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Self-Esteem, Self-Efficacy and Gender in Social Class Reproduction

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SELF-ESTEEM, SELF-EFFICACY AND GENDER
IN SOCIAL CLASS REPRODUCTION

by

Spencer Lyle James

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the following graduate committee
and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the thesis of Spencer Lyle James in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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Abstract

The observation that middle class parents tend to have middle class children is rather obvious. Why this is so has been the subject of less research than the fact that it is so. Using the National Survey of Families and Households (NSFH), I employ theories about social class reproduction to examine and evaluate a model that scrutinizes the influence of self-efficacy and self-esteem on college completion or current enrollment and investigate gender differences. I find that self-esteem and self-efficacy play a vital role in social class outcomes. However, I find no evidence of gender differences in the social class reproduction process. Implications for these findings are discussed and directions for future research are briefly outlined. Particular attention is paid to the importance of the social class reproduction framework and the role that children, combined with parents, play in the process of social class reproduction.

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Introduction

The observation that middle class parents tend to have middle class children¹ is rather obvious. Why this is so has been the subject of less research than the fact that it is so. That children tend to occupy similar social spaces as their parents, in light of parent's varying socioeconomic resources and capital, has been demonstrated repeatedly (Lareau 2003; Bowles and Gintis 1976; Willis 1977) and scholars have attributed substantial patterns of social immobility in the United States, Europe and Canada largely to such parental characteristics and attitudes (Colclough and Beck 1986; Erickson 1992; Nakhaie 1996; Maxwell 1995). More recent research on social class reproduction has focused on the effect children can have on their own eventual social class outcomes, net of parental characteristics and attitudes. This research has come from many fronts, with social theorists investigating the way general notions of agency play into social class outcomes (Bandura 2001), qualitative researchers examining the role of child motivation (Chin 2004; Devine 2004; Kaufman 2005), and quantitative work focusing on self-efficacy and self-esteem (Bush 2000; Prelow, Weaver, and Swenson 2006), generally within the context of the education system. The quantitative work emphasizing self-efficacy and self-esteem, however, has not interpreted results using a social class reproduction framework, nor have possible gender differences been explored within this framework. To be succinct, parents do certain things that help their kids improve their life chances, though children still make their own choices and draw their own conclusions. My aim in this paper is to evaluate a model that scrutinizes the influence of self-efficacy and self-

¹ Although developmental psychology and other specialty fields use the terms 'adolescent' and 'child' to refer to different age groups, I will herein use the term 'children' to denote all offspring, unless referencing a specific article employing different terms. Child refers to both an age, as in developmental psychology, and a reference to a family relationship. As such, I feel it is the best term to employ when discussing the broad age range in the data utilized here.

esteem on college enrollment and college completion, investigates gender differences, and interprets results in a social class reproduction framework, within the family environment. By doing this, I hope to shed light on the way that different children influence their own social class reproduction while accounting for parental behaviors and beliefs.

Much research on middle class reproduction has been qualitative and thus unable to make use of representative samples and quantitative methodologies. My first goal is to develop and test a quantitative social class reproduction model that maps the importance of self-efficacy and self-esteem. Additionally, while there is some indication that gender may affect a child's social reproduction process, there is no systematic research examining this possibility using a representative sample. My second goal is to examine how the gender of the child affects middle class reproduction practices using quantitative methodologies with a nationally representative sample from the National Survey of Families and Households (NSFH).

For the purposes of this paper, I use college completion or current enrollment as an indicator of achieving middle class status, due to the role a college degree plays in future occupational and financial prospects. I also define self-esteem and self-efficacy using measures from Pearlin (1981).

Social Class Reproduction and Education

How do families, particularly parents, equip their children with the tools (such as education, networking, and communications skills, etc.) which, when coupled with individual effort, make social class reproduction possible (see Bowles and Gintis 1976;

Lareau 2003; and Chin and Phillips 2004 for examples)? This question, posed in a variety of ways, is at the base of social class reproduction scholarship. My focus in this article is on the middle class, though social class reproduction obviously occurs at all levels of social and economic stratification.

Some scholars, particularly Marxist ones, have historically considered the middle class a transitional grouping, a residual category of people awaiting proletarianization (Braverman 1974; Marx [1852] 1963; Archer and Blau 1993). As a result, researchers have focused comparatively little attention on the middle class (Lareau 2000b). In practice, however, middle class Americans have long been called the backbone of American society, responsible for everything from the advent of suburbs to the structure of the education system (Blumin 1989; Dobbs 2006). In recent years, however, the middle class has begun to decline, in both economic and social importance (Ehrenreich 1990). Education, essential to middle class status, is more important today than in the past. The growing income disparity between those with a high school and college education renders salient the ways middle class parents and children take advantage of the education system, particularly since a college degree is so important to maintaining social class positioning (Krueger 2003:4).

Consequently, those once considered solidly in the American middle-class are increasingly expressing concerns of “falling” from its ranks as they experience declines in real wages and job security (Ehrenreich 2001 1990; Dudley 1994; Newman 1989; Nelson 1999). This shift has also spawned a dramatic increase in the number of dual-career families, especially since the 1980s (Hochschild 2000; Neumark & Postlewaite 1998). Unfortunately, many families are finding that even two incomes are not enough to

keep pace with increased costs of living (Warren and Tyagi 2003).

Our understanding of how families cope with shifting economic, political and social values is informed by social reproduction theory, which rejects the premise of widespread mobility and instead seeks to explain the intergenerational persistence of social class positions (Althusser 1972; Bourdieu and Passeron 1990; Bowles and Gintis 1976; Willis 1977), often using families as the de facto unit of analysis. Reproduction theory, using educational outcomes as primary variables of interest, draws on two primary theoretical literatures: the liberal-pluralist tradition based on the works of Herbert Spencer and Talcott Parsons, and the Marxist tradition.

The liberal-pluralist, sometimes called post-industrial, tradition argues that advanced industrialization allows for greater flexibility in the class structure, which promotes greater amounts of inter- and intra-generational mobility. Increased educational opportunities tied to declining import on ascriptive statuses facilitate this process (Blau and Duncan 1967:495-6), making possible the flow of people up the social ladder, particularly for the middle class. Parsons (1951) developed the dichotomy between achievement and ascription, arguing that achieved characteristics predominate ascribed ones. Performance matters less than personal characteristics; the value of work is universal, regardless of family background. Marxists, on the other hand, view the middle class as a 'residual' social category, a transitional category between small capitalism and the proletarianization of labor. The middle class, in other words, do not figure significantly in the communist revolution, beyond their eventual descent to the ranks of the proletariat, since they neither own the means of production nor suffer exploitation to the same extent as the proletariat.

Both sides agree that universal criteria replaced particularistic ones, where one's personal achievements matter more than family or social background. Neo-Marxists, however, point out that these newfound achieved characteristics, such as educational attainment, are themselves class-based and are quick to add that members of different classes achieve differently on this universal scale. Bowles and Gintis (1976) and Kohn and Schooler (1983), for example, find that childrearing differences follow from differential occupational demands and cultures and the differential access to resources of higher and lower SES parents. Parental occupational demands and culture structure the childrearing practices of parents (Lareau 2003; Chin and Phillips 2004). Professional and managerial occupations emphasize autonomy and creativity while lower status occupations emphasize conformity and obedience to authority. Large differences in academic success among children of different SES levels are no surprise, since many skills valued by the education system are promoted, enhanced and reinforced by middle class parenting styles. Bourdieu (1994) argues that educational capital is therefore essentially credentialed 'cultural capital' and that the education system credentials the advantaged children's habitus by emphasizing values and structures that favor middle class families and children, although the extent to which this is the case should be up to debate due to the middle class' struggles in recent times (Ehrenreich 1990).

Parents' educational attainment, class location, and parenting style play a critical role in education and eventual social class outcomes for the child. All of these exert an influence before the child ever enters school. For example, Hart and Risley (1995), in their seminal study of the differential developmental experiences of children, found that better-educated parents speak far more words and use a much larger and richer

vocabulary than less-well educated parents. Similarly, Bernstein (1975) found that middle class parents use more complex vocabulary, sentence structure and abstract concepts than lower class parents. As a result, by age 3, large SES differences have already emerged in the children's vocabularies and higher SES parents have spoken twice as many words to their children. This gap continues to grow during ages four and five and remains stable through age 13, producing a large gap in oral language vocabulary as children begin and proceed through school (Farkas and Beron 2004). Linguistic ability mediates the relationship between SES background and children's success in reading and math (Durham, Farkas, Hammer and Catts forthcoming). Social origins do substantially influence patterns of educational choice and attainment (Nakhaie 2000).

Although these differences are pervasive, children can choose to accept, reject or utilize advantages given them, and we can thus expect differences between children who choose to accept or reject advantages given them, even when coming from similar social backgrounds. For example, among elementary-aged children, motivated middle class children capitalize on the advantages provided them while motivated working and lower class children use their social capital, effort, and imaginations to substitute for their parent's lack of resources (Chin and Phillips 2004), though has by no means leveled the playing field. Among college-age students, Kaufman (2005) found that available parental resources influenced career choices. Some students availed themselves of the opportunity to pursue their dreams, knowing parental resources would always be sufficient. Others felt obligated to stress self-sufficiency. For both groups, however, what they were going to make of the parental resources at their disposal was up to them, a key point to keep in mind as we discuss the role of agency later on.

Given the evidence, it is not surprising that family structure and parental education exert the largest effects on children's school engagement (Farkas forthcoming). Early childhood developmental advantages, fueled by differences in socioeconomic status, facilitate educational advantages that, in turn, reinforce class advantage and assist in class reproduction (Colclough and Beck 1986; Maxwell and Maxwell 1995; Berman 1979; Lutkens 1959; Riegel 1988).

Through the choice of curriculum, pedagogical methods, the relationship between teacher and students, and the methods of selection—all of which gave the children of the economically privileged and well educated an advantage over the children of the less privileged and less educated—the education system did not break down class and cultural inequalities but reinforced them (Robinson and Garnier 1985:251).

While the above quote emphasizes the importance of structure, the point I wish to emphasize is that education can be used to examine social class reproduction processes. The relationship between American educational institutions and social class outcomes is apparent. Since education is nearly always tied to social class outcomes, using education as the outcome of interest can be beneficial and insightful.

Agency, Self-efficacy, and Self-Esteem

To begin, I discuss the interplay between social structure and agency, and illustrate the role that structure and agency each play in the social class reproduction process. Following this, I relate self-esteem and self-efficacy to agency and discuss relevant literature relating these two to social class reproduction.

Scholars have debated the relationship between structure and agency in social

class reproduction (see Prandy (1998) for an in-depth discussion of the agency/structure divide in social class reproduction). An understanding of both structure and agency is essential to any discussion of social class reproduction, since the two are mutually reinforcing in many instances (Giddens 1984). In other words, an individual's choices, or in Mills' (1959) words one's biography, influence and are influenced by larger societal trends and public issues, or a society's history, and vice versa. Similarly, one of the fundamental tenets of sociology posits that macro-level social phenomena influence micro-level outcomes, and such is most certainly the case with social class reproduction. Social class research focuses primarily on the parent's role in bequeathing social class to children. Factors such as education, income, occupation and access to social networks rich in resources heavily influence the feasible set of options available to a given individual, apart from, to some extent, personal characteristics. A vast amount of literature focuses on parents and parental characteristics, such as differing life experiences and places in the social order. Parents' educational attainment, class location, and parenting style play a critical role in education and eventual social class outcomes for the child (Lareau 2003). Childrearing differences follow from occupational demands and cultures and the differential access to resources of higher and lower SES parents, which structure and color childrearing practices (Bowles and Gintis 1976; Kohn and Schooler 1983). Professional and managerial occupations emphasize autonomy and creativity while lower status occupations tend to emphasize obedience to authority (ibid). Middle class parenting styles also allow for greater equality between parents and children, leading to greater verbal, social, and emotional engagement with the child, all of which influence a child's future success (Lareau 2003; Farkas and Beron 2004; Heath 1983;

Hart and Risley 1995). In short, structural factors circumscribe the boundaries of possibility. In this thesis, I acknowledge this but also recognize that structures are influenced by the actions of moral agents – actors who make choices. Therefore, given the abundance of literature focusing on the influence of structure on social class reproduction, I will focus on the agency aspect of social class reproduction.

Historically, the debate has centered on whether agency varies between individuals or is an inherent and universally equal capacity in everyone (Hitlin 2007). Most scholars agree that agency and social structure interact, though the relative importance and balance accorded each remain unclear (Archer 2000; Emirbayer and Mische 1998; Giddens 1984). While some scholars suggest that agency is merely an illusion obfuscating structural dominance (Fuchs 2001; Loyal 2001), others maintain that agency is independent of such aspects of the social system (Giddens 1984; Hitlin and Elder Jr. 2007). Regardless of whether agency is a variable or a universal trait possessed by all, it is the perception of that agency that matters, for it is the perception of one's opportunities that motivates behavior. Knowledge of how to employ agency, i.e. that one's actions influence outcomes, can be used as a mechanism to demonstrate how macro social structures affect micro-level processes surrounding individual actors' decisions, which then create and reinforce the structure. Hitlin, Brown, and Elder (2007) point out that although structure shapes, limits, and colors individual actions, choices and perceptions, some individuals are more likely to engage the structure than others, in both beneficial and detrimental ways. This willingness to engage the structure for one's own purposes includes 'the subjective sense an individual develops of their prospective life chances' (Hitlin et al. 2007:3).

This subjective sense of the ways that actions influence outcomes is seen in the choices individuals make, which has an impact on social class reproduction. Agency provides one useful way to think about the role that children, specifically, play in social class reproduction. Agency can be viewed as the ways that actors engage the social structure and, through myriad processes, transform and reproduce it (Emirbayer and Mische 1998) and an understanding of this as well as how to properly apply and employ agency emerges over the life course (Elder 1994). While there are numerous ways to engage and transform/reproduce the social structure (use agency), I focus on just two ways to do this, i.e. employ agency— utilize and develop self-esteem and self-efficacy.

Self-esteem taps how favorably a person thinks of him or herself while self-efficacy can be thought of as an individual's judgment regarding his or her chances to succeed or reach certain goals. Self-esteem and self-efficacy develop over the life course, starting at the very beginning of life, and life events can be both the cause and consequence of the individual's self-esteem and self-efficacy. Consequently, I argue that self-esteem and self-efficacy indicate not only the presence of a child's agency, but also of an awareness of the control they wield over their own lives. Esteem and efficacy are indicators that children can use agency, apart from the mere possession of it, to pursue their goals. Children with a developed, positive sense of themselves, both as a totality and of their capacity to attain their goals, may succeed where others from similar backgrounds may fail.

More specifically, those who have a greater sense of self-efficacy and self-esteem make choices and perform actions that will help them be successful. One of these choices is going to college. College attendance can be a tough choice, given the intellectual,

financial and time commitment required, as well as the chance of failure. At the same time, the potential rewards of a college degree are also well-known. Children with high self-efficacy and self-esteem may be more likely to attend and complete college, net of parental resources, since these children will not feel as intimidated by the prospect of such an undertaking. Conversely, children who do not believe in themselves most likely will not attend. Children, in other words, have to believe that they can achieve, as their parents did, for reproduction to occur.

A child's self-efficacy, i.e. their attitude about their ability to achieve, is an important consideration for studies in class reproduction. Children's attitudes regarding their ability to achieve will be associated with whether they choose to accept, reject or utilize advantages given them. Children can choose to use resources in different ways. For example, middle class elementary-aged children with high desires to achieve capitalized on the advantages provided them while similar working and lower class children used their social capital, effort, and imaginations to substitute for their parent's lack of resources (Chin and Phillips 2004). Similarly, measures of self-efficacy were found to be associated with higher academic achievement among high-school aged adolescents, net of parental SES (Hitlin, Brown, and Elder 2007).

Self-esteem is defined as an individual's attitude towards him or herself, and encompasses many aspects of one's totality (Rosenberg, Schooler, Schoenbach, and Rosenberg 1995). It is important to consider the positive effects of self-esteem on achievement, since self-esteem and socioeconomic attainment are correlated (Liu, Kaplan, and Risser 1992; Ross and Broh 2000). This is due, in part, to intense, positive parental involvement and such parenting styles are associated with higher adolescent self-

esteem (Coopersmith 1967; Rosenberg 1967). However, others have found that self-esteem does not predict academic achievement when controlling for a host of other factors, such as family structure (Schmidt and Padilla 2003). Similarly, Ross and Broh (2000) found that self-esteem does not affect achievement; rather, they find that one's sense of personal control (efficacy) and parental support predict academic achievement. Perhaps the only thing certain about the relationship between academic achievement and self-esteem is that it is an opaque one.

Whether self-esteem hampers, alleviates or enhances academic achievement, children are clearly capable of establishing goals and assembling the resources necessary to attain them and, if they choose, can be a causal influence on their environment (Hitlin, Elder, and Brown 2007). They can use and adapt cultural routines and practices to meet their own social needs (Corsaro 1992) and indeed often do use familial processes to their advantage (Orellana, Thorne, and Lam 2001). The idea that children have resources, be they cultural, social or economic, ties into the idea of 'capital', so prominent in the literature. That children amass resources and then have the know-how to use them highlights the role children play in social class reproduction. Adolescent and children's attention span, academic skills, neighborhood and school network contacts and local knowledge of activities available to them often enable children to negotiate structural barriers (Chin and Phillips 2004). Chin and Phillips (*ibid.*) argue that the capacity to negotiate structural barriers accrues to children often through achieved personal characteristics such as charisma and motivation. This awareness that one's actions and attitudes (perceived ability) influence outcomes can also be seen as a "personal judgment about one's capacity to influence and control (*ibid.*:15)" what happens in one's life. If

this is the case, differences in social class outcomes will be linked to differences in self-esteem and self-efficacy.

Education, Childrearing, and Gender

Societal norms about what education means for boys and girls could affect parental childrearing practices. Indeed, the very meaning behind social class reproduction could be sex-typed. The different ways that parents treat and influence children may have to do with gendered expectations concerning economic requirements and caregiving, leading parents to save for college for boys, who are expected to provide for future families, while promoting caregiving and homemaking skills for girls. If reproduction for girls means providing them with adequate homemaking and caregiving skills while for boys connoting the acquisition of skills necessary for economic success, gender differences will become further entrenched. To the extent that these norms prevail in society, we expect such differences.

To date, sociologist researching family processes have not made the influence of children's gender an important focus. Although a plenitude of research has focused on gender differences in the household, the focus has been on spousal differences in housework, income and power relations. However, real differences likely exist in the way parents treat male and female offspring, and these have important implications for social class outcomes. Inquiries into whether parental influence and participation differ by sex of the child attest to such differences. Fathers spend more time per day, on average, in shared family leisure activities in families with sons only than in families where both children are female (Bryant and Zick 1996). Fathers are more likely to have custody of

sons than daughters after divorce. Additionally, daughters do more housework than sons (Mammen 2003; White and Brinkerhoff 1981), though the differences are small and waning (Morgan and Pollard 2002).

A limited body of research has addressed questions of parental sex-typing within social class reproduction. Stevens and Boyd (1980) found differing outcomes of mother and fathers' impact on male and female offspring. For example, knowing the father's occupation is superfluous when predicting female offspring's occupation and correlated occupational status; the mother's occupation is all that is needed. While it is well established that middle class parents emphasize independence and autonomy more than working class parents (Bowles and Gintis 1976), it is unclear if this varies by gender. Although Xiao (1999) found that American women placed greater value in the ideal of independence, class differences were minimal. If mothers are more successful at transmitting these values to their daughters than their sons, one would expect to find gender differences. In terms of outcomes, Robinson and Garnier (1985:225) found that French women were less likely to inherit their parent's (generally their father's) capitalist and managerial positions than sons. Daughters were more successful in inheriting working-class and non-administrative positions.

Since the research, noted above, comparatively little research has examined gender differences in social class reproduction, though there are a few good recent examples of it. For example, although the gender ratio at American universities has now swung in favor of women, serious obstacles remain. While parental educational expectations are higher for and parents more frequently discuss education-related issues with girls (Carter and Wojtkiewicz 2000; Freese and Powell 1999), parents are more

likely to perceive boys as high achievers in math and science, even when controlling for intervening factors (Tenenbaum and Leaper 2003; Frome and Eccles 1998). Additionally, parents with boys tend to begin saving for future educational expenses earlier than parents with girls (Freese and Powell 1999). Fortunately, if not enigmatically, these differences in parental treatment do not appear to affect educational outcomes (Conley 2000).

Succinctly put, research on gender differences in childrearing and educational results “does not yet yield a clear consensus on the relationship between the gendered composition of the sibship and educational outcomes” (Raley and Bianchi 2006:415).

Gender differences in self-esteem and self-efficacy could also play a role in social class reproduction outcomes. The differing ways that males and females develop ideas about their respective self could play into the ways they develop and employ their self-esteem and self-efficacy (Schwalbe and Staples 1991). If the male self is generically rooted in instrumental action and the female self in relationships (Block 1983; Gilligan 1982), self-efficacy may be more important for men, given its external focus, while self-esteem, with its internal focus, may be more important for women. For women, reflected appraisals from relationships may influence their self-esteem and self-efficacy more than for men, while for men the salient cognition may be self-perceptions and social comparisons. Both of these could help explain variation in college graduation or current enrollment by gender, self-esteem, and self-efficacy.

To summarize, prior research on social class reproduction, education and gender differences point to potential differences in self-esteem and self-efficacy. Social class reproduction theory attempts to draw out the ways that families, particularly parents, equip their children with the tools that make social class reproduction possible, and

research has demonstrated the importance of the behaviors and practices of parents, the family structure, and parental attitudes and aspirations.

To this point, the emphasis of the social class reproduction model, has rested primarily within the family unit and its intersections with other societal institutions, such as the education system. How such family processes are tied to self-efficacy and self-esteem is still not well understood, since direct work on the topic is lacking. However, prior research on self-efficacy, self-esteem and social class reproduction does point us in certain directions. Parents who encourage their children to be independent, are actively involved in their children's lives, their education in particular, and hold positive attitudes about and high aspirations for their children will most likely be able to foster high levels of self-esteem and self-efficacy, endowing their children with a sense of both capability and possibility. Parents do certain things that help their kids improve their life chances, though children still make their own choices and draw their own conclusions. Self-esteem and self-efficacy should then translate into higher levels of college completion or current enrollment.

Methods

Data

To test the relationship between self-efficacy, self-esteem, gender and parenting variables and college completion or current enrollment, I use the first three waves of the National Survey on Families and Households (NSFH). The NSFH provides a rich and unique range of variables measuring social class reproduction, agency and gender differences. The longitudinal nature of the data also allows me to assess changes over

time. From time 1, I use parents' evaluation of their involvement in their child's (called focal children) life to assess the mechanisms used to bring about social class reproduction for their daughters and sons. From wave two I take my measures of self-esteem and self-efficacy, since I test whether the parenting variables affect self-esteem and self-efficacy. Wave 3 provides the outcome variables—college completion or current enrollment. I use multiple imputation via the ICE procedure in STATA to deal with missing values (no values were imputed for the dependent variable)² and weight the data.

The NSFH is a nationally representative sample of over 13,000 people from across the United States. If parents had children, they were asked questions about their interaction with their children, ranging from physical and emotional support provided to children to the duration of spells of separation between parent and child. At wave 1, one of the respondent's children (if any) was chosen randomly from a list and the interviewer asked the respondent questions about specific behaviors and attitudes toward and about the particular child, called the focal child. In all, I have information on 1277 focal children, (two focal children were dropped from the analysis since they were 17 and thus too young to be enrolled in college at wave 3) on which the analysis is based.

Hypotheses

Based on the literature discussed above, I derive three hypotheses and test them empirically in the model I develop.

- 1) Focal children whose families engage in actions shown to affect social class

² I follow the methods suggested by both Acock (2005) and von Hippel (2007) to perform the procedure. To further ensure the validity of the imputed datasets, I checked the mean, standard deviations, variances, and skew of each imputed variable. The results showed that the imputed variables are substantively the same when compared to the original variables. No important differences were found.

reproduction (as defined by parental practices and behaviors, family structure, and parental attitudes and aspirations) will be more likely to be currently enrolled in college or to have already graduated.

- 2) Focal children whose families engage in actions shown to affect social class reproduction (as defined by parental practices and behaviors, family structure, and parental attitudes and aspirations) will be more likely to have higher levels of self-esteem and self-efficacy.
- 3) Children with higher levels of self-esteem and self-efficacy will be more likely to be currently enrolled in college or have already graduated.
- 4) Self-esteem and self-efficacy will have different effects for males and females. Self-esteem will have a greater effect for females, while males will benefit more from self-efficacy.

Measures

Dependent Variable-I use college completion or current enrollment as my dependent variable, since a college degree is a pathway for jobs providing a middle class income and occupation (Blau and Duncan 1967). Those with a college degree tend to have better paying jobs with higher prestige and status than those who do not have this educational credential (Krueger 2003). Academic credentials afforded by a college education are crucial to allocation in the mental/manual division of labor (Livingstone 1985). Academic credentials and training is necessary for obtaining jobs that require planning, design, autonomy and creativity. Lack of these credentials greatly reduces the likelihood of obtaining such a job (Collins 1979). Mental occupations require

coordinating production processes, as well as a high degree of autonomy and creativity. Occupations characterized by manual labor have significantly lower, and in many cases no, levels of these things. Rather, they are relegated to the execution of tasks that others set for them. I use this measure since some of the focal children in my sample are not yet old enough to have finished a college degree. I therefore count those who are currently enrolled in college with those who have already finished. Social class outcomes for young adults, who characterize the focal children in the NSFH sample, are less reliably measured, since many of them choose to pursue higher education, join the military, or begin their careers at 'entry level' positions. None of these options reliably indicates future social class status by themselves, since all of these are only initial steps and are often ephemeral and intermediary. After assessing alternative ways of measuring social class and following prior research (Colclough and Beck 1986), I use college completion, or current college enrollment, as my measure of future class status. Those who have simply attended college but have since dropped out are coded as in zero the analysis, while those under age 25 who are currently enrolled in college were coded as one³.

Independent Variables-I structure the independent variables around three elements, prominent in the literature, that have been found to affect social class reproduction: parental practices and behaviors, family structure, and parental attitudes and aspirations.

Parental Practices and Behaviors-Much research has shown that actions of the parents have profound implications for social class reproduction. Research demonstrates that parenting practices and behavior varies by social class (Lareau 2003; Kohn and

³ There were very few focal children over age 25 who were still enrolled in college, and over 90% of these focal children had served in the military. I therefore coded them as 1 as well.

Schooler 1983), specifically in the ways parents facilitate educational attainment (Farkas forthcoming), communicate with their children and emotionally bond with them (Farkas and Beron 2004; Hart and Risley 1995; 1983), and by the extent to which children play an active role in the household. I use measures of all three. To measure how invested parents are in the educational process, I use a scale with two factors: how many hours parents spend, in an average week in PTA activities, either as a participant, advisor, or leader, ranging from 0 to 6 or more hours and how often the parent interviewed helps the child with reading or homework, varying from never/rarely (1) to almost every day (6) (factor loadings are above .76; $\alpha=.509$). Communication and bonding with children was measured using a scale asking respondents how often they have private talks with children (never/rarely to almost every day) and how often they hug and praise their child, respectively (factor loadings are above .70; $\alpha=.537$). Responses on these variables ranged from 1 'never' to 4 'very often'. I measure the role children play in the household by asking parents how often they allow children to help set the rules. Responses varied, as above, from 1 'never' to 4 'very often'.

Family Structure-Family structure is measured with the marital status of the parents. The categories include married, separated due to marital problems, divorced, widowed, and never married. A dummy variable was created for each category. Much research has demonstrated the ways that family structure affects children, thus impinging on social class reproduction by affecting parent's opportunities to interact with and provide resources for their children. Single, divorced, never married and separated parents would most likely have fewer opportunities to engage in the parental practices and behaviors referenced above, thus most likely weakening the mechanisms used to

achieve social class reproduction. For this reason, married is the reference category.

Parental Attitudes and Aspirations-To measure these, I use three variables. First, I use a question asking about how far parents believe their children will go in school (1=not finish high school to 7=complete a post-graduate degree) The second variable is an index (factors loadings are greater than .73; alpha=.651) combining questions about three significant parental attitudes and aspirations that analyses show to be highly correlated (known as parental importance in the tables): the first question asks how important it is to the parent that their child do well in school (1=not at all important to 7=extremely important), the second about how important the parent feels it is that the child be independent and third asking how important it is that the child be responsible (same coding as above). Finally, I use a question asking how strongly the respondents agree that parents should encourage just as much independence in their daughters as in their sons, varying from 1 'strongly disagree' to 7 'strongly agree'. This last variable is of particular importance, in light of its connection to the primary variables of interest in this study. Children whose parents think it equally important to foster a sense of independence in their sons and daughters will most likely attain higher levels of self-efficacy and self-esteem.

To examine the child's sense of self-efficacy, I use three questions: a) I can do just about anything I put my mind to, b) I have little control over the things that happen to me, and c) sometimes I feel that I am being pushed around in life. Statistical tests show that combining these factors is appropriate (alpha=.76) and all variables have factor loadings above .77. Self-esteem is a composite variable comprised of three component variables: a) I feel that I am a person of worth, at least on an equal basis with others, b) I

am able to do things as well as other people, and c) On the whole, I am satisfied with myself. The alpha for this scale is .70 and all factor loadings are above .65. Questions for the self-efficacy and self-esteem scales are taken from the established literatures on both topics. The full-scales for these two variables can be found in Pearlin (1981). All variables were coded that the most positive response represented the highest number. Varimax rotations were used in the Exploratory Factor Analysis when creating the above variables.

Additionally, I examine gender differences to see if the reproduction mechanisms work differently for male or female offspring (female=1). Control variables include the child's age, parental education (measured in years), a dummy variable for living in a metropolitan statistical area (MSA), and parental income (measured in \$1,000 increments).

Analytic Procedure

I employ binary logistic regression to test for the effects of gender, self-efficacy and self-esteem on college completion. This will enable me to test for gender, self-efficacy, and self-esteem differences in the social class reproduction process. In the models below, I test this model by first regressing self-esteem and self-efficacy on parental practices and behaviors, family structure and parental attitudes and aspirations using OLS. I then place all of these variables, including self-esteem and self-efficacy, into a logistic regression model predicting college completion or current enrollment.

Findings

Table 1 displays descriptive statistics for the variables that I analyze. I include the mean, standard deviation, range, and zero-order effect for each variable. On average, focal children are 10 years old and come from families whose parents are married and make about \$32,000⁴ per year at wave 1. Average levels of self-esteem and self-efficacy are relatively high, with the average focal child reporting a 9 out of 12 (the most positive outcome is coded as the most positive number) on each respective scale. The zero-order effects show that, taken individually, most of the social class reproduction variables significantly affect the likelihood of college graduation or current enrollment therein. Whether these effects hold up in the presence of other variables is the subject of the remainder of the analysis.

(TABLE 1 ABOUT HERE)

To test the mechanisms identified by the social class reproduction framework and assess the role of self-efficacy and self-esteem therein, I run the model found in Table 2. If, indeed, self-efficacy and self-esteem rightfully deserve a place among predictors of social class reproduction, I must distinguish them from the already-known predictors. For if parental practices and behaviors, family structure, and parental attitudes and aspirations predict self-esteem and self-efficacy, then self-esteem and self-efficacy are indeed obfuscating structural factors. To test this, I regress self-esteem and self-efficacy on the social class reproduction variables. Results are displayed in Table 2.

I find limited evidence that parental practices and behaviors, family structure, and parental attitudes and aspirations predict either self-esteem or self-efficacy, my second

4 In 1988 dollars

hypothesis. Of the fifteen variables in the model, the only one significantly associated with both children's sense of self-esteem and self-efficacy is parental educational aspirations. In terms of self-esteem, focal children whose parents are divorced and allow their children to help set family rules experience lower levels of self-esteem. Contrarily, each increase in parental educational aspirations increases a child's sense of self-esteem. The same is true of parents who believe it important to encourage independence in both girls and boys. For self-efficacy, age is positively associated with one's sense of efficacy, as are parental educational aspirations. The effect of all other variables is not significantly different from zero. Additionally, these variables only explain about 6.5% of the total variance in self-esteem and self-efficacy. By and large, social class reproduction variables do not predict self-esteem and self-efficacy.

(TABLE 2 ABOUT HERE)

Table 3 displays the odds ratios and standard errors of variables added to the analysis in three steps (models). The first step is represented in model one, the second in models two and three, and the third models four and five. I test hypothesis three in models two and three, while models four and five test hypothesis four.

I first enter the social class reproduction variables into the equation, in order to account for the effect of the variables shown to influence the likelihood of class reproduction. Model 1 displays the results and constitutes a direct test of my first hypothesis. Interestingly, how actively invested and involved parents are in their children's education appears to play no role in whether their child ends up in college. Rather, the story is found in how far parents think their child will go in school, with each standard-deviation increase associated with a 70% increase in the odds of college

enrollment or completion, and how often parents allow children to help set family rules. For each increase in the frequency of children helping to set household rules, the odds of college completion or current enrollment decrease by 18%. Interestingly, I find no differences between children whose parents are married and those whose parents are separated, divorced, or widowed. Having parents who have never married, however, is associated with a 63% decrease in the odds of having graduated or being currently enrolled in college, net of any differences in education or income. Not surprisingly, children whose parents are well-educated go to college more frequently than those whose parents are not. Each additional year of parental education translates to a 59% increase in the odds of the focal child going to college themselves. Finally, I find that females experience 40% higher odds of graduating from college or being currently enrolled therein, even after controlling for the range of variables already in the model.

(TABLE 3 ABOUT HERE)

The second model adds self-efficacy⁵ to the equation. I add self-esteem and self-efficacy separately since they are significantly correlated (.41). Each one-unit increase in self-efficacy raises the odds of college attendance/completion by 15.5%, net of all other variables in the model. An increase of three points in self-efficacy yields an odds ratio of 3.72(1.55³), a substantial difference. Self-efficacy's effects appear to be independent of the other effects in the model, since all effects previously significantly associated with going to college remain so in model 2, though the effect of parental educational aspirations is slightly attenuated. Gender differences in college completion/current

⁵ Both self-esteem and self-efficacy were standardized due to multicollinearity in upcoming models. Other standardized variables include all interaction terms, parental commitment and bonding, parents encouraging independence, and the composite variable measuring three important parental importance. See Tate (1984) for further details on why centering affects collinearity.

enrollment prove to be robust in model 2, with females again significantly more likely to finish or enroll in college than males, net of any self-efficacy differences.

The third model tells a similar story, this time about self-esteem. Here, each standard-deviation increase in self-esteem is associated with a 26.5% increase in the odds of going to college. However, the variable measuring how often parents allow children to help set family rules loses significance in the presence of a self-esteem measure. All other previously significant variables remain so, at approximately equal levels as before. Females still experience higher odds of going to college, as do those whose parents believe their children will go far in school, and are well-educated themselves.

Based on the prior three models, it appears that the effects of gender, self-efficacy, and self-esteem are robust. Therefore, in order to test the fourth hypothesis, I interact the focal child's gender by self-efficacy and self-esteem, respectively, to see if self-efficacy's and self-esteem's effects on the likelihood of going to college vary by gender. Model four includes the interaction term between gender and self-efficacy and model 5 that of gender and self-esteem.

Interestingly, I do not find that the effect of self-efficacy on college completion or current enrollment varies by gender. Although the slope of the interaction effect is in the predicted direction, it is not significantly different from zero. Additionally, although gender remains a significant predictor of who graduates from and enrolls in college, self-efficacy is no longer significant after adding the interaction term to the equation. All other effects in the model remain relatively unchanged vis-à-vis model two.

For self-esteem, which has consistently had a larger effect on the likelihood of attending college (in terms of the odds ratios), the interaction effect is trending ($p < .10$),

but not significant, demonstrating that the effect of self-esteem on college completion/current enrollment does not vary by gender. Regarding my fourth hypothesis, I do not find that the respective effects of self-esteem and self-efficacy differ between males and females.

Discussion

Going to college provides the most common avenue for attaining and/or sustaining middle class status, as it is the primary avenue to good jobs with good wages. As noted above, I chose to enter predictors of who enrolls and finishes college in three steps, each of which tested a separate component of the social class reproduction process. I structure this section around each set of variables entered into the model. I begin by discussing what, if anything, parents need to do for social class reproduction to occur, and then discuss the role the child plays in this same process. I also discuss the implications of these results for social class reproduction.

Previous literature has indicated the importance of several factors, particularly parental practices and behaviors, family structure, and parental attitudes and aspirations, when determining how middle class parents help their children attain middle class status. I find moderate support for these constructs in my analysis. Parental practices and behaviors comprised three of the variables in the analysis: parent's investment in their children's education, parental commitment and bonding, and a measure of how often parents allow children to help set household rules. Of these three, only one is associated with college completion or current enrollment—how often parents allow children to help set household rules. It is interesting that the stricter a parent is (by not allowing children

to help set household rules) the more likely his or her child is to attend or graduate from college. Highly structured homes, such as those characterized by middle class parenting styles (Lareau 2000a), would most likely produce children with a sense of the importance of structuring and organizing their lives, a necessary tool enabling success in the middle class reproduction process.

However, the fact that this variable is significant is less intriguing than the fact that the other two are not. Why parental investment in education and commitment and bonding do not prove significant in this quantitative analysis when they have been the focus of much qualitative research in this area opens the door to future research. On the face, the extent to which parents involve themselves with and in their children's lives, whether by participating in the local parent-teacher association or by helping the child complete homework assignments, should have an effect on college completion and current enrollment and social class reproduction. Studies have shown that early differences in academic achievement (and, by extension, college enrollment and completion rates) result from differences in parent/child interactions. Since academic success in the younger years often translates to later success, I would expect children of highly involved parents to have higher odds of going to college. I find no such difference. Although it is possible that highly involved parents are more likely to send their children to schools where the success rate is higher (e.g four-year universities versus junior colleges), I find no evidence of this, since I find no differences in the effects when comparing those who have completed college degrees with those who are currently enrolled or with those who have neither. Nor do I find different effects when comparing those who have four-year degrees with those who have two-year degrees (the more

common option at junior colleges)⁶. Similarly, the extent to which parents commit to and bond with their children does not significantly affect the odds of college completion/enrollment.

The next component of social class reproduction tested in the model is family structure. As noted, married, divorced, separated, and widowed parents appear to send children to college at approximately the same pace, while never married parents have lower rates. Since these parents tend to have less human, economic and social capital, it is more difficult for parents to send their children to college, making it difficult for these children to achieve or perhaps reproduce middle class status.

In terms of parental attitudes and aspirations, how far parents believe a child will go in school is the only variable to significantly affect the odds of their child completing college or being currently enrolled. For each additional level of schooling, parents believe their children will attain, the odds of college attendance or graduation increase by over 50%. Worth noting is that subjective measures of success, with parental educational aspirations being the primary example, can be very important. Easily measured behavioral variables clearly do not tell the whole story, and, in this case, may not be as important as subjective elements. It is important to remember this, for survey research often falls prey to measuring what is easily measurable, if only because of the prohibitive cost involved in doing otherwise. Although it is reasonable to believe that subjective beliefs about a child's success should translate into certain actions, such as increased

⁶ The results tables are available upon request. I ran a multinomial logistic regression (not shown) to test for differences between those who had completed college, were currently enrolled, and those who were neither. The effects remain the same. I also tested for differences between those who held bachelor's degrees and those who held associates. Similar analyses were conducted for those currently enrolled in each type of institution, also using multinomial logistic regression,. In all cases, the results were very similar to those displayed in the tables presented.

involvement in the child's life, this is not what I find. The intangible expectations placed on children clearly have an important effect on children's lives, and this requires intensive cooperation between qualitative, quantitative, and theoretical researchers to fully explicate. For example, it could be that some kids are simply more intelligent than their peers. Their parents, recognizing this, would then most likely hold high educational aspirations for them. On the other hand, some parents could hold higher aspirations. The first scenario would most likely not require (though would certainly not exclude) significant parental effort while the second would likely be correlated with additional parental effort. Parents clearly must believe that their children can achieve, although the reason for this belief may be qualitatively different, leading to wide variations in the actions pursued by parent. The way parents transmit this belief to their children and the exact mechanisms used to do so require further inquiry.

Perhaps the next logical question to ask is why subjective beliefs, such as parental educational aspirations, predict college attendance or completion while actions and behaviors, which ostensibly flow, in some portion, from parental attitudes are not. The qualitative literature on social class reproduction stresses the importance of time spent with children and active involvement in their lives, which ostensibly translates to middle class children. However, in this nationally representative sample I do not find much evidence of this. The connection between parental attitudes and aspirations and parental practices and behaviors should be obvious—parents who believe their children will go further in school will most likely engage in activities that will make what is often a self-fulfilling prophecy come true, although other possibilities for this phenomenon are also present, as outlined above. However, I find that traditional measures of parental practices

and behavior that help middle class parents produce middle class children do not affect college attendance or completion. Why positive parental attitudes do not necessarily translate into positive parental behaviors impacting college enrollment or completion should be the subject of future research. Perhaps parents engage in other actions, not heretofore used in the social class reproduction literature. Alternatively, it could be that other forces, such as peer networks, are at work. Either way, the importance of parents maintaining high hopes for their children cannot be overstated.

Along similar lines, parental educational aspirations is the only variable to significantly predict both self-esteem and self-efficacy. I have here measured a broad range of social class reproduction variables. If the social class reproduction model does indeed work, then one would reasonably expect a substantial part of these variables to predict self-esteem and self-efficacy. I do not find this to be the case. Here I find that it is something besides social class reproduction that is occurring that creates the effect that self-efficacy and self-esteem have on the likelihood of college attendance. If educational aspirations is the only social class reproduction variable that predicts self-esteem and self-efficacy, then it would appear that self-esteem and self-efficacy are not reproduced within the family, at least in the terms described by social class reproduction.

Although I do not claim to have perfect measures, the measures I do have are valid constructs and represent important concepts in the social class reproduction framework. The fact that, with one exception, the social class reproduction variables have no consistent effect on self-esteem, self-efficacy or college completion or current enrollment should call into question the usefulness of the social class reproduction model, at least to the extent that it constrains itself to the socialization process within the family.

In sum, for middle social class reproduction to occur, parents must do three things: first, they should not let children set household rules, instead, they should define household rules themselves and ensure a sense of structure in the household; second, they must have been married at some point in the past; third, parents must believe their children are capable of achieving and succeeding in academic endeavors.

Additionally, the role that the individual child plays deserves further elucidation. Net of structural factors, particularly characteristics and attitudes of parents, self-efficacy and self-esteem emerge as important predictors of who ends up in college. Clearly, a child influences his or her circumstances in important ways, beyond the reach of social structure or parental efforts. Self-esteem and self-efficacy play a role in the process of social class reproduction, and a child's sense of self-esteem does not necessarily emerge from the actions specified here, with previous literature as my foundation. What is interesting about this finding is that both self-efficacy and self-esteem deal with an individual's locus of control, or a person's beliefs about the fundamental influences of events in his or her life. The locus of control can be externally or internally focused, and this can have important implications for the way individuals conduct their lives (Rotter 1954). Self-efficacy, or the belief that one can do anything one puts his or her mind to, has to do with an individual's contact and dealings with the world outside of the individual and is externally focused. Self-esteem, contrarily, has been found to be associated with an internal locus of control. In fact, adolescents with higher internal loci of control had higher self-esteem (Enger, Howerton and Cobbs 1994).

As shown above, literature has demonstrated how these may well vary by gender, yet interactions between gender and self-esteem and self-efficacy are not significant.

Although there is much evidence that we live in a gendered society, the social class reproduction process appears to be gender-neutral, despite gender differences in the sources of self-esteem and self-efficacy. While there is reason to believe that gender differences in self-esteem and self-efficacy could play a role in social class reproduction outcomes, this is not the case for college attendance/graduation. Even though the male self is rooted in instrumental action and the female self in relationships, I find no evidence that this influences who goes to or graduates from college.

Conclusion

In terms of the overall importance of the social class reproduction model, important questions must be asked regarding its place in the sociological literature. Many of the variables previously thought to be important components of the process are not significant factors in this study of social class reproduction. Only one variable, the aspirations that parents hold for their children's educational success, is significantly and consistently associated with self-esteem, self-efficacy, and college enrollment and completion. Social class reproduction variables do not appear to have significant effects on an essential part of attaining middle class status—college completion or current enrollment. The fact that college completion or current enrollment is so important to attaining a middle class job with corresponding salary and social status and is not associated with most of the social class reproduction variables should indicate that the social class reproduction framework requires serious reexamination.

It is worth noting here that my sample used to test the relationship between social class reproduction, gender, self-esteem, self-efficacy and college completion or current

enrollment is a large, well-known, nationally representative dataset, whose reliability is well known. Although I make no claims regarding generalizability across all portions of the United States, this thesis provides the best quantitative test of the social class reproduction framework to date. Using a major longitudinal dataset, I find that self-efficacy and self-esteem are not socially reproduced within the family and that most variables of interest to researchers using the social class reproduction framework are not associated with the likelihood of completing college or those currently enrolled. If, as I have demonstrated above, a college degree is nearly universally essential to maintaining or obtaining middle class status, and the rewards for more education become greater over time (Krueger 2003), examination of alternatives outside of the family structure becomes both salient and necessary.

This study calls into question much of the qualitative research that dominates research on social class reproduction. While many of the variables are significant when entered individually into the model (see Table 1), most variables previously specified as impacting social class reproduction are not significant in the presence of control variables or other social class reproduction model variables. This could be due to multiple factors. First, it could be that I am not measuring the same constructs that the qualitative literature has specified, though this seems unlikely since many of them involve simple questions, the responses to which should not vary greatly between a quantitative survey and qualitative interview, such as how many hours a parent involved with the local PTA. Secondly, since qualitative research has no means for disentangling one effect from another, one or two primary variables could be affecting others when the effect of these secondary variables does not directly affect the outcome. Third, no qualitative studies to

date have been able to make nationally representative claims, and it is very likely that social class reproduction practices vary between geographic location.

My results indicate that the last two options are the most likely. I find, in support of the second possibility above, that parental educational aspirations is the only social class reproduction variable consistently associated with the outcome, college education. All other effects are consistent only in their inconsistency. Since quantitative methods provide a way for assessing a variable's effect in the presence of other variables, I am able to disentangle which effects emerge while keeping all other effects constant. Additionally, the sample I use is representative of the United States population as it stood at the time of the survey(s), and gives us insight into the processes regarding social class reproduction on a national scale. With this information, combined with the qualitative information already gained, we know more about social class reproduction, at least among families.

While we are aware that social class reproduction does occur, we do not yet have a good grasp on how it happens or the exact mechanisms through which it works. Here I find measures of what families do to help children attain middle class status to be lacking, finding instead that choices the individual child makes produce significant effects on the likelihood of obtaining middle class status. It is possible, indeed likely, that neighborhood or school effects, about which I do not have adequate information, play an important role in the reproduction process. Where parents choose to live and how much influence they exert over their children's peer groups could have long-lasting and vital effects on the outcomes of the child, and this merits further research.

This study has two limitations of which readers should be aware. First, although I

have done my best to remain true to the intent of qualitative researchers working in this field, my measures do not square up perfectly with theirs. In particular, I do not have an adequate measure of motivation, and better measures always lead to better estimates. However, there is no reason to believe that my measures are wholly inadequate. As mentioned above, many of the measures are straightforward and fairly unambiguous, and would therefore not introduce significant bias to the estimates. Second, the third wave of the NSFH does not include respondents under age 45 who did not have a wave 1 focal child eligible for interview at wave 2. To the extent that those few respondents who were lost at time 3 due to these constraints are systematically different from those who were included in the final sample. However, since part of the criteria for inclusion in the wave three sample was based upon having a focal child, I do not affect this to affect the results much.

In conclusion, the story of the middle class social reproduction framework as represented here is that while educational aspirations and certain family structures have an important and non-negligible effect on current college attendance and/or completion, the role of individual children in the process must not be overlooked. A child's self-esteem and self-efficacy have important implications for social class reproduction literature, for children can choose to accept or reject opportunities given to them. They can also choose to create opportunities for themselves.

However, even if parents possess the resources to produce the best outcomes for their children, children must still decide to use their agency to take advantage of those opportunities. Here I have discussed how self-esteem and self-efficacy play into the social class reproduction. Clearly, a child's sense of who they are and what they can

achieve must be taken into account when discussing social class reproduction.

The way that parents and children work together to attain middle class status, in addition to being important to a discussion of social class reproduction, is also essential to broader arguments about America's basic social structure and to arguments about whether the United States is indeed a meritocracy. The way that families, children, peer networks, and neighborhoods, to list a few, interact to create the feasible options available to an individual is an important step to debunking the meritocratic myth that each person's rewards are based solely (or even largely) on their own hard work and dedication. The social world is complex and to claim that any one part of it is the exclusive guarantor of success in it is simultaneously absurd and untrue. In this case, parents and children must work together to enhance the child's chances of future success. Stated differently, both structure and agency must play a role in any investigation of people's life chances.

Future research should focus more on the ways that individuals, particularly children, develop their sense of self-empowerment, net of parental and structural considerations discussed here, since less research has examined this aspect of the issue; even after controlling for parental and structural considerations, whether a child possesses a strong sense of who they are and what they are capable of doing is pivotal in forming their future life outcomes and successes.

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Table 1. Descriptive statistics and zero-order effects of variables in the analysis

Variable	Mean	Std. Deviation	Range	Zero-Order Effects ^a
College completion or current enrollment	0.507	0.500	0-1	N/A
Educational Investment	5.275	2.446	0-13	0.027
Parental Communication and Bonding	11.667	1.997	4-14	0.1033***
Children Set Rules	1.893	0.774	1-4	-0.199**
Marital Status: separated	0.050	0.218	0-1	-0.293
Marital Status: divorced	0.155	0.362	0-1	-0.295
Marital Status: widowed	0.022	0.146	0-1	0.119
Marital Status: never married	0.034	0.180	0-1	-1.259***
Marital Status: married b	0.740	0.439	0-1	0.4531***
Parental Educational Aspirations	5.114	1.663	1-7	0.452***
Parental Importance	18.126	2.294	3-21	0.0364
Parents Encourage Independence	4.207	0.854	1-5	0.177**
Age	10.181	4.135	3-18	-0.031*
MSA	0.688	0.464	0-1	0.163
Parental Income	32.531	31.595	0-556.5	0.011***
Female	0.522	0.450	0-1	0.271*
Parental Education	13.243	2.497		0.284***
Self-Efficacy	9.052	1.388	0-12	0.164***
Self-Esteem	9.662	1.234	0-12	0.291***

a Zero-order effect of variable on odds of college completion or current enrollment.

b Reference category for family structure.

* p<.05; **p<.01; ***p<.001 (two-tailed tests).

Table 2. OLS regression coefficients of self-esteem and self-efficacy.

Independent Variable	Self-Esteem	Self-Efficacy
Constant	9.884*** (0.247)	8.426*** (0.266)
Educational Investment	-0.010 (0.023)	0.007 (0.024)
Parental Communication and Bonding ^a	0.076 (0.044)	0.012 (0.054)
Children Set Rules	-0.169*** (0.050)	-0.089 (0.054)
Marital Status: separated	0.036 (0.171)	0.123 (0.182)
Marital Status: divorced	-0.284** (0.114)	-0.016 (0.119)
Marital Status: widowed	-0.183 (0.253)	0.007 (0.291)
Marital Status: never married	-0.231 (0.195)	0.100 (0.224)
Parental Educational Aspirations	0.157*** (0.043)	0.150** (0.051)
Parental Importance ^a	0.008 (0.038)	0.042 (0.041)
Parents Encourage Independence	0.094*** (0.036)	0.047 (0.042)
Age	0.007 (0.011)	0.055*** (0.013)
MSA	0.149 (0.079)	0.122 (0.086)
Parental Income	0.001 (0.001)	0.003 (0.002)
Female	0.040 (0.075)	0.019 (0.078)
Parental Education	0.035 (0.042)	0.049 (0.048)
Log-Likelihood	-2034.316	-2183.841
Adj. R2	0.065	0.067

Note: OLS coefficients with standard errors in parentheses.

* p<.05; **p<.01; ***p<.001 (two-tailed tests)

Table 3. Binary logistic regression of college completion or current enrollment.

Independent Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Educational Investment	0.973 (0.032)	0.973 (0.032)	0.974 (0.031)	0.972 (0.032)	0.974 (0.031)
Parental Communication ^a and Bonding	1.083 (0.085)	1.084 (0.087)	1.069 (0.084)	1.084 (0.087)	1.069 (0.084)
Children Set Rules	0.824* (0.074)	0.832* (0.075)	0.851 (0.078)	0.83* (0.075)	0.852 (0.078)
Marital Status: separated	0.942 (0.275)	0.929 (0.272)	0.932 (0.272)	0.929 (0.272)	0.930 (0.272)
Marital Status: divorced	0.770 (0.140)	0.770 (0.140)	0.808 (0.148)	0.769 (0.140)	0.807 (0.147)
Marital Status: widowed	0.981 (0.427)	0.969 (0.426)	0.994 (0.437)	0.970 (0.426)	0.990 (0.436)
Marital Status: never married	0.366* (0.145)	0.362** (0.143)	0.377* (0.151)	0.362*** (0.143)	0.379* (0.151)
Parental Educational Aspirations	1.702*** (0.125)	1.680*** (0.124)	1.664*** (0.124)	1.679*** (0.124)	1.663*** (0.124)
Parental Importance ^a	1.055 (0.080)	1.049 (0.080)	1.053 (0.080)	1.050 (0.080)	1.053 (0.080)
Parents Encourage ^a Independence	0.999 (0.065)	0.993 (0.065)	0.981 (0.064)	0.994 (0.065)	0.982 (0.064)
Age	0.962* (0.016)	0.957* (0.017)	0.960* (0.016)	0.957*** (0.017)	0.961* (0.016)
MSA	0.893 (0.121)	0.882 (0.120)	0.872 (0.119)	0.883 (0.120)	0.872 (0.119)
Income	1.002 (0.002)	1.001 (0.002)	1.002 (0.002)	1.002 (0.002)	1.002 (0.002)
Female	1.402** (0.174)	1.406** (0.175)	1.395* (0.174)	1.406** (0.175)	1.395** (0.174)
Parental Education	1.594 *** (0.124)	1.590*** (0.124)	1.581*** (0.124)	1.591*** (0.124)	1.593*** (0.125)
Self-Efficacy ^a		1.155* (0.075)		1.171 (0.108)	
Self-Esteem ^a			1.265*** (0.083)		1.288** (0.122)
Self-Efficacy*Female				0.981 (0.090)	
Self-Esteem*Female					0.975 (.0927)
BIC'	-122.997	-120.964	-129.302	-113.902	-122.239

Log-Likelihood	-769.895	-767.336	-763.167	-767.291	-763.122
McFadden's adj. R2	0.112	0.114	.118	0.113	0.117

Note: Odds ratios with standard errors in parentheses.

a Standardized variables

* p<.05; **p<.01; ***p<.001 (two-tailed tests)