio tapes and hard copies of transcripts were kept in a locked file cabinet in the researcher's home and electronic data were contained in a password protected area of the researcher's personal computer. Identifying information (e.g. consent forms) remained in a locked file cabinet located within the research advisor's secure office at Georgia State University.

Data Analysis

All interviews were transcribed verbatim by the researcher or a trained undergraduate research assistant. After all of the interviews had been transcribed, the researcher listened to the audio tapes a second time and checked all transcriptions for accuracy and completeness; edits were made to the original transcriptions as necessary. Consistent with grounded theory data analysis procedures, the researcher took a four-step approach to coding: open coding, axial coding, selective coding (Strauss & Corbin, 1998), and assessment of the codes' reliability. These steps were not discrete; rather, they often took place simultaneously throughout the process of data analysis.

Initial Coding

Initial, or open coding, is "the analytic process through which concepts [the building blocks of theory] are identified" (Strauss & Corbin, 1998, p. 101). Charmaz (2006) characterized initial coding as a time to "separate data into categories and to see processes" (p.51). Open coding can be done line-by-line, with whole sentences, by paragraph, or in an overview of the whole document (Strauss & Corbin, 1998). The researcher chose to conduct line-by-line coding in order to capture as much of the detail present in participants' narratives as possible. First, she read all of the transcripts several times in their entirety. While reading the transcripts, as well as

while transcribing the data, the researcher made handwritten and typed memos of emerging themes and patterns within and between interviews. Memos are notes regarding the researcher's ideas and theories formed from the data; they lay out relations among different concepts in the data and include references to the specific data on which they are based (Strauss & Corbin, 1998). The memos were used to revise and improve the coding scheme. From these memos, the researcher grouped similar concepts together thematically; these groups became the major and minor thematic categories that formed the coding scheme.

Axial Coding

Axial coding is the next phase after open coding, although as previously noted, a researcher may be engaged in all three phases of coding simultaneously. Charmaz (2006) captured the distinction between open coding and axial coding, explaining, "Initial coding fractures data into separate pieces and distinct codes. Axial coding is Strauss and Corbin's strategy for bringing data back together again in a coherent whole." (p. 60). It is also useful to think in terms of what questions each type of coding answers. Open coding answers the question of *what* is the experience, while axial coding, through linking the subcategories with categories, can address questions of *why, where, when, how, and with what consequences*. Open coding establishes the structure of an experience, while axial coding begins to lay out the process of an experience (Strauss & Corbin, 1998). Three levels of categories emerged in the open coding and were linked hierarchically in the axial coding phase: major thematic categories that serve as the theoretical structure of the coding scheme but were not themselves coded, minor thematic categories that are the specific coded examples of the phenomenon described in each major thematic category, and subcategories that describe and represent diversity within the minor thematic categories. Subcategories were only assigned codes when the minor category contained

varied and significant phenomena that warranted separate codes in order to capture participants' experiences. For example, the minor category of *individual characteristics* contained subcategories such as *internal locus of control* and *individual values regarding learning and education*; simply coding at the minor category level would have lost too much of the data contained in participants' diverse experiences. Appendix C lists all of the major thematic categories, minor thematic categories, and coded subcategories.

Strauss and Corbin (1998) described a paradigm for axial coding that was appropriate to the research questions in the current study. The components of this model are conditions, actions/interactions, and consequences. These three pieces of information are integral to understanding an experience. Conditions answer the questions why, where, and when (Strauss & Corbin, 1998). Applied to the current study, conditions were (1) where, when, and from whom the experience of negative predictions occurred, (2) participants' interpretations regarding what the negative prediction was based on, and (3) why they were motivated to defy the negative predictions. Actions/interactions were the responses made by individuals. In the current study, these represented the participants' emotional and behavioral responses to the experience of negative predictions, as well as their experiences (interactions) with supports of and barriers to becoming college students. Consequences were the results of the actions/interactions or lack of a response in some cases (Strauss & Corbin, 1998). Consequences did not end up comprising a large part of the coding scheme since, given the nature of the current study and its inclusion criteria, all participants had the same basic consequence of their actions/interactions—becoming college students. The goal of the current study was to elucidate the process of arriving at a particular consequence; it was outside the scope of this study to also focus on the varying aspects of that consequence.

Selective Coding

The third phase of coding is selective coding, which is the process of integrating the data and preliminary hypotheses into a theory (Strauss & Corbin, 1998). While the generalizeability of the theory that emerged from the current study is limited by the small participant group size, it offers ideas to guide future research in this area, since no such theories exist on negative prediction defiance regarding college attendance. In selective coding, the researcher identifies a central category to which all other major categories can be related in a logical and consistent fashion and that explains the main point that emerges across the data (Strauss & Corbin, 1998). In the current study, the central category was becoming a college student in the face of negative messages. The researcher used this central category to write the overall story told by the data, which will be explained further in the next two chapters. In the grounding process, the researcher revised this "story" multiple times by comparing it back to the data. To assess the reliability of the central category and theory that emerged from it, additional coders were used.

Inter-rater Reliability

To establish inter-rater reliability, after coding all of the data once, the researcher had 2 other psychology doctoral students with experience in qualitative methodology code 10% of the data. First, coders underwent training on the coding process and orientation to the codes by working on a practice transcript that contained portions of text from a number of different interviews. The researcher purposefully selected the portions of text for the practice transcript so that all major thematic categories and most of the minor thematic categories and coded subcategories were reflected (70% of all codes were represented in the practice transcript). After the coders completed the practice transcript, the researcher reviewed their codes and compared them to her own coding of the text. Any disagreements were discussed and resolved. Notably,

both coders reported no difficulties understanding or applying specific codes and noted that the coding scheme fit the data well. Consequently, at that time no further revisions to the codebook were made before moving forward into the reliability coding phase. However, by that point, the researcher had already revised the codebook a number of times based on her own experience with the data; these revisions including clarifying code definitions, renaming codes, combining indistinct codes, and re-categorizing minor thematic categories under major thematic categories, as well as subcategories under minor thematic categories.

After completing the coding of the practice transcript, each rater was given a full interview transcript to code. Interviews were chosen randomly, selected by each rater who was asked to choose a number between 1 and 14; they were then given the interview corresponding to the number that they chose. Due to time constraints, raters coded just 14% of the data, or one interview each; 10% is the minimum amount recommended in the content analysis literature (Lombard, Snyder-Duch, & Bracken, 2005). After the coding was completed, the researcher consulted with each rater to compare the codes assigned by her and the additional rater. Most of the disagreements occurred because a rater or the researcher had originally neglected to code a portion of the text or had coded differing minor thematic categories within the same major category. Very few disagreements occurred due to raters' misunderstanding a code definition. At times, disagreements occurred due to differing interpretations of the text; however, each of these disagreements was successfully resolved with discussion. Additionally, most disagreements occurred on the minor thematic category or subcategory level, not at the major thematic category level. For example, one rater coded a participant's description of people "living paycheck to paycheck at a fast food restaurant job" as an *economic negative possible self*, which was not incorrect by definition. However, the subcategory of *people in low level/low paying/dead-end*

jobs more accurately describes what the participant was talking about and this code had been used by the researcher. Consequently, after discussion, the rater agreed that the code used by the researcher better fit the quote and changed her code.

Inter-rater reliability was assessed two different ways: agreement before discussion and agreement after discussion. Both figures were calculated based on simple agreement, which is the number of times two raters agree / number of chances to agree, multiplied by 100. This method was described by Lombard and colleagues (2005). Before discussion, agreement was somewhat low, 43% overall (42% with one rater and 44% with the other). However, due to the nature of the majority of disagreements, as previously noted, all disagreements were resolved after discussion, bringing the agreement level between each rater and the researcher to 100%.

Further Analysis and Interpretation of the Data

After all stages of coding described above were completed, the researcher imported the transcripts and entered the codes into ATLAS.ti, a commonly used and well established qualitative data analysis software package. As is customary in the use of such software, it was mainly used to count and document the incidence of the various major thematic categories, minor thematic categories, and subcategories within the data. The results of this analysis are described in the Results chapter. The software program was also used to organize and keep track of memos, as it has the capability to link memos and codes directly to illustrative text in the transcripts.

In the last stage of data analysis, the researcher evaluated the theory that emerged from the data according to Strauss and Corbin's (1990) criteria for judging how well a theory applies to the phenomenon of interest. These criteria are fit, understanding, generality, and control. Fit has to do with how the theory converges with existing well established theory in the area. Understanding refers to the comprehensibility of the theory to study participants, or individuals

like them, and researchers in the field. Generality refers to what contexts the theory is applicable to, while control highlights the importance of considering what actions may be taken in terms of the phenomenon as a result of the theory (Streubert & Carpenter, 1999; Strauss & Corbin, 1990). As elaborated on fully in the Discussion section, concerning fit, the theory that emerged from the data converged well with findings from Harrington and Boardman's (1997) study of Pathmaking and NPD, the resilience literature, and the academic expectations literature, particularly regarding the individual and family facilitators that participants' described, as well as the roles played by their possible selves in giving them a reason to defy the negative messages they received. Understanding was not formally evaluated due to logistical constraints that limited the researcher's access to the participants after the initial interviews were conducted. However, by using participants' own words and terms as much as possible in the coding scheme and thus in the theory that emerged, the researcher has tried to keep the theory comprehensible to participants', or people similar to them. Regarding generality, as will be fully discussed in the Discussion section, this was a preliminary and exploratory study of a generally unexamined phenomenon; thus, more research needs to be conducted in this area to assess the theory's generality. Finally, in terms of control, the current theory suggests several relevant directions for intervention and policy development based on the information it yielded regarding risk and protective factors in the lives of these 14 participants.

4. RESULTS

The primary aim of this study was to gain an understanding of the process of experiencing and defying negative messages regarding one's ability (ies) to attend college or the likelihood that one would have the opportunity to attend college. Three specific research questions were posed by the researcher and it was hypothesized that the answers to these questions would naturally emerge from the data:

(1) What negative predictions about college were experienced and who/what was their source (or multiple sources)?

(2) What impact or consequences were perceived by individuals when they experienced these negative predictions?

(3) What different levels of their ecology, including individual, family, peer, school, and neighborhood influences, played a role in their experience of or response to the negative predictions?

As previously described, consistent with a grounded theory approach (Charmaz, 2006; Strauss & Corbin, 1998) participants' narratives were coded into minor thematic categories and subcategories that reflecting overarching major thematic categories; these codes addressed the research questions and provided a structure that describes key aspects in the process of overcoming negative messages and attending college. In the following sections, each major and minor thematic category, and subcategory, will be described and illustrative quotes from participants will be provided. To facilitate readability, verbal pauses such as "um" are omitted from participant quotes. Unless otherwise noted, minor thematic categories and subcategories will be introduced in order of most frequently to least frequently experienced. A list of all major thematic categories, minor thematic

categories, and coded subcategories is found in Appendix C. Major thematic categories appear in bold text, minor thematic categories are italicized and underlined, and subcategories appear in italics.

Experiences of Negative Messages: Sources and Perceived Influences

The first research question of this study asked what negative predictions about college were experienced and who/what was their source (or multiple sources). Two major thematic categories emerged from participants' narratives that were relevant to this research question: **sources of negative messages** and **perceived influences on the sources**. The former category simply refers to who or what communicated the negative messages to the participant, while the latter category refers to the ideas, beliefs, and judgments (e.g. *perceptions of participant's intelligence*) or larger ideologies (e.g. *racism*) that were the basis of the negative messages. The associated minor thematic categories for **sources of negative messages** and **perceived influences on the sources** are listed in Table 2. Additionally, Table 3 summarizes the type of message, source, perceived influence on the source, and an illustrative quote for each participant.

Table 2

Minor Thematic Categories for Sources of Negative Messages and Perceived Influences on Sources

	Major Thematic Category	
	Sources of Messages	**Perceived Influences on Sources**
Minor Thematic Categories	*Other People* *Self* *Environment*	*Immigration Policies* *Racism* *Classism* *Culture* *Participant's Pre-College Academic Success* *Perceptions of Participant's Intelligence* *Other Factor*

Table 3

Participants' Experiences of Negative Messages

Participant Demographics	*Source(s) of Message*	*Influence(s) on source(s)*	*Nature of Message*	*Illustrative Quote*
African American Female	Other people: adoptive parents and high school counselor	Racism Classism Other factor: lack of educational achievement by biological mother	Participant may not be able to be successful in college because her biological mother did not attend college/was not successful in general, because of her race, or because she lived in a "not so good" neighborhood at times	"Like I'm adopted, whatever, so my parents always think I'm going to turn out like my biological mom and we don't really know that much about her but apparently we know she didn't go to college."
Caucasian Male	Other people: high school academic advisors and some friends	Culture (of high school) Pre-college academic success Perceptions of participant's intelligence Diagnosis with ADHD	Participant should consider attending community college or pursuing a career in which college is not necessary because he was not intelligent enough or because he could not apply himself enough to be academically successful.	"But my peers and some of these people were repeatedly telling me, 'College is not for everybody.' Because you know, I really just didn't put forth the effort… they were telling me, 'You have to apply yourself a lot more in college.'"
African American Male	Other people: friends, high school teachers, high school counselor Physical environment: neighborhood	Racism Culture (of neighborhood and peer group) Perceptions of participant's intelligence	Participant did not have the qualities (e.g. intelligence) needed to go to college based on his membership in a working-class, African American neighborhood where people generally did not attend college.	"Well I received negative messages from my peer groups in high school. I used to take all my books home from school… and it was like a negative thing to be seen with books or studying… especially in my neighborhood, there weren't many kids around that time that were going to college… Yeah, so, um, you know, it was thought that you couldn't achieve it. "

Table 3 (Continued)

Participants' Experiences of Negative Messages

Participant Demographics	*Source(s) of Message*	*Influence(s) on source(s)*	*Nature of Message*	*Illustrative Quote*
Vietnamese Male	Other People: friends Self	Pre-college academic success	Participant would not be successful in college based on low high school grades, not performing well on tests, and his perception that he was not "intellectual" enough (as compared to his brother).	"… my brother, he's really intelligent, he goes to X University… I always viewed him as someone more intellectual than me so like that's kind of a discouragement."
Caucasian Male	Self	Pre-college academic success	Participant was concerned that he would not get to college due to his low grades, particularly his first year of high school.	"Like I was trying to get my grades up… to see my GPA like go up .2 points after all that work it was very very discouraging and depressing. I didn't think I would make it."
Black Female	Other People: teachers, counselors, family members Physical Environment: town and school	Racism People in her family having not gone to or dropped out of college	Participant would not be able to make it in college because African Americans in her community generally were perceived as not having what it takes to go to college or they did not pursue college, as was seen in the experiences and choices of some of her family members.	"… growing up I lived in a small town and there's not really as much opportunity. So, I mean there's only one high school so and it was very kind of white-black separated. And a lot of times you just felt like people weren't trying to help because you were black. And even black people were like, 'You know college is not for us. You're not gonna make it. And you know just basically, find something else, don't go to college.'

Table 3 (Continued)

Participants' Experiences of Negative Messages

Participant Demographics	*Source(s) of Message*	*Influence(s) on source(s)*	*Nature of Message*	*Illustrative Quote*
Indo-American Female	Other People: father Physical Environment: One apartment complex lived in for 5-6 years	Culture: not measuring up to levels of academic achievement and learning in India Perceptions of participant's intelligence	Participant was not smart enough or hard working enough to be successful in college and to have a successful career in a desired field (e.g. as a doctor).	"But he [her father] says that… I have a fifth grade mind… I feel like he already predicted like, 'You're going to flunk out of your first year of college.'"
African American Female	Other people: friends, family members	Culture: ethnic group, family community Feeling unprepared for college based on quality of high school education	Participant should not pursue college because it was not seen as a viable option for people in her family and members of the poor Haitian community where they lived. Additionally, participant may not be prepared to be successful in college based on the caliber of education received in high school.	"None of my family members ever went to college… so it wasn't really respected."
Hispanic Female	Other people: high school counselor, college admissions counselors	Immigration policies Racism	Participant had to wait a year before being allowed to attend college due to visa requirements. She also perceived that people did not think she should be concerned with attending college based on views that Hispanics could not be successful in college or did not go to college.	"They [high school counselors] were like, 'If you want to, you can go [to college], but if you don't want to, there is many choices. You can go to technical school.' And I was like, 'What?! I'm not going to any technical school.' No way. And then [counselors said], 'You have to wait…until you get your green card…if you get it.' Because that's what the people think. And I was like, 'I'm gonna get it.'"

Table 3 (Continued)

Participants' Experiences of Negative Messages

Participant Demographics	*Source(s) of Message*	*Influence(s) on source(s)*	*Nature of Message*	*Illustrative Quote*
White Male	Other people: high school counselor, people who were currently in college, parents	Pre-college academic success Belief that college was much harder than high school	Participant would not be successful in college (he had already been admitted) if he did not improve his study skills and work habits because college was significantly more difficult than high school and he had not always done well in high school.	"I think their message was… a bit more harsh, because I know I was on probationary stance like my status was something like that and I worked my way back up… they told me like, 'If you don't do well, you fail out,' it wasn't like, 'You get a second chance if you do well.'"
White Male	Other people: friends, parents	Pre-college academic success Belief that college may be too hard/ expensive, or was unnecessary to having a good career.	Participant was encouraged to pursue the military instead of the college that he wanted to go to because that school was perceived by others to be too hard for him and too financially costly. He also received the message that college may not be necessary to having a good job.	"… half my friends didn't think I would get into it [college of choice] and my parents were like, 'Are you sure you want to go there?' And then a lot of people said college is expensive, so it could be a waste of time."
Black Female	Other people: teachers	Belief that college is significantly more difficult than high school.	Participant received the message that college would be too difficult, as compared to high school.	"… in high school they [her teachers] said, 'You don't know if you're going to be able to pass college because it's so hard, so many different things, professors are going to be so hard on you and really strict' and stuff like that, like 'You might not be able to succeed in college if you don't improve your attitude,' and stuff like that."

Table 3 (Continued)

Participants' Experiences of Negative Messages

Participant Demographics	*Source(s) of Message*	*Influence(s) on source(s)*	*Nature of Message*	*Illustrative Quote*
Black Female	Other people: family members, friends	Becoming pregnant in high school and subsequently having her baby become ill and die Pre-college academic success	Participant received the message that she would not finish high school after becoming pregnant and later that she would not return to college after having to discontinue her studies the semester that her daughter died. Participant also had difficulty with standardized tests in high school, which she believes influenced people giving her negative messages about educational achievement.	"… when her [participant's baby] health took a turn that's when it got harder and then people were like, 'It's okay, we'll understand, well we knew you were going to have to end up dropping out anyway.'"
Black Male	Other people: people who were currently in college	Belief that college is too challenging.	Participant received the message that he would have to make significant lifestyle changes in order to be able to be successful in college.	"… they [college students] were like, 'You're gonna be studying so much, you know you won't have time for anything. You either study or party or play sports, but you can't do all three. You gotta pick.' And that kinda like struck me as college as this other world, you can't be yourself, you have to fit a certain mold."

Among the 14 participants, the nature of the negative messages received varied greatly. For some participants, negative messages were pervasive throughout their adolescence. For other participants, such messages were experienced on one or two occasions during high school. However, most participants (11 or 79%) shared the experience of the **source of the negative messages** being an *other person*; these people included teachers, counselors, parents, other family members, and friends. In addition to this source, 3 (21%) participants reported their *self* as a source of the negative messages, and 3 (21%) participants reported that their *environment* (e.g. messages that participants perceived to be coming from their neighborhoods or towns) was a source.

The underlying **influences on sources** that were perceived to form the negative messages also varied greatly and were often described as some demographic quality, characteristic, or experience of the participant. Many participants reported negative messages that had multiple sources. For example, one African American male's experience was of receiving negative messages that were based on race, culture—in his case the culture of devaluing education among his peers, and perceptions of his intelligence. For 12 participants (86%), the **perceived influences on the sources** of the messages they received fell into the minor thematic categories of *immigration policies, racism, classism, culture, participant's pre-college academic success,* and *perceptions of participant's intelligence.* For the other 2 participants (14%), as well as 7 of the participants whose messages were influenced by one of the previously mentioned categories, the underlying influence behind the negative messages fell into the minor thematic category of *other.* This minor thematic category consisted of other characteristics, demographics, and experiences of the individual, including: becoming pregnant and losing a child after birth; a lack of educational achievement by the biological parent of an adopted participant; people in the

participant's family having dropped out of college; being diagnosed with ADHD; and a belief that college is too difficult, too much work, or not a worthwhile endeavor.

The study's third research question regarding what different levels of participants' ecology, including individual, family, peer, school, and neighborhood influences, played a role in their experience of or response to the negative predictions, was partially addressed in the information provided by participants about the source(s) of negative messages and their corresponding perceived influences. As noted above, a microsystemic variable, *other people* including family, peers, and school personnel (e.g. counselors and teachers) was the most frequently cited source of the negative messages; *self* was also noted as a source of the negative message by multiple participants. In terms of macrosystemic influences, 3 participants (21%) described the negative messages as being broadly transmitted from their *environment*, including their apartment complex, school, neighborhood, and town. Considering the underlying perceived influences on these sources, the majority of the influences represent macrosystemic forces including *immigration policies, racism, classism*, and *culture*. Based on the way they were presented in participants' narratives, other perceived influences, including *participants' pre-college academic success* and *perceptions of participants' intelligence*, were also guided by larger systemic ideals and definitions of intelligence, academic success, and what qualities and achievements a prospective college student should have.

Impacts and Consequences of Negative Messages

The second research question in this study asked what impact or consequences were perceived by participants when they experienced the negative predictions. In order to allow for the possibility that no impact or consequences may have been experienced, for example, due to the experience not being perceived as significant to the participant or due to limited insight into

the impact that the experience had on them, no question was directly posed to participants regarding impacts or consequences, unless it followed naturally as a prompt based on something the participant had said. Rather, it was expected that this information would emerge naturally from the participants' narratives if it was a salient part of their experience. Accordingly, 12 participants (86%) identified an impact or consequence that they felt the experience had on them at the time that they received and worked to defy the negative message(s). These impacts and consequences formed a major thematic category and were coded into 7 minor thematic categories (see Table 4). Each minor thematic category will be described below and illustrated by a quote from a participant, when appropriate.

Table 4

Minor Thematic Categories for Self-perceived Impact or Consequences of Negative Messages

	Major Thematic Category **Self-perceived Impact or Consequences of Negative Messages**
Minor Thematic Categories	*Self-doubt/anxiety/fear* *Anger* *Hurt/pain* *Wanted to prove people wrong; reacted against becoming what people expected* *Isolated or separated from source of negative message/hid goals and aspirations from source* *Changed habits, strategies, or behaviors* *No impact or consequences identified/nature of impact or consequences is unclear*

Emotions as Impacts and Consequences

The emotions felt by participants in response to the negative messages were categorized as reflecting *self-doubt/anxiety/fear, anger,* and *hurt/pain*. No other emotions were described by participants. Half of participants, notably 6 of whom were female, reported experiencing *self-doubt/anxiety/fear*. One Black female participant summarized her feelings:

> … in middle school they were saying [intimidating things] to me about high school and in high school they were saying [intimidating things] about college, so that was kind of frustrating. That's why I was so scared to come to college. I was kind of scared because I didn't think I was going to pass, I thought it was going to be a little too hard…

Six participants (43%) expressed feeling *hurt* or experiencing emotional pain in response to the message. However, all participants described this emotion in vague or brief terms, such as "upset" or "hurt", and did not elaborate on this feeling. The third emotion, reported by 5 participants (36%) (4 of whom were female) was *anger*; frustration was also coded here as it was seen to represent a degree of anger. As will be described later, the experience of anger came up in different contexts and played varied roles in participants' experience, such that depending on the way anger was described, it could be coded as part of one of two major thematic categories (**facilitators of defiance** and **self-perceived impact or consequences of negative messages**). Participants mentioned anger at the source of the negative message as more of an individual characteristic that facilitating defying the message; this was distinct from anger that occurred in response to the message, but did not necessarily facilitate the defiance of the negative message. The latter type of anger was illustrated by participants' general statements such as that made by a Hispanic female participant in response to the researcher's question about how she felt in response to the message: "I was so angry. I was angry and I was frustrated." As noted above, descriptions of emotions were more frequently expressed by female participants.

Behavioral Reactions as Impacts and Consequences

Participants' behavioral reactions described the actions they took that defied or led to the defiance of the negative message. Four minor thematic categories of behavioral reactions emerged from participants' narratives. The minor thematic category experienced by the most

participants (7 or 50%, 5 of whom were male) was *changing habits, strategies, and/or behaviors*. One White male illustrated this as he shared how he reacted to receiving the message that he would not be successful in college:

> I knew I needed to change how I was doing something. My first year of college, I didn't learn to study, I didn't learn any study skills and it turned out pretty badly. So, ending this year has been a lot better knowing that I actually tried to do stuff. I think I've actually changed enough to be a viable college student and learn from my mistakes and their advice.

His experience was similar to many participants in that the majority of changes described in this minor thematic category reflected participants trying harder, learning new skills (e.g. study skills), and working harder to be successful in high school or during their freshman year of college. In the next minor thematic category, 6 participants (43%) noted that they *wanted to prove people wrong by reacting against becoming what people expected*. Interestingly, all participants did this by becoming college students, but slightly less than half of them mentioned doing it as a direct response to or consequence of the negative message. One participant, an African American female illustrated this category saying, "I just took it [the negative message] in and kind of used it as motivation to work harder, to prove people wrong." The other two behavioral reactions were each cited by only 1 participant (7%). An African American male participant explained that one impact the negative messages had on his behaviors was to make him *isolate or separate from the source of negative message/hide goals and aspirations from source(s).* He hid his studying and his goal of going to college from his peers:

> … as far as the books went, you didn't want to be seen with books, like you were serious about school, so you'd try to hide it (laughs) like [I] kept a set of books at home and one at school. I mean, it was a rough neighborhood so you didn't want to be seen with books.

As a consequence, his friends did not initially believe him when he told them his ACT scores or shared that he had been accepted to different colleges. He explained. "…these are people I grew up with, so they viewed me in a whole different light and they just really didn't know that I was serious about school." Rather than isolate or hide her aspirations, another participant reported that one impact the negative messages had on her behaviors was that she *tried to increase sources of positive messages* in her life: "So I surrounded myself with positive people, so then, I mean it still wasn't easy, but it wasn't near as hard as people said it would be."

Only 2 participants (14%) failed to identify any impact or consequences that their experience of the negative predictions had on them. For both of these participants, they perceived the experience as being somewhat insignificant or only a minor setback, which likely accounts for why they did not identify an impact or consequence in the course of their narrative. For example, one participant, a Vietnamese male, described having vague doubts about being able to do well in college that occurred "once in a while" during high school at times such as when he got a low score on a test. However, he noted that when he came to college he realized, "… everything I was worried about before doesn't really matter." Thus, he viewed the whole experience of receiving negative messages as rather insignificant. For another participant, a White male, the negative message that he received was that he was aiming too high in terms of trying to gain admission into one particular college, but he did not receive any negative messages regarding his overall ability to be successful in college, or the likelihood that he would be able to do so. He also felt that the amount of time in which he experienced the message was very brief,

describing, “Once I decided to go to school all the negative influences just kind of dropped off, they saw that I could get along fine in college and succeed in what I decided to do…”. His comments also suggested that the experience had not been particularly significant to him as he noted, “I never really thought about it [the experience] until I signed up for the study.”

The Process of Defiance: Reasons, Facilitators, and Barriers

With little known about the phenomenon of negative prediction defiance, an important finding from the current data is participants’ perceptions and descriptions of the process through which they were able to defy the negative messages. Three major thematic categories illuminating this process emerged from participants’ narratives: **reasons to defy negative predictions/negative messages** or the “why/for who/for what purpose” guiding the process; **facilitators of defiance** or the “how” participants were supported in the process; and **barriers to defiance**, also frequently identified by participants as factors that, if present in their lives, would have been helpful at an earlier point in time (e.g. before high school or beginning college). Additionally, the study’s third research question, regarding what different levels of their ecology (e.g. individual, family, peer, school, and neighborhood) played a role in their experience of or response to the negative messages, was primarily addressed in the portions of the narratives coded in these 3 categories.

Reasons to Defy the Negative Messages

Without a motivating reason, it is unlikely that any of these participants would have been able to get to college, particularly in the face of the negative messages they received. Participants’ reasons for defying the negative messages and pursuing college fell into six minor thematic categories, two of which had their own more specific subcategories coded within them (see Table 5). These categories represent reasons that are self and other focused, as well as

present focused and future focused. Additionally, several participants identified reasons that fit into more than one category and two participants did not identify any reasons in their narratives.

Table 5

Minor Thematic Categories and Subcategories for Reasons to Defy the Negative Messages

	Major Thematic Category **Reasons to Defy the Negative Messages**
Minor Thematic Categories and Subcategories	*Not wanting to disappoint or let down the person who believes in you* *Wanting to prove people wrong and desire for "revenge"* *Wanting to serve as a role model for someone else to go to college* *Wanting to be viewed by others as successful* *Positive possible selves* *Career aspirations* *Financial security/financial independence/wealth* *Negative possible selves* *People in low level/low paying/dead-end jobs* *Homeless* *Incarcerated or earning income via illegal means* *Unspecified economic negative possible selves*

The reason for defiance cited by the most participants (10 or 71%) was categorized as *negative possible selves*. As previously described, possible selves are people that we hope to become, fear becoming, and expect to become, in spite of or due to our hopes and fears. Thus, negative possible selves are those that we fear becoming. Participants in this study believed they could avoid becoming their negative possible selves by attending and graduating college. Given the prevalence and prominence of negative possible selves in participants' experiences, this minor thematic category was divided into coded subcategories based on the different types of negative selves described by participants. Descriptions that did not fall into one of these subcategories were coded generically as *negative possible selves*. For some participants, these negative possible selves were very personal and were reflected in the lives of their family members, as one Black female described:

> … seeing my aunt and seeing the potential that she had, like she was really intelligent, and then she just did the same thing that they [other young women in her town] did, have babies, and she's still there [in the town participant grew up in]. And I was like, no, that can't be me…that… motivated me…

The more specific subcategories of *negative possible selves* described various employment and financial prospects, as well as living situations often associated with negative economic situations. These categories were: *people in low level/low paying/dead-end jobs* (6 participants/ 43%), *homeless* (3 participants/21%), *incarcerated or earning income via illegal means* (3 participants/21%), and *unspecified economic negative possible selves* (3 participants/21%). One African American female was motivated by several of these negative possible selves, as seen in the following quote that illustrated the subcategories of *low level/low paying/dead end jobs, homeless,* and *incarcerated or earning income via illegal means*:

> But mainly what encouraged me was my surroundings because I tested [working at a HIV clinic] a lot of prostitutes, people who were on drugs, people who were homeless and I just didn't want to go that route, or just living from paycheck to paycheck at a fast food restaurant job, I didn't want to go that route either. So not many people make it without going to college … I didn't want to take that risk. So, that was the main thing that encouraged me to come, to go ahead and apply.

Regarding the *unspecified economic negative possible selves* subcategory, one Black female participant explained that one of her reasons for going to college was so that she could afford to have things she wanted, not just things she needed.

> … in my family there's a lot of people who didn't make it, and so they're living regular lives, you know 9-5, making enough money just to get by and I don't wanna live like that

> my whole life, I want to make enough money to splurge, to drive a nice car, have a nice house, wear all the top clothing lines and stuff like that, I don't want to have to go just to pay the bills like some people in my family.

Another powerful motivator for participants were the selves who they did want to become, or their *positive possible selves* (noted by 7 or 50% of participants). Just as college was viewed by participants as a path away from their negative possible selves, it was viewed as a path toward their positive possible selves. This minor thematic category was divided into the following subcategories: a generic *positive possible selves* (7 or 50% of participants) group, *career aspirations* (7 or 50% of participants), and *financial security/financial independence /wealth* (3 participants or 21% participants). In the general *positive possible self* subcategory, several participants described their desire to be the type of person who achieves something. One White male said, "… in the long run it's worth it I think, because you come out, you studied hard for four years, you have something to show for yourself." Regarding the 2 subcategories of *career aspirations* and *financial security/financial independence/wealth*, some participants mentioned these selves separately, but in the minds of some, they worked together, as stated by one Black female:

> I think about my future and what I want to be and what I want to accomplish and I want a good job, I want to make a lot of money which is probably everyone's ambition (both laugh) but it's definitely mine, and I can just see myself being the head of a major corporation or something like that. So I really decided that I had no other choice but college.

Another reason to defy the negative messages, cited by 5 participants (36%), was *wanting to prove people wrong and desire for revenge*. One Black female participant summarized this

motivation saying, "… when people would tell me I couldn't do something then I guess I wanted to prove to them that I could." The views and opinions of family members, friends, and even people in their town or strangers also served as motivation for several participants, as seen in the final 3 minor thematic categories within the major category of reasons. Four participants (29%), notably all female, noted the reason of *wanting to serve as a role model for someone else to go to college,* as in the case of an African American female who was a mother:

> … I have 2 boys and I can encourage them to go to school… they see that pattern, they see me with the book, they see me studying, so they can remember in their minds when they get older… So that's the norm for them, I want that to be very normal in their lives and expected… they keep me going to school…

As will be discussed later, having someone who believes that you can or should go to college was part of every participant's experience. Consequently *not wanting to disappoint or let down the person who believes in you* was a reason for defiance noted by 3 participants (21%), including one Caucasian male who said, "But, you know, they [his parents] believed in me, they really thought that I could do it and I didn't want to let them down." Beyond not wanting to let down people who had been supportive of them, 2 female participants (14%) noted a broader desire of *wanting to be viewed by others as successful*. One Black female participant said, "I want people to know, 'Yeah, she did good, she made something out of herself, she came from here, she didn't let it get to her, that happened to her, but it didn't keep her down.'"

As previously noted, 2 participants (14%) did not identify any specific reasons to defy the negative messages in their narratives. One participant, a Hispanic female who had emigrated from Columbia while in high school, had received the negative message that she would have to postpone attending college while waiting for her resident's visa. In the meantime, she was told

that she could consider pursuing technical school, which she found very insulting given that attending college was a norm in her social class in Columbia and within her family. While not stated outright, her "reason" for not believing the message was implied: attending college was an integral part of her identity. However, given that she did not have the opportunity to defy the message in her situation (she had no choice but to wait for her visa to come through), it follows that there were no reasons to defy the negative messages in her narrative. The other participant who did not express a reason in his narrative was a Black male. His story was somewhat unique in that he felt that the messages around him from society, his neighborhood, and some of his peers were generally negative toward black males attending college or achieving success in college. Unlike other participants, he did not feel that these messages applied to him. This unique view of the messages around him likely accounted for why he did not cite reasons to defy the messages for himself; it was simply understood in his mind, similar to the Hispanic female participant described above, that college attendance was in his future, given his identity and the influences of his family.

Facilitators of Defiance

While having reasons to defy the negative messages was undoubtedly significant to participants, **facilitators of defiance**, or supports, were equally if not more important; in fact, at least one type of facilitator was noted by each participant. This major thematic category covers the "how" of getting to college in the face of negative messages, shedding light on external and internal supports. Additionally, different levels of participants' ecology figured prominently in this major thematic category as societal, family and peer, and individual level variables were described as facilitators. Within this major thematic category, five minor thematic categories emerged, one of which had coded subcategories (see Table 6).

Table 6

Minor Thematic Categories and Subcategories for Facilitators of Defiance

Minor Thematic Categories and Subcategories	Major Thematic Category **Facilitators of Defiance**
	Culture of valuing higher education
	Positive role models
	People who believe that you can or should go to college
	Individual characteristics
	Internal locus of control
	Determination/belief one can overcome obstacles/ "drive"
	Hope and optimism
	Pride
	Self-reliance/Don't listen to what people say
	Competitiveness
	Anger at sources of negative messages
	Individual values of learning and/or college education
	Spirituality

Two minor thematic categories stood out as being particularly integral to participants' experiences, given that they were mentioned by all 14 participants. One of those minor thematic categories is *people who believe that you can or should go to college*; these people included college and high school friends, teachers, high school counselors, coworkers, parents and other family members, neighbors, and participants themselves. For example, one Black female participant who received negative messages from her teachers described, "My parents were really like, 'You can go to college, you can do it, it's not going to be that hard…'". In general, participants described that having people who believed in them helped them have confidence and faith in their own abilities, and thus served as a protective factor in the face of negative messages. In addition to having people believe in them, 10 participants (71%) reported the significance of people in their lives who served as *positive role models,* whom participants perceived as another

support or facilitator of their defiance. One African American female participant described positive role models at the job she worked at during high school:

> …I had a really awesome job which taught me a lot and it also played a significant role in making my decision to go to college… because people who had higher positions, like the CEO, or other positions at the job, they had a degree, so they were kind of like my role models and my encouragement to go to school.

Similar to having people who believed in them or having positive role models, 12 participants (86%) described these phenomena as they occur on a more macrosystemic level; they benefited from having one or more environments in which a *culture of valuing higher education* was present. This culture was present in and transmitted via a number of systems that varied in size and scope including family values of education, having a high percentage of family members who went to college, attending a high school that had emphasized and strongly promoted college attendance, living in a neighborhood or town with a strong emphasis on education, or societal expectations about attending college. One Hispanic female explained how this phenomenon was present in her life saying, "… in Columbia, [in] my social group you go to college… all my family goes to college… everyone goes to college, all my friends go to college, it's not a choice, like I said. You go to college, it's part of life."

Individual-level variables also played a major role in supporting or facilitating participants' defiance of negative messages. The minor thematic category of *individual characteristics* was noted by all 14 participants multiple times in their narratives. The individual characteristics described by participants were so varied that this minor thematic category was divided into 8 coded subcategories that were cited by as many as 10 and as few as 1 participants in their narratives. Each subcategory is described below.

The two subcategories that emerged from the narratives of the most participants (10 or 71%) frequently co-occurred: *internal locus of control* and *self reliance/don't listen to what people say.* Some participants described these characteristics as a stable part of their personality, recalling several times in their lives in which they had demonstrated these qualities. Other participants described these characteristics as being prominent only in their experience of defying the negative messages received about college. One Black female participant exemplified both characteristics:

> … you know my friends allow… people to say these [negative] things to them and I'm just like, you know this is not me, I'm not this type of person. But I guess I've always been like that, like… if I believe that I can do it, I'm going to try to do it, period.

Along with *self-reliance* and an *internal locus of control*, many participants (9 or 64%) also cited their *determination/belief that they could overcome obstacles* as an individual characteristic that helped them get to college. One African American female explained the role that determination played in her experience:

> … I just had to realize that you have to work for what you want… it doesn't come easily on a silver platter … for people of my background you really just have to work and you have to make your mind up that "Okay, I'm gonna do this."

Just as being part of a culture or larger system that valued education was an important facilitator for many participants, having *individual values of learning and/or education* was also important and was noted by 6 participants (43%) (4 of who were male). One African American male explained, "It was an understood message [that he would go to college] because that was my personality. I mean, I liked education so it was kind of understood." Earlier in the interview he recalled always liking to read as a child, "… I wanted to know everything in them [the

books]… so I would read all the books." This participant also viewed this characteristic as a stable and enduring part of his personality, saying, "I just liked it [education] for myself, it was just an inborn sort of thing."

For other participants, their defiance or rejection of negative messages was facilitated by their *competitive nature* (4 participants or 29%). Reflecting on how she perceived her environment, an Indo-American female participant explained, "… you look at the person next to you all the time and the world is such a big competition these days so like you feel competitive…like, 'I want to get to that next step… that next level.'" Similar to the competitive feelings and tendencies described by participants, 2 participants (14%) also noted the role of their *pride* in defying negative messages. One Black female explained this quality as she reflected on how she had focused on proving people wrong:

> … it's part of my personality, I've always been like that. Like I'm down, but I don't let other people see me down... That makes me just want to keep up… a front… so they'll think, "Oh, you know she's doing okay, she doesn't struggle in school, she's not struggling."… I just want people to know that I'm a strong person who can handle anything…I can make it.

Another individual characteristic noted by 3 participants (21%) was *hope/optimism*, reflecting a generally positive view of things that supported their defiance of negative influences. One White male participant reflected, "… as long as you are able to see the positives, then they'll outweigh the negatives", while a Black female described, "I don't know where I'd be right now if I lost hope. It's kind of, the only thing I have on my side right now sometimes I think."

For one African American male participant, his *anger at sources of negative messages* was what he saw as an important support of his defiance. In this case, anger was not an impact or

consequence that negative messages had on him, as anger was for several participants described earlier. Rather, he described anger at the sources of the negative messages as something inside of himself that supported him not believing the negative messages; consequently, this experience was coded as an individual characteristic. When summarizing a previous response, the interviewer asked whether the "main thing" that helped him not believe the negative messages was his belief in himself. The participant responded saying:

> … it was a belief in myself, but it was kind of like anger channeled in a different direction, that's what it was. I was kind of real hard with my thinking…it was really anger you know, even toward some of the [high school] curriculum, I was like, "This is some garbage."… it could have been tough for some teachers even to teach me because of the anger you know of what I was dealing with outside, as well as inside with the racism...

In addition to individual characteristics that fell into one of the 8 subcategories described above, 8 participants (57%) mentioned general *individual characteristics* that supported their defiance of the negative message(s). Such descriptions as achieving something "on my own", attributing defiance to just being part of themselves (e.g. "that's just me", "because of me and how I was, and my ethics and stuff like that.") or to being a "certain type of person", were all coded in this subcategory; these quotations clearly illustrated individual qualities, but were not specific enough to be coded in another subcategory.

The final minor thematic category was *spirituality,* cited by 1 participant (7%). This African American female noted the role that *spirituality* played in supporting her as she struggled to become a college student in the face of negative messages that she received from friends and family members:

> I think spirituality played a significant role for me, although I didn't know too much about God, I just knew that there was kind of like a hedge of protection around me especially in the atmosphere that I grew up… I think spirituality, and then I started going to church at a young age, that kind of kept me in line and kind of guided my footsteps… I don't think I could have done it on my own.

Barriers to Defiance

The final major thematic category that emerged from participants' narratives was **barriers to defiance**. This major thematic category is also subtitled "*What would have helped earlier in life"*, because participants frequently mentioned these barriers while reflecting on resources that they felt they could have benefited from or that students like them could benefit from. This category emerged from the narratives of 7 participants (50%) and is divided into three distinct minor thematic categories: *access to information, needing a role model or mentor,* and *self doubt/times-moments that participant believed the negative messages* (see Table 7).

Table 7

Minor Thematic Categories for Barriers to Defiance

	Major Thematic Category **Barriers to Defiance**
Minor Thematic Categories	*Access to information* *Needed a role model or mentor* *Self doubt/times the participant believed the negative messages*

The first two minor thematic categories refer to gaps in resources that then served as barriers, while the third minor thematic category reflected times that something within participants served as a barrier. Six participants (43%) noted that lacking information and/or *access to information* made it more challenging to become a college student. Participants

described this experience as occurring in high school and in college environments. One Black female described having this experience in high school:

> … the help wasn't there. Like a lot of programs and stuff the other kids were in like we didn't know about or I didn't know about… like when it comes down to senior year and you fill out college applications and they ask you what clubs were you in and what organizations and stuff, we didn't know that was important until it was senior year so then it was too late.

Along with lacking access to information, 4 participants (29%) described the difficulty of not having the specific information and guidance comes from a role model or a mentor who is either in college or has completed college. Participants described that it would have been helpful to have college students or college graduates come to their high school to speak about their experiences, have a mentor in high school, have a mentor in college, or have college educated people in their families or neighborhoods who they could turn to for support. One African American male noted, "… if I had some direction at that time [in high school], I wouldn't have had to go through those obstacles. Even if I could see somebody who experienced it [college] and talk to him, I just couldn't even see anybody." In light of such barriers, as well as the experience of receiving the negative message itself, it is not surprising that some participants experienced *self doubt/times-moments that participant believed the negative messages*. It may be more significant that more participants did not report having such an experience, which will be considered further in the Discussion section. For the 4 participants (29%) who did describe an experience of self doubt, this experience constituted another barrier, as one African American female explained:

> … so the neighborhood was pretty poor, it wasn't a rich neighborhood, it wasn't even middle class, it was on the poor side of it. So when you come from a background like that, and you're stepping into the realm of going to college… you're stepping out the norm, so anything that's not normal is kind of hesitant, like, "Wow, can I really do this?"

Overall, although none of the barriers mentioned ultimately prevented the participants from becoming college students, and thus defying the negative messages they received, the barriers that were described did make the process of getting to college more difficult. Additionally, several participants noted that the effects of the barriers (e.g. lacking access to information) or the barrier itself (e.g. self doubt) persisted beyond high school and into college.

Summary of Results

To summarize, 6 major thematic categories emerged from the participants' narratives. Two categories were largely descriptive (**sources of negative messages, perceived influences on sources**), 1 category captured how the messages affected participants (**self-perceived impact or consequences of negative messages on participants**), and 3 categories reflected important components of the process of defying or overcoming negative messages (**reasons to defy negative messages, facilitators of defiance, and barriers to defiance**). These major thematic categories, along with their corresponding minor thematic categories, provided a structured way to see how participants' narratives addressed the study's three research questions.

Regarding the first research question, participants experienced several different types of predictions or messages about their ability to become college students, the likelihood that they would get to go to college, and their chances of being successful once in college. These messages were communicated by three sources: people in participants' lives, participants themselves, and participants' environments. Additionally, participants' narratives revealed information about the

various belief systems and judgments that influenced the negative messages' sources, from more individual-level variables such as perceptions of the participant based on their pre-college academic success to macrosystemic forces such as racism and classism. The second research question asked what impacts or consequences the experience of receiving negative messages had on participants, from their perspective. Almost all participants reported some impact or consequence, with some describing an internal, emotional response (e.g. self-doubt or anger) and others describing behavioral responses observable to others (e.g. changed habits, strategies, or behaviors). Finally, the third research question was based on an ecological model of development and resilience; this research question sought to investigate whether different levels of a participant's ecology, such as individual, family, peer, school, and neighborhood influences, played a role in their experience of or response to the negative predictions. Individual characteristics had a prominent place in the major thematic category of facilitators of defiance, as did microsystemic variables such as family members, peers, other individuals such as teachers, and environments like schools and communities. However, each of these microsystemic variables were also sources of negative messages for some participants. Additionally, family members, peers, and unrelated individuals in one's neighborhood served as reasons to defy the negative messages in both positive ways (e.g. not wanting to disappoint or let down the person who believes in you) and more negative ways (e.g. a negative possible self that was shaped by seeing an undesirable future in the life path taken by a family member). The content of the participants' narratives will be further discussed and interpreted in the next chapter of this paper, along with limitations of the current study, directions for future research, and implications of the study's findings for intervention with youth who, like the 14 participants interviewed here, face challenges and obstacles to becoming college students.

5. DISCUSSION

Existing research on stereotype threat, the Pygmalion effect, and studies of influences of neighborhood and parental SES on academic and occupational achievement have documented the difficulties that youth encounter when they receive negative messages. On the other hand, the body of research on resilience has shown that individuals do succeed in environments fraught with challenges. The current study examined a specific type of resilience, academic negative prediction defiance, in a group of undergraduate college students who received negative messages about their abilities to attend college or the likelihood that they would get to attend college. Using qualitative, grounded theory methodology, participants were interviewed about their experiences. The themes that emerged from their narratives were described in the previous chapter and will now be interpreted, and compared and contrasted with existing research.

The Experience of Defying Negative Messages

In this section, the researcher will interpret the results described in the previous chapter by providing a preliminary theory of negative prediction defiance that is grounded in the data and comparing that theory to the existing research regarding resilience and negative prediction defiance.

Consistent with a grounded theory approach, the researcher developed a model (see Figure 2) that reflected the themes and sub-themes that emerged from participants' narratives. The central phenomenon of this process is overcoming the negative messages and getting to college. As previously described, there are six components to the model: sources of negative messages, perceived influences on sources, responses to the messages, reasons to defy the messages, and facilitators of defiance. The theory is both descriptive and explanatory.

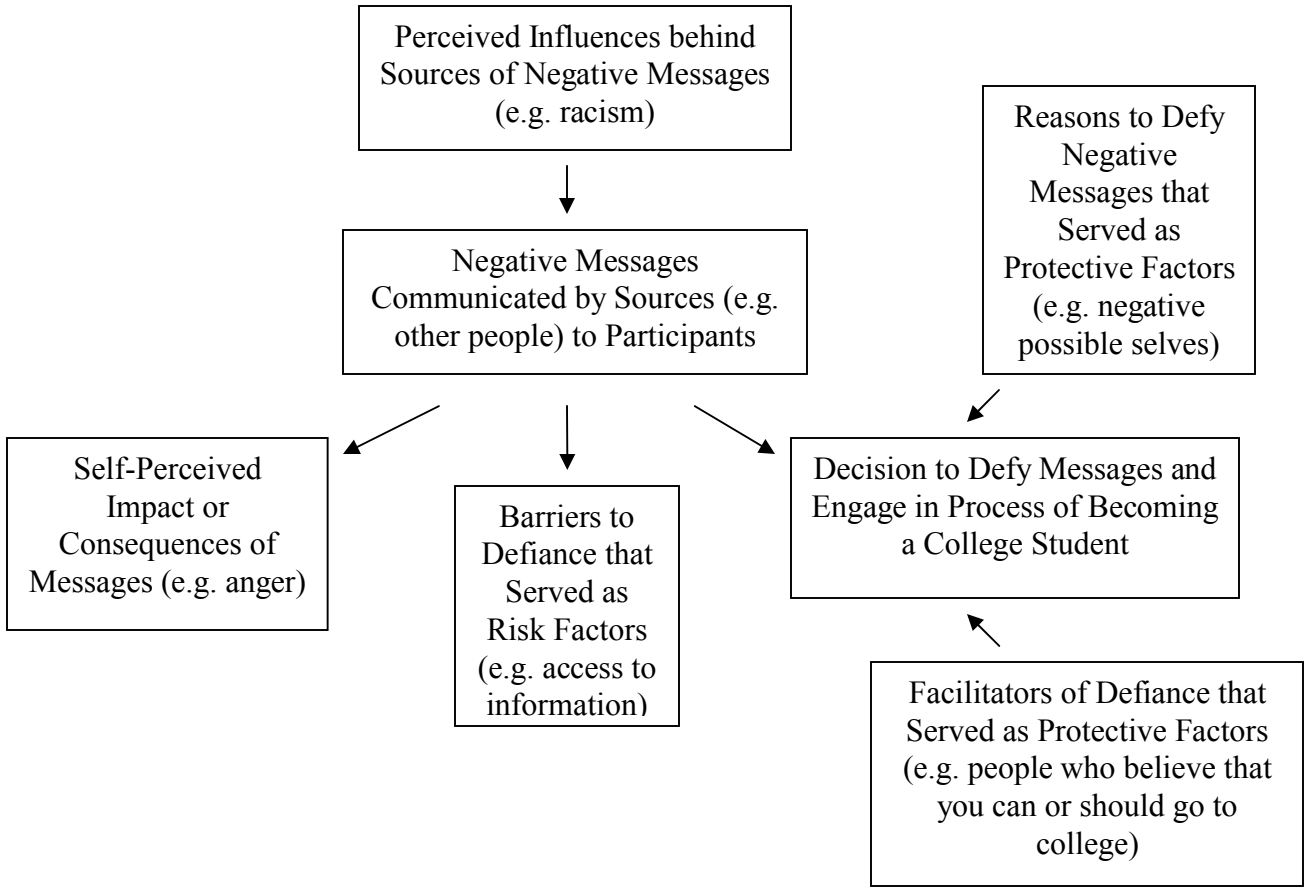

Figure 2

Theoretical Model

Participants' experiences began when a source communicated negative messages to them regarding their abilities to attend college or be successful as college students, or the likelihood that they would get to attend college. Participants' perceived source(s) of these messages to be influenced by judgments based on demographic characteristics such as participants' race and class or other individual characteristics such as perceptions of their intelligence or pre-college academic success. Participants' self-identified responses to these messages, also called impacts and consequences, included both behavioral (e.g. changing habits, strategies or other behaviors) and emotional (e.g. anger or hurt) reactions. However, each participant ultimately reacted by doing whatever they needed to do to become a college student in the face of the negative message. This part of the process had two essential components: reasons to defy the message and supports or facilitators that aided defiance. Additionally, participants also faced barriers to defiance; thus this is also a component of the theory. Each component of the theory will be compared to the existing literature below, providing a measure of external validity to the current study.

Sources of Messages and Perceived Influences on Sources

Three sources of negative messages were identified by participants: self, other people, and environment. Two of these sources, other people and the environment, have received attention in the research literature on resilience, negative prediction defiance, and/or academic expectations; these will be discussed in more detail below. Neither the resilience literature nor the Pathmakers' study (Harrington & Boardman, 1997) have focused on the situations of people who receive negative messages largely from themselves. As previously noted, in the current study, 3 participants identified themselves as the source of their negative message; 2 of these 3 identified themselves as the sole source of the negative message. Both of these participants

described doubting their abilities to be successful college students or get into college based on low high school grades. These participants described their experience as minor, brief in duration, and relatively insignificant; they did not have an extensive history of encountering barriers in the environment to academic success or of receiving other negative messages. Thus, their experiences were atypical in multiple ways as compared to other participants in the current study and to Harrington and Boardman's (1997) Pathmakers. Consequently, it would not be expected that their experiences fit the existing body of literature. Additionally, while participants identified themselves as the distinct source of the negative message, it is unlikely that these messages evolved from the self free of outside influences, such as other people and environments. Rather, participants' perceptions of themselves as the source of the negative messages likely reflect a somewhat limited understanding of the way that self perceptions develop from outside influences.

Other People: Teachers, Counselors, Family and Friends

Primary sources of negative messages for participants were other people, including teachers, counselors, parents, other family members, and their friends. However, as will be described in more detail in subsequent sections, these "other people" also served as reasons to defy messages and as facilitators of defiance for some participants; this should be kept in mind as this study in no way suggests that parents or teachers are "all bad" or "all good". In fact, the figures were sometimes both positive and negative influences in a participant's experience.

The finding that other people were sources of negative messages is concordant with the academic expectations' literature regarding teachers. Research in this area has found that teachers form expectations of students from sources that may not necessarily be related to academic abilities, including SES, gender, ethnicity, parental involvement in education, and participation in

extracurricular activities (Pigott & Cowen, 2000; Van Matre, Valentine, & Cooper, 2000). For participants in the current study, teachers and high school counselors made judgments about academic competencies and whether participants were fit for college based on participants' race, class, pre-college academic success, and perceived intelligence. These judgments resulted in a range of negative messages, from suggestions that a participant should consider community college rather than a four-year-university, to help being preferentially given to students of majority racial groups, to explicitly being told that college will be too hard and that he or she should not bother with it. Clearly, these judgments made by teachers and counselors ended up at least somewhat unsubstantiated, as each of the participants' in the study was attending college at the time of this study and several were successful by some measure (e.g. graduating seniors at time of interview, already had one college degree). As described in the literature review, research on the Pygmalion effect, teacher expectations, and academic stereotype threats generally does not account for how students defy or overcome negative messages. Rather, the literature suggests that youth often internalize these negative expectations, which then may negatively impact academic achievement (Nolen, 2002; Rosenthal, 1997; Steele, 1997). However, one study (Kuklinski & Weinstein, 2001) found that as children grow older (participants were assessed in 1st, 3rd, and 5th grades), their self-expectations more strongly mediate the relation between teacher expectations and achievement. If self-expectations continue to gain strength as students' age, then one would expect this mediating relation to be even more robust among high school students, which may account for the resilience of participants in the current study in the face of negative messages given by teachers.

For several participants, parents and other family members were the carriers of the negative messages. There were several larger perceived influences behind the negative messages

communicated by family members to participants. In some instances, family members were influenced by their own negative experiences related to education and the historical lack of educational achievement throughout the family. These experiences created a culture that was unsupportive of higher education in the family, which was communicated to participants in the form of discouraging messages. With the exception of one participant who experienced negative messages about her abilities from a generally abusive parent, none of the participants suggested that their family members or friends were communicating these messages to them in order to prevent achievement or create a more difficult path for the participant. Rather, as one participant aptly explained describing her Haitian, largely immigrant, family, "I don't think it was anything personal trying to hold me back but that's all they knew, they didn't know college, so it was hard for them to pass on something to me that they didn't know." Other family members and friends of participants who were the bearers of negative messages had themselves experienced failure at graduating from high school or attending college, and seemed to be discouraging participants from that goal in order to save them the frustration and disappointment that they had experienced. This was especially true among African American/Black participants. For these participants, some of their family members and friends appeared to have internalized racist and classist beliefs regarding who should go to college and who can be successful in educational achievement. Past research has documented that African American students may receive messages that discourage achievement in education because such achievement is associated with "acting white" (Horvat & Lewis, 2003). These students then often face the challenge of negotiating their connection to family, friends, and community while working to achieve the goals that they have been told are not appropriate or attainable for them. Research indicates that some people are able to successfully renegotiate their relationships with family and friends

(Pizzolato, 2006), while other people feel that they must place distance between themselves and their families and places of origin in order to maintain their success (Fordham & Ogbu, 1986, as cited in Pizzolato, 2006; Harrington & Boardman, 1997). Consistent with this research, some participants in the current study who faced this type of negative message from sources within their family, peer group, and neighborhood spoke about having to leave their communities or cut ties with certain individuals to achieve success, while others did not feel compelled to respond to the message in this way.

Environments as Sources of the Negative Message

A few participants (3 or 21%) described their environments as transmitting negative messages about the likelihood that they would become college students. These environments included a neighborhood, a school, a town, and an apartment complex. Participants described these environments both as sources of the negative messages and as dwelling places for manifestations of their negative possible selves. Influences on the sources were again perceived to be classist and racist beliefs, perpetuated both through internalization by the targeted group and by the non-targeted or "outside" group (e.g. non-minorities or those belonging to a middle or upper SES group). For example, one participant who lived in subsidized housing in an apartment complex with her family for 5-6 years described the environment as a place that included people who were "drug dealers", abusive toward their wives, frequently fighting, and where children were disrespectful and not well cared for. She also described an environment in which young women routinely became pregnant and lived as single mothers, and noted that "not a lot" of people were going to college. While this participant felt protected by her family from the negative influences of this environment, when she moved, she described a strong desire to never return to a life like that. The residents of this neighborhood represented negative possible selves

for her, and college was seen as the pathway that would prevent becoming her from becoming these possible selves. Another participant described feeling as though her school and the small town she lived in broadly communicated a message of racism that did not support African Americans attending college. Although no one ever directly said this to her, she described resources not being available to students of color and feeling "like people weren't trying to help because you were black." She described the environment as facilitating both racism by other groups toward African Americans and internalized racism within the African American community, as seen in an attitude that college was not "for us". Another participant described a similar experience in which he felt that he could not be seen taking books home to study in his neighborhood. He also described internalized racism within his community, which was manifest in a paucity of individuals even attempting to get into college and a belief by others that he could not have the potential to be academically successful because, like them, he was part of that neighborhood.

Much of the research on the influence of the environment on people has focused on the physical characteristics; these physical characteristics have the potential to define what an individual believes is possible through the opportunities and barriers within it (Bell et al., 2001; Cooper et al., 2002; Mello, 2005). Notably, neither the 3 participants (21%) who experienced negative messages from their environments, nor any other participants, described physical characteristics of the environment as influences on them or their expectations. With the exception of the participant described above who had lived in a subsidized apartment complex, participants also did not mention any influences related to school and neighborhood safety, or lack thereof. This finding was somewhat unexpected given the amount of research documenting the influence of physical qualities of the environment and community violence on a number of

variables including academic achievement (Gonzales, et al., 1996; Henrich et al., 2004; Sampson and Raudenbush, 2004). However, what the 3 participant narratives described above do reflect is the way that residents' views of themselves and their neighborhoods (which are often related to well-being and aspirations) may be shaped by racial composition and concentrated poverty. Sampson and Raudenbush (2004) found that a neighborhood's minority racial composition and poverty level influenced people's perceptions of disorder and decline in a neighborhood; these perceptions have been linked to negative mental health outcomes and feelings of powerlessness. Although participants did not report experiencing a feeling of powerlessness, they described powerlessness as an experience of people in their families and communities that constrained academic and economic achievement. Additionally, several participants (the 3 described above as well as others who did not identify their environments as direct sources of negative messages) described their neighborhoods as places that reflected the possibilities that formed their negative possible selves. This is consistent with existing research in which high neighborhood SES has been positively related to academic achievement (Leventhal & Brooks-Gunn, 2000), while living in low SES neighborhoods has been associated with adolescents being less likely to have college attendance as a goal due to a perceived lack of opportunities (Hope, 1995, as cited in Mello, 2005). However, despite experiencing environments as sources of negative messages for themselves or as negative influences on others in their communities, participants possessed internal and external protective factors. These factors facilitated participants' defiance of the negative expectations formed about them based on their environments and the negative possible selves that they saw there and will be interpreted in more detail in the *facilitators of defiance* section.

Summary: Sources of Negative Messages and Perceived Influences on Sources

The information that emerged from participants' narratives regarding the sources of the negative messages they received and the perceived influences on those sources offers a more nuanced understanding of the complex relationships that may exist between youth and people in their environments. While the existing literature in resilience points to the ways that teachers, family members, and friends can serve protective functions in the lives of at-risk youth, the current study also sheds light on how these same individuals may be the source of negative messages that create obstacles for youth as they try to achieve their goals. Another somewhat unique finding of the current study was a surprising lack of an influence that physical qualities of participants' environments had on them, from the point of view of the participants. Environments seemed to work more indirectly to influence participants based on the ways that they helped shape some negative and possible selves. Additionally, the information that participants provided about the perceived ideological influences behind the negative messages that they received is a sobering reminder that some students in today's society are still being unfairly judged and categorized based on their race, SES, or rigid beliefs about what intelligence or a successful student looks like. While it is encouraging that participants did not simply internalize these negative beliefs about themselves, this finding in no way makes it acceptable for students to have to face these negative messages. Accordingly, most participants expressed sentiments ranging from disgust to a sense of outrage at the fact that they had to experience these negative messages.

Impacts and Consequences of Messages on Participants

As previously described, almost all participants described an emotional or behavioral impact that the negative message had on them or consequence of experiencing the negative message. Emotional impacts included self doubt/anxiety/fear, hurt/pain, and anger. Behavioral

consequences included changing habits, strategies, and behaviors; wanting to prove people wrong/reacting against becoming what people expected; isolating or separating from the source of the negative message; and attempting to increase sources of positive messages.

Emotions as Impacts and Consequences

Considering the emotional impacts of experiencing negative messages, it is notable that all of the emotions described by participants were "negative" in that they caused the participants pain and doubt. While anger undoubtedly can be a powerful motivator and may have positive consequences, as was true for a few participants, their descriptions of experiencing anger were not positive. Intuitively, it makes some sense that these negative emotions were the consequence of being told that you cannot or will not achieve a goal. However, in strengths-based research, such issues are often not highlighted. The current study, the Pathmakers' study (Harrington & Boardman, 1997), and most resilience research takes such a strengths-based approach, focusing on how individuals are able to overcome the odds, and not so much on ways that they may struggle or experience negative impacts on their journey. At times, research may thus give an incomplete or inaccurate picture of what enduring and overcoming adversity is like for people. It was likely due to the open-ended nature of the questions in the current study's interviews that these barriers were able to emerge despite this being a strengths-based study.

In their critical evaluation of the construct of resilience, Luthar and colleagues (2000) noted that resilience is multidimensional, such that, "some high-risk children manifest competence in some domains but exhibit problems in other areas…" (p.548). In this way, they alluded to some of the potential limitations of resilience. They called on researchers to more carefully investigate and specify the domains in which resilience is evident and to use more clearly descriptive terms such as "educational resilience" or "emotional resilience" (Luthar, et al.,

p. 548). The participants in the current study have achieved varying degrees of "educational resilience," though they were not immune to hardships and doubts on the way to their achievement, nor should such resilience in all domains necessarily be expected. After all, the costs of resilience, both after achieving a particular goal and along the path to achieving it, are often perceived to be significant, as was described by Harrington and Boardman (1997). Their participants, particularly female Pathmakers, reported numerous relational costs of success including the loss of friends, the break up of marriages and other romantic relationships, and not having children. Interestingly, female comparison group members also experienced these costs, which is why such costs should perhaps be conceptualized as "costs of success" rather than as costs of resilience or negative prediction defiance per se. Another potential relational cost described by Harrington and Boardman in their findings was that Pathmakers were more likely than comparison group members to experience negative feelings upon returning home as adults. These negative feelings included perceiving distance between themselves and members of their families and communities who were less successful than the Pathmakers in terms of educational, financial, or career achievements; some Pathmakers even reported disdain toward these less successful individuals. Research with low-income high school students of color and individuals from demographic backgrounds associated with poor odds of graduating from college has also elucidated perceived costs of success including conflicts related to maintaining relationships with important figures who may not support one's academic goals and mental health problems (Feinstein & Vignoles, 2008; Pizzolato, 2006).

Behaviors as Impacts and Consequences

The two most frequently noted behavioral consequences among participants were changing habits/strategies/behaviors and wanting to prove people wrong/reacting against

becoming what people expected. The former behavior underscores the traditional conceptualization of resilience, described above, in which participants' felt that they, rather than their environments, must change in order to be successful. The latter behavior was hypothesized to be seen in all participants by definition of their inclusion in this study about defiance; however, wanting to prove people wrong was explicitly described as a consequence of the message by 6 participants (43%) and as a reason to defy it by those same 6, as well as 2 others (8 in total, 57%). Thus, it is unlikely that all of the participants in the current study would identify as negative prediction defiers, even though the term describes their achievement of becoming college students to some degree. Taking a closer look at the 6 participants (43%) who did not explicitly identify with the experience of wanting to prove people wrong or reacting against becoming what people expected reveals notable differences between this group and the other participants. Two such participants described their experiences of negative messages as occurring only once or for a very brief period during high school and as relatively insignificant. One participant conceptualized her experience as significant and upsetting at the time that it occurred, but also described how the message was highly localized (e.g. came from only one part of her life at only one time-point). She, along with another participant in this group who experienced a negative message only once and from a singular source, made it clear that they did not experience any self-doubt in response to the message, nor did they ever internalize any part of the negative message. The significant differences among the sources, types, and severity of negative messages experienced by participants, as illustrated in the examples above, likely account for the variation seen within the participant group in terms of self-perceived consequences/impacts and significance of the experience.

Summary: Impacts and Consequences of Negative Messages on Participants

Several of the impacts and consequences noted by participants were costs, or negative effects, of facing obstacles and making the choice to be resilient. Even the impacts and consequences that were not inherently negative may have also had associated costs (e.g. changing habits by increasing time spent studying is not a negative thing but may have negative effects, such as straining relations between oneself and friends if those friends are uninterested in also changing their study habits). Understanding the costs is an integral part of designing supportive, comprehensive interventions for youth who are at-risk of not becoming college students. Additionally, considering costs will hopefully encourage social scientists, policy-makers, and service providers to reflect on another side of resilience; resilience is generally described as a strength of individuals and something to be commended. However, this is only part of the story. It is important to be mindful that we are not sending youth the message that it is their responsibility to simply adjust to unjust conditions or unfair distribution of resources. Environments and systems must also change so that youth do not have to face so many obstacles and demonstrate such high levels of resilience in the first place.

Reasons to Defy Messages

Nearly all participants articulated a reason for their defiance, which influenced their decision to not believe the negative message and work to overcome it. Their reasons, or motivators can be broadly categorized as being related to how they view their selves (e.g. possible selves) or how other people view or will view them (e.g. not wanting to let down people who believed in them).

Views of the Self: Positive and Negative Possible Selves

Positive and negative possible selves were nearly equally prevalent and seemingly powerful motivators for participants in the current study. While it was hypothesized that having a positive possible self of being a college student might be important, the positive possible selves explicitly mentioned by participants reflected a desire to become individuals with successful careers and financial independence or wealth. Participants presented as very motivated to become these possible selves. This is concordant with Markus and Nurius's (1986) early theorizing on the concept of possible selves in which they presented possible selves as "incentives" (p. 960), explaining that possible selves can be conceived of as:

> "… cognitive bridges between the present and future, specifying how individuals may change from how they are now to what they will become. When certain current self-conceptions are challenged or supported, it is often the nature of the activated possible selves that determines how the individual feels and what course the subsequent action will take." (p. 961)

Thus, for participants in the current study, the reception of negative messages may have challenged their positive possible selves or supported their negative possible selves, which motivated them into defiance of those negative messages. Interestingly, early research on possible selves only supported the role of positive possible selves as incentives, believing that negative possible selves discouraged people from achieving positive outcomes. They also theorized that possible selves in general would be easily affected by "situations that communicate new or inconsistent information about the self" (Markus & Nurius, 1986); for some participants in the current study, their experience of negative messages was an example of such a situation. However, participants generally maintained their belief in their positive possible selves despite

the messages. Thus, it is worthwhile to consider how these aspirations were able to persist in the face of the negative messages and thus become reasons to defy the messages.

In research on possible selves, Norman and Aron (2003) found that perceived control was the strongest predictor of motivation to achieve a possible self, when compared to the variables of availability (e.g. how easily the outcome can be imagined) and accessibility (how integral a part of one's awareness that the self is). Participants in the current study perceived that they had a significant amount of control over their destinies and achievement, including becoming college students, as evidenced by the high percentage of participants who reported having a strong internal locus of control.

Less is described in the literature regarding motivation to avoid becoming negative possible selves, which was an important part of participants' experiences in the current study. Participants' negative possible selves ranged from being simply the opposite of the positive possible selves (e.g. people in low level/low paying/dead end jobs) to even more unfavorable possibilities such as being homeless, incarcerated, or earning income via illegal activities such as selling drugs or prostitution. Arguably, if one's negative possible selves are linked to such undesirable futures, they may serve as more powerful motivators than one's positive possible selves. However, the current study does not speak to which type of possible self participants' felt were more powerful motivators in their negative message defiance; both types were mentioned by a nearly equal number of participants.

Views of Other People as Motivators

Beyond possible selves, several participants were also motivated to overcome negative messages by four discrete concerns about how other people will view them: not wanting to disappoint or let down the person who believes in you, wanting to serve as a role model for

someone else to go to college, wanting to prove people wrong, and wanting to be viewed as successful. Unlike the finding of possible selves as reasons for defiance, which has been previously studied and supported, the finding of other people as motivators was not part of this study's original theorized model, nor was it noted by participants in Harrington and Boardman's (1997) study. However, the finding is not unexpected given the key role that other people played as facilitators of defiance for participants in the current study, discussed below. For example, if a parent or a friend is central to helping one defy a negative message, it is not hard to imagine that part of one's reason or motivation to defy the message would be to not let down that person or to be viewed by them as successful. From an ecological standpoint, these four reasons point to the role that microsystems of families and peers may play on negative message defiance. These reasons also point out an interesting contradiction. The participants who described these reasons demonstrated a balance of sorts in knowing when caring about what people think can be adaptive (e.g. by providing motivation to defy negative messages), while being able to also ignore and reject what is thought about them by the sources of the negative messages. Another contradiction was evident for the participants who were primarily motivated by wanting to prove people wrong: they were able to discount the negative things these people thought about them, but they valued those people's views enough to want to change them. These reasons for defiance related to other people's views of the participant are somewhat unique findings that should be investigated in future research and replicated before they are considered further.

Summary: Reasons to Defy Negative Messages

The current study enriches our understanding of the power of possible selves as motivational forces to help achieve goals. The negative possible selves described by participants were specific and very real, as they often directly reflected negative fates of family members or

individuals in their neighborhoods. Alternately, positive possible selves represented aspirations of financial and employment-related success that were reflective of more general American dreams, indicating that such possible selves can develop in the face of negative messages and in environments where there may be a paucity of examples of such achievement. Additionally, other reasons for defiance supported the importance of the family and peer microsystems.

Facilitators of Defiance

In the current study, facilitators of defiance were conceptualized as "how" participants were able to become college students in the face of the negative messages they received. Facilitators were supports and resources that originated both within and outside of participants, as well as from all of the different ecological levels hypothesized to be important in this study's theoretical model.

Micro, Meso, and Exosystemic Variables

As previously described, all 14 participants noted the importance of having someone, or multiple people, who believed that they could or should go to college; these people included friends, high school teachers and counselors, coworkers, parents and other family members, neighbors, and themselves. This importance of social support from at least one area in a person's life (e.g. family, friends, teachers, mentors) has been well documented in the resilience literature (Luthar et al., 2000; Masten & Coatsworth, 1998; Werner, 1993) and studies about pathways to college (Eccles et al., 2004). For example, in one study, higher positive maternal educational aspirations for their children reduced the possibility of academic failure by almost 50% in a sample of children at-risk for failure in elementary school due family poverty (DeCivita et. al, 2004). Other research has highlighted the importance of the support provided by peers and adult mentors in community organizations aiming to improve academic performance and college

readiness (Horvat & Lewis, 2003), and university based academic outreach programs (Cooper et al., 2002). In Harrington and Boardman's (1997) study, Pathmakers were more likely than comparison group participants to cite teachers as being important resources growing up and adult female Pathmakers were more likely to note the importance of friendships at work. Additionally, like participants in the current study, many Pathmakers described themselves as key resources. For example, although Pathmakers credited important individuals who supported them, they were more likely to attribute their success to themselves than their counterparts in the study's comparison group. By and large, Pathmakers believed that they could shape their future.

Another microsystemic influence was positive role models, played by parents, other family members, peers, and coworkers of participants in this study. Unlike the individuals described above who believed in participants, but may or may not have themselves attended college, role models had achieved the goal of college attendance and often of subsequent college graduation and career success. Research on role models has shown a number of correlations that may account for the experiences of having and lacking role models described by participants in the current study. Educational expectations have been positively correlated with the number of self-reported role models; notably, educational expectations have also been correlated with neighborhood SES, such that living in a low SES neighborhood may limit access to positive role models, which then limits educational and occupational expectations (Cook et al., 1996). Several participants in the current study described their family members and peers exhibiting this phenomenon. Accordingly, for other participants who grew up in environments characterized by higher family SES, role models tended to come from within their family. For the three participants who did come from lower SES backgrounds but still identified positive role models, one participant found role models among family members of higher SES, one participant found a

role model in her employer who was the CEO of the company, while another participant described her sister, “the only one to go to college and get a good job”, as her role model. The fact that other participants from lower SES backgrounds described the *absence* of positive role models, which will be discussed in more detail in the section addressing barriers to defiance, may be connected to the limited number of role models for college attendance and graduation in their families and neighborhoods. For youth growing up in such environments, involvement in a formal mentoring program or academic enrichment programs may be particularly important; this will be discussed later, as such programs were mentioned by participants in the context of barriers to their defiance.

Finally, a culture of valuing higher education, which reflected a micro, meso, or exosystemic variable for different participants, was also important. For some participants, this culture was transmitted through their family, as when family members maintained a general value of education or when a high percentage of family members attended college. For others, it came through their school environment (e.g. attending a college preparatory high school or having a high percentage of their classmates attending college) or through their town (e.g. perceived broad support of public education and educational achievement). Additionally, a few participants perceived societal “pressure” (as one participant called it) or expectations regarding college attendance, which represents an exosystemic variable. Existing research suggests several mechanisms through which a culture of valuing higher education may support college attendance. In the cases of schools or towns serving as the transmitters of a culture of valuing higher education, these environments may serve as behavior settings; behavior settings have the potential to define what individuals believe to be possible, and may create behavior constraints or opportunities depending on how individuals adapt to the setting (Barker, 1968). According to

Barker, behavior settings may facilitate or inhibit individuals existing within them by establishing interdependent standing patterns of behavior, such as the norm of students in college preparatory or generally academically high achieving secondary schools going on to attend college. It is possible that families and peer groups may also support college attendance in a similar way by establishing college attendance as something normative; for participants in the current study who cited their families or friends as transmitters of a culture valuing higher education, the norm was established through college attendance by family members or friends, or simply through a family member, usually a parent, consistently and tirelessly emphasizing the importance of college. Additionally, 2 participants cited larger systemic transmitters of a culture valuing higher education. For 1 participant, her SES group membership dictated that she attend college; in fact, she had never considered other options. Another participant reported that he felt that "society" places "pressure" on youth to attend college; thus, for him the cultural norm was transmitted broadly through the exosystem of "society". However, it is important to keep in mind that several participants did not perceive society as a whole to necessarily be supportive of their college attendance, as they perceived themselves to be recipients of racist and classist judgments regarding who belongs in college or who will be successful in college.

Individual-Level Variables

This category of variables, noted by all participants, contained 8 discrete subcategories of individual characteristics, as well as a group of individual qualities that were too general to be subcategorized, as detailed in the previous chapter. Spirituality will also be discussed in this section, given that for the one participant who noted it as a facilitator it was described as a personal, individual source of support, rather than part of support received from a faith-based community or from a family in which spirituality was emphasized.

Internal Locus of Control

A sense of having an internal locus of control supporting their ability to become college students in the face of negative messages was mentioned by 71% of participants. This personal quality was hypothesized to be a central part of participants' narratives given its importance in the Pathmakers' study (Harrington & Boardman, 1997) and in studies of resilient children (Luthar, 1991; Werner, 1993). Relative to their comparison group counterparts, Pathmakers were more likely to have a strong internal locus of control and attribute their success to themselves. Like participants in the current study, Pathmakers also attributed their success partly to other people, but even when doing so, tended to highlight their own role above and beyond the support of others. In their interpretation of why Pathmakers were more likely to have a strong internal locus of control, Harrington and Boardman posited that since Pathmakers had fewer external resources than comparison group members, they were more likely to attribute their success to internal variables. Although participants in the current study had a number of external resources, with some participants having significantly more than others, they also had the experience of at least one potential external resource failing them in some way by conveying a negative message rather than encouragement. Thus, participants may have learned from their experience(s) of receiving negative messages that it was adaptive to count on oneself. Accordingly, when giving examples of internal locus of control, participants also frequently mentioned self reliance. Masten and Coatsworth (1998) cited self efficacy as an important individual variable in resilience. Werner (1993) also observed self-help skills as early as the toddler years in children who would later be categorized as resilient.

Determination

In addition to the belief that they could control their own destinies and rely on themselves, several participants also spoke of a strong belief that they could overcome obstacles or of times when they demonstrated determination. Intuitively, one would expect determination to be an integral part of negative prediction defiance and of resilience in general, as it is a quality that facilitates overcoming obstacles. Werner (1993) found determination to be characteristic of resilient children in their adult years. Additionally, Eccles and colleagues (2004) research indicated that 6th graders' determination to attend college and persistence in the face of academic challenges were powerful predictors of later college attendance.

Individual Values of Learning or Education

Individual values of learning and/or college education were important for several participants and sometimes occurred in the absence of higher education being valued in other levels of their ecology (e.g. at home or at school). Notably, research on stereotype threat (Steele, 1997) has suggested that identifying with school, "such that one's self-regard significantly depends on achievement in those domains" (p. 616), may make individuals more vulnerable to stereotype threat in academic domains. However, for participants in the current study, having an individual value of education and learning, as well as positive possible selves contingent on college graduation, was positively associated with defying, not internalizing, negative messages and judgments. Research on pathways to college has corroborated this finding.

For example, sixth graders' higher academic self concepts and levels of certainty regarding attending college have been positively related to both enrollment in college preparatory course in high school and higher overall high school grade point average (Eccles, et al., 2004). In fact, sixth grade certainty of attending college predicted college attendance at age 20 above and

beyond other influential variables such as family demographics and 6th grade GPA. One strength of Eccles and colleagues' study was its longitudinal methodology, which illustrated the time points in students' lives when individual values regarding college attendance developed. The current study did not have this longitudinal advantage; thus it is unclear whether participants' value of education was longstanding. Some participants spontaneously mentioned that they had always liked school or learning, or that they experienced environments in which there was a strong culture of valuing higher education (e.g. their social class, household, or high school), which led them to believe that college was the only path. Eccles and colleagues found that the values of the mother *and* the values of the child were the most important predictors of students' certainty about attending college. It is likely that for some participants in the current study, these two variables of individual values of education and experiencing a cultural value of education were related and that experiencing an environment in which education was valued may have spawned the individual's own value of education. Consistent with an ecological framework of transactional relations among levels (Bronfenbrenner & Morris, 1998), these "individual" values on education may really be internalized versions of cultural values of education that participants' experienced, although none of the participants in the current study explicitly posited such a connection.

Hope

Although only explicitly mentioned by 3 participants (21%), hope is an example of a facilitating individual characteristic that likely had an impact on other categories of variables, such as participants' reasons to defy the negative messages via having hope that one could become or avoid certain possible selves, or participants' responses to negative messages. In the current study, hope and optimism were coded by strict definitions of these concepts, such as a

participant using the word hope or describing how they were able to “see the positives”. However, the literature on hope describes a broader conceptualization that includes motivation to pursue goals, referred to as agency, and strategies to achieve goals, known as pathways (Snyder et al., 2002). By this definition, hope played a role in getting to college for all of the participants in the current study. In Snyder and colleagues study of college students, hope was related to higher GPA’s and better likelihood of graduation. Additionally, past research by Snyder (1996, as cited in Snyder et al., 2002) found that “high hope” students did not become discouraged by information or experiences related to not reaching their goals. This was true for participants in the current study as well. Overall, the findings from Snyder and colleagues’ work suggest that hope is important not only in defying negative messages and getting to college, but in having successful outcomes in college. While the result of attending college was unknown for the majority of participants in the current study, given their status as freshman, sophomores or juniors, 2 participants were seniors who were graduating the semester in which they completed the interview and one participant was returning to school after earning a master’s degree, in order to complete his prerequisites to pursue a Ph.D. in psychology. Additionally, few participants noted having significant academic difficulties in college and none mentioned any thoughts or intention of dropping out or not graduating.

Competitive Nature

Having a competitive nature was noted by several participants (4 or 29%) as an asset that helped them not take in the negative messages they received or that helped them continue on when they were discouraged. Some participants described engaging in benign or positive competition with peers who all hoped to attend college, while other participants felt that they were in competition against people who tried to hold them back. One participant described

simply wanting to be “number one”. While being competitive is not an individual characteristic typically considered in the resilience literature, it may be related to a need for achievement, also called achievement motivation, which has been studied extensively. In Harrington and Boardman’s (1997) study, achievement motivation, operationalized as “striving to meet standards of excellence and welcoming competition with competent others” (p. 155) was high for both the successful Pathmakers and comparison group members. Similarly, in a study of undergraduate college students, “achievement oriented” students were motivated by excelling academically and by performing better than their peers (Komarraju & Karau, 2005).

Pride and Anger

Pride and anger were noted by only a few (2 and 1, respectively) participants as part of their experience. Interestingly, when mentioning both pride and anger, participants noted how both of these variables were related to their self esteem. Self esteem and having a positive self concept have been noted as characteristics of resilient children (Masten & Coatsworth, 1998; Werner, 1993).

Spirituality

Spirituality was cited as a facilitator of defiance by one participant; for her, faith was a personal and private experience, which is why it is included along with the other individual-level variables. A few other participants mentioned their involvement in religious institutions and youth groups, but did not cite this involvement or their faith as part of their experience of overcoming negative messages or as a general source of strength. Harrington and Boardman’s (1997) Pathmakers were more likely than their comparison group counterparts to describe themselves as growing up in religious homes, but the importance of religion in their adult lives varied. Werner (1993) found that relying on faith and prayer were characteristics that

distinguished resilient children in adulthood from their non-resilient counterparts. Thus, although spirituality and religion were not prominent parts of participants' narratives in the current study, other research has supported the importance of these variables.

Overall, individual variables were cited frequently and given prominent roles in participants' explanations of their success, often more so than other types of variables (e.g. family-level or school-level influences). Given that the majority of participants received negative messages from sources outside of themselves, explaining their success with an emphasis on individual-level variables may be somewhat adaptive. However, as was posited in the transactional multi-level ecological model hypothesized in the current study, it is important to keep in mind that individual characteristics do not develop in a vacuum,. Based on the way that participants described their experiences, it is difficult to determine how many of the individual characteristics discussed above were significantly influenced by other people and environments. Still, it is notable that from the perspective of the participants, these characteristics, like the success that they contributed to, were thought to be parts of themselves as individuals, rather than engendered by outside influences. These attributions may reflect participants' experiences of being able to count on other people and their environments only under certain conditions (e.g. other people and environments were both sources of discouragement and encouragement for participants at different times). This focus on individualistic frameworks may also reflect a larger tendency in United States' society.

Summary: Facilitators of Defiance

All ecological levels were present throughout participants' stories of what supported their defiance of the negative messages and helped them become college students. However, meso and exosystemic variables were cited to a lesser degree than was hypothesized in this study's original

model. The individual and microsystemic variables noted by participants were largely consistent with those found to be protective factors in the resilience literature. The current study illustrated the unique ways these variables work to achieve a specific type of resilience, which may help inform interventions aimed at youth who receive academic negative messages.

Barriers to Defiance

Participants described two external barriers to defiance: access to information and needing a role model or a mentor, along with one internal barrier to defiance—self doubt.

Role Models, Mentors, and Access to Information

As previously noted, strengths-based research studies, such as the current one, do not generally elicit information about achievement related difficulties. Consequently, the barriers of lacking role models/mentors or access to needed information often came up in the context of participants explaining what would have helped them avoid some of the struggles they had earlier in their journey to college. These barriers were also mentioned in the context of participants suggestions of what would help youth from similar backgrounds get to college or have an easier time doing so. Research on academic achievement at the high school and college level, particularly with "at-risk" groups such as first generation college students, Latino/a and African American students, and students from impoverished economic backgrounds, has documented the benefits of mentors (Britner, Balcazar, Blechman, Blinn-Pike, & Larose, 2006; Harrington & Boardman, 1997; Pizzolato, 2006). Participation in enrichment programs has also been found to be beneficial, as these programs may provide students with access to information and membership in a community of other students with similar goals (Cooper et al., 2002). Research also suggests that certain groups of college students may be at greater risk of failure due to gaps in information about being successful in a college environment, in particular an environment that

may be culturally different from that of the student in some way. One such study explored whether Black students were more successful at historically Black colleges and universities (HBCUs) than at predominantly White institutions (PWIs), due to hypothesized differences between Black students' and their university's ideas regarding how to be successful in college (Brower & Ketterhagen, 2004). Overall, they found that college students who did not drop out entered college already understanding and mirroring institutional expectations regarding success or significantly adapted their expectations in order to better match those of the institution; for Black students at primarily white institutions, this adaptation was characterized by hard work and struggles to negotiate academic and social demands that were not experienced to the same degree by Blacks at HBCUs nor by Whites at PWIs.

In the current study, participants highlighted several unmet needs they had on their journey to college including mentors in high school, mentors in college, and access to information (either through a mentor or different source) about how to prepare for college in high school, apply for college and choose places to apply, obtain financial aid, be successful in college (e.g. study skills, navigating the university system, choosing classes), and academically prepare for different careers. They also expressed the hope that such resources could be put into place for other students in their position so that others do not have to face the same obstacles that they did.

Self-doubt

Self-doubt was the only internal barrier explicitly mentioned by participants. It was described by participants in two different contexts: as an impact of receiving the negative message, which was described earlier in this chapter and as a barrier to defying the negative message. As barriers, these doubts troubled some participants in high school, but more often were reported as coming up in college, when they had already defied the negative messages that

they would not make it to college, but still faced the pressure of achieving success in college. Consistent with the prominence of self-reliance and internal locus of control previously described, 3 of the 4 participants who described self-doubt as a barrier coped with their doubts individually; only one participant described turning to friends and family for support during the times that she doubted herself.

Summary: Barriers to Defiance

These findings regarding barriers to defiance, along with existing literature in this area, point to the need to provide students with access to information, general assistance, and interventions such as mentoring and enrichment programs in order make the path to college less daunting and to support success in college. Additionally, as previously noted, the existing literature on negative prediction defiance and academic resilience has not focused on variables such as self doubt and other distressing emotions that may be experienced in the process of overcoming negative messages or being resilient. Thus, the current study expands our understanding of the experiences of youth who receive and overcome negative messages about college attendance by highlighting some of the barriers and challenging emotions faced on the path to becoming a college student and achieving success in college.

Differences Among Participants Based on Sex and Race

Differences that occur in research between the sexes or among different racial groups should never be interpreted as indicative of a universal group experience (e.g. all women or all African Americans have the same experience, behaving the same way, etc.) Rather, there is often as much if not more heterogeneity within groups as between groups. However, acknowledging that existing power structures create differential access to resources for groups based on sex

and/or race, it is important to examine ways that people's life experiences are influenced by their demographic group membership.

Given the differences between the experiences of men and women found by Harrington and Boardman (1997), the current study was designed to recruit equal numbers of men and women so that even within the small sample, sex differences may have the opportunity to emerge. As mentioned in the previous chapter, sex differences emerged within 5 of the 6 major categories: perceived influences on sources, reasons to defy negative messages, facilitators of defiance, impacts and consequences of negative messages, and barriers to defiance. However, it is important to consider that these differences may not be a pure reflection of variance related to sex. Each participant also came from a particular racial and socio-economic background and these demographics were not evenly distributed between male and female participants. Four of the 7 male participants identified as "Caucasian" or "White" and these participants were also more likely to come from higher SES backgrounds. On the other hand, all 7 female participants were members of a racial minority group and most fell into a lower SES group. Extant research suggests complicated relations between and among gender, race/ethnicity and class that discourage simplistic interpretations of experiences based solely on gender (Crawford & Unger, 2004). With this in mind, male and female participants did differ on some variables that may be related to sex.

Regarding reasons for defiance, more females than males identified reasons having to do with other people, positive possible selves, and specific negative possible selves (males were more likely to note generic negative possible selves). Females were also more likely to report an impact or consequence of receiving the negative message and more females identified the following impacts/consequences: self doubt/anxiety/fear, anger, wanted to prove people wrong.

On the other hand, males identified changing habits, strategies, and behaviors more than females did. This difference may reflect gendered socialization processes in which females are socialized to possess expressive traits, while males are socialized to possess instrumental traits (Crawford & Unger, 2004). Finally, females reported experiencing all types of barriers to defiance more than males. Harrington and Boardman (1997) found that male Pathmakers more strongly emphasized external contributions to their success than female Pathmakers (when these attributions occurred in a group characterized by their internal locus of control). The authors posited that this may be because male Pathmakers generally experienced less support and resources than females, which is somewhat consistent with female participants in the current study reporting more barriers to defiance. While the sex differences that emerged from participants' narratives should be interpreted with caution given the small sample size and the preliminary, explorative nature of the current study, it is important to consider sex differences in our studies of academic resiliency. As long as the forces of gender, race, and class inequality play a role in organizing society by creating hierarchies and influencing challenges and resources, these variables must be included in the study and conceptualization of how individuals thrive (Blankenship, 1998).

Due to the overall small sample size, the current study was not designed to be stratified by race or ethnicity, nor did it set out to examine differences among narratives based on participants' race or ethnicity. However, some differences did emerge that are particularly notable in light of the research literature on the influence of ethnicity and culture on academic achievement. As previously noted, half of the participants in this study identified as "Black" or "African American", 4 participants identified as "White" or "Caucasian", 2 participants were Asian American—identifying as "Indo-American" and "Vietnamese", and 1 participant identified as "Hispanic". Neither the Vietnamese participant nor any of the White/Caucasian participants

described their race or ethnicity as having a role in their experience of receiving negative messages or becoming college students.

Past research has suggested that strong identification with one's ethnic group is positively related to liking school, finding school interesting, and believing that school is important and valuable for one's future (Fuligni, Witkow, & Garcia, 2005). This seemed to be true for only two participants in the current study, an Indo-American female and a Columbian female immigrant. Both of these women described being members of their racial or ethnic groups as related to expectations of high educational and career achievement. On the other hand, some of the participants identifying as African American or Black felt that by affiliating with their racial group, they would be limited in their academic and career achievement due to the internalization and maintenance of negative stereotypes by other members of their racial group. Consequently, some participants felt pressure to distance themselves from same-race peer groups or from family members, or to hide their aspirations or goal-directed behavior from them. However, other African American and Black participants did not report such pressures or issues. This finding is consistent with the existing research that points out the complex, neither "all good" nor "all bad" nature of the relationships that high achieving youth from ethnic minority groups have with their own ethnic identity, families, peers, and communities (Cooper, et al., 2002; Horvat & Lewis, 2003; Pizzolato, 2006).

Overall, some differences between male and female participants were found in reasons for defiance, impacts or consequences of receiving the negative message, and barriers to defiance; these variations reflected sex differences noted by Harrington and Boardman (1997) as well as existing literature regarding gender socialization (Crawford & Unger, 2004). Looking at differences among the experiences of participants from different racial groups revealed that race

did influence almost all of the participants' experiences of negative messages or their journey to become college students, with the exception of the White/Caucasian participants and the Vietnamese participant. Additionally, findings regarding identification with one's ethnic group were concordant with existing literature that highlights the complex relations among identification, maintaining connection to family and community, and academic achievement for youth who are members of an ethnic minority group.

Limitations of the Study

The current study has several limitations that should be noted as they provide some of the context in which the findings must be interpreted. First, this study was purposely designed to be preliminary and exploratory in nature. It is the first study to look broadly at academic negative prediction defiance in a group of college students. The interview questions were extremely broad and the prompts were limited in the hope that the stories that participants told would contain the details that they believed to be important in their experiences. In any preliminary and exploratory research study, findings may be varied and difficult to generalize. Regarding the participant group, this was a relatively small (although appropriate for a qualitative study), self-selected group, so results may not be generalizeable to other people who have had these experiences. Participants already recognized that they had the experience in order to self select, which may indicate something unique about their level of insight or attunement to their experiences, or the way they viewed their experiences (e.g. they recognized/framed the messages they received as negative). Additionally, most participants described growing up in the southern United States, where they were also attending college, although a few participants described growing up in the Midwestern United States or frequently moving around as children. Still, the group in no way represents a national sample and their experiences may or may not be similar to those of youth

living in other parts of the United States or the world. However, it is also important to consider that in grounded theory research "Sampling [is] aimed toward theory construction, not… population representativeness" (Charmaz, 2006, p. 6).

This study relied only on one source of data, participants themselves. Given that this was a study about achievement in the face of negative messages, one limitation of the project was that it had no external sources to quantify the level of participants' achievement or success. While it is known that all participants achieved the goal of becoming college students, having information about their success and achievements since attending college would have strengthened this study. Some of this information emerged spontaneously in the course of the interviews, such as when participants mentioned that they were graduating that semester or had already earned one college degree. Future research in this area should collect information about participants' achievements in college both from participants and from external sources such as transcripts. It is particularly important to account for these variables in light of existing research, discussed later in this chapter, that suggests the continued influence of negative messages and stereotypes on students throughout college

This was a mostly retrospective study in that most participants were reflecting on experiences that occurred in middle school and high school, although some were also describing how these earlier experiences of negative messages influenced them in the present (during college). Although for most participants, the time period that they were describing was generally in the last 6-8 years (less for the Freshmen participants), memory is fallible. Participants were likely at a different developmental point or stage at the time of the interview than they were in high school and certainly than they were in middle school; with development, the meaning of their experience may have changed. Yet hearing how they constructed the story now and how

they interpreted their ability to become college students is valuable in and of itself as it provides us insight into their self concepts, attributional styles, and coping styles. From a constructivist perspective, reality and truth are continuously changing and multiple realities and truths exist (Denzin & Lincoln, 1998; Streubert & Carpenter, 1999).

Regarding the coding, reliability estimates were only done for a percentage of the sample. However, given that saturation appeared to be reached (e.g. there was considerable overlap among the variables identified in participants' narratives), there is evidence of reliability within the participant group. Additionally, many of the concepts/constructs in the coding scheme were validated by their occurrence in the existing body of literature.

Another issue that impacted the coding, as well as other parts of the study (e.g. interview prompts and overall interpretation of the data), was the process in which the literature review and corresponding hypothesized ecological model were constructed. In order to conform to the expected standards of a dissertation proposal, the researcher conducted a thorough literature review and created a hypothesized ecological model prior to data collection. However, this process directly contradicted traditional grounded theory methodology, which dictates that the literature be reviewed after data has been collected, analyzed, and interpreted so that the researcher will not be influenced by the existing literature during their study (Charmaz, 2006). Rather, according to grounded theory methodology, the researcher should be guided by the data and the participant's experience at every stage of the research process (e.g. data collection, coding, theory development). Other grounded theory researchers have argued that since it is impossible to approach any study without some bias, extant literature may be considered earlier in a grounded theory study, so long as it is approached from a "critical stance" (Charmaz, 2006, p. 166). In the current study, the existing literature influenced this researcher in several ways.

First, the prompts used in the interviews were based on the hypothesized multi-level ecological model, which was developed from existing literature. Second, the researcher's exposure to existing literature may have influenced the development of the coding scheme. Although the researcher made every effort to develop the theory from the data, without regard for the existing literature and theories, it is important to consider ways that conducting a thorough literature review may have influenced the subsequent data collection and analysis processes.

Finally, in their article addressing inconsistencies within and criticisms of the resilience literature, Luthar and colleagues (2000) described issues that were present in the current study. Participants self-selected and were not subjected to inclusion or exclusion criteria beyond their own identification of having had the experience of receiving the negative message; thus their experiences were extremely heterogeneous and did not adhere to a single set of defining criteria. Luthar and colleagues noted that this issue occurs throughout the study of resilience, in which there are varying ways of operationalizing adversity and competence, conceptualizing resilience (e.g. resilience as a personal trait or a dynamic process), and defining risk and protective factors. In the current study, participants defined all of the above based on their subjective experiences; no "objective" standards of risk were applied, and the standard of competence was simply attending college. Another issue in the study of resilience is ontogenetic instability; research studies offer snapshots of participants' functioning at one or more time points and thus lack the capability of illustrating whether positive adaptations are maintained in the long term (Luthar et al., 2000). This issue further supports the need for longitudinal research in the area of negative prediction defiance, which will be further discussed in the next section.

As described above, the current study had a number of methodological limitations that detract from the generalizeability of the findings. Findings also lack some conceptual clarity

given the relatively open inclusion criteria for the study. However, overall, the methodological choices made in the current project supported the exploratory qualities deemed to be important in a grounded theory study of a phenomenon that has received little attention in the existing literature.

Directions for Future Research

While exploratory, qualitative methodology was appropriate given the preliminary nature of the current study, future research in the area of academic negative prediction defiance calls for larger, mixed methods studies. The *Journal of Social Issues* recently released a special issue focusing on "unexpected educational pathways" (Volume 64, 2008); the studies included in this issue looked at the experiences of youth in the United States, Canada, and Europe who either did not achieve the educational success that they were expected to achieve, or who achieved a higher level of success than would have been predicted. Notably, only one study in the issue took a mixed-methods approach and no studies used qualitative methodology. In his commentary on the issue, Bynner noted a "… pressing need to work with personal accounts and introspection as a complement to, rather than as an alternative to, statistical modeling" (2008, p. 221). Future research should also include studies with a multiple-group design. For example, a multiple-group study with a group of college students who did not receive negative messages about college attendance, a group of non-college students who received negative messages and did not go on to attend college, and a group comparable to participants in the current study would allow for rich comparisons among the findings that would greatly expand our understanding of this phenomenon. Such a multiple group study would shed light on what variables are unique to the experience of negative prediction defiance or are part of the shared experience among people

who become college students, as well as what barriers or challenges prevent defiance and support internalization and belief of negative messages.

Additionally, Luthar and colleagues (2000) noted that one area lacking in resilience research is an exploration of the processes at work beneath protective and risk factors. Information about these processes did not explicitly emerge from participants' accounts in the current study. Rather, participants identified specific facilitators and barriers in negative prediction defiance. Thus, future research should include questions that encourage participants to go one step further and reflect on the variables that support or block the emergence of risk and protective factors. Examining these underlying processes is necessary to inform the development of programs designed to support students who encounter negative messages on their journey to becoming college students; it is not enough to understand *what* supports them, we must understand what conditions foster these supports.

Furthermore, in her commentary on the recent *Journal of Social Issues* special issue on unexpected educational pathways, Eccles (2008) noted that among the several longitudinal studies featured in the issue, there were few cases of youth who were able to move to and stay on successful educational pathways if they began on a "problematic trajectory" (p. 230). She asserted that this finding is consistent with previous literature in academic achievement in which youth find it difficult to maintain positive gains over time as they continue with their education. This issue points to the need for longitudinal research in the area of academic negative prediction defiance. The current study offered a snapshot of participants' resilient functioning at one point during their college careers. For some participants, this snapshot suggested that they were able to successfully maintain their success (e.g. when participants were about to graduate, had been accepted to graduate school, or had already earned one college degree). For others, particularly

the freshman students, it is unclear whether they will be able to maintain their success, especially given that some of them noted that they continued to face barriers, challenges, and negative messages. Another benefit of longitudinal research is that it gives researchers the opportunity to explore whether negative messages received about becoming a college student somehow persist and continue to pose challenges to students once they are in college. The experiences of a few participants in the current study suggest that the negative messages do persist even after beginning college. Research on experiences of stigma among African American and Latino/a college students has found that negative stereotypes regarding educational achievement, based on students' racial group membership, occur during the college years (Pinel, Warner, & Chua, 2005); this finding also supports the need for longitudinal research that follows students who receive negative messages from middle or high school throughout college. In fact, researchers studying college drop-out rates, particularly among African American and Latino/a students, have posited that the experience of stigmatization or being stereotyped is related to the elevated rates of not finishing college for these groups (Brower & Ketterhagen, 2004; Steele, 1997). In the same way, continuing to receive or experience effects of negative messages in college may be related to negative academic outcomes.

The current study was based on a multi-level ecological model. Participants cited variables from all levels of their ecologies that played a part in their experience of receiving negative messages and becoming college students. Notably, when describing barriers to their defiance or when more generally describing conditions of their schools and neighborhoods, they noted gaps in resources in their environments that made it more difficult to be academically successful. As previously discussed, this finding speaks to the importance of interventions targeting not just individuals, but their environments. If ecological, contextual models are not

used in future research in resilience and negative prediction defiance, the field runs the risk of promoting individual adaptation to unjust circumstances and environments.

Overall, findings from the current study, as well as the extant research in resilience, academic expectations, and educational pathways, suggest several directions for future research. Methodologically, future research should use mixed methods, keeping in mind that a greater emphasis on qualitative data may also be needed as this area is currently lacking in the educational pathways literature. Longitudinal research and studies that take a multi-level ecological approach will also strengthen our understanding of academic negative prediction defiance.

Implications for Individuals and Systems Serving Youth

Although the current study represents a preliminary look at the phenomenon of academic negative prediction defiance, several implications for individuals and systems working with youth emerged from participants' narratives. Future research in the area will determine whether policy and programmatic changes are called for based on these preliminary findings. The open-ended interviewing strategy used in the current study recognizes participants as the experts regarding their own experiences. Accordingly, the following implications for intervention with at-risk youth emerged directly from this study's participants.

As previously described, several participants described the need for mentors, role models, and access to information about myriad aspects of getting to and being successful in college; they acknowledged this need both for themselves at earlier points in their development and for youth in positions similar to theirs. Their needs and ideas ranged from being basic and general to being more elaborate and structured. One participant expressed an unmet need, also noted by several others, of how helpful it would have been to simply be able to meet and talk with someone from

his neighborhood who had finished college or someone who was pursuing career options that he was interested in.

> I wish I kind of was more directed… if I had some direction at that time, I wouldn't have had to go through those obstacles. Even if I could see somebody who experienced it and talk to him, I just couldn't even see anybody.

To address this need, other participants suggested that college students or recent college graduates be brought into high schools in order to encourage and educate high school students about going to college. Also in regard to role models and mentors, some participants (not surprisingly the ones who heard negative messages from teachers) felt that teachers should be more actively involved with motivating and supporting students regarding college attendance, or at the very least they should not be apathetic or discouraging. One participant described this situation as it occurred with her high school teachers saying:

> It's not that they [the teachers] weren't positive, I guess it's just they didn't have as big of an influence or they didn't try to motivate kids, they were just there to do a job and that's all they did. They didn't go the extra mile to let kids know they were there or if they needed extra help, they didn't do stuff like that.

Regarding access to information in high school, 3 participants called for good quality career counseling in high school, explaining that they had not known how to choose a career, how to find out what is required in high school and college to pursue a career, and what to expect after graduating college in terms of job options based on their field of study. In terms of other services specifically needed in high school, participants spoke of lacking access to such important information as what to do in high school to have a competitive college application (beyond good grades), preparing for college entrance exams, writing application essays, and

applying for financial aid. Two participants acknowledged that it would be difficult for high schools to provide this information to all of the students who needed it. Accordingly, they suggested that community organizations, such as churches, partner with schools to provide high school students with some of the support and access to information that they need to get to college. One participant also specified the timing of when this information should be available to high school students; she advocated for this information to begin being disseminated to students at the start of their freshman year. In other words, she was suggesting that her high school (and all high schools) create a culture of valuing higher education. Other participants suggested that information about going to college be provided to students beginning in their junior year of high school. However, from a prevention standpoint, the former participant's suggestion would be better. In addition to support from teachers, counselors, and school administrators, one participant proposed that high school student groups be formed made up of individuals who plan to go to college. This participant recognized the importance of building and utilizing peer support and of drawing resources from multiple contexts. In a way, what all of these participants were calling for was the building of resources and a culture of valuing higher education within their schools and their communities. Notably, for the participants who did experience an environment in which there was such a culture, this was cited as a facilitator of their defiance. As previously discussed, it is important for future interventions to focus on developing resources in environments, and not just on helping individuals adjust to and thrive in environments marked by inequities.

As previously noted, many participants described continued difficulties achieving academic success once they got to college. Although this was not coded in the data, several participants noted feeling unprepared for college-level academics based on deficits in the quality

of their high school education. These participants highlighted the importance, both for themselves and for future college students from high schools like theirs, of receiving help in college to fill gaps in study skills and basic academic skills. One participant recommended that students in need have a one-on-one mentor in the first semester of college, describing the group orientation sessions offered by universities as inadequate for many students who need more individualized attention. However, she recognized that this may be a difficult service for some universities to provide, based on the number of students who may need a mentor. So, she suggested that churches and other community agencies also provide mentors to new college students.

Overall, participants in the current study suggested intervention development targeting gaps in resources that they believe can best be filled by mentors, role models, and readily accessible information about becoming college students, as well as being successful in college. Some participants focused on the importance of creating environments for students (e.g. schools and neighborhoods) that are more generally supportive of college education, while other participants described how they benefited from such environments.

Conclusions

This study collected the stories of fourteen college students who had at least one experience of receiving a negative message about their ability to attend college or be successful in college, or the likelihood that they would have the opportunity to attend college. In the face of these negative messages, the participants did not back down. They overcame obstacles and doubts of varying difficulty and magnitude and became college students. This achievement, termed negative prediction defiance or pathmaking by Harrington and Boardman (1997), represents a form of resilience. For many participants, their achievement was also an exercise in

resistance. In their narratives, participants described the sources of the negative messages and what they saw as the influences on or foundations of these messages, for example racism, classism, or judgments made by others about their intelligence. Participants also described the process of becoming a college student, which was the act that defied the negative predictions that they received. Three main elements of this process emerged from their narratives: reasons and motivations to become a college student, facilitators or supports of their getting to college, and barriers to achieving their goals. Although participants represented a heterogeneous group in terms of their demographic backgrounds and types of negative messages received, their process of defying the negative messages had many shared qualities. For example, 12 out of 14 participants cited a negative and/or positive possible self as a reason that they worked to defy the negative message they received. In terms of facilitators of defiance, all participants noted at least one individual characteristic and described the importance of having someone who believed that they could or should go to college. The majority of participants also described feeling supported by being part of a culture of valuing higher education and by having positive role models. By gaining a better understanding of the sources of negative messages faced by students and the process of resisting these messages, we can improve our understanding of how to support students in the years preceding college so that their roads to college will be easier, because, as one participant said, “I think this research is necessary so we can educate kids about the obstacles, maybe they don’t have to face all the ones I did, but just to encourage them to keep going.”

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APPENDIX A: DEMOGRAPHIC QUESTIONNAIRE

Please complete the following data sheet:

Race: _____

Sex: Male ☐

Female ☐

Other: _____

What is your mother's highest level of education? _____

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

On average when you were growing up, how much money would you say was earned in your household each year? _____

APPENDIX B: INFORMED CONSENT DOCUMENT

Georgia State University
Department of Psychology
Informed Consent

Title: Exploring negative messages about attending college
Principal Investigator: Marci Culley, Ph.D.
Student Principal Investigator: Kelly Maltese, M.A.

1. Purpose:

You are invited to participate in a research study. The purpose of the study is to investigate how you came to be a college student in the face of negative messages you received growing up about your potential to attend college or how likely it was that you would go to college. You are invited to participate because you identified yourself as someone who experienced these negative messages at some point in your life. A total of 14 participants will be recruited for this study. Participation will require approximately 1 and a half hours of your time and you will only be asked to attend one interview.

2. Procedures:

If you decide to participate, you will be interviewed by the Student Principal Investigator in a private room within the Georgia State Psychology Clinic. Your interview will be audiotaped. You will also be asked to fill out a demographics sheet that will not include your name or other identifying information. This demographics sheet will be used as background information for your interview. All of this will take place in one session. After completing the interview and demographics sheet, you will receive 2 hours of research participation credit toward your psychology course for which you are completing this research.

3. Risks:

In this study, you will probably not have any more risks than you would in a normal day of life. However, you may feel some negative emotions when recalling negative messages you received about attending college. If you do feel any negative emotions that are overwhelming, you will be given contact information for the counseling center (free for students) in case you want to talk to a counselor. Also, you can stop participating in the study at any time if you are feeling uncomfortable and do not want to participate anymore.

4. Benefits:

Participation in this study may benefit you personally. Some people get a positive feeling of having their experience valued when they participate in interviews. Also, learning about your experience may eventually help us develop programs that will do a better job

APPENDIX B: INFORMED CONSENT DOCUMENT
(continued)

of supporting children and adolescents who received negative messages, like you did, so that they will be more likely to attend college.

5. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You have the right not to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

6. Confidentiality:

We will keep your records private to the extent allowed by law. We will use a study number rather than your name on study records. Only the people working on this study will have access to the information you provide and there will be no way to match your name with your interview or demographic sheet. Your interview tapes and demographic sheets will be stored in a locked file cabinet in a private office. When we are done transcribing your interview, your tapes will be destroyed. When the information from your demographic sheets has been put in a computer, these forms will be destroyed too. After your interview data is typed into the computer, it will be protected with a password. You will not be identified personally and your name and other facts that might point to you will not appear when we present this study or publish its results.

7. Contact Persons:

Call Kelly Maltese at 404-651-0576 or e-mail her at psyklmx@langate.gsu.edu if you have questions about this study. You may also call Dr. Marci Culley at 404-651-1607 or e-mail her at mculley@gsu.edu with questions. If you have questions or concerns about your rights as a participant in this research study, you may contact Susan Vogtner in the Office of Research Integrity at 404-463-0674 or svogtner1@gsu.edu.

8. Copy of Consent Form to Participant:
We will give you a copy of this consent form to keep.
If you are willing to volunteer for this research, please sign below.

_____ _____
Participant Date

_____ _____
Principal Investigator or Researcher Obtaining Consent Date

APPENDIX C: MAJOR THEMATIC CATEGORIES, MINOR THEMATIC CATEGORIES, AND CODED SUBCATEGORIES

(Major categories appear in bold text, minor categories are italicized and underlined, and coded subcategories within minor categories are italicized in this appendix and throughout the document text)

1. Sources of negative predictions/negative messages

- *a.* *Other People*
- *b.* *Self*
- *c.* *Environment (e.g. town or neighborhood)*

2. Perceived influences on sources

- *a.* *Immigration policies*
- *b.* *Racism*
- *c.* *Classism*
- *d.* *Culture*
- *e.* *Participant's pre-college academic success*
- *f.* *Perceptions of participant's intelligence*
- *g.* *Other factor*

3. Reasons to defy negative predictions/negative messages (why [for who or for what purpose])

- *a.* *Not wanting to disappoint or let down the person who believes in you*
- *b.* *Wanting to prove people wrong and desire for "revenge"*
- *c.* *Wanting to serve as a role model for someone else to go to college*
- *d.* *Wanting to be viewed by others as successful*
- *e.* *Positive possible selves*
  - *i.* *Career aspirations*
  - *ii.* *Financial security/financial independence/wealth*

APPENDIX C: MAJOR THEMATIC CATEGORIES, MINOR THEMATIC CATEGORIES, AND CODED SUBCATEGORIES
(continued)

3. Reasons to defy negative predictions/negative messages (why [for who or for what purpose]) (continued)

f. *Negative possible selves*

i. *People in low level/low paying/dead-end jobs*

ii. *Homeless*

iii. *Incarcerated or earning income via illegal activity*

iv. *Unspecified economic negative possible selves*

4. Facilitators of defiance (how)

a. *Culture of valuing higher education*

b. *Positive role models*

c. *People who believe that you can or should go to college (generic "support system", encouragement)*

d. *Individual characteristics*

i. *Internal locus of control*

ii. *Determination, belief that they could overcome obstacles, "drive"*

iii. *Hope and optimism*

iv. *Pride (don't let people see you down, show people you can succeed)*

v. *Self-Reliance/Don't listen to what people say*

vi. *Competitive Spirit*

vii. *Anger at sources of negative messages*

viii. *Individual values of learning and/or college education*

e. *Spirituality*

APPENDIX C: MAJOR THEMATIC CATEGORIES, MINOR THEMATIC CATEGORIES, AND CODED SUBCATEGORIES
(continued)

5. Self-perceived impact or consequences of negative messages on participants

a. *Self-doubt; anxiety; fear*

b. *Anger*

c. *Hurt/pain*

d. *Wanted to prove people wrong; reacted against becoming what people expected*

e. *Isolated or separated from source of negative message; hid goals and aspirations from source(s)*

f. *Attempted to increase sources of positive messages in their life*

g. *Changed habits, strategies, behaviors*

h. *No impact or consequences identified; nature of impact or consequences is unclear*

6. Barriers to defiance/What would have helped earlier in life

a. *Access to information*

b. *Needed a role model or mentor*

c. *Self doubt; times/moments that participant believed the negative message(s)*